No. 137, Original

IN THE

SUPREME COURT OF THE UNITED STATES

STATE OF MONTANA,
Plaintiff,

v.

STATE OF WYOMING

and

STATE OF NORTH DAKOTA,
Defendants.

ON MOTION TO DISMISS THE BILL OF COMPLAINT

JOINT APPENDIX OF THE PARTIES

Volume I

(pages 1 – 498)

RECEIVED
FEB 16 2010
OFFICE OF THE CLERK
SUPREME COURT, U.S.

Montana v. Wyoming and North Dakota
Original No. 137

MOTION TO DISMISS: JOINT APPENDIX OF THE PARTIES

I. Yellowstone River Compact as Enacted by Congress, 65 Stat. 663.....1

II. Congressional Materials

A. 82nd Congress, Senate Report No. 883 (Oct. 2, 1951).....12

B. 82nd Congress, House Report No. 1118 (Oct. 10, 1951).....24

III. Yellowstone River Compact Commission (YRCC) Negotiation Materials

A. YRCC Meeting Minutes.....34

1. December 7-8, 1950.....38

2. October 24-25, 1950.....54

3. February 1-2, 1950.....75

4. November 29, 1949.....89

5. October 10, 1940.....113

B. Drafts of the Yellowstone River Compact, Engineering Committee: Minutes and Correspondence

1. Burke Draft, April 14, 1950.....124

2. Engineering Committee Draft.....160

3. Myers Draft, September 18, 1950, with cover letter.....195

4. Engineering Committee Minutes of Meeting August 22-23, 1950.....226

5. Engineering Committee Letter to R.J. Newell of October 23, 1950 230

6. Proposals made by P.F. Leonard, August 23, 1950 234

C. Prior Versions of the Compact

1. 1944 Compact 238

2. 1942 Compact 253

3. 1935 Compact 274

D. Correspondence Among Negotiators Up To Enactment of Compact

1. Letter from R.E. McNally to Wyoming members of YRCC, Oct. 3, 1950 285

2. Letter from R.E. McNally to Burke, Aug. 17, 1950 293

3. Letter from Burke to R.J. Newell, Apr. 20, 1950....297

4. Letter from R.E. McNally to Bishop, Jan. 7, 1949 302

5. Letter from P.F. Leonard to Comstock, June 29, 1944....310

6. Letter from L.C. Bishop to L.C. Hunt, Feb. 9, 1943....313

IV. Post-Compact Materials: YRCC Annual Reports

A. 1952 Annual Report....317

B. 1962 Annual Report....337

C. 2004 Annual Report....360

D. 2006 Annual Report....411

V. Other

A. Progress Report to Governors and Congress, 1939 499

B. Preliminary Report on Yellowstone River Basin, Federal Power Commission, 1940 505

C. Proposed Yellowstone River Compact Explanation of Article V by Montana State Engineer's Office, Jan. 30, 1943 737

D. Message to Congress from President Roosevelt re: Establishment of Missouri River Basin Authority, Sept. 21, 1944, 78th Congress, 2nd Session 1944.....744

E. Discussion of the Yellowstone River Compact and Its Effect Upon the Water Users of the Upper Tongue River Basin in Wyoming, E.C. Gwillim, Jan. 22, 1949 747

F. Department of Interior News Release, 1949.....768

G. Land Planning and Classification Report, Bureau of Land Management, March 1949 770

H. Yellowstone River Compact Tentative Agreements, Feb. 2, 1950 824

I. Draft Report by Dan Ashenburg, 1983 828

J. Draft "Yellowstone River Compact" by Department of Natural Resources and Conservation Water Management Bureau, Nov. 29, 1989 922

Yellowstone River Compact as Enacted by Congress, 65 Stat. 663

Public Law 231 CHAPTER 629

AN ACT

October 30, 1951
[S. 1311]

Granting the consent of Congress to a compact entered into by the States of Montana, North Dakota, and Wyoming relating to the waters of the Yellowstone River.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the consent of the Congress is hereby given to an interstate compact relating to the waters of the Yellowstone River which was signed (after negotiations in which a representative of the United States duly appointed by the President participated) by the Commissioners for the States of Montana, North Dakota, and Wyoming on December 8, 1950, at Billings, Montana, and which was thereafter ratified by the legislatures of each of the States aforesaid as provided by Public Law 83, Eighty-first Congress, approved June 2, 1949, which compact reads as follows:

Yellowstone River compact.
Consent of Congress.

63 Stat. 152.

YELLOWSTONE RIVER COMPACT

The State of Montana, the State of North Dakota, and the State of Wyoming, being moved by consideration of interstate comity, and desiring to remove all causes of present and future controversy between said States and between persons in one and persons in another with respect to the waters of the Yellowstone River and its tributaries, other than waters within or waters which contribute to the flow of streams within the Yellowstone National Park, and desiring to provide for an equitable division and apportionment of such waters, and to encourage the beneficial development and use thereof, acknowledging that in future projects or programs for the regulation, control and use of water in the Yellowstone River Basin the great importance of water for irrigation in the signatory States shall be recognized, have resolved to conclude a Compact as authorized under the Act of Congress of the United States of America, approved June 2, 1949 (Public Law 83, 81st Congress, First Session), for the attainment of these purposes, and to that end, through their respective governments, have named as their respective Commissioners:

63 Stat. 152.

Commissioners.

For the State of Montana:
Fred E. Buck
A. W. Bradshaw
H. W. Bunston
John Hersog
John M. Jarussi
Ashton Jones
Chris. Josephson
A. Wallace Kingsbury
P. F. Leonard
Walter M. McLaughlin
Dave M. Manning
Joseph Muggli
Chester E. Onstad
Ed F. Parriott
R. R. Renne
Keith W. Trout

For the State of North Dakota:
I. A. Acker
Einar H. Dahl
J. J. Walsh

For the State of Wyoming:
L. C. Bishop

0002

Earl T. Bower
J. Harold Cash
Ben F. Cochrane
Ernest J. Goppert
Richard L. Greene
E. C. Gwillim
E. J. Johnson
Lee E. Keith
N. V. Kurtz
Harry L. Littlefield
R. E. McNally
Will G. Metz
Mark N. Partridge
Alonzo R. Shreve
Charles M. Smith
Leonard F. Thornton
M. B. Walker

who, after negotiations participated in by R. J. Newell, appointed as the representative of the United States of America, have agreed upon the following articles, to-wit:

ARTICLE I

A. Where the name of a State is used in this Compact, as a party thereto, it shall be construed to include the individuals, corporations, partnerships, associations, districts, administrative departments, bureaus, political subdivisions, agencies, persons, permittees, appropriators, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State.

B. Any individual, corporation, partnership, association, district, administrative department, bureau, political subdivision, agency, person, permittee, or appropriator authorized by or under the laws of a signatory State, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State, shall be subject to the terms of this Compact. Where the singular is used in this article, it shall be construed to include the plural.

ARTICLE II

A. The State of Montana, the State of North Dakota, and the State of Wyoming are hereinafter designated as "Montana," "North Dakota," and "Wyoming," respectively.

B. The terms "Commission" and "Yellowstone River Compact Commission" mean the agency created as provided herein for the administration of this Compact.

C. The term "Yellowstone River Basin" means areas in Wyoming, Montana, and North Dakota drained by the Yellowstone River and its tributaries, and includes the area in Montana known as Lake Basin, but excludes those lands lying within Yellowstone National Park.

D. The term "Yellowstone River System" means the Yellowstone River and all of its tributaries, including springs and swamps, from their sources to the mouth of the Yellowstone River near Buford, North Dakota, except those portions thereof which are within or contribute to the flow of streams within the Yellowstone National Park.

E. The term "Tributary" means any stream which in a natural state contributes to the flow of the Yellowstone River, including interstate tributaries and tributaries thereof, but excluding those which are

0003

within or contribute to the flow of streams within the Yellowstone National Park.

F. The term "Interstate Tributaries" means the Clarks Fork, Yellowstone River; the Bighorn River (except Little Bighorn River); the Tongue River; and the Powder River, whose confluences with the Yellowstone River are respectively at or near the city (or town) of Laurel, Big Horn, Miles City, and Terry, all in the State of Montana.

G. The terms "Divert" and "Diversion" mean the taking or removing of water from the Yellowstone River or any tributary thereof when the water so taken or removed is not returned directly into the channel of the Yellowstone River or of the tributary from which it is taken.

H. The term "Beneficial Use" is herein defined to be that use by which the water supply of a drainage basin is depleted when usefully employed by the activities of man.

I. The term "Domestic Use" shall mean the use of water by an individual, or by a family unit or household for drinking, cooking, laundering, sanitation and other personal comforts and necessities; and for the irrigation of a family garden or orchard not exceeding one-half acre in area.

J. The term "Stock Water Use" shall mean the use of water for livestock and poultry.

ARTICLE III

A. It is considered that no Commission or administrative body is necessary to administer this Compact or divide the waters of the Yellowstone River Basin as between the States of Montana and North Dakota. The provisions of this Compact, as between the States of Wyoming and Montana, shall be administered by a Commission composed of one representative from the State of Wyoming and one representative from the State of Montana, to be selected by the Governors of said States as such States may choose, and one representative selected by the Director of the United States Geological Survey or whatever Federal agency may succeed to the functions and duties of that agency, to be appointed by him at the request of the States to sit with the Commission and who shall, when present, act as Chairman of the Commission without vote, except as herein provided. Administration of compact.

B. The salaries and necessary expenses of each State representative shall be paid by the respective State; all other expenses incident to the administration of this Compact not borne by the United States shall be allocated to and borne one-half by the State of Wyoming and one-half by the State of Montana.

C. In addition to other powers and duties herein conferred upon the Commission and the members thereof, the jurisdiction of the Commission shall include the collection, correlation, and presentation of factual data, the maintenance of records having a bearing upon the administration of this Compact, and recommendations to such States upon matters connected with the administration of this Compact, and the Commission may employ such services and make such expenditures as reasonable and necessary within the limit of funds provided for that purpose by the respective States, and shall compile a report for each year ending September 30 and transmit it to the Governors of the signatory States on or before December 31 of each year.

D. The Secretary of the Army; the Secretary of the Interior; the Secretary of Agriculture; the Chairman, Federal Power Commission; the Secretary of Commerce, or comparable officers of whatever Federal agencies may succeed to the functions and duties of these agencies, and such other Federal officers and officers of appro-

0004

priate agencies of the signatory States having services or data useful or necessary to the Compact Commission, shall cooperate, ex-officio, with the Commission in the execution of its duty in the collection, correlation, and publication of records and data necessary for the proper administration of the Compact; and these officers may perform such other services related to the Compact as may be mutually agreed upon with the Commission.

E. The Commission shall have power to formulate rules and regulations and to perform any act which they may find necessary to carry out the provisions of this Compact, and to amend such rules and regulations. All such rules and regulations shall be filed in the office of the State Engineer of each of the signatory States for public inspection.

F. 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.

G. The Commission herein authorized shall have power to sue and be sued in its official capacity in any Federal Court of the signatory States, and may adopt and use an official seal which shall be judicially noticed.

ARTICLE IV

The Commission shall itself, or in conjunction with other responsible agencies, cause to be established, maintained, and operated such suitable water gaging and evaporation stations as it finds necessary in connection with its duties.

ARTICLE V

A. Appropriative rights to the beneficial uses of the water of the Yellowstone River System existing in each signatory State as of January 1, 1950, shall continue to be enjoyed in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation.

B. Of the unused and unappropriated waters of the Interstate tributaries of the Yellowstone River as of January 1, 1950, there is allocated to each signatory State such quantity of that water as shall be necessary to provide supplemental water supplies for the rights described in paragraph A of this Article V, such supplemental rights to be acquired and enjoyed in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation, and the remainder of the unused and unappropriated water is allocated to each State for storage or direct diversions for beneficial use on new lands or for other purposes as follows:

1. Clarks Fork, Yellowstone River
   a. To Wyoming 60%
      To Montana 40%
   b. The point of measurement shall be below the last diversion from Clarks Fork above Rock Creek.
2. Bighorn River (Exclusive of Little Bighorn River)
   a. To Wyoming 80%
      To Montana 20%

0005

b. The point of measurement shall be below the last diversion from the Bighorn River above its junction with the Yellowstone River, and the inflow of the Little Bighorn River shall be excluded from the quantity of water subject to allocation.

3. Tongue River
   a. To Wyoming 40%
      To Montana 60%
   b. The point of measurement shall be below the last diversion from the Tongue River above its junction with the Yellowstone River.

4. Powder River (including the Little Powder River)
   a. To Wyoming 42%
      To Montana 58%
   b. The point of measurement shall be below the last diversion from the Powder River above its junction with the Yellowstone River.

C. The quantity of water subject to the percentage allocations, in Paragraph B 1, 2, 3 and 4 of this Article V, shall be determined on an annual water year basis measured from October 1st of any year through September 30th of the succeeding year. The quantity to which the percentage factors shall be applied through a given date in any water year shall be, in acre-feet, equal to the algebraic sum of:

1. The total diversions, in acre-feet, above the point of measurement, for irrigation, municipal, and industrial uses in Wyoming and Montana developed after January 1, 1950, during the period from October 1st to that given date;

2. The net change in storage, in acre-feet, in all reservoirs in Wyoming and Montana above the point of measurement completed subsequent to January 1, 1950, during the period from October 1st to that given date;

3. The net change in storage, in acre-feet, in existing reservoirs in Wyoming and Montana above the point of measurement, which is used for irrigation, municipal, and industrial purposes developed after January 1, 1950, during the period October 1st to that given date;

4. The quantity of water, in acre-feet, that passed the point of measurement in the stream during the period from October 1st to that given date.

D. All existing rights to the beneficial use of waters of the Yellowstone River in the States of Montana and North Dakota, below Intake, Montana, valid under the laws of these States as of January 1, 1950, are hereby recognized and shall be and remain unimpaired by this Compact. During the period May 1 to September 30, inclusive, of each year, lands within Montana and North Dakota shall be entitled to the beneficial use of the flow of waters of the Yellowstone River below Intake, Montana, on a proportionate basis of acreage irrigated. Waters of tributary streams, having their origin in either Montana or North Dakota, situated entirely in said respective States and flowing into the Yellowstone River below Intake, Montana, are allotted to the respective States in which situated.

E. There are hereby excluded from the provisions of this Compact:

1. Existing and future domestic and stock water uses of water: *Provided*, That the capacity of any reservoir for stock water so excluded shall not exceed 20 acre-feet;

2. Devices and facilities for the control and regulation of surface waters.

F. From time to time the Commission shall re-examine the allocations herein made and upon unanimous agreement may recommend

9006

modifications therein as are fair, just, and equitable, giving consideration among other factors to:

Priorities of water rights;
Acreage irrigated;
Acreage irrigable under existing works; and
Potentially irrigable lands.

ARTICLE VI

Nothing contained in this Compact shall be so construed or interpreted as to affect adversely any rights to the use of the waters of Yellowstone River and its tributaries owned by or for Indians, Indian tribes, and their reservations.

ARTICLE VII

A. A lower signatory State shall have the right, by compliance with the laws of an upper signatory State, except as to legislative consent, to file application for and receive permits to appropriate and use any waters in the Yellowstone River System not specifically apportioned to or appropriated by such upper State as provided in Article V; and to construct or participate in the construction and use of any dam, storage reservoir, or diversion works in such upper State for the purpose of conserving and regulating water that may be apportioned to or appropriated by the lower State: *Provided*, That such right is subject to the rights of the upper State to control, regulate, and use the water apportioned to and appropriated by it: *And provided further*, That should an upper State elect, it may share in the use of any such facilities constructed by a lower State to the extent of its reasonable needs upon assuming or guaranteeing payment of its proportionate share of the cost of the construction, operation, and maintenance. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

B. Each claim hereafter initiated for an appropriation of water in one signatory State for use in another signatory State shall be filed in the Office of the State Engineer of the signatory State in which the water is to be diverted, and a duplicate copy of the application or notice shall be filed in the office of the State Engineer of the signatory State in which the water is to be used.

C. Appropriations may hereafter be adjudicated in the State in which the water is diverted, and where a portion or all of the lands irrigated are in another signatory State, such adjudications shall be confirmed in that State by the proper authority. Each adjudication is to conform with the laws of the State where the water is diverted and shall be recorded in the County and State where the water is used.

D. The use of water allocated under Article V of this Compact for projects constructed after the date of this Compact by the United States of America or any of its agencies or instrumentalities, shall be charged as a use by the State in which the use is made: *Provided*, That such use incident to the diversion, impounding, or conveyance of water in one State for use in another shall be charged to such latter State.

ARTICLE VIII

A lower signatory State shall have the right to acquire in an upper State by purchase, or through exercise of the power of eminent domain, such lands, easements, and rights-of-way for the construction, operation, and maintenance of pumping plants, storage reservoirs, canals,

0007

conduits, and appurtenant works as may be required for the enjoyment of the prvileges granted herein to such lower State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

ARTICLE IX

Should any facilities be constructed by a lower signatory State in an upper signatory State under the provisions of Article VII, the construction, operation, repairs, and replacements of such facilities shall be subject to the laws of the upper State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

ARTICLE X

No water shall be diverted from the Yellowstone River Basin without the unanimous consent of all the signatory States. In the event water from another river basin shall be imported into the Yellowstone River Basin or transferred from one tributary basin to another by the United States of America, Montana, North Dakota, or Wyoming, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in determining its share of the water apportioned in accordance with Article V herein.

ARTICLE XI

The provisions of this Compact shall remain in full force and effect until amended in the same manner as it is required to be ratified to become operative as provided in Article XV.

ARTICLE XII

This Compact may be terminated at any time by unanimous consent of the signatory States, and upon such termination all rights then established hereunder shall continue unimpaired.

ARTICLE XIII

Nothing in this Compact shall be construed to limit or prevent any State from instituting or maintaining any action or proceeding, legal or equitable, in any Federal Court or the United States Supreme Court, for the protection of any right under this Compact or the enforcement of any of its provisions.

ARTICLE XIV

The physical and other conditions characteristic of the Yellowstone River and peculiar to the territory drained and served thereby and to the development thereof, have actuated the signatory States in the consummation of this Compact, and none of them, nor the United States of America by its consent and approval, concedes thereby the establishment of any general principle or precedent with respect to other interstate streams.

ARTICLE XV

This Compact shall become operative when approved by the Legislature of each of the signatory States and consented to and approved by the Congress of the United States.

8000

ARTICLE XVI

Nothing in this Compact shall be deemed:

(a) To impair or affect the sovereignty or jurisdiction of the United States of America in or over the area of waters affected by such compact, any rights or powers of the United States of America, its agencies, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters;

(b) To subject any property of the United States of America, its agencies, or instrumentalities to taxation by any State or subdivision thereof, nor to create an obligation on the part of the United States of America, its agencies, or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatsoever kind, to make any payments to any State or political subdivision thereof, State agency, municipality, or entity whatsoever in reimbursement for the loss of taxes;

(c) To subject any property of the United States of America, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the Compact.

ARTICLE XVII

Should a Court of competent jurisdiction hold any part of this Compact to be contrary to the constitution of any signatory State or of the United States of America, all other severable provisions of this Compact shall continue in full force and effect.

ARTICLE XVIII

No sentence, phrase, or clause in this Compact or in any provision thereof, shall be construed or interpreted to divest any signatory State or any of the agencies or officers of such States of the jurisdiction of the water of each State as apportioned in this Compact.

In Witness Whereof the Commissioners have signed this Compact in quadruplicate original, one of which shall be filed in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each signatory State.

Done at the City of Billings in the State of Montana, this 8th day of December, in the year of our Lord, One Thousand Nine Hundred and Fifty.

Commissioners for the State of Montana:

Fred E. Buck	/s/ Fred E. Buck
A. W. Bradshaw	/s/ A. W. Bradshaw
H. W. Bunston	/s/ H. W. Bunston
John Herzog	/s/ John Herzog
John M. Jarussi	/s/ John M. Jarussi
Ashton Jones	/s/ Ashton Jones
Chris. Josephson	/s/ Chris. Josephson
A. Wallace Kingsbury	/s/ A. Wallace Kingsbury
P. F. Leonard	/s/ P. F. Leonard
Walter M. McLaughlin	/s/ Walter M. McLaughlin
Dave M. Manning	/s/ Dave M. Manning
Joseph Muggli	/s/ Joseph Muggli
Chester E. Onstad	/s/ Chester E. Onstad
Ed F. Parriott	/s/ Ed F. Parriott
R. R. Renne	/s/ R. R. Renne
Keith W. Trout	/s/ Keith W. Trout

6000

Commissioners for the State of North Dakota:

I. A. Acker	/s/	I. A. Acker
Einar H. Dahl	/s/	Einar H. Dahl
J. J. Walsh	/s/	J. J. Walsh

Commissioners for the State of Wyoming:

L. C. Bishop	/s/	L. C. Bishop
Earl T. Bower	/s/	Earl T. Bower
J. Harold Cash	/s/	J. Harold Cash
Ben F. Cochrane	/s/	Ben F. Cochrane
Ernest J. Goppert	/s/	Ernest J. Goppert
Richard L. Greene	/s/	Richard L. Greene
E. C. Gwillim	/s/	E. C. Gwillim
E. J. Johnson	/s/	E. J. Johnson
Lee E. Keith	/s/	Lee E. Keith
N. V. Kurtz	/s/	N. V. Kurtz
Harry L. Littlefield	/s/	Harry L. Littlefield
R. E. McNally	/s/	R. E. McNally
Will G. Metz	/s/	Will G. Metz
Mark N. Partridge	/s/	Mark N. Partridge
Alonzo R. Shreve	/s/	Alonzo R. Shreve
Charles M. Smith	/s/	Charles M. Smith
Leonard F. Thornton	/s/	Leonard F. Thornton
M. B. Walker	/s/	M. B. Walker

"I have participated in the negotiation of this Compact and intend to report favorably thereon to the Congress of the United States.

/s/ R. J. Newell
R. J. Newell,
Representative of the United States of America."

Reservation of rights.

SEC. 2. The right to alter, amend or repeal section 1 of this Act is expressly reserved. This reservation shall not be construed to prevent the vesting of rights to the use of water pursuant to applicable law and no alteration, amendment, or repeal of section 1 of this Act shall be held to affect rights so vested.

Approved October 30, 1951.

Public Law 232 — CHAPTER 630

AN ACT

For the relief of the town of Mount Desert, Maine.

October 30, 1951
[S. 1482]

Mount Desert, Maine.
Settlement of claims.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury is authorized and directed to pay, out of any money in the Treasury not otherwise appropriated, to the town of Mount Desert, Maine, the sum of $26,986.60. The payment of such sum shall be in full settlement of all claims of such town against the United States for reimbursement of expenditures made by such town in combating a forest fire in the Acadia National Park from October 24, 1947, to November 1, 1947: *Provided*, That no part of the amount appropriated in this Act in excess of 10 per centum thereof shall be paid or delivered to or received by any agent or attorney on account of services rendered in connection with this claim, and the same shall be unlawful, any contract to the contrary notwithstanding. Any person violating the provisions of this Act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in any sum not exceeding $1,000.

Approved October 30, 1951.

76100 O - 52 (PT. I) - 45

82nd Congress, Senate Report No. 883 (Oct. 2, 1951)

0011

Calendar No. 837

82D CONGRESS, 1st Session } SENATE { REPORT No. 883

GRANTING THE CONSENT OF CONGRESS TO A COMPACT ENTERED INTO BY THE STATES OF MONTANA, NORTH DAKOTA, AND WYOMING RELATING TO THE WATERS OF THE YELLOWSTONE RIVER

OCTOBER 2 (legislative day, OCTOBER 1), 1951.—Ordered to be printed

Mr. O'MAHONEY, from the Committee on Interior and Insular Affairs, submitted the following

REPORT

[To accompany S. 1311]

The Committee on Interior and Insular Affairs, to whom was referred the bill (S. 1311) granting the consent of Congress to a compact entered into by the States of Montana, North Dakota, and Wyoming relating to the waters of the Yellowstone River, having considered the same report favorably thereon without amendment and with the recommendation that the bill do pass.

THE PURPOSE OF THE BILL

The bill would give the consent of Congress to a compact entered into between the States of Montana, North Dakota, and Wyoming providing for an equitable division of the use of waters from the Yellowstone River and its tributaries. Public Law 83, Eighty-first Congress, approved June 2, 1949, gave the consent of Congress to negotiate and enter into a compact, provided for the appointment of a Federal representative to represent the United States in the negotiations and to report thereon to the Congress. The compact was agreed to by the several representatives of the affected States at Billings, Mont., on December 8, 1950, and the States ratified the compact early in 1951.

APPORTIONMENT OF USE OF WATER

The compact appears to be fair and equitable in apportioning the use of waters of the Yellowstone Basin, as defined. The compact provisions are easily administered, and require no elaborate organization. In all respects, it presents an unusually practicable solution to the problems which, during the early years of negotiations, seemed highly complicated and difficult.

0012

MT v. WY/M.T.D. App.
312 (WY)

The Yellowstone River Basin and the Yellowstone River system (i. e., the river and its tributaries) are, for the purposes of the compact, exclusive of the Yellowstone National Park area and its waters, and the waters of the Little Bighorn River.

The apportionment, or division, of the waters of the basin is provided in article V, subsections A, B, and D, as follows:

V–A. Existing appropriative rights as of January 1, 1950, are recognized in each of the signatory States. No regulation of the supply is mentioned for the satisfaction of those rights, and it is clear, then, that a demand of one State upon another for a supply different from that now obtaining under present conditions of supply and diversion, is not contemplated, nor would such a demand have legal standing. Where these rights have deficient supplies they would be supplemented by rights obtained from "unused and unappropriated waters" in the basin as of January 1, 1950, from the allocated waters under subsection B. North Dakota rights are covered specifically in subsection D.

V–B. Unused and unappropriated waters as of January 1, 1950, of the four interstate tributaries, the Clarks Fork of the Yellowstone, the Big Horn, Tongue, and Powder Rivers, all of which rise in Wyoming and join the main stem of the Yellowstone River in Montana, are allocated in variable percentages between Montana and Wyoming. The definition of these waters is found in subsection C of article V. The allocations (by the method of computation of the waters not appropriated and used as of January 1, 1950) are percentages of divertible and storable waters in each tributary basin during any water year or at any time in the water year after its beginning (October 1). Allocations, thereby, take into account return flows and uses of them, as well as original runoff. This results from the computation directive which says, in effect, that allocated flows are the sum of diversions and outflows from the tributary basin corrected for changes in the storage of such waters.

V–D. Below Intake, Mont., the flows in the Yellowstone River are apportioned between Montana and North Dakota on the basis of acreages irrigated in each State. Tributary streams below Intake are allotted to the States in which they are situated.

The use of the waters of the Yellowstone River which flow from the Yellowstone National Park and accrue from Montana tributaries and general runoff in Montana is not affected by the compact, provided, that uses originating subsequent to January 1, 1950, do not deplete the flows below Intake to a point where older priorities are injured.

Subsection V–E provides that:

1. Existing and future domestic and stock-water uses of water: *Provided*, That the capacity of any reservoir for stock water * * * shall not exceed 20 acre-feet—

are excluded from the provisions of the compact. Thus, the States have agreed that domestic and stock-water uses shall be unrestricted, subject only to the limitation in capacity of a stock-water reservoir. This subsection is identical in its effect to like provisions of the Belle Fourche River compact.

COMMENTS OF BUREAU OF THE BUDGET AND DEPARTMENT OF THE INTERIOR

The report of the Bureau of the Budget of September 14, 1951, states that the Department of Justice believes that the compact does not adequately preserve, protect, or recognize the interests, sovereignty or jurisdiction of the United States in the "area of waters" affected. Justice believes the term quoted above to be obscure and possibly conflicting; that the allocations between the States of "unused and unappropriated waters" may possibly deprive the United States of the use of surplus water it has anticipated would flow into the Missouri

River; that the provisions that the commission (created by the compact to administer the compact) may sue and be sued might be construed to waive the sovereign immunity of the Federal Government from suit.

Justice recommends that the undesirable provisions be alleviated, or made impotent, by substituting a different form of consent to the compact, and such a form is included in its comments.

The committee has considered these objections and the recommendation. In article XVI (a), it seems clear that the "area of waters" can only refer to the places where Yellowstone River waters may be held or may be flowing, and that such sovereignty or jurisdiction as the United States may have over them is not impaired by the compact. The sentence containing the ambiguous term, "area of waters," continues to say that the compact does not impair or affect any rights or powers of the United States—in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters.

Article V–B, it is true, allocates to the States the "unused and unappropriated waters," but this follows V–A which recognizes all existing beneficial uses as of January 1, 1950. As to these "unused and unappropriated waters," the United States is not barred if their uses conform to the division between the States, as, for example, in developing a reclamation project in compliance with Federal and State water laws. Nothing new is involved here; only customary practices are contemplated by the affected States. If the Department of Justice has in mind new theories of Federal ownership of these waters respecting navigation, for example, this matter is settled by the O'Mahoney-Millikin amendment to the Flood Control Acts of 1944 and 1946. If the use of water for power is in question, the agreement of Federal agencies and the States upon the water supply studies of April 1951 is sufficient to indicate that it is the view of these agencies and the States that, as a practical matter, the provisions of the O'Mahoney-Millikin amendment will also apply to water use for power.

As to article III–G, relating to suits by or against the Commission in the Federal courts, the fears of Justice that the language might waive the sovereign immunity of the United States seem to have little basis. The Commission is created for specific purposes only. The powers of the Commission are limited to carrying out the provisions of the compact, namely, to require that the division of the waters among the affected States be in conformity with compact articles V to X, inclusive, and affect only Montana and Wyoming operations. The Federal member of the three-man Commission will represent the United States Geological Survey, an agency entrusted with the survey of the water resources of the basin. The Federal member may vote only when the Montana and Wyoming members fail to agree on the administration of the terms of the compact. His action would bind the Commission, not the United States. The United States is not a party to the compact.

Public Law 83, Eighty-first Congress, approved June 2, 1949, gave the consent of Congress to the negotiation of the Yellowstone River compact:

upon condition that one suitable person, who shall be appointed by the President of the United States, shall participate in said negotiations as the representative

of the United States and shall make a report to Congress of the proceedings and of any compact or agreement entered into * * *.

This provision does not make the United States a party to the compact.

The Federal representative, appointed pursuant to Public Law 83, was Mr. R. J. Newell, formerly regional director, Bureau of Reclamation, being stationed at Boise, Idaho, for many years. In his report, Mr. Newell says that when the negotiations began he received specific instructions from the President concerning the protection of the interests of the United States. He says these instructions were carefully and fully observed, and the compact meets his approval.

The report of the Secretary of the Interior of September 27, 1951, is favorable, and notes that the compact will enable the Federal Government and the States to expedite developments of works in upper portion of the Missouri River Basin which are presently authorized.

Following is the report of Mr. R. J. Newell, Federal representative, and reports of the Bureau of the Budget and the Department of the Interior, all of which are presented in full:

BOISE, IDAHO, *March 16, 1951.*

HON. ALBEN W. BARKLEY,
President of the Senate, Washington, D. C.

MY DEAR MR. PRESIDENT: I have the honor to enclose a conformed copy of a compact entered into on December 8, 1950, among the States of Montana, North Dakota, and Wyoming to determine the rights and obligations of those States respecting uses of the waters of the Yellowstone River and its tributaries.

By virtue of my appointment by the President as the representative of the United States, I participated in the negotiations which led to the compact. My report thereon is enclosed.

Sincerely yours,

R. J. NEWELL,
Representative of the United States,
Yellowstone River Compact Negotiations.

REPORT TO THE CONGRESS BY THE FEDERAL REPRESENTATIVE ON THE YELLOWSTONE RIVER COMPACT

By the act of June 2, 1949 (Public Law 83, 81st Cong.), Congress granted its consent to the States of Montana, North Dakota, and Wyoming to negotiate and enter into a compact or agreement for the division of the waters of the Yellowstone River excepting waters within or tributary to the Yellowstone National Park.

Commissioners representing these States, after negotiations extending over a year, have reached final agreement on the provisions of the proposed compact at a meeting held in Billings, Mont., on December 7 and 8, 1950, and each one of them has affixed his signature thereto. The State Legislature of Wyoming ratified the agreement by an act signed by the Governor on January 27, 1951, Montana's Legislature likewise approved and the Governor signed on February 13, 1951, and North Dakota's Legislature approved and the Governor signed on March 7, 1951.

The authorizing act required that a Federal representative be appointed to participate in the negotiations and to report to the Congress on the proceedings and on any compact or agreement entered into. Accordingly, the President, on October 19, 1949, appointed me as such Federal representative, and I have participated in the negotiations of the commissioners and hereby report as directed.

I believe that the proposed compact is a sound basis for further development in the use and control of waters of the Yellowstone River for multiple purposes, especially for irrigation, that the division of the waters among the States as agreed on is equitable, and that the rights of the United States are properly protected, and, therefore, I recommend that the consent of Congress be given the proposed compact, a copy of which is attached.

Further report follows:

PREVIOUS NEGOTIATIONS

Three previous compacts have been negotiated on the Yellowstone River. The first of these was signed in February 1935. It concerned only the States of Montana and Wyoming, and was never acted upon by the legislatures. The second compact was negotiated in 1942 and went to the legislatures in 1943. This concerned the three States—Montana, Wyoming, and North Dakota. The Wyoming Legislature was the first to take action on this compact and failed to ratify it. A third compact, quite similar in form to the previous compact, was negotiated in 1944, and reached the Legislatures of Montana, Wyoming, and North Dakota in 1945. This compact was ratified by North Dakota, Montana, and by the Legislature in Wyoming, but was vetoed by the Governor of Wyoming. The present compact is therefore the fourth that has been negotiated by Montana and Wyoming, and the third to concern all three States.

AREA INVOLVED

The drainage basin of the Yellowstone River, from its source in the highlands of the Rocky Mountains extending downstream through north central Wyoming and southeastern Montana to its mouth a few miles below the Montana-North Dakota line, is involved in the proposed compact.

The area drained comprises over 70,000 square miles, of which roughly 1,500,000 acres are being irrigated. The irrigated land is almost equally divided between Montana and Wyoming with less than 2 percent in North Dakota. Investigations indicate that suitable land is at hand feasible to irrigate and available water supply is adequate, if conserved, to increase the irrigated area by about 34 percent. The increased area is also about equally divided between Montana and Wyoming with a minor acreage in North Dakota.

PURPOSES

The major purposes of the proposed compact, as stated therein, are to promote interstate comity, to remove causes of present and future controversy between the States with respect to the waters of the Yellowstone River and its tributaries, to provide for an equitable division and apportionment of such waters and to encourage the beneficial development and use thereof. Installation of physical works needed to foster that use has been delayed pending an agreement between the States as to division of waters.

STATE COMMISSIONERS

The following commissioners were appointed by the respective governors to represent their States in the negotiation of the proposed compact:

FOR MONTANA	FOR WYOMING	FOR NORTH DAKOTA
Fred E. Buck	L. C. Bishop [1]	I. A. Acker
A. W. Bradshaw	Earl T. Bower	Einar H. Dahl
H. W. Bunston	J. Harold Cash	J. J. Walsh
John Herzog	Ben F. Cochrane	
John M. Jarussi	Ernest J. Goppert	
Ashton Jones	Richard L. Greene	
Chris. Josephson	E. C. Gwillim	
A. Wallace Kingsbury	E. J. Johnson	
P. F. Leonard	Lee E. Keith	
Walter M. McLaughlin	N. V. Kurtz	
Dave M. Manning	Harry L. Littlefield	
Joseph Muggli	R. E. McNally	
Chester E. Onstad	Will G. Metz	
Ed F. Parriott	Mark N. Partridge	
Axel Persson [1]	Fred V. Portz [4]	
R. R. Renne [3]	Alonzo R. Shreve	
Keith M. Trout	Charles M. Smith	
	Leonard F. Thornton	
	M. B. Walker	

[1] Resigned.
[2] Appointed just prior to final meeting.
[3] Represented at formal meetings by Deputy Earl Lloyd.
[4] Died.

0016

The State engineer was included in each State group as that officer bears important responsibilities in connection with the administration of the State's water supplies. However, these responsibilities vary from State to State. Consultants and advisors assisted in the negotiations.

FEDERAL CONTRIBUTION

The office of region 6 of the Bureau of Reclamation furnished a legal advisor and a secretary and took care of all recording, duplicating, correspondence and the like. The Bureau also contributed a great amount of data on land surveys, water records, etc. The Bureau of Indian Affairs, through the area engineer at Billings, also furnished similar data concerning the large area of Indian lands in the basin.

NEGOTIATIONS

Four formal meetings of the full commission, all at Billings, Mont., were held on the following dates: November 29, 1949; February 1 and 2, 1950; October 24 and 25, 1950; December 7 and 8, 1950.

Minutes of these meetings were made and adopted officially by the commissioners. They have been assembled and labeled "Yellowstone River compact—Minutes of formal meetings of the Yellowstone River compact commissioners." They are not being sent out as part of the text of this report, but copies are being furnished for the official files of the appropriate committees of Congress and for the General Services Administration of the United States for filing with the original of the compact. Each of the meetings was well attended, though three were held in winter and the commissioners came from widely scattered points over a huge area. Meetings were open to the public and the press. Because of the size of the group, including 30 commissioners and a number of advisers, consultants, and other interested parties, much of the detail work of collecting and digesting information and drafting language had to be done in smaller committees. Informal meetings of representatives of interested Federal agencies were held on November 28, 1949, and February 2, 1950.

A drafting committee made up of attorneys from each of the three States held one meeting in August 1950, and attempted to draft language satisfactory to all parties.

However, most of the ground work was laid, most of the material gathered and most of the questions answered by an engineering committee made up of the State engineers of the three States, the area engineer of the Bureau of Indian Affairs, and the district engineer of the Bureau of Reclamation, Yellowstone district, and assisted on occasion by numerous others, from private, State and Federal ranks, who had information of value to offer. This committee held a number of meetings and made one field trip throughout the length of the Big Horn River (largest tributary of the Yellowstone) to check field data on the ground.

MAIN FEATURES OF THE COMPACT

The compelling reason for the negotiation of a compact was the need for agreement on division of the waters of interstate tributaries in the Yellowstone River Basin that would allow further development to go forward. Because the main stem of the river is almost entirely in Montana and its water supply under any future program appears adequate for feasible developments along its course, it was given little consideration in the negotiations. While North Dakota's representatives contributed in an important measure to the work of the commission, the real interest of the State in the compact is minor on account of the very small part of the drainage basin that is within its borders. The waters in Yellowstone National Park and tributary thereto were expressly excluded by the language of the authorizing act. The real problem and the purpose of the undertaking was then to divide the waters of four principal tributaries, the Clarks Fork, Big Horn, Tongue, and Powder, all rising in Wyoming and flowing across the State line into Montana, with developments, existing and proposed, in both States.

In earlier attempts to arrive at a compact and in the early meetings here reported, there was searching discussion as to whether the agreement sought on division of waters should include the water now appropriated and in use or should apply only to the unappropriated and unused balance which is available for further development. The latter principle was decided on (art. V–A) for several reasons. First, it would be a huge and time-consuming task to determine and fix comparable values for existing rights in three States with differing water laws and practices in establishing water rights. Second, the basic fact that there is enough

water if properly conserved by storage to take care of all existing and all feasible future developments points up the importance of arriving promptly at the simplest workable agreement that would permit such storage projects to proceed. When these are built, even the operation provisions of the compact are expected to become easy of administration.

It is further agreed (art. V–B) that existing irrigation developments with an inadequate supply should have a preferred right to the unused remainder over new projects.

The final residue of supply was then divided between the States for further development. The basis for the division on each tributary was the acreage of land in each State that could be feasibly irrigated from that tributary, the requirements used to determine feasibility being the same in each State.

For supervision of the operation of the compact, a commission is provided for, made up of one member from each of the States of Montana and Wyoming, to be appointed by the respective Governors, and one member to be appointed by the Director of the Geological Survey. The State representatives on this operating commission could be the State engineers who are usually charged with the supervision of water right matters in irrigation States, in which case no new positions would be created. The Geological Survey was made responsible for the third member for the reason that traditionally its Surface Water Division has intimate contact and accepted responsibilities in connection with the flow of streams and water surveys generally and the States have come to depend on the cooperation of this agency. The State of North Dakota, at the request of its representatives, was rather reluctantly relieved of the responsibility and expense of operations because the interests of the State in the results were so disproportionally small.

In determining the amount of water subject to allocation, the "divertible flow" principle was chosen over the "depletion" principle, because the former had been used in earlier negotiations and was more familiar to the commissioners, who were assured by the consultants that the latter had no outstanding advantages even though it had been selected on the upper Colorado.

Existing and future domestic and stock water uses were excluded from the provisions of the compact, with a limitation on the size of stock ponds. A large number of stock ponds have been constructed or are contemplated by individuals and agencies in the open range country, and the question has been raised whether their multiplication might have a material effect on water supplies available for major purposes. A study of the proposed developments in the Yellowstone River Basin discloses that the feasibility of no project depends on or would be affected appreciably by these ponds, located as they are in the plains area away from live streams and collecting water that otherwise would probably never reach the river system anyway.

FEDERAL INTERESTS

In the course of the negotiations, a letter was received from the President enclosing a memorandum from the Bureau of the Budget and calling attention to questionable provisions in recent interstate compacts which were apparently contradictory and which imposed restrictions on the use of water by the United States. The suggestions in that letter have been followed and incorporation in this compact of provisions such as were referred to has been scrupulously avoided. In article XVI of the compact, it is specifically provided that nothing in that document shall "impair or affect * * * any rights or powers of the United States of America, its agents, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin, * * *". This unmistakably clear language, together with the provision that nothing in the compact shall "subject any property of the United States of America, its agents or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the compact," furnishes complete protection to the United States against any possible adverse effect, the existence of which I cannot foresee, that might arise from any other portion of the compact to which the Congress' consent is given. Attention is specifically invited, moreover, to the fact that although the States have, in paragraph D of article VII of the compact, agreed among themselves that the use of allocated waters on Federal projects constructed after the date of the compact shall be "charged" to the State in which the water is used, they have not attempted to limit its use to those waters.

The particular concerns of departments and agencies of the Federal Government were inquired into and given serious consideration throughout the negotiations. All agencies known to have interests in the basin were kept informed of

0018

the progress of negotiations and were invited to have representatives present at the meetings. These included the Department of the Army, Department of Interior, Department of Agriculture, Federal Power Commission, Department of Commerce, Reconstruction Finance Corporation.

Two separate meetings were held with Federal men to bring out their views. Regular meetings of the commissioners were attended by 12 to 20 men from Federal agencies. When a draft of compact was ready for final consideration, copies were circulated to the following agencies with request for comment in 30 days. Helpful comments and suggestions were received from Department of Agriculture, Corps of Engineers, Bureau of Reclamation, National Park Service, Bureau of Indian Affairs.

All comments were given consideration, some suggested language was adopted verbatim and other suggestions were taken care of in various ways. It is believed that there are no provisions in this compact and no omissions to which Federal agencies seriously object. However, attention has been directed by the Bureau of Reclamation to subparagraph E–2 of article V which excludes from the provisions of the compact "Devices and facilities for the control and regulation of surface waters." This language was inserted to meet a request by the Department of Agriculture for exclusion of so-called "water-spreading devices" which are recommended for installation on the open plains to reduce erosion from heavy local rains. It is not believed that this could be interpreted as applying to major storage reservoirs.

It should be specially noted that there are great areas of Indian land in the Yellowstone River Basin in both Montana and Wyoming, much of which is irrigated or proposed to be irrigated, and the interest of the Bureau of Indian Affairs in the compact is important. Indian Bureau men attended all meetings, furnished much information, and lent continuous engineering help to subcommittees. The language submitted by them to cover Indian interests in the compact was adopted verbatim.

CONCLUSION

The effort that has been carried on by the States for nearly 20 years to secure a compact for the division of the waters of the Yellowstone River and its tributaries would seem to be conclusive evidence that such a compact is needed. The instrument submitted herewith is the result of a year's intensive study and discussion by a large number of qualified State commissioners with the benefit of all past negotiations and the cooperation of many Federal agencies and private individuals, ending finally in agreement by all. The plan proposed appears to be easily installed, workable, and not requiring the establishment of a large new organization for its operation. The division of the waters is believed to be equitable and fair. Obstacles to the continued orderly development of resources would be removed. The rights of the United States seem to be fully protected. Therefore I recommend that the proposed compact be approved by the Congress of the United States.

R. J. NEWELL,
Federal Representative,
Yellowstone River Compact Negotiations.

NOTE.—It is now understood that the archives of the Department of State are no longer the proper depository for such documents as the Yellowstone compact. The General Services Administration having taken over this function, the authoritative original of the compact, if finally approved, will be filed with that body.

R. J. N.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington 25, D. C., September 14, 1951.

Hon. JOSEPH C. O'MAHONEY,
United States Senate, Washington 25, D. C.

MY DEAR SENATOR O'MAHONEY: Receipt is acknowledged of your letter, dated April 12, 1951, requesting our report on S. 1311, a bill granting the consent of Congress to a compact entered into by the States of Montana, North Dakota, and Wyoming relating to the waters of the Yellowstone River.

In response to my request for the views of the Department of Justice, the Deputy Attorney General indicates that while article VI of the compact is apparently designed to protect the interests of the United States, the language used is rather ambiguous. The preservation of the rights of the United States is

rendered somewhat obscure due to the possible conflicting interpretations of the terminology "area of waters" in the language "To impair or affect the sovereignty or jurisdiction of the United States of America in or over the area of waters affected by such compact, any rights or powers of the United States of America, its agencies, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters."

He also calls attention to article V, B of the compact under which the signatory States allot themselves all "unused and unappropriated waters of the interstate tributaries of the Yellowstone River" as possibly depriving the United States of the use of surplus water it has been anticipated would flow into the Missouri River.

Also in the Deputy Attorney General's opinion, the broad authority contained in the provision that the commission may sue and be sued might be construed, in view of the Federal representative thereon, to indicate that the Federal Government has waived its sovereign immunity from suit.

Finally, he recommends that in the event Congress should desire to approve the compact as drafted, such approval be essentially in the following language:

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That approval by the Congress is hereby given to the Yellowstone River compact: *Provided, however*, That this approval of the compact does not in any way subject the United States to the terms of the compact or affect its sovereignty, jurisdiction, power, authority, rights to the use of water, property, prerogatives, or responsibilities in, to, or over the Yellowstone River and its tributaries."

The Secretary of the Interior, in his proposed report on H. R. 3544, the companion bill to S. 1311, expresses the opinion that the provisions in the compact for the selection of the Federal representative by the Geological Survey rather than the President and that the commission should be subject to suit are regrettable and that the latter "may raise some interesting constitutional questions in the future."

Similarly conflicting provisions appearing in previously consummated compacts prompted the President on May 3, 1950, to write the Federal representatives on various compact commissions cautioning them to exert all efforts to eliminate or correct the areas of possible conflict which might impose restrictions on the use of waters by the United States.

This office is in agreement that the compact method is the proper and logical manner for States to allocate the waters of interstate streams. It is essential, however, that such compacts include adequate provisions to preserve the rights and interests of the United States and for appointment by the President of a Federal representative as a member of the compact commission. Since the Yellowstone River compact which would be approved by S. 1311 has been ratified by the States of Montana, North Dakota, and Wyoming, it may not now be feasible of revision to provide for the selection of the Federal representative by the President rather than by Geological Survey. While I believe that as a general rule the former is preferable, there may be some question whether in this case the resubmission of the compact to the States to provide for selection of a Federal representative by the President rather than by Geological Survey is justified. It is of fundamental importance, however, that the compact protect the rights and interests of the United States in these waters. The language of the proposed amendment to the bill prepared by the Department of Justice would seem to provide such protection. Accordingly, subject to the consideration of the above comments by the Congress, there would appear to be no objection to enactment of S. 1311 if amended to assure the protection of the interests of the United States as recommended by the Department of Justice.

Sincerely yours,

ELMER B. STAATS,
Acting Director.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington 25, D. C., September 27, 1951.

Hon. JOSEPH C. O'MAHONEY,
Chairman, Committee on Interior and Insular Affairs,
United States Senate, Washington 25, D. C.

MY DEAR SENATOR O'MAHONEY: I have for report S. 1311, a bill granting the consent of Congress to a compact entered into by the States of Montana, North Dakota, and Wyoming, relating to the waters of the Yellowstone River. The

compact, as approved by the 1951 legislative assemblies of the signatory States, is set out in the subject bill.

One very important part of the plan of this Department for improvements in the Missouri River Basin set forth in Senate Document 191, Seventy-eighth Congress, and approved and authorized for construction in the acts of December 22, 1944 (58 Stat. 887, 891), and July 24, 1946 (60 Stat. 641, 653), is that of supplying new and supplemental water for the irrigation of well over 700,000 acres of land in the Yellowstone River Basin, the installation in that basin of more than 300,000 kilowatts of hydroelectric generating capacity, and provision of reservoirs for these and other purposes with a total capacity of more than 4,250,000 acre-feet. While these figures cannot be regarded as final, they are indicative of the great importance of that basin to the economy of the entire Missouri River Basin and of the Nation. The negotiation of the Yellowstone River Basin compact was, and the Congress' consent to it will be, an important step toward permitting realization of the basin's potentialities without bickering between the States.

The compact provides that its operation shall not "impair or affect the sovereignty or jurisdiction of the United States of America in and over the area of waters affected" by it or "any rights or powers of the United States of America, its agents, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin" or its capacity to acquire such rights, that it shall not be taken to "subject any property of the United States of America, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the compact," and that its terms do not cover "waters within or waters which contribute to the flow of streams within the Yellowstone National Park." The compact, moreover, provides that its terms shall not "be so construed or interpreted as to affect adversely any rights to the use of the waters of the Yellowstone River and its tributaries owned by or for Indians, Indian tribes, and their reservations." The water rights of the Indians were reserved by the Indians at the time of the creation of the respective reservations by the treaties entered into by the Indians with the United States. These Indian water rights have been recognized by the Supreme Court of the United States. The most important decision is the case of *Winters* v. *United States* reported in 207 U. S. 564. This situation explains the inclusion of the language just quoted. A further safeguard to Federal interests is to be found in section 2 of S. 1311; i. e., in the express reservation to Congress of its right to alter, amend, or repeal the act.

It long has been recognized that the fuller use of the water resources of the Yellowstone River Basin contemplated in Senate Document 191 is dependent entirely upon the construction and operation of storage reservoirs to regulate and conserve the water yields of the principal streams of the basin. These streams, in addition to the Yellowstone River itself, are its four large interstate tributaries, each rising in Wyoming and flowing into Montana: The Clarks Fork, Yellowstone River; the Big Horn River; the Tongue River; and the Powder River. Of these streams, the Yellowstone River, which is the main stem of the river system of the Yellowstone Basin, needed little consideration in the negotiation of the compact because it is almost entirely in Montana and its water yield seems to be adequate for any program of feasible developments along its course, and the Clarks Fork, Yellowstone River, one of the tributaries, is not likely to experience water shortages. Hence, the problem streams are the three remaining large interstate tributaries. The elements that make these interstate tributaries problem streams are the existing irrigated developments and the potential and possible irrigated developments. (In this connection, I am advised that the compact commissioners recognized a distinction between potential developments and possible developments. Potential developments are those which, it was thought, are definitely feasible, while possible developments are those which could be developed only at a very high cost or for which a water supply seemed questionable.)

The practical accomplishment, in the circumstances, of an equitable apportionment of the benefits of the waters of the Yellowstone River system among the States of Wyoming, Montana, and North Dakota will require the construction, at strategic sites, at or near the Wyoming-Montana State line, of storage reservoirs so that the residual flows from Wyoming can be controlled and conserved for use in the lower States of Montana and North Dakota. Fortunately, such strategic reservoir sites are available on the Big Horn River, the Tongue River, and the Powder River.

Article V of the compact is the article that sets out the apportionment of the benefits of the water resources of the basin among the signatory States that they have agreed upon. Extensive studies by an engineering committee, appointed by

0021

the commission to advise it, disclosed that little could be gained, from a water supply standpoint, by attempting, in the compact, the regulation and administration of existing appropriative rights in the signatory States. (The engineering committee comprised the State engineers of the three States and two Federal engineers from the Bureau of Reclamation and the Bureau of Indian Affairs.) Accordingly, paragraph A of article V recognizes the appropriative rights to the beneficial uses of the water of the Yellowstone River system existing in each signatory State as of January 1, 1950, and it permits the continued enjoyment of such rights in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation.

Paragraph B of article V is the core of the compact. The following analysis of this paragraph is made:

(1) The unused and unappropriated waters of the interstate tributaries only are treated; i. e., the waters that are residual to those required for the enjoyment of the appropriative rights that are recognized in paragraph A of article V.

(2) The supplemental water supplies that are needed for the better enjoyment of the rights recognized in paragraph A of article V are given a preferred status over water supplies for new projects.

(3) The water that is residual after the enjoyment of the rights in paragraph A of article V and after the furnishing of the supplemental water supplies to the projects with the rights recognized in paragraph A are allocated to Wyoming and to Montana in stated percentages. I am informed that these percentages were calculated, in accordance with the recommendation of the engineering committee, by dividing the total of the potential and possible acres in Wyoming and in Montana by the total of the potential and possible acres in both States.

In paragraph C of article V, there is adopted a modified version of the divertible flow principle. Under the formula adopted, the apportionments stated in paragraph B are made operative in terms of cumulative volumes of water throughout a water year, fixed as October 1 of any year through September 30 of the succeeding year, in order to accommodate the new projects in the basin which must rely on storage water rather than on natural flow.

Considered with paragraph A of article V, paragraph D of article V gives to the Lower Yellowstone Federal reclamation project in Montana and North Dakota the protection of a right existing January 1, 1950. Additionally, paragraph D recognizes all rights in the beneficial use of water than existed in Montana and North Dakota on January 1, 1950, and that divert below Intake, Mont., and it permits the beneficial use of the flow of water of the Yellowstone River below Intake, Mont., on lands within Montana and North Dakota on a proportionate basis of acreage irrigated. This latter provision is important, particularly to North Dakota, because the flow of water of the Yellowstone River below Intake, Mont., will be residual water after the use of water above Intake, Mont. The flow will thus be not only a regulated flow, as a consequence of the construction and operation of the reservoirs at the strategic sites on the Big Horn River, the Tongue River, and the Powder River, but it will also include the return flows that are certain to appear below Intake, Mont., with the expansion of irrigation after storage water becomes available. The sharing of this residual flow by Montana and North Dakota, on a proportionate basis of acreage irrigated, will keep the new developments in the two States in balance and minimize future interstate disputes.

The inclusion in paragraph E of article V of special provisions relating to stock water ponds and to "devices and facilities for the control and regulation of surface waters" is a recognition of the importance of stock raising, and modern soil-conservation practices in the economy of the area. Neither of these items will adversely affect existing Federal projects in the basin. Item 2 of paragraph E, moreover, recognizes and rests upon the distinction between surface waters and appropriable waters. In other words, waters which diffuse over the land and do not flow intermittently or continually through and into natural water courses are permitted, so far as the compact is concerned, to be controlled and regulated by devices and facilities installed by the owner of the land on which such waters are diffused.

Paragraph F of article V amounts to a recognition that the allocations made in article V may have to be reconsidered from time to time so that they can be made to conform to demonstrated experience where that proves to be at variance with the calculated belief, such belief necessarily governing the allocations in the first instance.

Articles VII, VIII, and IX implement the use of allocations made in article V. Of particular interest is the provision in article VII expressly permitting diver-

0022

sions to be made and structures to be erected in one State for the benefit of users in another. The inclusion of this provision is in harmony with the decision of the Supreme Court in *Weiland* v. *Pioneer Irrigation Co.* (259 U. S. 498 (1922)). Also of importance is the phrasing of article VII, paragraph D, which, while providing that the use of allocated waters on Federal projects constructed after the date of the compact shall be charged to the State in which the water is used, does not attempt to limit the use of water in any of the States of the basin by the Federal Government.

I regret the spirit of localism that induced the inclusion in article X of a provision that "No water shall be diverted from the Yellowstone River Basin without the unanimous consent of all the signatory States." Though I agree that preference in the use of water resources ought generally to be given to the basin of origin, it is hard for me to believe that this is more than a generally desirable rule, let alone that any deviation from a very tight version of it should require the sanction of three State legislatures. Much as I regret its inclusion, however, I do not believe that it warrants a refusal by the Congress to enact S. 1311. The same is true of that portion of paragraph A of article III which provides for selection of the United States representative on the Yellowstone River Commission by the Director of the Geological Survey rather than by the President of the United States, that portion of paragraph D of the same article which purports to cast certain duties on specified Federal officials, and that portion of paragraph G of the same article which provides that the Yellowstone River Commission "shall have power to sue and be sued in its official capacity in any Federal court of the signatory States." All of these are matters which should properly be dealt with in Federal legislation rather than in a compact and the last may raise some interesting constitutional questions in the future.

As between the States of Wyoming and Montana—North Dakota being excepted in accordance with its wishes—the compact, in article III, is to be administered by a commission composed of a representative from Wyoming and a representative from Montana, each to be selected by the Governor in the manner that the State may choose, and, as I have already noted, one representative selected by the Director of the United States Geological Survey or whatever Federal agency may succeed to the functions and duties of that agency. The Federal official is to act as chairman of the commission, but he is not to vote except upon matters and points upon which the States' representatives may be in disagreement.

Generally, article III is in line with the over-all purpose of an interstate compact to employ the methods of negotiation and arbitration rather than that of adjudication in interstate disputes, the negotiation and arbitration methods being the more adaptable to changing conditions.

The remaining articles of the compact are those usual in such an instrument and do not call for specific comment.

From the advice that has been given to me, it is my belief that the apportionment agreed upon by the compact commission was entered into with due inquiry, that it is an honest exercise of judgment, and that it is equitable.

You have been advised by the Bureau of the Budget, I understand, that the Department of Justice recommends revision of S. 1311 to include provision that the Congress' consent to the Yellowstone compact "does not in any way subject the United States to the terms of the compact or affect its sovereignty, jurisdiction, power, authority, rights to the use of water, property, prerogatives, or responsibilities in, to, or over the Yellowstone River and its tributaries." The Bureau of the Budget has further advised that, subject to consideration by the Congress of certain other comments contained in its letter to you dated September 14, "there would appear to be no objection to enactment of S. 1311 if amended to assure the protection of the interests of the United States as recommended by the Department of Justice." I recommend enactment of S. 1311 with such amendments as are required in the light of the views expressed by Mr. Staats in the letter just referred to.

The Bureau of the Budget has advised that there is no objection to the submission of this report to your committee.

Sincerely yours,

OSCAR L. CHAPMAN,
Secretary of the Interior.

82nd Congress, House Report No. 1118 (Oct. 10 1951)

0024

82D CONGRESS } HOUSE OF REPRESENTATIVES { REPORT
1st Session } { No. 1118

GRANTING THE CONSENT AND APPROVAL OF CONGRESS TO A COMPACT ENTERED INTO BY THE STATES OF MONTANA, NORTH DAKOTA, AND WYOMING RELATING TO THE WATERS OF THE YELLOWSTONE RIVER

OCTOBER 10, 1951.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

---

Mr. ENGLE, from the Committee on Interior and Insular Affairs, submitted the following

REPORT

[To accompany H. R. 3544]

The Committee on Interior and Insular Affairs, to whom was referred the bill (H. R. 3544) granting the consent and approval of Congress to a compact entered into by the States of Montana, North Dakota, and Wyoming relating to the waters of the Yellowstone River, having considered the same, report favorably thereon with amendments and recommend that the bill, as amended, do pass.

The amendments are as follows:

AMENDMENTS TO H. R. 3544

Page 1, line 3, strike the following words: "and approval".
Page 1, line 3, after the word "of" insert the word "the".
Page 1, line 5, after the comma insert the words "which was".
Page 1, line 9, after the word "and" insert the words "which was".
Page 12, line 16, after the word "period" insert the word "from".
Page 20, line 20, place a period after the word "Chris" which appears in two places.
Page 21, line 1, strike the initial "R" and insert the initial "E".
Page 21, line 18, strike in two places the initial "K" and insert in two places the initial "E".
Page 22, line 2, strike in two places the initial "H" and insert in two places the initial "M".
Page 22, line 3, place quotation marks at the beginning of the paragraph.
Page 22, line 8, place quotation marks after the word "America".

0025

MT v. WY/M.T.D. App.
303 (WY)

Page 22, line 9, strike out the words "and repeal this act" and insert in lieu thereof "or repeal section 1 of this Act".

Page 22, line 10, after the period insert the following new sentence:

This reservation shall not be construed to prevent the vesting of rights to the use of water pursuant to applicable law and no alteration, amendment, or repeal of section 1 of this Act shall be held to affect rights so vested.

Amend the title so as to read as follows:

A bill granting the consent of Congress to a compact entered into by the States of Montana, North Dakota, and Wyoming relating to the waters of the Yellowstone River.

PURPOSE OF THE BILL

The negotiation of the Yellowstone River Basin compact was an important step toward full utilization of the waters of the Yellowstone River. The consent of the Congress to the compact entered into by the States of Montana, Wyoming, and North Dakota will be another forward move toward maximum beneficial use of these waters without unnecessary conflict between the States over the right to its use.

It has long been recognized that the maximum beneficial use of the water resources of the Yellowstone River in the Missouri River Basin is dependent upon the construction and operation of storage reservoirs. A plan for such reservoirs was set forth in Senate Document No. 191, Seventy-eighth Congress. If such a plan is to become a reality for the Yellowstone River Basin, construction of storage reservoirs will be required at sites at or near the Wyoming-Montana line so that the residual flows from Wyoming can be controlled for use in the lower States of Montana and North Dakota.

REASONS FOR THE AMENDMENTS

One of the reasons for the numerous amendments is to make H. R. 3544 conform to Senate bill 1311. Also, other amendments were made to correct H. R. 3544 so it reads exactly as the official copy of the compact adopted by the States.

EXPLANATION OF THE BILL

Article V of the compact is the article that sets out the apportionment of the benefits of the water resources of the basin among the signatory States that they have agreed upon. Extensive studies by an engineering committee, appointed by the commission to advise it, disclosed that little could be gained, from a water-supply standpoint, by attempting, in the compact, the regulation and administration of existing appropriative rights in the signatory States. (The engineering committee comprised the State engineers of the three States and two Federal engineers from the Bureau of Reclamation and the Bureau of Indian Affairs.)

Accordingly, paragraph A of article V recognizes the appropriative rights to the beneficial uses of the water of the Yellowstone River system existing in each signatory State as of January 1, 1950, and it permits the continued enjoyment of such rights in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation.

0026

Paragraph B of article V is the core of the compact. The following analysis of this paragraph is made:

(1) The unused and unappropriated waters of the interstate tributaries only are treated—i. e., the waters that are residual to those required for the enjoyment of the appropriative rights that are recognized in paragraph A of article V.

(2) The supplemental water supplies that are needed for the better enjoyment of the rights recognized in paragraph A of article V are given a preferred status over water supplies for new projects.

(3) The water that is residual after the enjoyment of the rights in paragraph A of article V and after the furnishing of the supplemental water supplies to the projects with the rights recognized in paragraph A are allocated to Wyoming and to Montana in stated percentages. I am informed that these percentages were calculated, in accordance with the recommendation of the engineering committee, by dividing the total of the potential and possible acres in Wyoming and in Montana by the total of the potential and possible acres in both States.

In paragraph C of article V, there is adopted a modified version of the divertible flow principle. Under the formula adopted, the apportionments stated in paragraph B are made operative in terms of cumulative volumes of water throughout a water year, fixed as October 1 of any year through September 30 of the succeeding year, in order to accommodate the new projects in the basin which must rely on storage water rather than on natural flow.

Considered with paragraph A of article V, paragraph D of article V gives to the lower Yellowstone Federal reclamation project in Montana and North Dakota the protection of a right existing on January 1, 1950. Additionally, paragraph D recognizes all rights to the beneficial use of water that existed in Montana and North Dakota on January 1, 1950, and that divert below Intake, Mont., and it permits the beneficial use of the flow of water of the Yellowstone River below Intake, Mont., on lands within Montana and North Dakota on a proportionate basis of acreage irrigated. This latter provision is important, particularly to North Dakota, because the flow of water of the Yellowstone River below Intake, Mont., will be residual water after the use of water above Intake, Mont. The flow will thus be not only a regulated flow, as a consequence of the construction and operation of the reservoirs at the strategic sites on the Big Horn River, the Tongue River, and the Powder River, but it will also include the return flows that are certain to appear below Intake, Mont., with the expansion of irrigation after storage water becomes available. The sharing of this residual flow by Montana and North Dakota, on a proportionate basis of acreage irrigated, will keep the new developments in the two States in balance and minimize future interstate disputes.

The inclusion in paragraph E of article V of special provisions relating to stock water ponds and to "devices and facilities for the control and regulation of surface waters" is a recognition of the importance of stock raising and modern soil conservation practices in the economy of the area. Neither of these items will adversely affect existing Federal projects in the basin. Item 2 of paragraph E, moreover, recognizes and rests upon the distinction between surface

0027

waters and appropriable waters. In other words, waters which diffuse over the land and do not flow intermittently or continually through and into natural water courses are permitted, so far as the compact is concerned, to be controlled and regulated by devices and facilities installed by the owner of the land on which such waters are diffused.

Paragraph F of article V amounts to a recognition that the allocations made in article V may have to be reconsidered from time to time so that they can be made to conform to demonstrated experience where that proves to be at variance with the calculated belief, such belief necessarily governing the allocations in the first instance.

Articles VII, VIII, and IX implement the use of allocations made in article V. Of particular interest is the provision in article VII expressly permitting diversions to be made and structures to be erected in one State for the benefit of users in another. The inclusion of this provision is in harmony with the decision of the Supreme Court in *Weiland v. Pioneer Irrigation Co.* (259 U. S. 498 (1922)). Also of importance is the phrasing of article VII, paragraph D, which, while providing that the use of allocated waters on Federal projects constructed after the date of the compact shall be charged to the State in which the water is used, does not attempt to limit the use of water in any of the States of the basin by the Federal Government.

Generally, article III is in line with the over-all purpose of an interstate compact to employ the methods of negotiation and arbitration rather than that of adjudication in interstate disputes, the negotiation and arbitration methods being the more adaptable to changing conditions.

The remaining articles of the compact are those usual in such an instrument and do not call for specific comment.

RIGHTS OF THE UNITED STATES ARE PROTECTED

The compact provides that its operation shall not "impair or affect the sovereignty or jurisdiction of the United States of America in and over the area of waters affected" by it or "any rights or powers of the United States of America, its agents, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin" or its capacity to acquire such rights, that it shall not be taken to "subject any property of the United States of America its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the compact," and that its terms do not cover "waters within or waters which contribute to the flow of streams within the Yellowstone National Park." The compact, moreover, provides that its terms shall not "be so construed or interpreted as to affect adversely any rights to the use of the waters of the Yellowstone River and its tributaries owned by or for Indians, Indian tribes, and their reservations." The water rights of the Indians were reserved by the Indians at the time of the creation of the respective reservations by the treaties entered into by the Indians with the United States. These Indian water rights have been recognized by the Supreme Court of the United States. The most important decision is the case of *Winters v. United States* (reported in 207 U. S. 564). This situation explains the inclusion of the language just quoted. A further safeguard to Federal

interests is to be found in section 2 of H. R. 3544—i. e., in the express reservation to Congress of its right to alter, amend, or repeal the act.

The favorable report of the Department of the Interior reads as follows:

UNITED STATES DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., September 27, 1951.

Hon. JOHN R. MURDOCK,
Chairman, Committee on Interior and Insular Affairs,
House of Representatives, Washington, D. C.

MY DEAR MR. MURDOCK: I have for report H. R. 3544, a bill granting the consent and approval of Congress to a compact entered into by the States of Montana, North Dakota, and Wyoming, relating to the waters of the Yellowstone River. The compact, as approved by the 1951 legislative assemblies of the signatory States, is set out in the subject bill.

One very important part of the plan of this Department for improvements in the Missouri River Basin set forth in Senate Document No. 191, Seventy-eighth Congress, and approved and authorized for construction in the acts of December 22, 1944 (58 Stat. 887, 891), and July 24, 1946 (60 Stat. 641, 653), is that of supplying new and supplemental water for the irrigation of well over 700,000 acres of land in the Yellowstone River Basin, the installation in that basin of more than 300,000 kilowatts of hydroelectric generating capacity, and provision of reservoirs for these and other purposes with a total capacity of more than 4,250,000 acre-feet. While these figures cannot be regarded as final, they are indicative of the great importance of that basin to the economy of the entire Missouri River Basin and of the Nation. The negotiation of the Yellowstone River Basin compact was, and the Congress' consent to it will be, an important step toward permitting realization of the basin's potentialities without bickering between the States.

The compact provides that its operation shall not "impair or affect the sovereignty or jurisdiction of the United States of America in and over the area of waters affected" by it or "any rights or powers of the United States of America, its agents, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin" or its capacity to acquire such rights, that it shall not be taken to "subject any property of the United States of America, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the compact," and that its terms do not cover "waters within or waters which contribute to the flow of streams within the Yellowstone National Park." The compact, moreover, provides that its terms shall not "be so construed or interpreted as to affect adversely any rights to the use of the waters of the Yellowstone River and its tributaries owned by or for Indians, Indian tribes, and their reservations." The water rights of the Indians were reserved by the Indians at the time of the creation of the respective reservations by the treaties entered into by the Indians with the United States. These Indian water rights have been recognized by the Supreme Court of the United States. The most important decision is the case of *Winters* v. *United States* (reported in 207 U. S. 564). This situation explains the inclusion of the language just quoted. A further safeguard to Federal interests is to be found in section 2 of H. R. 3544—i. e., in the express reservation to Congress of its right to alter, amend, or repeal the act.

It long has been recognized that the fuller use of the water resources of the Yellowstone River Basin contemplated in Senate Document No. 191 is dependent entirely upon the construction and operation of storage reservoirs to regulate and conserve the water yields of the principal streams of the basin. These streams, in addition to the Yellowstone River itself, are its four large interstate tributaries, each rising in Wyoming and flowing into Montana: The Clark's Fork, Yellowstone River; the Big Horn River; the Tongue River; and the Powder River. Of these streams, the Yellowstone River, which is the main stem of the river system of the Yellowstone Basin, needed little consideration in the negotiation of the compact because it is almost entirely in Montana and its water yield seems to be adequate for any program of feasible developments along its course, and the Clark's Fork, Yellowstone River, one of the tributaries, is not likely to experience water shortages. Hence, the problem streams are the three remaining large interstate tributaries. The elements that make these interstate tributaries problem streams are the existing irrigated developments and the potential and possible irrigated developments. (In this connection, I am advised that the compact commissioners recognized a distinction between potential developments

0029

and possible developments. Potential developments are those which, it was thought, are definitely feasible, while possible developments are those which could be developed only at a very high cost or for which a water supply seemed questionable.)

The practical accomplishment, in the circumstances, of an equitable apportionment of the benefits of the waters of the Yellowstone River system among the States of Wyoming, Montana, and North Dakota will require the construction, at strategic sites, at or near the Wyoming-Montana State line, of storage reservoirs so that the residual flows from Wyoming can be controlled and conserved for use in the lower States of Montana and North Dakota. Fortunately, such strategic reservoir sites are available on the Big Horn River, the Tongue River, and the Powder River.

Article V of the compact is the article that sets out the apportionment of the benefits of the water resources of the basin among the signatory States that they have agreed upon.

Extensive studies by an engineering committee, appointed by the Commission to advise it, disclosed that little could be gained, from a water-supply standpoint, by attempting, in the compact, the regulation and administration of existing appropriative rights in the signatory States. (The engineering committee comprised the State engineers of the three States and two Federal engineers from the Bureau of Reclamation and the Bureau of Indian Affairs.) Accordingly, paragraph A of article V recognizes the appropriative rights to the beneficial uses of the water of the Yellowstone River system existing in each signatory State as of January 1, 1950, and it permits the continued enjoyment of such rights in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation.

Paragraph B of article V is the core of the compact. The following analysis of this paragraph is made:

(1) The unused and unappropriated waters of the interstate tributaries only are treated—i. e., the waters that are residual to those required for the enjoyment of the appropriative rights that are recognized in paragraph A of article V.

(2) The supplemental water supplies that are needed for the better enjoyment of the rights recognized in paragraph A of article V are given a preferred status over water supplies for new projects.

(3) The water that is residual after the enjoyment of the rights in paragraph A of article V and after the furnishing of the supplemental water supplies to the projects with the rights recognized in paragraph A are allocated to Wyoming and to Montana in stated percentages. I am informed that these percentages were calculated, in accordance with the recommendation of the engineering committee, by dividing the total of the potential and possible acres in Wyoming and in Montana by the total of the potential and possible acres in both States.

In paragraph C of article V, there is adopted a modified version of the divertible flow principle. Under the formula adopted, the apportionments stated in paragraph B are made operative in terms of cumulative volumes of water throughout a water year, fixed as October 1 of any year through September 30 of the succeeding year, in order to accommodate the new projects in the basin which must rely on storage water rather than on natural flow.

Considered with paragraph A of article V, paragraph D of article V gives to the lower Yellowstone Federal reclamation project in Montana and North Dakota the protection of a right existing on January 1, 1950. Additionally, paragraph D recognizes all rights to the beneficial use of water that existed in Montana and North Dakota on January 1, 1950, and that divert below Intake, Mont., and it permits the beneficial use of the flow of water of the Yellowstone River below Intake, Mont., on lands within Montana and North Dakota on a proportionate basis of acreage irrigated. This latter provision is important, particularly to North Dakota, because the flow of water of the Yellowstone River below Intake, Mont., will be residual water after the use of water above Intake, Mont. The flow will thus be not only a regulated flow, as a consequence of the construction and operation of the reservoirs at the strategic sites on the Big Horn River, the Tongue River, and the Powder River, but it will also include the return flows that are certain to appear below Intake, Mont., with the expansion of irrigation after storage water becomes available. The sharing of this residual flow by Montana and North Dakota, on a proportionate basis of acreage irrigated, will keep the new developments in the two States in balance and minimize future interstate disputes.

0030

The inclusion in paragraph E of article V of special provisions relating to stock water ponds and to "devices and facilities for the control and regulation of surface waters" is a recognition of the importance of stock raising and modern soil conservation practices in the economy of the area. Neither of these items will adversely affect existing Federal projects in the basin. Item 2 of paragraph E, moreover, recognizes and rests upon the distinction between surface waters and appropriable waters. In other words, waters which diffuse over the land and do not flow intermittently or continually through and into natural water courses are permitted, so far as the compact is concerned, to be controlled and regulated by devices and facilities installed by the owner of the land on which such waters are diffused.

Paragraph F of article V amounts to a recognition that the allocations made in article V may have to be reconsidered from time to time so that they can be made to conform to demonstrated experience where that proves to be at variance with the calculated belief, such belief necessarily governing the allocations in the first instance.

Articles VII, VIII, and IX implement the use of allocations made in article V. Of particular interest is the provision in article VII expressly permitting diversions to be made and structures to be erected in one State for the benefit of users in another. The inclusion of this provision is in harmony with the decision of the Supreme Court in *Weiland* v. *Pioneer Irrigation Co.* (259 U. S. 498 (1922)). Also of importance in the phrasing of article VII, paragraph D, which, while providing that the use of allocated waters on Federal projects constructed after the date of the compact shall be charged to the State in which the water is used, does not attempt to limit the use of water in any of the States of the basin by the Federal Government.

I regret the spirit of localism that induced the inclusion in article X of a provision that "No water shall be diverted from the Yellowstone River Basin without the unanimous consent of all the signatory States." Though I agree that preference in the use of water resources ought generally to be given to the basin of origin, it is hard for me to believe that this is more than a generally desirable rule, let alone that any deviation from a very tight version of it should require the sanction of three State legislatures. Much as I regret its inclusion, however, I do not believe that it warrants a refusal by the Congress to enact H. R. 3544. The same is true of that portion of paragraph A of article III which provides for selection of the United States representative on the Yellowstone River Commission by the Director of the Geological Survey rather than by the President of the United States, that portion of paragraph D of the same article which purports to cast certain duties on specified Federal officials, and that portion of paragraph G of the same article which provides that the Yellowstone River Commission "shall have power to sue and be sued in its official capacity in any Federal court of the signatory States." All of these are matters which should properly be dealt with in Federal legislation rather than in a compact and the last may raise some interesting constitutional questions in the future.

As between the States of Wyoming and Montana—North Dakota being excepted in accordance with its wishes—the compact, in article III, is to be administered by a commission composed of a representative from Wyoming and a representative from Montana, each to be selected by the Governor in the manner that the State may choose, and, as I have already noted, one representative selected by the Director of the United States Geological Survey or whatever Federal agency may succeed to the functions and duties of that agency. The Federal official is to act as chairman of the commission, but he is not to vote except upon matters and points upon which the States' representatives may be in disagreement.

Generally, article III is in line with the over-all purpose of an interstate compact to employ the methods of negotiation and arbitration rather than that of adjudication in interstate disputes, the negotiation and arbitration methods being the more adaptable to changing conditions.

The remaining articles of the compact are those usual in such an instrument and do not call for specific comment.

From the advice that has been given to me, it is my belief that the apportionment agreed upon by the compact commission was entered into with due inquiry, that it is an honest exercise of judgment, and that it is equitable.

I invite your committee's attention to two minor differences between H. R. 3544 and S. 1311, its Senate companion. In line 3, page 1, of H. R. 3544, the "consent and approval" of the Congress is given to the compact; in line 3, page 1, of S. 1311, the "consent" of the Congress is given. The latter follows the

0031

language of the Constitution, and is therefore, I believe, to be preferred. Section 2 of H. R. 3544 merely states an express reservation of the Congress' right to alter, amend, or repeal the act; section 2 of S. 1311 couples this with a declaration that "This reservation shall not be construed to prevent the vesting of rights to the use of water pursuant to applicable law and no alteration, amendment, or repeal of section 1 of this act shall be held to affect rights so vested." Though I believe that this additional language is not strictly necessary, it will, I believe, serve to allay doubts and fears. I, therefore, recommend that section 2 of H. R. 3544 be amended to conform to the language adopted in section 2 of S. 1311.

I have been advised by the Bureau of the Budget, in connection with S. 1311, that the Department of Justice recommends revision of the bill to include provision that the Congress' consent to the Yellowstone compact "does not in any way subject the United States to the terms of the compact or affect its sovereignty, jurisdiction, power, authority, rights to the use of water, property, prerogatives, or responsibilities in, to, or over the Yellowstone River and its tributaries." I have been further advised by the Bureau of the Budget that, subject to consideration by the Congress of certain other comments contained in a letter dated September 14 from its Acting Director to Senator O'Mahoney, a copy of which is attached, "there would appear to be no objection to enactment of S. 1311 if amended to assure the protection of the interests of the United States as recommended by the Department of Justice." This advice is, I believe, equally applicable to H. R. 3544, the enactment of which I recommend with such amendments as are required in the light of the views expressed by Mr. Staats in the letter just referred to.

The Bureau of the Budget has advised that there is no objection to the submission of this report to your committee.

Sincerely yours,

OSCAR L. CHAPMAN,
Secretary of the Interior.

Enclosure.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., September 14, 1951.

Hon. JOSEPH C. O'MAHONEY,
United States Senate, Washington, D. C.

MY DEAR SENATOR O'MAHONEY: Receipt is acknowledged of your letter dated April 12, 1951, requesting our report on S. 1311, a bill granting the consent of Congress to a compact entered into by the States of Montana, North Dakota, and Wyoming relating to the waters of the Yellowstone River.

In response to my request for the views of the Department of Justice, the Deputy Attorney General indicates that while article XVI of the compact is apparently designed to protect the interests of the United States, the language used is rather ambiguous. The preservation of the rights of the United States is rendered somewhat obscure due to the possible conflicting interpretations of the terminology "area of waters" in the language "To impair or affect the sovereignty or jurisdiction of the United States of America in or over the area of waters affected by such compact, any rights or powers of the United States of America, its agencies, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters."

He also calls attention to article V, B, of the compact under which the signatory States allot themselves all "unused and unappropriated waters of the interstate tributaries of the Yellowstone River" as possibly depriving the United States of the use of surplus water it has been anticipated would flow into the Missouri River.

Also in the Deputy Attorney General's opinion, the broad authority contained in the provision that the commission may sue and be sued might be construed, in view of the Federal representative thereon, to indicate that the Federal Government has waived its sovereign immunity from suit.

Finally, he recommends that in the event Congress should desire to approve the compact as drafted, such approval be essentially in the following language:

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That approval by the Congress is hereby given to the Yellowstone River Compact: *Provided, however,* That this approval of the Compact does not in any way subject the United States to the terms of the Compact or affect its sovereignty, jurisdiction, power, authority, rights to the use of water, property, prerogatives, or responsibilities in, to, or over the Yellowstone River and its tributaries."

0032

The Secretary of the Interior, in his proposed report on H. R. 3544, the companion bill to S. 1311, expresses the opinion that the provisions in the compact for the selection of the Federal representative by the Geological Survey rather than the President and that the commission should be subject to suit are regrettable and that the latter "may raise some interesting constitutional questions in the future."

Similarly, conflicting provisions appearing in previously consummated compacts prompted the President on May 3, 1950, to write the Federal representatives on various compact commissions cautioning them to exert all efforts to eliminate or correct the areas of possible conflict which might impose restrictions on the use of waters by the United States.

This office is in agreement that the compact method is the proper and logical manner for States to allocate the waters of interstate streams. It is essential, however, that such compacts include adequate provisions to preserve the rights and interests of the United States and for appointment by the President of a Federal representative as a member of the compact commission. Since the Yellowstone River compact which would be approved by S. 1311 has been ratified by the States of Montana, North Dakota, and Wyoming, it may not now be feasible of revision to provide for the selection of the Federal representative by the President rather than by Geological Survey. While I believe that as a general rule the former is preferable, there may be some question whether in this case the resubmission of the compact to the States to provide for selection of a Federal representative by the President rather than by Geological Survey is justified. It is of fundamental importance, however, that the compact protect the rights and interests of the United States in these waters. The language of the proposed amendment to the bill prepared by the Department of Justice would seem to provide such protection. Accordingly, subject to the consideration of the above comments by the Congress, there would appear to be no objection to enactment of S. 1311 if amended to assure the protection of the interests of the United States as recommended by the Department of Justice.

Sincerely yours,

ELMER B. STAATS, *Acting Director.*

The Committee on Interior and Insular Affairs unanimously recommends the enactment of H. R. 3544.

O

0033

YRCC Meeting Minutes
of December 7-8, 1950

RECEIVED
JAN 17 1951
STATE ENGINEER
Cheyenne, Wyo.

Jan. 2[illegible] 1951

To all members of the Yellowstone River Compact Commission

Gentlemen:

Enclosed is a copy of the Final Minutes of the [illegible] session of the Commission, held December 7-8, 1950. [illegible] is felt now certain that a meeting will be held on March [illegible] and by unanimous [illegible] was voted as to call for corrections or additions by mail. If you have any such corrections or additions please send them to me by February 15, 1951. If of that date the minutes will be published as they be received approved by the Chairman and become available for his use in the report we must file by the proceedings.

Also enclosed is a copy of the Commission [illegible] which has been furnished to each state engineer and requests for certificates service would be addressed to their offices.

Sincerely yours,

[signature]

[illegible]
Secretary

YELLOWSTONE RIVER COMPACT COMMISSION

Billings, Montana

May 21, 1951

To all Members of the Yellowstone River Compact Commission

Gentlemen:

In preparing final sets of minutes for Mr. Newell's use in making his report, certain mechanical errors in the draft minutes have been corrected. Also some corrections have been made in the draft minutes of the last meeting. In order that you may conform your sets of minutes to the official sets the corrections are listed below. New pages are enclosed as indicated for insertion. The word "DRAFT" on the first page of each set of minutes should be deleted.

November 23, 1949

page 3, line 16	- comma after "facilities", period at end of line
page 6, line 13	- commas before and after "comparatively"
page 10	- insert revised page
page 16, add at end	- "Approved: R. J. Newell, Chairman February 1, 1950"
Attendance list	- should be "E. J. Johnson" not "Johnston"

February 1-2, 1950

page 7	- insert revised page
page 11, add at end	- "Approved: R. J. Newell, Chairman October 24, 1950"

October 24-25, 1950

page 2, last par., line 4	- change "Big Horn" to "Bighorn"
page 3	- insert revised page
page 5, line 12	- insert comma before "Montana"; delete comma after "Montana"
page 9, line 13	- delete comma after "consideration"
page 16, line 9	- change "Mr Myers" to "Mr. Myers"
page 18, add at end	- "Approved: R. J. Newell, Chairman December 7, 1950"

0036

December 14, 1950

Page 7, last par., line 1 - delete comma after "Grade"
Pages 7, 8, 9, 10, 11, 12 - Insert numbered pages
Page 13, end of end - "U. S. Reclamation Commissioner"

Approved: R. F. Newell, Chairman
January 11, 1951

No attempt has been made to conform to the official usage "Bighorn" and "Little Bighorn" in the first two sets of minutes. The last two sets (and the Compact) do conform.

The following documents which have already been distributed are being made a part of the official sets of minutes.

(a) Engineering Committee report with maps
(b) Addendum of September 27, 1950
(c) Engineering Committee report of October 25, 1950
(d) Burbo's draft of compact
(e) Leonard's draft of compact
(f) Engineering Committee draft of compact

The McNally-Newell draft and the Myers draft were mentioned in the meeting of October 24-25, 1950, but were never presented to the Commission, duplicated nor distributed. They are, therefore, not included with the minutes.

The compact has been, as you probably know, ratified by all three states, and legislation giving the consent of the United States has been introduced in the Congress. A copy of Mr. Newell's report to the Congress is enclosed for your information.

Copies of the Compact have been bound with a paper cover, a title page, and a page at the end to show dates of ratification and consent. When the Congress gives its consent, that date will be inserted and copies will be sent to those who request them. A supply will also be sent to each state engineer for distribution.

Sincerely yours,

O. C. Rucker, Secretary
c/o Bureau of Reclamation
P.O. Box 2130
Billings, Montana

Enclosure

0037

RECEIVED
JAN 17 1951
STATE ENGINEER
Cheyenne, Wyo.

YELLOWSTONE RIVER COMPACT COMMISSION

Minutes of Meeting
Dec. 7-8, 1950

The fourth meeting of the Yellowstone River Compact Commission was held at the Northern Hotel at Billings, Montana on December 7 and 8, 1950, and was called to order at 10:15 a.m. by R. J. Newell, Chairman.

The Chairman announced that Dr. Renne, President of the Montana State College, and a member of the President's Water Resources Policy Commission, had been appointed as a new Commissioner from Montana.

The Chairman pointed out that the minutes of the third meeting had been distributed and asked if there were any corrections. There being none, the minutes were declared approved.

The Chairman stated that the meeting had been called for the purpose of considering the draft of Compact prepared by the Engineering Committee with the advice and assistance of Mr. Burke, pursuant to instructions given at the third meeting, and distributed to the Commissioners by mail. He stated that the draft would be read and considered, article by article, and that as rapidly as possible a Compact would be finally typed for approval as a whole.

Mr. Burke asked that the State Engineers furnish by noon lists of the Commissioners from the respective states with the names as they are to appear in the Compact.

The introduction and Article I were separately read, and as to each a motion was made, seconded, and carried that it be approved.

Article II was read. Mr. Lloyd moved to amend paragraph H by putting a period after the word "man" in line 3 and deleting the balance of the paragraph. The motion was seconded. There was discussion as to the purpose of the amendment and the reasons therefor. Mr. Lloyd explained the recent change in the Cheyenne River Compact and the attitude taken by various Federal Agencies in connection with that Compact. The motion was passed.

The Chairman pointed out that the National Park Service had recommended that in paragraph C the lands lying within Yellowstone National Park be excluded. Mr. Clemans moved to replace the period at the end of paragraph C with a comma and add the following: "and exempting lands within Yellowstone National Park." The motion

was seconded and discussed. Mr. Greene moved to amend the motion by revising the added language to read "but excludes those lands lying within Yellowstone National Park." The motion was seconded and passed.

Paragraph C was approved as amended.

It was announced that certain changes in spelling would be made in Article II and throughout the Compact to conform to current official usage.

A motion was made, seconded, and carried that Article II as amended in paragraphs C and H be approved.

Article III, paragraph A, was read and discussed. Paragraph F was also read for reference. It was moved and seconded that paragraph A be approved. Mr. Metz raised the question as to whether serious problems involving the administration of the Compact should be left to the vote of one man in the case of disagreement between the two state representatives.

Mr. Bunston suggested striking the expression "Director of the United States Geological Survey" and substituting "Secretary of the Interior." Mr. Vernon recommended that the language stand as drafted. Mr. Burke spoke of the importance of setting up machinery for resolving disagreements as pointed out by Mr. Metz and recommended that the Director of the Geological Survey appoint the third member of the Commission. Mr. Metz raised the question as to the desirability of having a larger Commission, say five or seven, possibly composed of representatives of the major watersheds. Mr. Jones stated that he felt that the matter had been adequately discussed at the October meeting. Dr. Renne asked whether a single state representative would not properly reflect the feelings of the affected areas of the state. Mr. Metz indicated that his only interest in discussing the matter was to insure that it had been thoroughly considered and that the solution arrived at was the best to protect the interests of all concerned.

Mr. Burke commented that at the October meeting he had argued for including North Dakota on the Commission in order to keep the balance of power within the states rather than having it pass to an outside representative, and suggested that if that were not desired it might be proper to provide that the Governors of the two states, in the event of disagreement, should agree on a third party to sit on the Commission. Mr. Metz supported Mr. Burke.

Mr. Thornton objected to the imposition on North Dakota of requiring that state to participate in the cost of administration.

0039

MT v. WY/M.T.D. App.
168 (WY)

Mr. Kurtz pointed out the opportunity of recourse to the courts under Article XIII of the Compact if there was disagreement or dissatisfaction with the actions of the Commission. Mr. Leonard suggested that North Dakota not be represented on the Commission because of the lack of interest of that state in most of the administrative problems which would arise between Montana and Wyoming. He favored having a Bureau of Reclamation representative on the Commission rather than one from the Geological Survey, but did not propose to press the matter.

Paragraph A was approved.

Paragraphs B and C were read, and as to each a motion was made, seconded, and carried that it be approved.

Paragraph D was read. It was moved and seconded that the paragraph be approved. Mr. Metz asked whether paragraph D added anything to the Compact, and Mr. Burke pointed out that the provision was of particular help in getting appropriations for Federal Agencies to perform the specific functions listed. Mr. James pointed out certain objections of the Department of Agriculture to the language of paragraph D. Messrs. Lloyd and Person stated that similar language in the Cheyenne River Compact was modified. There was further discussion. Mr. Clemans referred to a suggestion by the National Park Service that the phrase "to the extent of available funds" be inserted after the word "ex officio" in line 7. Dr. Renne moved that the suggestion be approved. The motion was seconded, but after some discussion withdrawn.

The Chairman stated that the Corps of Engineers had pointed out that proper terminology would be "The Secretary of the Army" rather than the "Secretary of Defense" and indicated that the change would be made. Paragraph D was approved.

Paragraph E was read. A motion was made, seconded, and passed that the paragraph be approved.

Paragraph F was read. A motion was made and seconded to approve. There was discussion on the need for clarification of the term "Federal representative" and the desirability of adding after the word "representative" in line 3 the expression "(excepting those acting ex officio)." After some discussion Dr. Renne moved to insert in place of "Federal representative" in line 3 the following: "member selected by the Director of the United States Geological Survey."

The motion was seconded and carried. A motion was made, seconded, and carried that a similar change be made in the last two lines of the paragraph.

Paragraph F was approved.

Paragraph G was read. A motion was made and seconded to approve. Upon a question by Mr. Bower Mr. Burke explained why the term "Federal Court" was used. There was some discussion. The paragraph was approved.

Article IV was read. A motion was made, seconded, and passed that the Article be approved.

At 12:05 the Commission recessed until 1:30.

The meeting reconvened at 1:40 p.m.

Article V, paragraph A was read. A motion was made, seconded, and carried that the paragraph be approved.

Paragraph B was read. A motion was made and seconded to approve the paragraph. Mr. Bunston commented on the language and suggested that it should be the same as in paragraph A. Mr. Burke discussed the basis on which the Compact was drafted and the general theory of the Compact. Yields of the basin are to be burdened by (1) existing appropriative rights and (2) supplemental water for existing developments. The remainder, the unappropriated and unused water, or residual water, is to be compacted. He called attention to an ambiguous situation in the language of paragraph B respecting supplemental water rights and suggested rewriting paragraph B as follows:

> B. Of the unused and unappropriated waters of the interstate tributaries of the Yellowstone River as of January 1, 1950, there is allocated to each signatory state such quantity of that water as shall be necessary to provide supplemental water supplies for the rights described in paragraph A of this Article V, such supplemental rights to be acquired and enjoyed in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation, and the remainder of the unused and unappropriated water is allocated to each State for storage or direct diversions for beneficial use on new lands or for other purposes as follows:

0041

MT v. WY/M.T.D. App.
170 (WY)

Mr. Bower moved to substitute Mr. Burke's proposed language in place of the draft provision and to delete paragraph E 2 of Article V. The motion was seconded. There was discussion of the meaning of the terms "tributaries" and "interstate tributaries," Mr. Bunston expressed concern over the possible drying up of intrastate tributaries in Wyoming and the consequent reduction of interstate tributaries. Mr. Humpherys asked about the effect of hold-over storage in connection with supplemental supplies. The question was discussed by Mr. Burke. There was further discussion of the general question involved, particularly with respect to supplemental water. The language proposed by Mr. Burke was approved, and paragraph B as modified was approved.

Paragraph B 1 was read, and a motion to approve was made, seconded, and carried.

Paragraph B 2 was read. A motion to approve was made and seconded. Mr. Manning stated that he favored this paragraph. Mr. Humpherys asked that it be clearly understood that he was acting for the Bureau of Indian Affairs only in the capacity of obtaining information for consideration by the Bureau and relaying the comments of the Bureau, and was not in a position to approve any action taken. Mr. Bunston asked whether water for Indian lands would be supplied from the allocation to each state or would be provided for prior to allocation. Mr. Lloyd said that he intended to propose with respect to Article VI that water for Indian lands should be charged to the states. There was discussion by Messrs. Bower and Bunston. Mr. Myers stated that the percentage division provided for in the Compact draft was based on lands potentially irrigable whether Indian or non-Indian. Mr. Thornton discussed this provision. Mr. Humpherys pointed out ways in which this Compact differs from others, in that it refers to unused water and as yet undeveloped land, and that the language suggested for Article VI recognized this difference. He stated that he was instructed to wire the Bureau of Indian Affairs in the event a change is desired in Article VI in order that a proper recommendation may be made by that Bureau. There was further discussion by Messrs. Bunston and Vernon. It was pointed out that if use of water on Indian lands is to be provided for prior to allocation, the percentages would have to be changed. Mr. Bunston proposed providing for Indian Treaty rights in a block, prior to allocation. Mr. Metz stated that it was his opinion that the Engineering Committee's determination of irrigable areas on which the allocation is based was a correct determination and should be accepted. Mr. Leonard referred to previous compact drafts and the manner in which the problem was handled therein, and also to the Burke draft of April 1950. He suggested that Article VI be modified so that Indian rights would be provided for prior to allocation. Mr. Manning stated that he had thought in reading the Compact that Indian rights were to be so provided for. He discussed the effedt of this on the

MT v. WY/M.T.D. App.
171 (WY)

0042

percentages to be used in the allocation and asked whether this effect had been considered in the engineering studies. Mr. Myers stated that it had been.

A recess was taken for twenty minutes.

Mr. Burke discussed the general situation respecting the potential irrigable land and the basis used for determining percentages. He analyzed the application of Article VI in the event of inaccurate determination by the Engineering Committee. Mr. Myers pointed out that engineering and economic factors which determine irrigability are the principal check on the use of water. This position was supported by Mr. Hanna. Mr. Burke discussed provisions in other compacts and their manner of application. Paragraph B 2 was approved. Messrs. Manning and Bunston reserved their votes.

Paragraph B 3 was read, and a motion to approve was seconded and carried.

Paragraph B 4 was read. A motion was made and seconded to approve. Mr. Metz asked where the last diversion was on the Powder River above its mouth. In answer Mr. Myers pointed out the point might shift as new land was developed and that the Compact provisions were so drawn so as to permit taking account of such a shift. The paragraph was approved.

Paragraph C was read. Mr. Burke suggested, as clarifying language which should have been included in the original draft, that the word "above" in the first line be stricken, a comma added after "allocations", and the following wording: "in paragraph B1, 2, 3 and 4 of this Article V,". A motion was made, seconded, and carried to approve the paragraph as clarified.

Paragraph C 1, C 2, C 3, and C 4 were read, and as to each a motion was made, seconded, and carried that it be approved.

Paragraph V D was read. It was moved and seconded to approve. There was discussion as to the desirability of placing Montana and North Dakota on the same basis in the last sentence of the paragraph. A motion was made and seconded to amend the last sentence to read "Waters of tributary streams, having their origin in either Montana or North Dakota, situated entirely in said respective states and flowing into the Yellowstone River below Intake, Montana, are allotted

MT v. WY/M.T.D. App.
172 (WY)

0043

to the respective states in which situated." The motion was carried, and the paragraph as amended was approved.

Paragraph E 1 was read, and a motion was made and seconded to approve. Mr. Lloyd said that he had language to propose for E 2 as follows: "Spreader dams, dikes, and other structures which do not permanently store water." Mr. Jones suggested that these would be covered under paragraph V A. There was discussion. Mr. Burke suggested that the purpose might be accomplished by modifying E 1 to insert after "water" and before the colon language "by whatsoever means accomplished." There was discussion of the general problem of spreaders and the extent to which they might reduce the flow. The desirability of such structures as a conservation measure was pointed out together with the difficulty of determining the overall effect on water production. Mr. Vernon suggested a possible size limitation on any one spreader device. Mr. Humpherys pointed out that on the Gila River spreader devices and stock ponds were extensively used and caused serious depletions, and that the Department of the Interior took an adverse view toward the exclusion of such devices. There was further discussion of the extent of depletions and whether general policy should be changed to cover these spreaders specifically. The question was raised as to whether the waters used were subject to appropriation. Mr. Jones expressed an affirmative view. Mr. Leonard referred to the S-H Ranch on the Tongue River which had no storage but extensive diversions. At the request of the Chairman, Mr. James explained the general problem of spreader dams which constitute a major potential development within the Missouri River Basin. He pointed out that while they will cause some depletion on the stream they will increase low water flows, reduce floods, and lessen erosion and sedimentation of reservoirs. The question was raised as to the right of an individual to build spreaders on dry gulches in order to save soil and reduce flash floods. Mr. James indicated that he did not feel that either state would be particularly benefited in the event spreader devices were excluded from the Compact. Mr. Kurtz suggested language along the following lines: After "water" and before the colon in E 1 "provided further there is excluded from this Compact spreader dams not exceeding four feet in height," or "there is excluded herefrom dams placed in the channel of dry streams as a conservation measure and not exceeding four /or five/ feet in height." Mr. Burke suggested excluding "devices and facilities for the control by the land owner of surface water," but suggested that water in a natural water course should be subject to existing law. Paragraph E 1 was approved.

There was further discussion with respect to spreader devices, and it was reiterated that there was general approval of such devices as a conservation measure, but that their overall effect on stream flow was not known. Mr. Burke urged that in discussion a distinction be

MT v. WY/M.T.D. App.
173 (WY)

0044

maintained between "control and regulation of water" and "use of water." He suggested as paragraph E 2 the following: "Devices and facilities for the control and regulation of surface water." Mr. Bower moved that Mr. Burke's language be adopted. The motion was seconded and carried.

Paragraph V F was read, and a motion was made and seconded to delete. After some discussion as to the desirability of the provision, the motion was withdrawn, and a motion made, seconded, and carried to approve.

Article VI was read. A motion was made and seconded to approve. Mr. Leonard moved to amend by deleting the period, adding a comma in the following: "and such rights are excluded from this Compact." The motion was seconded. Mr. Humpherys pointed out the effect of the proposal and the difficulty of determining exactly what was being excluded. Mr. Myers expanded on the problem of existing and potential development and the difficulties encountered by the Engineering Committee in analyzing the problem. Mr. Bower spoke in opposition to the amendment. Mr. Bunston suggested passing this question and moving on to the balance of the Compact. Mr. Leonard explained his position that the existing language might adversely affect Montana rights, but would not adversely affect Indian rights. He felt that the Legislature of Montana would not approve a Compact in which Indian rights would be provided for out of the allocation to the state. A vote was taken on the motion to amend which was declared lost. Upon request from the floor, the Montana Commissioners opposed to the motion were asked to stand. There was some further discussion, following which the Montana Commissioners favoring the amendment were asked to stand. Mr. Leonard stated that it appeared to him that the Montana group favored the amendment.

Mr. Thornton (ND) pointed out that this was the first time in the series of meetings discussing this particular Compact that the question of exclusion of Indian rights had been raised. There was discussion as to the relative use of water by Indians and non-Indians, both now and in the future. Mr. Bunston expressed concern that future use by Indians might not be limited to presently projected use as estimated by the Engineering Committee, but might become relatively unlimited. Mr. Bower stated that he saw no difference between excluding or recognizing rights, that neither one would affect the rights of the Indians which would have to be taken care of. Mr. Humpherys said that as an individual lawyer he had never understood that any court had held that the rights of Indians were unlimited, but that they were subject to the general requirements as to reasonable

beneficial use in the same way as other rights. He suggested that as time goes on the Indians, as well as others, will learn better methods of agriculture and irrigation with probable reduction in water requirements. A vote was taken on Article VI, which was declared approved. Mr. Bunston reserved his vote.

Mr. Leonard pointed out that Montana had voted for the admendment and that approval of Article VI under the circumstances was impossible. There was further discussion, during which Mr. Greene suggested a recess to consider the matter. Mr. Bunston advised continuing. Mr. Jones stated that he intended to stand by his vote at the October meeting, which favored the present language of Article VI. Mr. Humpherys agreed that there was some possibility that the potentially irrigable land owned by Indians might be increased, that the language of Article VI was drafted on the promise that the engineering and other data were accurate. In the Upper Colorado River Compact sessions at Vernal, New Mexico, was allotted 11½ percent of the water. The potential requirements of the Navajo Reservation could utilize more than this amount. Mr. Humpherys was assigned to negotiate as to the portion of the New Mexico allocation which would go to the Navajos. He said that in all of the negotiations it had never occurred to him that the Navajos would propose to use more than their share at the expense of other users. This situation is similar. If there are errors in the areas determined by the Engineering Committee they can and should be rectified.

At 6:05 the meeting recessed until 8:00 p.m.

The meeting reconvened at 8:15. Paragraphs VII A, B, and C were read, and as to each a motion was made, seconded, and carried that it be approved.

Articles VIII and IX were read, and as to each a motion was made, seconded, and carried that it be approved.

Article X was read, and the motion was made and seconded to approve. There was discussion. Mr. Leonard read a proposal which would require unanimous agreement of all the states prior to diversions from the Yellowstone Basin and moved to amend the Article by deleting the period, adding a comma, and the following: "but no water shall be diverted from the Yellowstone River Basin or from one tributary basin thereof to another without the unanimous consent of all the signatory states to this Compact, excepting that where such diversions already exist by reason of water works already constructed the same are excepted from the provisions of this Article." Mr. Leonard agreed to eliminate the language affecting "from one tributary basin to

MT v. WY/M.T.D. App. 175 (WY)

0046

another" and the provision relative to existing works. Mr. Vernon objected to the inclusion of language which would tie the hands of persons planning future developments, following which there was general discussion of the desirable and undesirable features of restrictions of this nature by Messrs. Buck, Renne, and others. Mr. Kurtz questioned whether the amendment was applicable to Article X or should be included in some other article. Mr. Burke indicated that he felt the amendment might cause difficulty unless the entire article were clarified. Mr. Leonard's motion was declared lost for want of a second.

It was moved by Mr. Kingsbury and seconded that Article X be amended by inserting as the first sentence the following: "No water shall be diverted from the Yellowstone River Basin without the unanimous consent of all the signatory states.". The motion was carried. The Chairman suggested changing the word "drainage" to "river" in the first line, and this was agreed to. Article X as amended was approved.

Mr. Bower proposed the following language as a new Article XI and moved its adoption: "Subject to the provisions of this Compact, water of the Yellowstone River system may be impounded and used for the generation of electrical power, but such impounding and use shall be subservient to the use of such waters for agricultural and domestic purposes and shall not interfere with or prevent use for such dominant purpose." The motion was seconded. There was discussion of the meaning and effect of the proposal, including the question as to whether a junior irrigation right would take precedence over a senior power right. It was suggested that in the event of water shortage for irrigation, power water might be cut in order to provide for irrigation needs. There was discussion of reclamation feasibility and repayment by Messrs. Vernon and Renne. Mr. Kurtz pointed out the need for power for industrial development in Wyoming and the danger of jeopardizing such development in the event of removal of water from power production use. Mr. Burke discussed the legal implications of the proposal, referring to the provisions of Wyoming law and the decisions of Montana courts. He also discussed the question of Federal control of water and the various aspects of Federal water development.

Reference was made to a letter sent to Mr. Newell by the President, which discussed certain aspects of recently negotiated compacts which tended to restrict the activities of the United States in the development of water resources, particularly power generation. The letter pointed out that inclusion of such provisions might jeopardize the prospect of consent and approval of compacts, and urged that the Federal Representative use his influence to see that such provisions

MT v. WY/M.T.D. App.
176 (WY)

0047

were not included. Copies of this letter and supporting documents were sent to all Commissioners on June 1, 1950. Inquiry was made as to whether it would be likely that a Compact containing such a provision would be vetoed, and Mr. Burke said that he would forecast such a veto. In discussions which followed Mr. Burke analyzed Section 8 of the Reclamation Act of 1902 and the Supreme Court Decision in the Three-State Case. Dr. Renne suggested emphasizing the importance of irrigation without prohibiting or operating against other uses. There was further discussion by Messrs. Bower and Jones. The latter mentioned the practical political problem in Montana. Mr. Bunston asked about the application of the Flood Control Act of 1944, to which Mr. Burke replied that the only pertinent provision of this Act was with respect to navigation and related to irrigation, mining, and industrial uses, but that power was not mentioned. Mr. Bower further discussed the overall situation, and he and Mr. Burke analyzed the practical political problem in Wyoming. Mr. Manning pointed out the need of power for pumping, and Mr. Vernon further discussed the question of Reclamation operations. Mr. Bower withdrew his motion with the consent of the second.

It was moved, seconded, and carried that Article XI be approved.

Articles XII and XIII were read, and as to each a motion was made, seconded, and carried that it be approved.

Dr. Renne read a policy statement, which was discussed and somewhat modified as to wording, and moved to amend the policy statement at the beginning of the Compact by inserting after "thereof," in the middle of the ninth line the following language: "acknowledging that in future projects or programs for the regulation, control, and use of water in the Yellowstone River Basin the great importance of water for irrigation in the signatory states shall be recognized,". The motion was seconded and carried.

Article XIV was read, and a motion was made and seconded to approve. Upon question Mr. Burke discussed the reason for such a provision in the Compact. The Article was approved.

Article XV was read, and a motion was made, seconded, and carried to approve.

Article XVI was read. A motion was made, seconded, and carried to approve. The Chirman stated that the Department of the Army had suggested revision by inserting after the word "affect" in the first line the following: "the sovereignty or jurisdiction of

the United States of America in or over the area of waters affected by such Compact, or ". A motion was made, seconded and carried to adopt this language. Article XVI as amended was approved.

Articles XVII and XVIII were read, and as to each a motion was made, seconded, and carried that it be approved.

Mr. Lloyd suggested adoption of a new Article VII as follows: "The use of water allocated under Article V of this Compact for projects constructed after the date of this Compact by the United States of America or any of its agencies, instrumentalities, or wards shall be charged as a use by the state in which the use is made; provided that such use incident to the diversion, impounding, or conveyance of water in one state for use in another shall be charged to such latter state." A motion was made and seconded to adopt this language as paragraph VII D. There was discussion during which Mr. Leonard objected to the use of the words "or wards". Mr. Burke and Mr. Humpherys discussed the situation on the Colorado River and the legality and other background material. There was additional discussion by Messrs. Metz, Leonard, and Renne. Mr. Leonard asked whether Article VI had been adopted. The Chairman answered in the affirmative. Mr. Leonard moved to delete the words "or wards". The motion was seconded and passed. The language as amended was adopted as paragraph VII D.

Mr. Leonard stated that the Montana Commissioners did not consider that Article VI had been adopted. This situation was discussed. Mr. Leonard stated that he had voted against Article VI in the form in which it did not exclude Indian rights. He did not object further if Messrs. Bunston and Manning were agreeable as it stands.

Mr. Metz stated that nothing new had been introduced beyond the general trend of thinking in the western states, as such thinking was reflected in recent compacts. Mr. Burke stated that he had never devised any language with respect to Indian rights, but had always adopted language furnished by those in a position to speak for the Indians.

Mr. Leonard pointed out his respect for Mr. Burke and the members of the Engineering Committee and for the work that they had done in preparing the Compact draft.

Mr. Humpherys and Mr. Burke discussed briefly the language with respect to Indian rights. Mr. Bunston asked Mr. Manning for his views on Article VI. Mr. Manning suggested that the Commissioners from the Big Horn River discuss that situation with the Engineering Committee since the group seemed near agreement. He suggested a recess until 11:45. The recess was taken at 11:15.

The meeting reconvened at 12:30 a.m. The Chairman stated that he considered the matter at hand was the lack of a unanimous vote on Article VI. Mr. Manning stated that he was satisfied with percentages given in paragraph V B 2. Mr. Bunston agreed that the

MT v. WY/M.T.D. App.
178 (WY)

0049

present provisions of this paragraph appeared to the other members to be equitable and he would concur. Mr. Bunston moved that the vote on paragraph V B 2 be made unanimous, and the motion was seconded and carried.

A motion was made, seconded, and carried that the vote approving Article VI be made unanimous.

The Chairman stated that a Compact had been agreed to and that it should be signed by all present before leaving Billings. He stated that the completed typed Compact would be available by noon. He indicated that he would obtain, by telephone, confirmation from North Dakota Commissioners of the provisions affecting that state. At 1:35 a.m. a recess was taken until 9:30 a.m.

The meeting reconvened at 10:00 a.m. The Chairman reported that he had talked to Mr. Walsh of North Dakota by telephone. Mr. Walsh said he had a conflicting meeting and had assumed that Mr. Acker would attend the Compact Commission meeting; but on his return to Bismarck had learned that Mr. Acker had been disabled by suddon illness and for that reason North Dakota was not represented at the meeting. Mr. Walsh had agreed to the change made in paragraph V D and to the provisions of Article III as approved.

While waiting for the completed draft of Compact, Mr. Thornton presented to Mr. Newell a token from the Yellowstone Basin Association in appreciation of his efforts and leadership in guiding the negotiation of a Compact. Mr. Newell responded briefly.

Mr. Bunston spoke of the services of Mr. Burke and presented to him a token of appreciation from the Yellowstone Basin Association. Mr. Burke thanked the group and spoke of the Constitutional Convention and the difficulties which were faced by that convention in drafting the Constitution of the United States, indicating the need for compromise of differing views in order to reach solutions of difficult problems.

Mr. McNally spoke further of the Constitutional Convention and the difficulties which it faced. There was further general discussion.

The complete Compact as previously approved paragraph by paragraph was presented and read in its entirety. Mr. Buck moved that the Compact as read be adopted. The motion was seconded and by Mr. Bower and unanimously carried.

0050

MT v. WY/M.T.D. App.
179 (WY)

Mr. Bunston moved that the Yellowstone River Compact Commission express its appreciation to the Engineering Committee and to the other agencies which participated in the Compact negotiations. The motion was seconded and carried.

Mr. Buck, as interstate Compact Commissioner from Montana extended his thanks to Mr. Newell and to the others who had participated in the negotiations.

Upon signature of the Compact, the meeting adjourned at 11:45 a.m.

O. O. Reedy, Secretary

Approved: R. J. Newell, Chairman
February 19, 1951

0051

MT v. WY/M.T.D. App.
180 (WY)

ATTENDANCE RECORD

Dec. 7-8, 1950

Montana

Commissioners

Fred E. Buck
A. W. Bradshaw
H. W. Bunston
John Herzog
Ashton Jones
Chris Josephson
A. Wallace Kingsbury
P. F. Leonard
D. M. Manning
Joseph Muggli
Chester E. Onstad
Ed. F. Parriott
R. R. Renne
Keith W. Trout

Others

Hans L. Bille
James E. Cook
David A. Pouliot

Wyoming

Commissioners

Earl T. Bower
B. F. Cochrane
R. L. Greene
E. C. Gwillim
E. J. Johnson
N. V. Kurtz
Harry L. Littlefield
Will G. Metz
R. E. McNally
A. R. Shreve
L. F. Thornton
Dr. M. B. Walker

Others

Earl Lloyd
H. T. Person
J. A. Cole
Clark Ritchie
Dr. John R. Watt

Others

R. J. Newell - Chairman, Federal Representative
O. C. Reedy - Secretary
C. L. Myers - Chairman, Engineering Committee
Bureau of Reclamation
W. S. Hanna - Member of Engineering Committee
W. J. Burke - Bureau of Reclamation
K. F. Vernon - Bureau of Reclamation
C. T. Judah - Bureau of Reclamation
Geraint Humpherys - Bureau of Indian Affairs
Charles R. Cocks - Corps of Engineers
John G. Lightfoot - Corps of Engineers
D. F. Clemans - for D. F. Burroughs,
National Park Service
J. S. James - for Kirk Sandals, SCS

YRCC Meeting Minutes
of October 24-25, 1950

~~D R A F T~~

YELLOWSTONE RIVER COMPACT COMMISSION

Minutes of Meeting
Oct. 24-25, 1950

The third meeting of the Yellowstone River Compact Commission was held at the Northern Hotel in Billings, Montana, on October 24 and 25, 1950, and was called to order at 10:05 a.m. by R. J. Newell, Chairman. Mr. Ed Parriott and Mr. Chris Josephson were announced as new Commissioners for Montana and Mr. Harry Littlefield as a new Commissioner from Wyoming.

The Chairman pointed out that the minutes of the second meeting had been distributed and asked if there were any corrections. Mr. Johnson moved that the minutes be approved. The motion was seconded and carried.

The Chairman outlined the general situation in which the Commission finds itself. Specific principles had not been adopted at the last meeting to guide Mr. Burke in the preparation of a work draft which he was requested to prepare and did prepare. Subsequently, the Drafting Committee met with the Engineering Committee, but no single draft of Compact was agreed upon.

The Chairman then called on Mr. Leonard for his views on the present status of the work of the Drafting Committee. Mr. Leonard reported that no meeting had been held, except the one early in August when the Committee met with the Engineering Committee and advisors in Billings. At that time the basic principles were discussed, and it was agreed that Messrs. Leonard and McNally would each prepare a draft. The Committee was unable to agree on basic principles, and the Leonard and McNally drafts proved to be diametrically opposed at many points, with no basis for agreement. Mr. Leonard (MT) then discussed the history of Compact negotiations and spoke of a proposed compact prepared in 1935, signed by Messrs. Lamb, (US) James, (UT) and Burritt. (WY) This proposed Compact was based on the doctrine of appropriation. Mr. Leonard then discussed the question of storage construction, mentioned the Wyoming-Nebraska-Colorado suit and its settlement on the basis of appropriati[on]. He pointed out that the Supreme Court had left open in this suit the question of whether the United States owns the unappropriated water in the stream.

The Chairman then asked Mr. Acker (ND) for his views. Mr. Acker (ND) stated that the provision proposed with respect to North Dakota seemed to be agreeable to Montana and Wyoming. It applied to streams which were out of reach of Montana and Wyoming. He stated that he had reviewed a good many decisions of the Supreme Court and believed that

0055

the Court had laid down the firm proposition of "equitable apportionment," but had not laid down the specific principles for general application. He believed that the states could agree on a Compact and that they could better do justice to the area involved than could an authority or some other agency. He raised the question as to whether the Commission was attempting to apportion the natural flow only or whether its apportionment covered all the water, including stored water.

The Chairman then called on Mr. McNally. He said that he ha before him three suggested drafts of Compact and that a fourth would b mentioned a little later. He discussed briefly the points of disagree ment between himself and Mr. Leonard with respect to the Tongue River. The first filing on the Tongue River in Wyoming was in 1879, and by 18 there were filings on 45,000 acres. The first Montana filing was made August 9, 1886. The Wyoming Constitution provides that water arising in Wyoming belongs to the state. However, because of the interstate nature of the streams constituting the Yellowstone River system, the state may have to surrender some of its rights to this water.

Wyoming is trying to recognize existing rights. On the Tongue River it would have the first right to water for 45,000 acres. The water would then go to Montana, but for use 150 miles down stream. In the Laramie River case the Supreme Court held that it would protect junior rights where the economy was dependent thereon and where the distance to down stream point of use by senior rights would result in waste of water through channel loss. It held that a lower state should take advantage of storage possibilities and construction of storage works.

In application to the Tongue River situation Mr. McNally pointed out that the Tongue River Reservoir which has been constructed complied with the holding of the Court that storage possibilities should be developed. Mr. McNally then reviewed briefly the principal draft articles, Article V prepared by Myers, Article III by McNally and Wehrli, and Article III prepared by Leonard, which cover protection of existing rights and division of water. He then suggested hearing from the Engineering Committee.

Mr. Myers reported for the Engineering Committee that at the joint meeting held with the Drafting Committee in August two jobs were given to the Engineering Committee. The first job was to analyze the situation on the ~~Big Horn~~ Bighorn River to determine whether the "potential" and "possible" acreages given in the Engineering Report were correct, and if not to determine proper acreages. The Committee took a field trip in September covering the entire Bighorn River Basin and submitted its report, as an addendum to the original report, by letter of September 24, to the Chairman of the Commission.

0056

The second job given the Committee was to attempt to prepare an article for inclusion in a draft of compact covering the apportionment of water. The Committee spent considerable time on this problem with the help of Mr. H. T. Person, Dean of Engineering at the University of Wyoming, and an Engineering Advisor to the Wyoming Commission, and Mr. J. R. Riter, Chief of Hydrology Division, Bureau of Reclamation. Two principles were considered for use in the preparation of the draft. The first is the depletion theory used in the Upper Colorado River Compact, which places a ceiling on the beneficial consumptive use of water permitted in each state. The second is the divertible flow theory which limits the amount or percentage of total amount of water which can be diverted in a state. The Committee believed that a modification of the divertible flow principle was most appropriate in this case, this being the principle considered in all previous compact negotiations on the Yellowstone.

Mr. Myers then read a letter to the Chairman of the Commission dated October 23, 1950, which discussed the opinion of the Engineering Committee in respect to this matter and transmitted a suggested draft of an apportionment article. Copies of the letter were distributed to those present. Mr. Leonard inquired whether the draft prepared by the Committee proposed to affect existing rights or only unappropriated water. There was discussion by Messrs. Myers, Leonard, Bower, Vernon, Acker, Bunston, and others. Messrs. Bunston and Lloyd discussed the necessity for a compact before storage development could proceed.

At 11:30 a.m. the Chairman called a recess.

The Commission reconvened at 1:15 p.m.

Mr. Leonard moved that the report of the Engineering Committee be laid on the table. Mr. Acker questioned the advisability of tabling the report, and thus withdrawing it from consideration. He spoke of the need for a Compact, but the important matter for discussion was the division of water. Mr. Leonard's motion was withdrawn.

Mr. Acker moved that the October 23, 1950, report of the Engineering Committee be adopted and approved by the Commission. The motion was seconded by Mr. McNally. Mr. Jones stated that the Montana Commissioners would be willing to abide by the decisions reached at the February meeting. He suggested an examination of the Engineering Report in the light of these decisions. Mr. Bunston stated that the people on the Bighorn River in Montana did not agree to accept the acreages in the Engineering Report as a basis for the division of water, but would be willing to consider the report in arriving at proper percentages. He read a statement giving the position of the Bighorn people in Montana and objected to the inconsistent data as to "potential"

0057

MT v. WY/M.T.D. App.
148 (WY)

and "possible" irrigable acreages in the Bighorn River Basin. Mr. Thornton (WY) suggested that the data presented by the Engineering Committee were probably as accurate as could be developed at this time and that they be used as a basis for division of water. There was discussion by Messrs. Bunston (MT) and Bower (WY).

Mr. Myers outlined in some detail the method of derivation of data in the original report, the reasons why that report was felt to be inaccurate in some respects, the procedures followed by the Committee in modification, and the basis for the information in the addendum. There was discussion of certain details. Mr. Vernon outlined in general the plan of the Missouri River Basin Project for development on the Bighorn.

Mr. Acker (ND) questioned whether there was not some confusion as to which report was before the group for consideration and stated that his motion covered the October 23 report which suggested a basis for apportionment of the water and included as an attachment a draft article on apportionment.

Mr. McNally inquired what information Mr. Bunston and the Bighorn group from Montana would require in order to be able to agree on acreage figures.

There was discussion as to whether the Engineering Committee Report being considered by the group included the draft of Compact article. Mr. Leonard said that no Compact could be signed that asked Montana to give up rights to water now in use in Montana. Mr. Acker asked for a specific proposal, but Mr. Leonard replied that they would insist on recognition of the doctrine of appropriation.

There was discussion of the terms of the agreements reached in February, and whether they are still applicable. Messrs. McNally and Leonard agreed that the February provisions could still be adhered to, but there was some disagreement as to details.

Mr. Burke pointed out that the Report of the Engineering Committee contained 20 specific questions, and that it was not wise to try to consider the report as a whole without identifying the individual problems. He read particularly items in the third paragraph which contained problems 7 to 11. In this paragraph the Committee has made a recommendation as to the method of handling vested rights, a problem which will have to be solved by the Commission. Mr. Burke then discussed the claim of the United States to the water of interstate streams and the history of the claim and of court decisions which bear on the matter.

MT v. WY/M.T.D. App.
149 (WY)

0058

After a short recess Mr. Leonard thanked Mr. Burke for his discussion and suggested that he draft a suggested division of the water which could be presented to Montana and Wyoming, following which the Commission could meet and adopt the draft. Mr. Acker withdrew his motion with the consent of the second.

Mr. Acker (ND) moved that the Report of the Engineering Committee be adopted in principle only and that the points analyzed by Mr. Burke be considered individually. Mr. McNally seconded the motion. Mr. Newell asked Mr. Burke whether he now had adequate information from the Commission on which to base a draft of Compact. Mr. Burke stated that he had neither the information nor the time. The Chair called for a vote on the motion, and Montana being opposed to the motion, it was declared lost.

There was discussion as to the basis for voting, and it was generally agreed that the vote must be taken by states, each state having one vote.

Mr. Acker (ND) moved that the Report of the Engineering Committee be received for consideration and possible adoption of each of the principles stated. The motion was seconded by Mr. McNally and passed.

The items as identified by Mr. Burke in the Engineering Committee letter were considered as follows:

1. It is a generally accepted fact that irrigation development in the Yellowstone River Basin, particularly on the interstate tributaries, has very nearly reached its maximum practicable limit without the provision of additional new storage capacity.

It was moved and seconded to adopt this item, and the motion was carried.

2. The committee feels that clearing the way for this new storage should be the underlying objective of any interstate Compact.

It was moved and seconded that the item be adopted. Upon objection it was moved to amend the motion to insert the words, "one of" between "be" and "the" and change the word, "objective" to "objectives." The amendment was carried, and the motion as amended was carried.

3. From an interstate standpoint, the situation in the Yellowstone River Basin is extremely favorable since on three of the four interstate tributaries there is a reservoir site at or near the State line which can provide adequate control of residual flows from the upper State for continued development in the lower State.

MT v. WY/M.T.D. App. 150 (WY)

0059

4. The fourth tributary, Clarks Fork, is not likely to experience water shortages.

5. The reservoir on Tongue River has already been constructed, and those on the Big Horn River and the Powder River are authorized by Congress for construction by the Bureau of Reclamation.

As to each of these items individual motions that the item be adopted were made, seconded, and carried.

6. When these reservoirs are in operation they will have the practical effect of permitting full development in the upper States without affecting the progress of development in the lower States. That fact should be borne in mind.

It was moved and seconded to adopt this item. Upon objection, it was passed over.

7. Concerning treatment of existing developments in the Compact, the committee is of the opinion that there is little to be gained from a water supply standpoint by regulating and administering existing diversions under a Compact.

This item was passed over.

8. It is, of course, entirely up to the Commission whether or not existing rights are to be administered under the Compact, but from an engineering standpoint, the committee feels that the expense and difficulties of such an administration would in no way be justified by the benefits that might be obtained.

9. There are insufficient data upon which to base this type of administration due principally to differences in the water laws of the States involved.

10. It would be a major research project to place existing rights in all States on an equivalent basis.

11. Such procedure undoubtedly would involve interstate adjudication proceedings.

Mr. Leonard stated that it is Montana's position that there should be a provision in the Compact that existing rights shall be administered under the Compact by the Administrative Commission that may be established. Mr. McNally stated that Wyoming did not want such a provision. There was discussion of the problem. It was agreed that both states want existing rights recognized in the Compact. Mr. Burke

MT v. WY/M.T.D. App.
151 (WY)

0060

suggested recognizing existing rights and providing that they be administered under state law. There was discussion of the relative merit of the two positions from the standpoint of protection of property rights. Mr. Acker suggested adding a phrase to provide that the Compact would "recognize vested rights under the doctrine of appropriation." Mr. Vernon moved that with respect to item 8 of the Engineering Report the Commission desires that (a) the Compact recognize existing vested rights and (b) the procedure for recognizing these rights not be changed. There was no second.

WY MT

Mr. Bower moved to adopt items 6 to 11 inclusive. Mr. Leonard stated that Montana objected. There was further discussion. Mr. Burke stated that there seemed to be no question about recognizing existing rights, that the question was what body would enforce those rights, the Courts or a Compact Commission. Items 6 to 11 were passed over.

12. There are two principles upon which a satisfactory allocation of the unused waters of the Yellowstone River could be based. One is the so-called divertible flow principle, which has been used in previous Yellowstone River Compact attempts. The other is the depletion principle as used in the Upper Colorado River Basin Compact.

13. The committee feels, that since the divertible flow principle has been previously used as a basis for a compact, it should be retained, but modified to make the apportionment operative on other than a daily basis so that allocation could be in terms of cumulative volumes of water through an entire year, or portion thereof rather than by daily stream flow. This is because substantially all new development will be based on storage rather than direct flow.

14. A suggested draft of an apportionment article is attached, together with the supporting definitions.

WY

There was discussion of the item. Mr. Thornton moved to adopt the divertible flow principle as modified in accordance with Committee recommendations. The motion was seconded. Mr. Leonard stated that he favored the divertible flow principle, but objected to modification. In the following discussion Wyoming proposed leaving the question of modification open for the present. By consent the group adopted the divertible flow principle as a basis for Compact, modification to be considered later.

15. Whatever principle is used in allocating the water under the Compact, it is necessary to select some index upon which to base apportionment, either directly in acre-feet or by percentage.

MT v. WY/M.T.D. App.
152 (WY)

0061

The committee believes that the most practicable basis of apportionment of the unused water is the area of irrigable land in the States.

16. The irrigable lands in the States are tabulated in the report and the addendum, dated September 24, 1950, of the engineering committee.

17. The committee feels the irrigable lands as shown by this report and addendum are a reasonable measure of the new development that is likely to take place in the basin for a long time to come.

Mr. Bunston objected to the irrigable land figures on the Bighorn as given in the Committee Report and addendum. It was moved to adopt the principle of using "potential" and "possible" irrigable land as the index to determine the percentage apportionment. There was no second. It was moved to adopt item 17. The motion was seconded. Following discussion, it was moved to add after the word, "addendum" the expression, "except as to the Bighorn River." The motion was seconded and carried, and the motion as amended was carried.

18. If the Commission feels that the available data are insufficient on any of the interstate tributaries (Clarks Fork, Big Horn, Tongue, or Powder Rivers) to allocate all of the unused waters of that tributary, it could apportion a first block of water sufficient to take care of the presently indicated potential development.

This item was passed over.

19. Some consideration must be given to supplemental water supply and since such water is for use on existing projects, it is felt that such allocation should be made under the category of existing irrigation works rather than potential.

It was moved and seconded that this item be adopted, and the motion was carried.

20. The committee definitely feels that there is enough information available at the present upon which to base a workable and realistic Compact, and that nothing would be gained but much might be lost if a Compact were postponed until all the development possibilities in the basin are completely and thoroughly studied. This will take a long time and cost a great deal of money, and if a Compact is delayed until it is completed, the basin may well be deprived of the use and benefit of many worth-while projects which otherwise could be constructed.

MT v. WY/M.T.D. App.
153 (WY)

0062

This item was read as a statement, but not put as a question.

The meeting recessed at 5:45.

The meeting reconvened at 8:35 p.m. Mr. Leonard MT discussed the numerous meetings of the Commission that have been held and the numerous drafts of compacts. He stated that the draft prepared by Messrs. McNally and Wehrli and presented by Wyoming was wholly unacceptable to Montana and gave the reasons therefor. He concluded that the Commission was not approaching agreement and stated that if the Commission could not come nearer agreement, he was prepared to move that the Commission adjourn permanently.

Mr. McNally WY pointed out that the McNally-Wehrli draft is not before the group, that it is the Engineering Committee's draft which is before the group. The Chairman brought up for consideration the Engineering Committee's draft and asked Mr. Burke to conduct the discussion. Mr. Burke outlined the provisions of the draft article and proceeded to take up the article by sections.

There was agreement on the first paragraph of the article, reading as follows:

"The waters of the Yellowstone River System, exclusive of existing development and other uses coming within the provisions of paragraph C of this Article ____, are hereby allocated to each State for storage or direct diversion as follows:

Clarks Fork River

To Wyoming ____%
To Montana ____%

Big Horn River

To Wyoming ____%
To Montana ____%

Tongue River

To Wyoming ____%
To Montana ____%

Powder River

To Wyoming ____%
To Montana ____%

MT v. WY/M.T.D. App.
154 (WY)

0063

subject to the following stipulations concerning the point of measurement:"

The provision as to point of measurement on Clarks Fork was agreed on as follows:

"1. For the Clarks Fork River the point of measurement shall be below the last diversion from Clarks Fork River above Rock Cre

There was discussion as to the point of measurement on Bigho River, as to which the Committee's draft provided as follows:

"2. For the Big Horn River the point of measurement shall b below the last diversion from the Big Horn River and the inflow from the Little Big Horn River shall be excluded from the quantit of water subject to allocation."

Mr. Bunston suggested that the point of measurement be at a point at the state line or at a point just above the Little Bighorn Ri Mr. Leonard objected to measurement for division except at the state line on any tributary and also objected to excluding existing rights.

Mr. Burke discussed the preparation of the report by the Committee, on which the state engineers of the three states constitute a majority. He expressed his feeling that the group should have confidence in the report representing the best judgement of the three state engineers who are men of long experience and high standing. He urged that the engineering matters discussed in the report and recommended by the Engineering Committee not be tampered with by the group. There was restatement of suggestion by Mr. Leonard. Mr. Person pointed out that the Commission is attempting to divide the entire water produced in the basin, not just the water produced in Wyoming.

Mr. Acker inquired of Mr. Leonard precisely what the problems were that called this Compact negotiation. Mr. Kurtz spoke of the history of a previous compact and its consideration. He pointed out the importance of drafting a compact and having it approved and some of the problems to be resolved.

Mr. Bunston agreed that the problem is one of dividing the water of the basin, not just that which arises in Wyoming. As to the division of the water, he believed that a "block" division can be effective—probably the first block on the basis of the engineering report and the remaining block, after serving existing and potential irrigation, to be subject to appropriation by both states. As to the point of measurement, he suggested that it be at the Hardin Bridge just above the mouth of the Little Bighorn River.

Following a review by Mr. Burke of Mr. Bunston's proposal, there was a discussion of the proposal by Messrs. Vernon, Bunston, and Burke. Mr. Burke stated the proposition that "potential" developments be divided on the basis of acreage in the engineering report, and that "possible" acreage be included but percent not stated.

Mr. Bunston moved that the group favor compacting unappropriated water on the divertible flow theory using for percentages as to potential acreages the figures in the engineering report, and as to possible acreages, figures to be determined later. Mr. McNally seconded the motion. There was an objection by Mr. Leonard as to adopting this motion. Mr. Bunston suggested that the question as to the theory proposed be subject to further consideration.

There was discussion as to the point of measurement and the relationship between various points of measurement and percentages apportioned. On a question by Mr. Bunston, Mr. Burke stated as his opinion that the draft article by the Engineering Committee was the best method of accomplishing the development of the area. There was further discussion of the recognition of existing rights.

Mr. Thornton moved that the Engineering Committee Report be tentatively adopted as to measuring points on all streams. The motion was seconded. Mr. Leonard objected. Mr. Jones spoke of the problem of voting--the necessity of the Commissioners from a state voting as a unit. He expressed regret that the Montana group had not met to agree on various points. He stated that Montana will insist on recognition of Doctrine of Appropriation and some method of caring for periods of low flow.

Mr. Thornton asked to recess to the next morning. Mr. Leonard again stated his proposal that unless Wyoming suggested some other basis for a compact, there appeared to be no basis for agreement. Mr. McNally again stated that no Wyoming proposal is before the Commission, that Wyoming will be satisfied with any one of several paragraphs submitted providing for the apportionment of water. Mr. Williams stated that he was tired of hearing the discussion apparently getting nowhere and was going to leave. It was moved and seconded to recess. The motion was carried and at 11:00 p.m., the Commission recessed until the next morning.

The meeting reconvened at 9:40 a.m. on October 25, 1950. Mr. Newell asked whether further discussion of the Engineering Committee's Report was desirable. The tentative approval such as had been given the specific items of the report would hardly bind a Commissioner to sign the compact when prepared.

Mr. Bunston read a letter addressed to Mr. Newell, copy of which is attached.

MT v. WY/M.T.D. App.
156 (WY)

0065

There was discussion of the method of division of Bighorn River waters. It was pointed out that there was substantial agreement on potential irrigation possibilities on the Bighorn as presented in the Engineering Committee's Report.

Mr. Leonard stated that he could not agree to Mr. Bunston's proposal to turn over to the Engineering Committee the problem of drafting a compact for the signature of the Commissioners nor to the suggestion that laymen on the Commission be supplanted by engineers. Mr. Bunston stated that he did not by any means intend to imply any requests for the resignation of any members of the Commission. His comments were submitted in view of the nearness of the legislative sessions in Wyoming and Montana, and because of the fact that the job of drafting the compact was largely a technical engineering job. Mr. Williams stated that although he had no official status in the meeting he wished to offer as his opinion that he agreed with Mr. Bunston. The Engineering Committee should be capable of drawing a compact. If it were then found not satisfactory it could be reviewed in the legislatures.

Mr. Cochrane asked whether all the tributaries needed to be considered in a draft or whether a compact could be drawn covering some streams and omitting others. He stated that the Bighorn River group wants a compact so that it can go ahead with developments even if some of the tributaries can not agree on compact provisions.

Mr. Jones asked for a statement from Wyoming as to some specific proposals to which they felt Montana might agree. Ten minutes recess was taken. Following the recess Mr. Leonard called attention to the fact that North Dakota was not represented in this day's sessions and that no action was possible without them. He hoped that Wyoming would submit a draft of a compact which would be agreed upon. No agreement can be reached on dividing the basin and compacting individual streams. The basin must be covered as a whole.

Mr. Bunston stated that he was not in favor of adjourning or having anybody resign. If it is found that a compact can not be drafted to cover all the tributaries he would like an opportunity to see what can be done on the Bighorn.

Mr. Newell discussed the various drafts which were available for consideration. No one draft had been submitted by the Drafting Committee. Mr. Burke had prepared a preliminary work draft for the use of the Drafting Committee. Messrs. McNally and Wehrli had prepared a draft representing a Wyoming view. Mr. Leonard had prepared a draft representing his views. Copies of the Leonard and Burke drafts were distributed.

Mr Lloyd moved to recess into river groups to try to reach agreement and report back shortly after noon. There was no second. Mr. Leonard asked what Wyoming thought of the Burke draft. He stated that he felt it covered the agreements reached in February but that it should cover the manner of settling disagreements in questions of interstate administration. Mr. Bunston moved to consider the Burke draft paragraph by paragraph.

Mr. McNally referred to the draft paragraph in the Engineering Committee's Report and to corresponding paragraphs in the Leonard draf McNally-Wehrli draft and a Myers draft. He stated that Wyoming would not agree to interstate administration. He read from the draft paragr by the Engineering Committee and stated that Wyoming wanted division o the water on an annual basis as provided for in this draft. He then read from a paragraph of the Myers' draft which used as a basis for division of water the allocation of beneficial consumptive use on an annual basis, October to September, placing a ceiling on the amount of water which can be consumptively used in each of the states. He read from the McNally-Wehrli draft which also provided for division on the consumptive use basis and from the Leonard draft which provided for the application of the Doctrine of Appropriation on an interstate basis. Mr. McNally stated that he objected to interstate administration. He stated that he would insist on "equitable apportionment" which includes priorities and other factors. He stated that if agreement could be reached on the language to be used in the article, of which he read from several examples, and on the question of interstate administration, then agreement could be reached on a compact.

In answer to a question Mr. Newell explained that the Myers draft was a draft prepared by Mr. Myers utilizing as a basis the Burke draft and substituting in the appropriate place the principle of apportionment on the basis of consumptive use rather than apportionment of divertible flow. This draft was prepared for the use of the Enginee ing Committee. Copies were furnished only to members of that Committee When the Committee considered the draft it leaned toward the divertible flow method and prepared its own draft which was presented to the Commission.

Mr. Jones agreed that the basis of division of water is the essential feature to be decided. He felt that there should be some machinery for discussion of problems which would arise under the compact either through a Commission, through the state engineers or by some other means which should be provided for in the Compact.

MT

Mr. Leonard insisted that under the Doctrine of Appropriation state lines must be wiped out. He insisted on recognition of established rights under interstate administration, and on apportionment of natural flow, not storage.

0067

MT v. WY/M.T.D. App.
158 (WY)

WY

Mr. McNally moved to remove the Tongue River from compact consideration and let the Commission proceed to consider the Bighorn, Powder and Clarks Fork. Mr. Kurtz WY seconded the motion. The Chairman called for discussions. Mr. Kurtz discussed the situation existing on the Tongue River which results in problems differing from those on the other tributaries and may necessitate excluding the Tongue from consideration. He called attention to a portion of Mr. Leonard's draft relative to the division of water and particularly the statement reading "... in accordance with the general law governing the acquisition and use of water..." He pointed out additional language in the draft which it seemed to him tended to modify or restrict this statement and called attention to the importance of agreeing on major items and delegating to others the resolution of details.

Mr. Leonard discussed some of the questions raised. He spoke particularly of previous proposals to exclude the Tongue River and read from a letter prepared in 1945 pointing out in detail reasons for not excluding the Tongue. There was discussion between Messrs. Kurtz and Leonard relative to points of agreement and disagreement on the Tongue River.

In response to comments relative to having the courts, not a Commission, determine certain matters of administration, Mr. Muggli stated that he wanted to avoid law suits if possible, that he was a practical irrigator and believed that from the standpoint of a practical irrigator the question of dividing water between upstream and downstream users could be resolved on a friendly basis.

Mr. Vernon suggested that there seemed to be some basis for agreement which should be explored.

At 11:45 a.m. the meeting recessed.

The meeting reconvened at 1:50 p.m. Mr. McNally spoke on the general subject of administration of the compact. He stated that Wyoming did not want a "super-government" and control by two non-residents such as might occur with a board of three persons. He stated that in his opinion Article VI of the Snake River Compact presented a satisfactory form, with modifications to suit the differing situation. This article in its unmodified form is as follows:

> "C. In the case of failure of the administrative officials of the two States to agree on any matter necessary to the administration of this Compact, the Director of the United States Geological Survey, or whatever official succeeds to his duties, shall be asked to appoint a Federal representative to participate as to the matters in disagreement, and points of disagreement shall be decided by majority vote."

8900

Mr. Newell asked Mr. Vernon whether he considered that a U. S. Geological Survey representative, as suggested in the Snake River Compact was a logical person for Federal representative. Mr. Vernon stated that he did; that he felt it should not be a Bureau of Reclamation representative because of the Bureau's direct interest in projects with respect to which decisions on administration of the stream would be made. Mr. Leonard stated that he preferred the Bureau of Reclamation representative, but suggested that nothing be placed in the Compact which would restrict the judgment of the President in making an appointment. He suggested that North Dakota not be a part of the administrative body, there being little opportunity for controversy involving North Dakota.

Mr. McNally objected to the provision that the Commission might change the apportionment as provided for in a portion of Article IV of the Leonard draft reading as follows:

"From time to time the Commission between Wyoming and Montana shall re-examine the allocations herein made and upon unanimous agreement may make modifications therein as are fair, just and equitable, giving consideration among other factors to:

Priorities of water rights;
Acreage irrigated;
Acreage irrigable under existing works; and
Potentially irrigable lands."

Mr. Leonard suggested that the language be changed to provide that the Commission might "recommend" modification. There was general agreement. Mr. Leonard stated that he had been told by Mr. Acker that North Dakota was agreeable to not being represented on the administrative commission.

Mr. Thornton suggested that the Engineering Committee should be given an opportunity to hear the ideas of the group on specific articles of a compact in order to be in a position to draft a compact.

The Chairman called for a vote on the motion to exclude the Tongue River. The motion was lost. There was discussion of whether the Engineering Committee should be asked to draft a compact. Mr. Bower moved that the Commission ask the Engineering Committee, with the advice and assistance of Mr. Burke, to prepare a draft of proposed compact for presentation at an early date. The motion was seconded and carried. Mr. Leonard stated that he agreed that the Engineering Committee might properly draft a compact if given adequate instructions but he did not want the Committee to undertake this task if it was permitted to insert its own ideas of policy.

MT v. WY/M.T.D. App. 160 (WY)

6900

Mr. Bower moved that the Commission consider the Burke draft. The motion was seconded and carried. There was no objection with respect to the preamble or Article I.

Article II: It was suggested that unnecessary definitions be excluded at the discretion of the Committee. It was agreed that in Article II, (C), (D), and (F) where necessary the Little Bighorn River should be expressly excluded from the compact. It was pointed out that tributaries lying within Yellowstone Park must also be excluded. The type of instructions to be given to the Committee were discussed. Mr. Myers asked specifically whether the Commission wanted to operate on a daily basis or on an annual basis, subject to check as required. Mr. Bower moved to have operations on an annual basis with provisions to make a check at any time desirable, but not required on a daily basis. The motion was seconded. In respect to a question, Mr. Buck stated he agreed to the annual basis with provision to check as required. The motion was passed.

Article II (J), (K): To be dropped.

Article III: Mr. Leonard suggested substituting Article IV of his draft for Article III of the Burke draft. Article IV of the Leonard draft was read by paragraphs and discussed. It was agreed to modify the first paragraph beginning after the comma in the eighth line so that the balance of the paragraph would read as follows:

> "and one representative selected by the director of the Geological Survey or whatever Federal agency may suceed to the functions and duties of that agency to be appointed by him at the request of the states to sit with the Commission, and who shall, when present, act as Chairman of the Commission without vote except as herein provided."

The second, third, fourth, fifth, and sixth paragraphs of the article were approved. It was moved, seconded and carried that the seventh paragraph be omitted and the same action was taken in respect to the eighth paragraph. The ninth paragraph was approved as previously amended to provide that the Commission might recommend modification in allocation. The tenth and eleventh paragraphs were approved. It was moved, seconded, and carried that Article IV of the Leonard draft as changed, be substituted for Article III of the Burke draft. It was moved, seconded, and carried that old Article III (D) of the Burke draft be added to the new Article III (modified Article IV of the Leonard draft).

Article IV of the Burke draft was approved.

0070

rticle V: It was suggested that the article in the Engineering Committee report be substituted for Article V. There was discussion on this article and of Article III of the Leonard draft, principally paragraph 2 thereof. There was discussion of the language, the theory of Doctrine of Appropriation, and whether adding separate reference to the use of priorities in single streams regardless of state lines materially affected the sense of the paragraph. Mr. Leonard moved that paragraph 2 of Article III of the Leonard draft, with suggested modifications, be substituted for Article V of the Burke draft. The motion was seconded and after discussion, withdrawn. Mr. Bunston moved that the Engineering Committee should use in its draft the language in the Burke draft which appears as the first paragraph under the discussion of Tongue River, for each of the interstate tributaries included in the Compact, with this amendment: to strike the period after "appropriations" add a comma and "including the principle of priority, regardless of state line". Motion was seconded by Mr. Jones. There was discussion following which the motion was modified to eliminate the amendment to the language. The motion was passed.

It was moved, seconded, and carried to include as a separate article of the Compact, the following:

"No sentence, phrase, or clause in this Compact, or in any provision thereof, shall be construed or interpreted to divest any signatory state or any of the agencies or officers of such states of the jurisdiction of the water of each state as apportioned in this compact."

rticle V (D): It was agreed that the percentages agreed to in February, and with respect to the Bighorn determined from the addendum to the engineering report, would be used.

rticle VI: Agreed to eliminate.

rticle VII: Mr. Humpherys read the following language which he had been authorized by the Commissioner of the Bureau of Indian Affairs to propose.

"Nothing contained in this compact shall be so construed or interpreted as to affect adversely any rights to the use of the waters of Yellowstone River and its tributaries owned by or for Indians, Indian Tribes and their reservations."

It was moved, seconded, and carried that the language be adopted.

0071

MT v. WY/M.T.D. App.
162 (WY)

Article VIII to end: Accepted.

Following discussion of Article XI, it was moved to adjourn subject to call of the Chairman. It was agreed that about two weeks would be allowed for study after the draft of Compact had been sent to the Commissioners. The motion was seconded and carried and the meeting adjourned at 5:55 p.m.

O. C. Reedy
Secretary

"Approved: R.J. Newell, Chairman
December 7, 1950"

MT v. WY/M.T.D. App.
163 (WY)

0072

ATTENDANCE RECORD
October 24-25, 1950

Montana

Commissioners

Fred E. Buck
H. W. Bunston
John Herzog
Ashton Jones
A. Wallace Kingsbury
P. F. Leonard
Joseph Muggli
Ed F. Parriott
Keith W. Trout

Others

Wayne W. Linthacum
H. A. Williams

North Dakota

Commissioners

L. A. Acker
Einer Dahl
J. J. Walsh

Wyoming

Commissioners

Earl T. Bower
Ben F. Cochrane
E. C. Gwillim
E. J. Johnson
N. V. Kurtz
H. L. Littlefield
R. E. McNally
Mark H. Partridge
L. F. Thornton
Dr. M. B. Walker

0073

MT v. WY/M.T.D. App.
164 (WY)

Others

Earl T. Lloyd
H. T. Person

Others

R. J. Newell - Chairman, Federal Representative
O. C. Reedy - Secretary
C. L. Myers - Chairman, Engineering Committee-Bureau of Reclamation
W. S. Hanna - Member of Engineering Committee
W. J. Burke - Bureau of Reclamation
K. F. Vernon - Bureau of Reclamation
C. T. Judah - Bureau of Reclamation
Geraint Humpherys - Bureau of Indian Affairs
Firman H. Brown - Bureau of Indian Affairs
John G. Lightfoot - Corps of Engineers
D. F. Clemans - for D. F. Burroughs, National Park Service
E. L. Doeling - Fish & Wildlife Service
J. S. James - for Kirk. Sandals, SOS
J. Elliot Hall - Bureau of Land Management
R. A. Bethune - Reconstruction Finance Corp
R. E. Bodley - Adm. Assistant to U.S. Senator Zales N. Ecton

YRCC Meeting Minutes
of February 1-2, 1950

RECEIVED
FEB 15 1950
STATE ENGINEER
Cheyenne, Wyo.

YELLOWSTONE RIVER COMPACT COMMISSION

Minutes of Meeting
Feb. 1-2, 1950

The second meeting of the Yellowstone River Compact Commission was held at the Northern Hotel in Billings, Montana, on February 1 and 2, 1950, and was called to order at 10:10 a.m. by Mr. R. J. Newell, Chairman. The persons not at the previous meeting were introduced. Included were two Commissioners from Montana appointed since the first meeting, one Commissioner from Wyoming, and an Engineering advisor from Wyoming, and several observers from Federal agencies and the states.

The Chairman pointed out that the minutes of the first meeting had been distributed and asked if there were any corrections. Mr. Acker moved that the minutes be approved. The motion was seconded and carried.

The Chairman called on Mr. C. L. Myers, Chairman of the Engineering Committee, who reported on the two meetings which the Committee had held and presented the report of the Committee, which had previously been distributed to all Commissioners. There was discussion as to the proper disposition of the report. A motion to approve was modified by the maker and as finally stated read "that the report be accepted as a basis for negotiation and that sincere thanks be extended to the Committee for its work." The motion was seconded and carried.

Mr. Bunston raised the question as to whether a committee on publicity might be desirable. The Chairman stated that at the first meeting it was decided that meetings would be open to the public and members of the press. Mr. Bower moved that any information going to the press be cleared by the Chairman of the Commission and the three State Engineers. The motion was seconded and carried.

Mr. Thornton moved that permanent committees be appointed to specifically consider problems for particular sections of the Basin. The motion was seconded. There was discussion of the meaning of the motion. It was agreed that representatives from the several areas would constitute these committees and would act to resolve differences arising in the general discussions of the Commission. The motion was carried.

There was discussion as to whether the report of the Engineering Committee was unanimous, which it was found to be, also the relationship of the Engineering Committee to the Area Committees. It was the consensus that this Committee be kept intact and be available for consultation and advice. The Chairman stated that unless there were objections he would recognize all who had something to contribute to the discussions, including advisors from the states, as well as the Commissioners themselves.

Mr. Oravetz discussed the basis of the Engineering Committee Report and questioned whether some additional details should not be included in the matter of irrigable acreages.

Mr. Myers described the survey made by the Bureau of Reclamation and Mr. Hanna that made by the Bureau of Indian Affairs.

Mr. Leonard requested that certain comparative data be read from the report prepared in 1943 and the current report. Mr. Leonard suggested consideration of the former Compact and specific items objectionable to the states with discussion of these objections. Mr. Acker suggested that the former Compact be considered in terms of new physical data available.

The Chairman pointed out that the Engineering Report was before the Commission and suggested that its status be clarified and agreed to.

Mr. Bunston discussed the progress being made and pointed out some of the requirements of an equitable Compact. He mentioned the requirement for storage in order to utilize fully the available water and the fact that conditions will change after storage is developed.

Mr. Thornton suggested discussion of Compact policy, forgetting the prior drafts, and the discussion proceeded along these lines, including the questions of whether inter-state priorities would be considered, whether storage would enter into the negotiations, and the general proposition that water would be divided on the basis of acres irrigated and potentially irrigable.

MT v. WY/M.T.D. App.
134 (WY)

0077

Mr. Partridge moved to accept and approve the Engineering Report as the best data available at this time and use it as the basis for division of the water. The motion was seconded. There was discussion as to the need for such a motion in the light of that previously passed, and whether the motion as made would require that the figures appearing in the report be used without change. The motion was withdrawn.

It was moved to recess for lunch and to reconvene at 1:30 p.m. The motion was seconded and carried, and the meeting recessed at 12:00 o'clock.

The meeting reconvened at 1:45 p.m. and was called to order by the Chairman.

Data on the Tongue River Reservoir, Montana, and maps of the Basin were distributed.

The Chairman suggested that the several Area Committees meet before the adjournment of this meeting of the Commission in order to expedite progress as much as possible. He suggested that he be authorized to appoint a Committee to draft the framework of a Compact.

Mr. Leonard moved to recess and that the Area Committees meet immediately, and that since the Tongue River was the main bone of contention that the Committee for that area meet in the Green Room, and that all Committees report to the Commission this evening. The motion was seconded.

Mr. Person urged that overall principles to be used in developing the Compact be established before recessing. There was considerable discussion on the motion and the importance of agreeing on principles prior to the recess. The Chairman stated his reluctance to put controversial matters to a vote because of the great difference in size of the state delegations. The motion was withdrawn.

Mr. Person suggested two principles to be followed:
(1) Existing rights shall be recognized and remain unimpaired.
(2) The unappropriated unused water shall be divided on the basis of potential development. Mr. Leonard asked whether interstate priorities should be considered. Mr. Person replied that they should not.

MT v. WY/M.T.D. App.
135 (WY)

0078

Mr. Bunston asked Mr. Myers about the rights of Montana in Boysen Reservoir. Mr. Myers pointed out the interrelated situation in the development of the Missouri River Basin and the difficulty, if not impossibility, of differentiating the benefits between the states under these circumstances.

There was further discussion regarding the principles under which the Compact should be developed.

Mr. Bunston asked Mr. Myers about the situation at Moorhead and the status of studies in the Upper Powder River which were described.

Mr. Leonard reviewed some of the meetings in connection with previous efforts to draw a Compact and read some correspondence relating thereto.

Mr. Johnson suggested forgetting about the question of appropriated water and working on the problem of unappropriated water.

There was some general discussion of the diversion of water from the Tongue River to the Little Horn.

There was discussion of the desirability of recessing to allow the Area Committees to meet, and by general agreement the meeting recessed at about 3:30 to reconvene at 8:00 p.m.

The meeting reconvened at 8:20 p.m. and was called to order by the Chairman.

Mr. Johnson for the Powder River, Mr. Gwillim for the Tongue River, and Mr. Bunston for the Big Horn River, all reported that progress was being made toward reaching agreement on the proposed Compact provisions affecting the respective streams, and each stated that his group would like about two hours' additional time for further study. No representative of the Clarks Fork was present from either state.

Mr. McNally moved to recess until 11:00 February 2, with the Area Committees to meet at 9:00 a.m. The motion was seconded and passed, and the meeting recessed at 8:30 p.m.

MT v. WY/M.T.D. App.
136 (WY)

0079

The meeting reconvened at 11:10 a.m. on Thursday, February 2, 1950. Mr. Greene (WY) representing the Powder River Committee submitted three items on which the Committee had reached agreement with respect to that stream:

1. All existing rights to the beneficial use of the waters of the Powder River in the States of Montana and Wyoming valid under the Laws of these States as of January 1, 1950, are hereby recognized and shall be and remain unimpaired by this Compact.

2. The total unused or unappropriated divertible flow of the Powder River Basin is divided:

58% to Montana
42% to Wyoming

3. Same agreement for stock reservoirs as in the 1944 Compact.

Mr. Greene (WY) moved to accept the preliminary draft and refer it to the Drafting Committee. The motion was seconded.

There was discussion by Messrs. Leonard (MT), Jones (MT), Oravetz (MT), Person, Buck (MT), and Burke with respect to the questions of whether any unappropriated water existed, how storage entered the picture, and how the stored water would be administered. Mr. Humpherys inquired about Indian Lands in the Powder River Basin and was informed that there were none.

Mr. McNally (WY), speaking for the Wyoming members of the Tongue River Committee, stated that the Committee had not been able to agree on the question of existing rights. He stated that the Wyoming Commissioners wanted all such rights recognized in both states, but that the Montana Commissioners were not willing to let these rights remain unimpaired.

Mr. Leonard (MT), speaking for the Montana Commissioners, stated that it was the sense of his group that no Compact could be agreed upon unless the division of the Tongue River water was on an equitable basis, and that the proposal suggested by Wyoming was not considered to be on such a basis. Montana proposed as one possible basis for the Compact, consideration of the rights on the stream in terms of priority without respect to State line.

MT v. WY/M.T.D. App.
137 (WY)

0080

The Chairman suggested referring the question back to the Committee with instructions to attempt further to reach an agreement.

Mr. Metz asked whether the Committee would like additional members to assist them. Messrs. Burke, Myers, Buck, and Goodrich were suggested.

Mr. Lloyd reported that the Committee studying the Big Horn was making progress, but had no specific report to make. It was requested that Messrs. Myers, Burke, and Hanna be available to assist on this problem.

There was no meeting on the Clarks Fork. Mr. Greene WY suggested a recess until evening.

Mr. Buck MT asked whether the Little Horn should be included in the Compact or excluded as had been the case in prior drafts.

Mr. Bunston MT asked whether the Law did not provide that the Little Horn and the main stream of the Yellowstone should be covered. The matter was discussed further by Messrs. Burke and Acker. Mr. Acker WY argued that the "residual flow" paragraph in the last draft of Compact (par. 2 of Art. 5), be not included in any future drafts of the Compact.

The Chair called on Mr. Vernon, Regional Director of the Bureau of Reclamation, who discussed the importance of reaching agreement from the standpoint of the overall development of the Missouri River Basin and the significance which is attached to local agreements and local interest in the Project by the public as a whole.

The Chair announced that the meeting would recess until 8:00 p.m., and that in the meantime the Committees for the Tongue and Big Horn Rivers would meet, and that there would be a separate meeting of representatives of Federal agencies at 2:00 p.m. The meeting recessed at 12:30 p.m.

The meeting reconvened at 8:15 p.m. The Chair called for a report of the Tongue River Committee, and Mr. McNally WY stated that the Committee had reached agreement on the following principles:

1. Appropriative rights to the beneficial uses of the water of the Tongue River system existing in each signatory

0081

state as of January 1, 1950, shall continue to be enjoyed in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation.

2. Wyoming and Montana agree that the unappropriated waters of the Tongue River system subsequent to January 1, 1950, shall be allocated to each state as follows:

60% to Montana
40% to Wyoming

Mr. McNally moved that the report be accepted and referred to the Drafting Committee. The motion was seconded and carried.

Mr. Bunston reported for the Big Horn Committee that agreement had been reached on the following principles:

1. Subject to existing Indian Treaty Rights, all existing rights to the beneficial use of the waters of the Big Horn River Basin in the States of Montana and Wyoming, valid under the laws of these states as of January 1, 1950, are hereby recognized and shall be and remain unimpaired by this Compact; provided, that at times when insufficient water is available to supply all existing rights in both states the water that is available will be apportioned to rights in the two states on the basis of priority of rights in the two states.

2. The total unused or unapportioned divertible flow of the Big Horn River Basin is divided:

____ % to Montana
____ % to Wyoming

(The percentages are to be based on potential irrigable areas in the two states as determined by the Engineering Committee and approved by the Compact Commissioners).

3. Same agreement for stock water diversions as in the 1944 Compact.

Mr. Bunston moved that the report be accepted and referred to the Drafting Committee. The motion was seconded and carried.

0082

MT v. WY/M.T.D. App.
139 (WY)

In the absence of any Commissioners from the Clarks Fork area, Mr. Lloyd reported that he and Mr. Buck had agreed on certain principles for use in the preliminary draft and that these principles should be subject to review by Commissioners in the area. The principles are as follows:

1. All existing rights to the beneficial use of the waters of the Clarks Fork Basin in the States of Montana and Wyoming valid under the laws of these states as of January 1, 1950, are hereby recognized and shall be and remain unimpaired by this Compact.

2. The total unused or unappropriated divertible flow of the Clarks Fork River Basin is divided:

40% to Montana
60% to Wyoming

3. Same provision for stock reservoirs as in the 1944 Compact.

Mr. Lloyd moved that the report be accepted and referred to the Drafting Committee.

Mr. Jones moved that the Chairman be authorized to appoint a Drafting Committee. The motion was seconded by Mr. McNally and carried.

After some discussion it was agreed that the States of Montana and Wyoming would hold state caucuses to suggest members for the Drafting Committee. Mr. Walsh suggested that Mr. Acker be appointed to the Committee from North Dakota with such engineering assistants as needed.

It was moved to recess for 20 minutes for the states to caucus. The motion was seconded and carried. The meeting recessed at 8:30 p.m.

The meeting reconvened at 8:55 p.m.

Mr. Walsh asked that Mr. Axel Persson be included on the Drafting Committee.

MT v. WY/M.T.D. App.
140 (WY)

0083

Mr. Buck, MT reporting for Montana, suggested Mr. Leonard as a member of the Drafting Committee, with Mr. Buck and members of the Engineering Committee as a whole to be available for engineering advice.

Mr. Lloyd, WY reporting for Wyoming, suggested Mr. McNally as a member of the Drafting Committee, with the State Engineer and Engineering Advisors Mr. Goodrich and Mr. Person to be available for engineering assistance.

The Chair announced that Mr. Burke and Mr. Myers would be available for assistance as needed. Mr. Humphreys asked whether the Drafting Committee would have before it the paragraph suggested by the Commissioner of Indian Affairs and presented by Mr. Turnbull at the November meeting of the Commission, reading as follows:

> "Notwithstanding all other provisions in this Compact, the apportionment of water for which provision is made in this Compact is subject to the first and prior water rights reserved for Indians, for Indian Tribes and for Indian reservations, whether such first and prior water rights of the Indians are inchoate or covered by Federal Court decrees at the date of this Compact."

The Chair stated that the paragraph would be placed in the hands of the Drafting Committee.

Mr. Buck said that he supposed that Mr. Hanna would sit with the Drafting Committee to assist in matters pertaining to Indian rights. This was agreed to.

The Chair asked how much time would be needed for the Commissioners to consider a draft of Compact after it is circulated, and it was agreed that at least two weeks would be required.

Mr. Bunston MT inquired about including the Little Horn in the Compact. Mr. Buck MT suggested that the Little Horn be included. There is some irrigated land in Wyoming. The entire drainage area in Montana is within the Indian reservation, but there is some white-owned land included therein.

The Chairman asked whether the Little Horn could properly be included in the provisions relating to the Big Horn. It was agreed that this probably should not be done. Messrs. Metz and Bunston asked whether there was any representation from the Little Horn. There being none, it was agreed that Mr. McNally from Wyoming and Messrs. Bunston and Hanna from Montana would discuss the matter with irrigators in the two states. Messrs. Lloyd and Buck will take up with the Governors of the two states the question of Commissioners representing these areas.

Mr. Leonard requested that Mr. Burke, Regional Counsel of the Bureau of Reclamation, and the Engineering Committee submit to the Drafting Committee a suggested form of Compact. He discussed the procedure of drafting previous Compacts and asked whether Mr. Burke would be willing to prepare the first draft. Mr. McNally and Mr. Acker concurred in the request. Mr. Pratt agreed to phone Mr. Burke and inquire whether he would accept this assignment. Following the phone call, Mr. Pratt reported that Mr. Burke would accept the assignment, but wanted specific instructions as to whether he should fit the agreed upon provisions into the 1944 draft or should begin with a completely new draft. Mr. Acker moved that the draft prepared by Mr. Burke should be a completely new start, built from the ground up. The motion was seconded and unanimously carried.

Mr. Thornton suggested the importance of discussing the draft of Compact with the water users in the various areas, and pursuant to this subject there was discussion as to the number of copies of the draft which would be required by each Commissioner. It was requested that the Secretary arrange to send copies of the draft to parties in the Upper Yellowstone Valley in Montana for their information.

It was agreed that the call for the next meeting would be made by the Chairman and would be transmitted with the drafts of the Compact at least two weeks in advance of the date of the meeting.

It was requested that the Drafting Committee and the Engineering Committee each meet for a short time after adjournment.

MT v. WY/M.T.D. App.
142 (WY)

0085

The Chair asked the Secretary to express the thanks of the Commission to the hotel for the accommodations furnished.

It was moved that the meeting adjourn, subject to the call of the Chairman. The motion was seconded and carried. The meeting adjourned at 9:50 p.m.

O. C. Reedy
Secretary

Approved:
R. J. Newell, Chairman
October 24, 1950

ATTEND.NCE RECORD
February 1-2, 1950

Montana

Commissioners

J. W. Bradshaw
Fred E. Buck
H. W. Bunston
John Herzog
Ashton Jones
A. Wallace Kingsbury
P. F. Leonard
Joseph Muggli
Chester E. Onstad
Axel Persson
Keith W. Trout

Others

Gerald J. Oravetz
James E. Cook
D. A. Pouliot
H. L. Bille
Wayne W. Linthacum

North Dakota

Commissioners

I. A. Acker
J. J. Walsh

Wyoming

Commissioners

Earl T. Bower
J. Harold Cash
Ben F. Cochrane
R. L. Greene
E. C. Gwillim
E. J. Johnson

0087

Lee E. Keith
N. V. Kurtz
R. E. McNally
Will G. Metz
Mark N. Partridge
A. R. Shreve
Charles M. Smith
L. F. Thornton
Dr. M. B. Walker

Others

D. A. Geier
R. D. Goodrich
Earl Lloyd
H. T. Person

Others

R. J. Newell - Chairman - Federal Representative
O. C. Reedy - Secretary
C. L. Myers - Chairman, Engineering Committee
Bureau of Reclamation
K. F. Vernon - Bureau of Reclamation
G. O. Pratt - Bureau of Reclamation
D. C. Ketcham - Bureau of Reclamation
R. J. Young - Bureau of Reclamation
W. S. Hanna, - Bureau of Indian Affairs
A. B. Melzner - Bureau of Indian Affairs
Geraint Humpherys - Bureau of Indian Affairs
D. F. Burroughs - National Park Service
J. D. Goshorn - U.S. Geologic Survey
K. B. Revnich - U.S. Geologic Survey
R. E. Morgan - Bureau of Land Management
H. T. Tysk - Bureau of Land Management
C. A. Cocks - Corps of Engineers
R. J. Pafford - Corps of Engineers
J. G. Lightfoot - Corps of Engineers
C. A. Stiles - Corps of Engineers
Kirk M. Sandals - Soil Conservation Service

0088

YRCC Meeting Minutes of November 29, 1949

6800 0089

YELLOWSTONE RIVER COMPACT COMMISSION

MINUTES



1949 - 1950

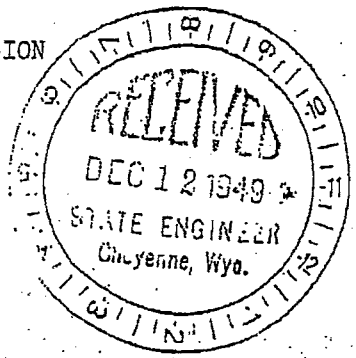
MT v. WY/M.T.D. App.
110 (WY)

0090

YELLOWSTONE RIVER COMPACT COMMISSION

Billings, Montana

Dec. 7, 1949



Members of Yellowstone River Compact Commission

Gentlemen:

Attached is a draft copy of the minutes of the first meeting of the Yellowstone River Compact Commission held at Billings, Montana, on November 29, 1949.

Sincerely yours,

O. C. Reedy, Secretary
c/o Bureau of Reclamation
P. O. Box 2130
Billings, Montana

0091

YELLOWSTONE RIVER COMPACT COMMISSION

Minutes of Meeting
Nov. 29, 1949

The first meeting of the Yellowstone River Compact Commission was held at the Northern Hotel in Billings, Montana, on November 29, 1949, and was called to order at 10:00 a.m. by Mr. R. J. Newell, Federal representative on the Commission.

Mr. Fred Buck moved that Mr. Newell serve as permanent Chairman of the Compact Commission. Mr. Lloyd seconded the motion which was unanimously carried.

It was moved, seconded, and unanimously carried that a secretary be elected. Mr. O. C. Reedy was nominated, and there being no further nominations was unanimously elected to serve.

The members of the Wyoming delegation were introduced by Mr. Earl Lloyd, Deputy State Engineer of Wyoming, and the members of the Montana delegation by Mr. Fred Buck, State Engineer of Montana. Mr. I. A. Acker was the only representative from North Dakota. Representatives of Federal agencies and unofficial observers were introduced by the Chairman. A complete attendance list is appended.

The Chairman asked for an expression of the desires of the Commission with respect to whether the meetings would be open to the public and the press, closed, or partially open. Messrs. Lloyd, Buck, and Acker expressed the belief that the meetings should be open, and there being no objections it was so ordered.

The Chairman inquired whether a verbatim transcript of the record would be required or whether a complete set of minutes would suffice. Messrs. Buck and Lloyd recommended that a verbatim transcript not be required; and there being no objection, it was so ordered.

The Chair suggested that approval of the minutes be deferred until the following meeting, with a draft copy of the proposed minutes being furnished to each member of the Commission, and others entitled to copies, as soon as possible after each meeting. After some discussion, there being no objection, it was so ordered.

The Chair asked whether anyone had objection to standardizing on 8 x 10½" paper for the records, and there being no objection it was agreed that this would be done.

The Chair inquired as to the matter of voting procedure. After discussion, it was concluded that voting was not important in Commission meetings. The Compact, as negotiated, must be unanimously supported by the Commission, and the disparity of the size of delegation from the three states will not be of consequence.

At the request of the Chairman, for use in preparation of mailing lists and record of attendance, all present filled out cards giving names, addresses, and official connections.

The Chairman suggested that unless someone desired otherwise, he would call on the State delegations for introductory statements with respect to the problems which would be encountered in drawing up the Compact. Mr. Earl Lloyd made a brief introductory statement

for the State of Wyoming. Wyoming feels that a Compact on the Yellowstone River and tributaries is essential in view of new developments proposed. He described the area in Wyoming and its tributaries and pointed out that all areas were represented by members of the Commission. The provisions of prior Compacts have been satisfactory with respect to the Clarks Fork and the Big Horn Rivers, and in general the Powder River. There has been difficulty, however, in reaching a satisfactory solution of the problems on the Tongue River.

Mr. Goppert, representing the Clarks Fork area, indicated that no serious controversy between Wyoming and Montana existed with respect to that stream. There was in general sufficient water for present irrigation, and probable future irrigation. This was particularly true if reservoirs proposed to be built for power purposes were constructed, as they would provide adequate regulation. These, or some other storage facilities, would be required for ultimate development. Mr. Bower, representing the Big Horn River area, indicated that storage would be necessary to permit full beneficial use of the water of the Big Horn. He indicated that there is sufficient water, if properly stored and conserved to meet needs of both states. Mr. Cochrane, representing the Wind River area, described the extensive potential developments in Fremont County and emphasized the need for a supplemental supply for existing irrigators. He described the procedure under which present appropriators divert more than the legal

0094

allowance, spreading water on their lands and effecting storage in this manner. He pointed out that if their diversions were cut back to the legally permissible quantities it would work a hardship on them unless other storage facilities were provided. Mr. Gwillim described the Tongue River as a typical mountain stream, fed by two main tributaries. It has heavy runoff in the spring, with a shortage in the late season, and will require storage facilities to permit conservation and use of the water. Mr. Greene, representing the Powder River, also spoke of the problem of storage, that stream being very similar to the Tongue River.

The Chair then called on Mr. Fred Buck, who described the Yellowstone Basin in Montana. He pointed out that all consequential tributaries of the river entered from the south, except for the Shields River which flows from the north. This fact creates a situation under which Montana is dependent on Wyoming for water in the Yellowstone River. Mr. Buck then described previous attempts to reach an agreement, beginning in the early 1930's and extended through 1947. He pointed out the methods used in reaching the conclusions expressed in the 1944 draft of Compact, describing the three blocks of water which were allocated; first, that needed for existing irrigation; second, that for potential irrigation; and third, that which remained.

Mr. Jarussi stated that Carbon County, Montana, has an adequate supply of water to serve existing and potential irrigation,

MT v. WY/M.T.D. App.
115 (WY)

0095

the problem being how best to use the water. Mr. Bunston described the Big Horn Basin, Montana, and pointed out the importance of storage. There is considerable runoff between the last diversion in Wyoming and the first diversion in Montana, but this runoff comes too early in the season to be of much use to the Montana irrigators, and for useful water they must depend on flow across the State line. Yellowtail Dam and Reservoir proposed for construction may solve the problem of storage. Another complicating factor is the treaty rights of the Indians, which must be considered. Mr. Manning suggested that the problem is principally mechanical and that if the factual data are made available an equitable determination can be made to form the basis for a Compact. He recommended the importance of telling the people in the area that the problem can be solved and is being solved in an equitable and amicable manner and not taking a defeatist attitude.

Mr. Leonard described briefly the Tongue River situation. He pointed out that storage has been mentioned by nearly every speaker, but that the Compact does not concern storage but rather deals with natural flow, and that this fact must be kept in mind. Previous Compacts were based on lands irrigated without regard to priorities of irrigation as between the states. He suggested that there might be some difference of opinion as to the validity of this approach. He further pointed out that the water being divided is that which crosses the State line, not that which exists at any other point.

9600

Mr. Muggli, also representing the Tongue River area, reiterated that the problem was one of an equitable division of the water, not a question of storage. Mr. Onstad, speaking for the Powder River interests, pointed out that there had not been much difficulty in reaching an accord on the Powder River previously, and he saw no reason for serious problems to arise this time. He agreed that storage was not a part of the Compact, but suggested that the construction of storage facilities might likely prove a solution to many of the problems which would arise with or without a Compact. Mr. McLaughlin and Mr. Herzog spoke briefly about the interests of the irrigators along the main stem.

Mr. Acker described the relatively small drainage area in North Dakota. He pointed out that, comparatively, North Dakota has a minor interest in the water of the Yellowstone, but does desire adequate water for all its potentially irrigable area amounting to some 24,000 acres, including that now irrigated. Some of the area now irrigated diverts in Montana, and this introduces a minor complication in the drawing up of a Compact. Mr. Acker also mentioned the minor tributaries of the Yellowstone, which rise in North Dakota and pass through Montana before reaching the river. There has been some development along these streams, and more development is in prospect; and the state is, of course, interested in protecting these water users. Mr. Acker pointed out specifically the second paragraph of sub-Article A5 of Article V of the 1944 draft of Compact and suggested

MT v. WY/M.T.D. App.
117 (WY)

0097

that consideration be given to eliminating this paragraph, since it seemed to have no meaning. He felt that it was not necessary to have a Compact, including Federal ratification thereof, for every agreement that the states might reach on the division of water. Sometimes this would be necessary, but in many instances where Federal interests are not involved he felt that an agreement between the states themselves might serve as well as the more formal Compact to accomplish division of water. He returned to the discussion of storage and indicated ways in which storage might modify some of the problems, giving as an example the construction of Baldhill Reservoir on Cheyenne River by the Corps of Engineers. The Corps is taking no part in the use of the stored water, but has indicated that this is a problem for the State and other agencies to solve.

Mr. Newell presented the interests of the several Federal agencies very briefly, the overall Basin development activity of the Bureau of Reclamation and the Corps of Engineers, the general interest of the Department of Agriculture in anything that affects farming and the specific interests of the Forest Service and Soil Conservation Service of that Department in conservation measures on areas which they control. He emphasized the many extensive interests of the Bureau of Indian Affairs in the area, particularly in the Wind River Basin at the head of the Big Horn and in the Lower Big Horn. The Bureau of Land Management has extensive interests in the public domain within the Yellowstone Basin in Wyoming and Montana, and

0098

minor, if any, interests in North Dakota. The National Park Service is interested in protecting Yellowstone National Park and in the overall recreational aspects of development of the Missouri River Basin.

The Chairman posed the question of how to approach the assignment. Mr. Lloyd suggested setting up an Engineering Subcommittee which would assemble all available data. The states and the Bureau of Reclamation would be represented on the Committee, and possibly the Geological Survey and Federal Power Commission. (It was pointed out that Mr. Lesher S. Wing of the Federal Power Commission will be present at future meetings of the Compact Commission.)

Mr. Buck stated that the idea of the Engineering Subcommittee had struck him somewhat suddenly, and compared that suggestion with the manner in which the International Joint Commission operated with respect to International streams through an Engineering Board and Engineering Committees. He pointed out that the same method was used in negotiating a Compact on the Upper Colorado River, and concluded by concurring in the suggestion. Other Commissioners from Montana and Wyoming also concurred, and Mr. Bower suggested the importance of having accurate basic data for use in selling a proposed Compact to the legislatures of the several states. Messrs. Gwillim and Lloyd discussed the extent of the data already available in Wyoming and that which they believed would be available in the files of the Bureau of Reclamation. Mr Leonard stated that he

6600

concurred in the idea, that it necessarily followed that the present meeting would be a preliminary organization meeting only, that the collection of data would take some time, and he raised the question of how much time would be required. He pointed out that the study should cover not only lands irrigated, but also other physical factors involved. The Chair urged the necessity of limiting the activities of the Committee by means of specific instructions, and suggested a recess so that the State delegations could discuss the question, outline proposed instructions, and recommend Committee appointments.

Mr. Lloyd suggested the possibility that the Committee might meet today and make recommendations as to the data which would be required. Dean Goodrich described the complexity of the situation on the Upper Colorado and stated that it took about two years to collect the data, but that he saw no need for any such length of time to be required in this case.

Mr. Bunston (MT) moved that an Engineering Committee be appointed to study the problem, the motion was seconded, and after some discussion withdrawn.

It was moved to recess after the news picture was taken until 2:00 p.m. The motion was seconded and carried.

The discussion continued on the activities of the Committee with a suggestion that the Committee be furnished the order in which the streams would be studied so that data could be collected

in that order. It was suggested that the Commissioners representing areas along each stream might meet to discuss specific problems prior to the next meeting of the full Commission. The Chair suggested that data should be available at the earliest possible date, and asked Dean Goodrich to be prepared to estimate how long the study would require.

Mr. Gwillim stated that the time would be largely dependent on the amount available from the Bureau. Mr. Pratt promised, on the behalf of the Bureau, that all available material could be utilized and all possible help would be given. Portions of the 1938 report to the Wyoming legislature were read, which outlined data lacking at that time, but in process of collection. It was pointed out that most of these data have been collected and are now available. There was further discussion of the basis of negotiating former Compacts.

After a news photo the Commission recessed to meet at 2:00 p.m. at the Commercial Club.

The Commission reconvened at 2:00 p.m.

The Chair introduced the Honorable John W. Bonner, Governor of Montana, who welcomed the Committee to the state, pointed out the importance of the job of drawing a Compact for the division of the waters of the Yellowstone River and of the need of having a report to present to the Montana legislature at its next session in January 1951. He spoke of this activity as democracy in action

where three states meet to consider their mutual problems and reach agreement thereon.

The Chair called for further discussion of procedures.

Mr. Lloyd urged that an Engineering Committee be set up to assemble basic data.

Mr. McNalley moved that the Chair appoint an Engineering Advisory Committee consisting of three representatives from Montana, three from Wyoming, and representatives of Governmental agencies to investigate, gather data and assist the Compact Commission. The motion was seconded.

It was recommended that the Bureau of Reclamation, Geological Survey and Federal Power Commission have representatives on the Committee.

It was suggested that North Dakota should be represented and the maker of the motion stated that the omission was an oversight. Mr. Acker asked that the State Engineer of North Dakota be the only Committee member from that state. It was suggested that the State Engineers of the three states be designated on the Committee with power to call on others for assistance. Mr. Lloyd stated that the State Engineer of Wyoming, as ex-officio Interstate Streams Commissioner, would probably prefer not to serve on the Engineering Committee. Mr. Buck suggested that three representatives from each state should not be necessary, that one would be sufficient.

There was general discussion of the makeup of similar committees to advise other compact commissions. That for the Snake River consisted of one from each state and one Federal representative from the Bureau of Reclamation. For the Upper Colorado Committee each state appointed whatever number of Committeemen it desired, and the Federal representative added assistants as he wished.

It was moved to amend the motion by reducing the representation to one from each state and one from the Bureau of Reclamation.

Motion was seconded and unanimously carried.

~~The motion as amended was unanimously carried.~~

The Chair asked the state groups to furnish names of the state representatives. Mr. Fred Buck was suggested as Montana representative. There was some discussion of the situation in Wyoming.

Mr. Acker moved that the representatives on the Engineering Committee be authorized to deputize any persons that they see fit to assist them.

The motion was seconded and carried.

The Chair appointed the State Engineers of the three states, Mr. Fred Buck from Montana, Mr. J. J. Walsh from North Dakota, and Mr. L. C. Bishop from Wyoming, together with Mr. Carl L. Myers as the Bureau of Reclamation representative.

The Chair asked if written instructions would be required for the guidance of the Committee.

MT v. WY/M.T.D. App.
123 (WY)

0103

Mr. Manning suggested four items to be required, and as discussion continued the list was expanded to the following:

1. A flow table on the main stem and tributaries.
2. Acreage irrigated.
3. Potential irrigable acreage together with the source of records and estimate.
4. Record of priorities in the three states.
5. Consumptive use of water including industrial use.
6. Climatological data.
7. Storage available.
8. Potential Storage.

Mr. Buck suggested that the compact should be based on the same general theory as the previous Compact. Mr. Gwillim moved that the Committee report by January 15 what information is available and what will be required. There was discussion of the time required to make such a report by Messrs. Gwillim, Buck, Acker, and Myers. The motion was withdrawn.

Mr. Manning moved that the Chair be authorized to appoint a representative of the Bureau of Indian Affairs on the Engineering Committee.

The motion was seconded, and after brief discussion carried.

Mr. W. S. Hanna was appointed.

0104

MT v. WY/M.T.D. App.
124 (WY)

Mr. Gwillim moved that as soon as the Committee convened and elected a Chairman it would, at the call of its Chairman, issue a report. The motion was seconded.

Mr. Bower commented that a time limit only would constitute sufficient restriction on the activities of the Committee. Mr. Pratt suggested that the Committee report should include a tabulation of data available and a suggestion as to further items which would be needed.

Mr. Gwillim's motion was withdrawn.

Mr. Pratt moved that the Engineering Committee heretofore selected be instructed by the Commission to prepare as soon as possible, but not later than January 15, 1950, a tabulation of existing information included within the eight items previously discussed, and a tabulation of further items which the Committee feels are required to enable the Commission to arrive at a sclution.

The motion was seconded.

Mr. Bunston suggested that in its initial tabulation the Committee might add such items as it had available and felt would be necessary. There was discussion of the instructions and the time limit imposed.

The motion was carried unanimously.

Mr. Myers asked that the Committee members present meet at his office to look over data available and determine what portions thereof can be used in present form.

MT v. WY/M.T.D. App.
125 (WY)

0105

Mr. Hanna asked for a discussion of future program of the Commission after the Committee report was issued. There was discussion of the date for the next meeting. Mr. Bower suggested that the Chairman call a meeting of the Commission whenever he felt anything could be accomplished. Mr. Newell asked if the report should not be circulated to the Commission members a few days before the next Commission meeting. There was general concurrence on the proposal, and it was agreed that the call for the next meeting would go out with the Engineering report.

The Chair asked for further discussion of procedure or of any details that might be taken up.

Mr. Leonard (MT) brought up a discussion of a second paragraph of sub-Article A5 of Article V of the 1944 draft of Compact, reading as follows:

> "All residual flows of the Yellowstone River below Sidney, Montana, after the states of Montana and Wyoming have made, or may make, full beneficial use of the waters of said stream, is hereby allotted to the State of North Dakota."

Mr. Acker moved that this paragraph be excluded from the proposed Compact.

The motion was seconded.

The Chair ruled the motion out of order since the details of the Compact were not under discussion.

MT v. WY/M.T.D. App.
126 (WY)

0106

MT

Mr. Bunston inquired whether North Dakota should not be entitled to a specific amount of water based on acreage within that state rather than having only a right to whatever was left. There was discussion of the problem and of the related matters of the rights to water in streams rising in North Dakota and flowing into the Yellowstone River, and of extensive sprinkler irrigation. There was considerable discussion of the division of the water between Montana and North Dakota at the lower end of the river.

Question was asked whether any of the Boulder River Drainage Basin extended into Wyoming. Mr. Myers stated that neither the Boulder nor the Stillwater Basins extended over the Wyoming state line.

The question of the status of treaty rights of the Indians came up for discussion, and Mr. Turnbull presented language prepared to serve as a substitute for Article XV of the 1944 draft, which language was proposed by the Commissioner of Indian Affairs. There was considerable discussion of the meaning of the language, the need for such language, and of the position of the Bureau of Indian Affairs in general and the legal niceties involved.

It was moved that the meeting adjourn subject to the call of the Chairman. Motion was seconded and passed, and the meeting adjourned at 3:50 p.m.

O. C. Reedy
Secretary

ATTENDANCE LIST

November 29, 1949

Members of the Commission

Federal Representative

R. J. Newell

Montana

A. W. Bradshaw
Fred E. Buck
H. W. Bunston
John Herzog
John M. Jarussi
A. Wallace Kingsbury
P. F. Leonard
Walter M. McLaughlin
Dave M. Manning
Joseph Muggli
Chester Onstad
Keith W. Trout

North Dakota

I. A. Acker

Wyoming

Earl T. Bower
J. Harold Cash
Ben F. Cochrane
Ernest J. Goppert
R. L. Greene
E. C. Gwillim
E. J. Johnston
Lee E. Keith
N. V. Kurtz
Earl Lloyd
R. E. McNally
Mark N. Partridge
A. R. Shreve
Charles M. Smith
L. F. Thornton
Dr. M. B. Walker
R. D. Goodrich - Engineering Advisor

0108

Others

W. M. Berry, Prairie Farms Rehabilitation Adm., Canada
Gerald J. Oravetz, Montana State Engineer's Office
Oscar Noberg, " " " "
Mr. Cook " " " "
Walter J. Turnbull, Jr., Bureau of Indian Affairs
A. B. Melzner " " " "
W. S. Hanna " " " "
John D. Goshorn, Geological Survey
Frank A. Swenson, " "
K. R. Nelin " "
Harold T. Tysk, Bureau of Land Management
D. F. Burroughs, National Park Service
E. L. Doeling, Fish and Wildlife Service
Geo. O. Pratt (for K. F. Vernon), Bureau of Reclamation
Alvin E. Bielefeld, Bureau of Reclamation
D. N. Lindoman " " "
Leonard B. Desmul " " "
D. C. Ketchum " " "
R. H. Workinger " " "
Carl L. Myers " " "
R. J. Young " " "
O. C. Roedy, Secretary

0109

MAILING LIST

YELLOWSTONE RIVER COMPACT COMMISSION

Montana Commissioners

A. W. Bradshaw, Locate, Montana
Fred E. Buck, State Engineer, P. O. Box 1720, Salem, Mont.
H. W. Bunston, Hardin, Montana
John Harney, Miles City, Montana
John M. Jarussi, Joliet, Montana
A. Wallace Kingsbury, Valier, Montana
P. F. Leonard, Miles City, Montana
Walter H. McLaughlin, P. O. Box 1018, Billings, Mont.
Dave M. Manning, Wyuhra, Montana
Joseph Muggli, Miles City, Montana
Chester Onstad, Brockton, Montana
Keith W. Trout, 312 N. 6th St., Miles City, Mont.
Axel Persson, Mgr. Lower Yellowstone Project, Sidney, Mont.

Other

Gerald J. Orreths, Mont. State Engr. Office, P. O. Box 873, Billings

North Dakota Commissioners

I. A. Acker, Special Asst. Atty. Gen. for the State Water Com., of No. Dakota, Bismarck, North Dakota
J. J. Walsh, Bismarck, North Dakota
(State Engineer)

0110

MT v. WY/M.T.D. App.
130 (WY)

MAILING LIST

YELLOWSTONE RIVER COMPACT COMMISSION

Wyoming Commissioners

L. C. Binkley, State Engineer, Cheyenne, Wyo.
Paul T. Durbin, Worland, Wyoming
J. Harold Gum, Hayden, Wyoming
Ben F. Cockrane, Lander, Wyoming
Ernest J. Copsey, Cody, Wyoming
R. L. Greene, Box 231, Buffalo, Wyo.
E. C. Griffith, 110 Kilbourne St., Sheridan, Wyo.
E. J. Johnson, Sheridan, Wyoming
Lee E. Keith, Wayne, Wyoming
D. W. Morton, 310 Avoca Ave., Sheridan, Wyo.
Will C. Metz, Buffalo, Wyoming
R. E. McNally, Sheridan, Wyoming
Mark H. Partridge, Cody, Wyo.
A. R. Sherer, Sheridan, Wyoming
Charles M. Smith, Thermopolis, Wyo.
L. F. Thornton, Thermopolis, Wyo.
Dr. H. B. Walker, Ralin, Wyo.

Colo.

R. D. Goodrich, Laramie, Wyo. (University of Wyo.)
Basil Lloyd, Deputy St. Engr. of Wyo., Cheyenne, Wyo.
H. B. Person, University of Wyo., Laramie, Wyo.
Norman E. Gray, Cheyenne, Wyoming

0111

MAILING LIST

YELLOWSTONE RIVER COMPACT COMMISSION

Representatives of Federal Agencies

R. J. Newell, P. O. Box 1866, Boise, Idaho
O. C. Reedy, P. O. Box 2130, Billings, Montana
(9) Harrell F. Hochaugh, Supervisor, Missouri River Basin Inv., Fish & Wildlife Service, Billings, Montana
Chief Irrigation Counsel, Bureau of Indian Affairs, 540 - 5th & Figueroa Bldg., 751 S. Figueroa St., Los Angeles 17, Calif.
Paul Fickinger, Area Director, Region 2, Bureau of Indian Affairs, 302 N. 29th St., Billings, Montana
W. S. Hamel, Area Engineer, Region 2, Bureau of Indian Affairs, 302 N. 29th St., Billings, Montana
H. C. Beckman, Regional Engineer, Geological Survey, Box 133, Rolla, Missouri
(6) Lawrence C. Merriam, Regional Director, Region 2, 307 Federal Office Bldg., Omaha 2, Nebraska (Nat'l. Park Serv.)
Dan Burroughs, Recreation Planner, Nat'l. Park Service, Box 107, Billings, Montana
Lathan S. Wim, Regional Engineer, Federal Power Commission, Custom House, 555 Battery St., San Francisco 11, Calif.
(5) Charles T. Brokaw, Regional Director, Dept. of Commerce, 628 - 17th St., Denver 2, Colo.
Glenwin T. Young, Dept. of Agriculture, Rudge-Russell Bldg., Lincoln, Nebraska
Brig. Gen. S. D. Sturgis, Jr., Division Engineer, Corps of Engineers, Farm Credit Bldg., Omaha 2, Nebr.
Dist. Engineer, Corps of Engineers, Ft. Peck, Mont.
Attn. John G. Lighfoot
W. G. Sloan, Interior Missouri River Basin Field Committee, Federal Bldg., Billings, Montana
R. F. Vernon, Bureau of Reclamation, Box 2130, Billings
Regional Counsel, Bureau of Reclamation, Box 2130, Billings
D. C. Ketcham, District Manager, Yellowstone Dist., Bureau of Reclamation, Box 1369, Billings
J. L. Myers, Yellowstone Dist., Bureau of Reclamation, Box 1269, Billings, Montana
R. H. Workinger, District Manager, Big Horn District, Box 629, Cody, Wyoming (Bur. of Recl.)
H. J. Zeng, Dist. Hydrologist, Big Horn District, Bureau of Reclamation, Cody, Wyoming
Albin B. Melcher, Bureau of Land Management, 1245 E. 29th St., Billings, Montana

0112

YRCC Meeting Minutes
of October 10, 1940

Minutes of the Meeting of the

YELLOWSTONE RIVER COMPACT COMMISSION

Held in the Chamber of Commerce Building, Billings, Montana

October 10, 1940

(The statements as given in these minutes are not verbatim, except as indicated by quotation marks)

Commissioner Clyde L. Seavey of the Federal Power Commission opened the meeting at 10:00 a.m. and asked Mr. Wing to make a statement covering the work of the Compact Commission to date.

Mr. Wing: Two previous meetings of the Compact Commission have been held. The first was held at Billings, Montana on May 5, 1938, and the second, at Thermopolis, Wyoming on November 21 and 22, 1938. The first meeting was held for the purpose of determining the information needed for drafting the Compact and how it might best be obtained. It soon became obvious that insufficient information regarding present and potential uses of water was available and that it would require considerable time in which to gather it.

At the meeting in Thermopolis a report was presented which contained such information as had been collected up to that time. Based on this information, a "progress report" was drafted for submission to the State legislatures and to the Congress. Subsequent to the submission of this progress report, Congress passed an amendment to the act extending the time for the drafting of the compact, and also included North Dakota as a party to any agreement that might be entered into.

In addition to the data secured by the Compact Commission, information relating to existing and potential irrigation development in the Yellowstone Basin has also been compiled by the National Resources Planning Board. This information was compiled in the Omaha District Office of the U. S. Engineer Department under the direction of Lt. Col. W. M. Hoge. This information was subsequently made available to the Compact Commission and, to a large extent, has been incorporated in its latest revised report. Since the meeting at Thermopolis, the U. S. Bureau of Reclamation also has begun a survey of the irrigated and irrigable areas in the Big Horn Basin and in portions of the Yellowstone Basin above Billings. Additional and up-to-date information relating to irrigated lands and priorities of water-use is also being

0114

collected under the sponsorship of the Montana State College and the Montana Water Conservation Board. Mr. Donohue will presently submit a report of the work done by Montana. The U. S. Bureau of the Census has completed its decennial census of irrigation. The report of this census, which will be available in 1941, should contain data of value to the Compact Commission.

Such data as are now available have been compiled by the Federal Power Commission in a report that is now in draft form. It plans to submit the report in the near future to the members of the Compact Commission for their information and criticism.

Mr. Seavey: "Up to what date does the report cover?"

Mr. Wing: The report has been kept up to date insofar as possible. The Army has made a new survey, but this information has not yet been made available. Perhaps Colonel Hoge could tell more about it.

Col. Hoge: A new report of the Yellowstone Basin has been finished but has not yet been released.

Mr. Wing: "Were there many revisions?"

Col. Hoge: "Yes, there were revisions of the irrigable areas, but no further studies of water use have been made."

Mr. Simmons: The Indian Service is making a study of water use on the Big Horn.

Mr. Hanna: The Indian Service has already submitted figures on areas that are irrigated in Indian projects. These figures were gathered from the projects shortly after the last Compact Commission meeting. A new survey of irrigated and irrigable land is now in progress on the Big Horn. This survey is a check on water available and water use. It covers the Wind River Reservation and Crow Reservation.

Mr. Simmons: A major problem of the compact is the water rights of Indian lands. At the first meeting of the Compact Commission, the case of United States vs. Powers over the waters of the Little Horn was discussed. In this case the United States, on behalf of the Indians, brought suit against an individual irrigator not on an Indian project ditch. The court decided that the Indians had treaty rights to irrigate all of their lands that were susceptible of irrigation. These rights date from the time of the treaty, and, since the statute of limitations does not apply to the United States or its wards, these rights are the senior rights in the basin and may

be taken up at any time. There are thousands of acres in the Crow and Wind River Reservations that have never been irrigated. What would be the situation if these lands were brought under irrigation under the Powers case decision? On both the Crow and the Wind River Reservations about 75 percent of the lands are owned by Indians and about 25 percent by whites. The Indian lands cannot, under present laws, be alienated.

The subject of reservoirs came up, and, since the Boysen project was mentioned, Mr. Wing asked Colonel Hoge if he could give any information on this project.

Col. Hoge: Representatives of both Montana and Wyoming have had an opportunity to examine the report and somehow it managed to get into the newspapers. The review of the 308 Report is not as detailed as is generally believed. It is concerned principally with flood control, and those tributaries having no flood control features were not examined thoroughly. Reservoir sites were examined and evaluated. It was concluded that the Lower Canyon site, the Boysen site, the upper and lower Big Horn Canyon sites and the Moorhead site were the best sites available. Water supply and foundations were studied. The report recommended that a dam be constructed on the Big Horn, but left the decision as to the site to the Chief of Engineers. The Boysen reservoir would have a capacity of about 3,000,000 acre-feet, and the lower Big Horn Canyon site would have a capacity of from 1,500,000 to 2,000,000 acre-feet. The other feasible sites included the Yankee Jim Canyon site, but the Big Horn sites were considered better. The general conclusion was that there was a surplus of water that could be stored and used for irrigation and other purposes.

At a Denver meeting of the National Resources Planning Board about a year ago it was agreed that if state and other agencies would submit new information to the Omaha office, the Engineer Office would compile it and keep the data up to date. So far we have received no additional information since the first was gathered.

Mr. Wing: "Mr. Sloan, will you make a statement on the work the Bureau is conducting?"

Mr. Sloan: The Bureau of Reclamation is trying to carry on where other agencies left off. It is attempting to make a complete survey of the Yellowstone basin in order to determine the best use for water, not only for irrigation, but for other purposes as well. The survey includes portions of the upper Missouri River basin, and follows down the main stem of the Missouri to the humid zone. The

0116

problem is more involved than had been anticipated. All areas that are potentially irrigable are being investigated, without careful study of the water supply, in order to find those projects which merit more detailed study. An attempt is being made to avoid duplicating work that has been done before, and data furnished by other agencies is used whenever it is available. For example, the Indian Service data has been used without checking.

The survey on the Big Horn is progressing. The work on the upper Wind River is about 70 percent complete. On the Yellowstone below Billings the survey is practically finished. On the main stem above Billings the work is almost 100 percent complete, but the work on the tributaries and on possible tie-ins with the Missouri, is far from finished. With adequate storage, the water supply on the main stem of the Yellowstone and on the Big Horn is ample for the needs of the irrigable area, although this is not true of a number of the tributaries. On the Tongue and Powder the situation is quite different. The water supply, even with storage, is not sufficient to irrigate all the land susceptible of irrigation. The problem is further complicated by the maze of interstream diversions, by a wide choice of reservoir sites, and by the fact that the Wyoming portion of the basin is highly developed whereas the Montana portion has been developed to a minor degree.

Mr. Wing: "Will the report of the survey be made available within a year?"

Mr. Sloan: "Yes. It is best not to give out information until all the data are available. The best use of the water cannot be found until all of the possibilities have been investigated."

Mr. Brown: "Are you tabulating data on priorities in your survey?"

Mr. Sloan: "No."

Mr. Brown: "In my opinion that is the crux of the matter."

Mr. Sloan: "I don't think so. The problem is to provide an adequate supply by storage. With an adequate water supply, there is no problem of priorities."

Mr. Wing: Storage is going to be the answer to additional irrigation, but a tabulation of water rights should be made available if possible.

Mr. Brown: Montana is tabulating all of the priorities on the streams that have been adjudicated, and those that have been entered in the county records. This survey is an outgrowth of the Thermopolis meeting. We are getting information on the capacity of

0117

the ditches, irrigated acres, and dates of filings. This information is very necessary, and some agency should devote itself to the task of collecting it.

Mr. Wing asked Mr. Donohue if his report was ready. Mr. Donohue read and submitted a progress report of the work done by Montana since 1938. A copy of this report is attached.

Mr. Monson: Water rights in Montana have not been recorded but have just accumulated for 75 years. It is hard to say to what extent priorities will enter into the compact. For present use, priorities are of extreme importance, although if there is enough storage, we can forget water rights. We are transcribing records of existing water rights, but other rights have been established for which there is no record. We must interview the farmers and tabulate their rights, priorities, and water use. It would perhaps be well to hold hearings in each county for the purpose of inspecting rights that have been recorded.

Mr. Wing: When do you estimate that this work will be finished?

Mr. Monson: In one year, perhaps. We are concentrating on the counties in the Yellowstone Basin.

Mr. Wing asked for a report from Wyoming.

Mr. Bishop: Mr. Sloan has covered the material in our progress report. Montana and Wyoming could cooperate on the Boysen dam. It would settle for all time the water problem on the Big Horn, including the silt problem.

Mr. Wing asked for a report from North Dakota.

Mr. McColly: Most of the acreage in North Dakota is in the Lower Yellowstone Project. The water rights for the other small projects are filed in the State Engineer's office.

Mr. Wing asked North Dakota to supply the same information that the other states had filed.

At Mr. Wing's request, Judge Stone discussed at some length the problems which confronted the states in making a compact, illustrating his points with examples from other basin compacts.

0118

Mr. Stone: It is of the utmost importance to have all of the available information at the disposal of the Compact Commission. Most errors of past compacts can be traced to inadequate information at the time they were drafted. The Supreme Court has declared that decreed rights must give way when they exceed a state's equitable share of the stream. All factors must be considered in arriving at an equitable division between states, in order to avoid litigation years from now. Litigation is extremely expensive and must be avoided. The compact method is the best method of avoiding litigation. There should not be great concern over delay in the compact, for litigation is much slower. One law suit breeds another, and litigation, once started, never ceases.

Mr. Brown reitereated that water right priorities were of great importance, and requested the Bureau of Reclamation to include them in its survey, if possible.

Mr. Simmons: The question arises as to who will pay for storage. The early rights are not interested in storage because they have an ample water supply.

Mr. Wing asked the Wyoming delegation if Wyoming would accept the water right priorities now being compiled by Montana. A member of the Commission from Wyoming replied that Wyoming preferred to wait until the Bureau of Reclamation survey was finished, and suggested that a representative from Wyoming sit in on the county hearings to be held in Montana.

0119

Mr. Brown: We are attempting to get only such facts as would be admitted as evidence before a court if there were actual litigation. If Wyoming will not accept the data we are collecting, the survey is a waste of money.

Mr. Seavey: Do any other agencies have any information to present? If not, I suggest we recess for lunch, and that during the recess each state hold a caucus to determine whether or not the data on water rights now being collected by Montana will be accepted. If this evidence is accepted, it will not be necessary to wait until adjudications are made.

This procedure was agreed upon and the meeting recessed until 3:00 p.m.

Afternoon Session

Mr. Seavey: Have the gentlemen from each state been able to reach an agreement among themselves?

Mr. Metz: To sum up - in order to make a compact that shall last for all time, two problems must be solved. They are, first, the condition which prevails today, and, second, the future situation. Wyoming suggests that the actual beneficial use now made of water be declared the principal factor in dividing the water to meet the needs of the situation as it is today. Actual use of water on land is of more importance than priorities or court decrees. Wyoming will give full faith and credit to the surveys the Montana Board is now making, and will not take advantage of its superior position on water-right filings. Expert surveys must be made by a competent agency to determine water use, water supply, and potential areas. Wyoming is willing to accept the finding of the Bureau of Reclamation. For the future, the division of water should be made with regard to the potential uses in the basin. This involves:

1. Soil study
2. Type of agriculture
3. Population
4. Cost of irrigation

Some competent authority should make a survey of the irrigable land in the basin, and determine how much water would be required to irrigate it. If there is not enough water for all the land, the less desirable projects should be eliminated without regard to state lines. Some agency, such as the Bureau of Reclamation, should decide on the average duty of water for all the potential lands, and then the water could be divided equally on the basis of the number of acres in each state. Wyoming is willing to accept the Bureau of Reclamation's estimate for the water duty.

0120

Mr. Seavey: Do I understand that you want the Bureau to determine an average use of water for all potential lands, without regard to state lines, and that the states will divide the water among themselves on the basis of potential area in each state?

Mr. Metz: Yes. That the water be divided between the states proportionately to the irrigable area. It would be a mass allocation, and each state could distribute its share as it pleases.

Mr. Bishop: If an upper state promises a lower state a definite amount, the upper state will suffer in a dry year. The water available each year must be divided proportionately each year.

Mr. Brown: There is going to be an interval before storage can be developed when shortages will occur, and consideration must be given to existing priorities during this interval. Our legislature is not going to enter into a compact that does not protect the priorities of the irrigators.

Mr. Wing: May I suggest that the present supply in the dry years be divided on the basis of present use, and that storage water and surplus water in wet years be divided on the basis of the number of potential acres in each state.

Mr. Metz: Yes. We must not foreclose the future of any state in our endeavor to alleviate the present condition.

Mr. Brown: That's true. No one is going to sign a compact that closes the future.

There followed a discussion on reservoir sites on the Big Horn, but it was agreed that it was not the duty of the Compact Commission to recommend reservoir sites to the Army Engineers.

There was a discussion of the desirability of submitting a progress report to the legislatures.

There followed a discussion of Indian rights, particularly of the fear that the states might be "haggling over someone elses' bone". The Indian lands are a minor portion of the entire basin but have prior rights.

Mr. Seavey: I asked the Secretary of the Interior to appoint someone to represent the Indians. The Office of Indian Affairs is making a survey of the needs of the Indians, and will submit a report of the findings to the Compact Commission.

Mr. Wing: It might be well to include in the compact a clause providing for subsequent rights of the Indians.

Mr. Metz requested Judge Stone to make available to the Compact Commission copies of the Rio Grande and La Plata Compacts. Judge Stone agreed to send them this material, together with copies of the proceedings.

Mr. Seavey: "Then is it agreed that Montana go ahead with its survey of water rights as planned?"

Mr. Metz: "Yes for Wyoming."

Mr. Whitney: "It is agreeable with North Dakota."

Mr. Seavey: Since Montana is including information of the actual use of water at present in its survey, would Wyoming and North Dakota be willing to collect this information in their states to supplement the water right filings?

Mr. Metz: I cannot speak definitely for the State Engineer(1), but I believe that Wyoming would rather accept the Bureau of Reclamation survey of water use. The water use in Wyoming is less than the decreed appropriations.

Mr. Whitney: We will cooperate to the fullest extent possible and get as much information as we can.

Mr. Wing: When this work was initiated two years ago we prepared an outline which each state was to follow in collecting data. We will send a copy of the outline to North Dakota.

There followed a discussion on the type of progress report that should be prepared. It was agreed that the Federal Power Commission would submit to each state copies of the report which it now has in draft form. Each state would be requested to criticize the report and to make any necessary corrections. It might then be found advisable to submit an abridged report to the state legislatures in order to keep them informed of the general direction of the negotiations. An effort will be made to have the abridged report prepared by January 1941.

The meeting adjourned at 4:30 p.m.

A list of those attending the meeting is given on the following page.

(1) Mr. Bishop was not present at this time.

0122

Name	Organization and Title	Address
Clyde L. Seavey	Member, Federal Power Commission	Washington, D. C.
E. B. Winter	Montana Member, Compact Commission	Miles City, Montana
H. F. McColly	Secretary and Chief Engineer, North Dakota Water Conservation Comm.	Bismarck, N. D.
Frank P. Whitney	N. D. Member, Compact Commission	Dickinson, N.D.
Lt. Col. Wm. M. Hoge	District Engineer, U.S. Engineer Department	Omaha, Nebraska
W. G. Sloan	U. S. Bureau of Reclamation	Denver, Colorado
H. M. Tice	Assistant State Engineer	Helena, Montana
J. W. Emmert	Yellowstone National Park	Yellowstone Park
Wesley A. D'Evart	Montana Member, Compact Commission	Wilsall, Montana
E. Walter Hunke	State Supervisor, W.P.A. Research Projects	State College, Bozeman, Montana
O. W. Monson	Montana State College	Bozeman, Montana
Carl G. Krueger	Forest Supervisor, Shoshone National Forest	Cody, Wyoming
Clifford H. Stone	National Resources Planning Board	Denver, Colorado
L. A. Campbell	Forest Service, Region 1	Missoula, Montana
Walter L. Schipull	Forest Service, Region 2	Denver, Colorado
Fred E. Buck	Secretary, Montana State Planning Board	Helena, Montana
L. C. Bishop	Wyoming State Engineer and Wyoming Inter-state Streams Commissioner	Cheyenne, Wyoming
E. B. Donohue	Montana Member, Compact Commission	Helena, Montana
C. J. Dousman	Attorney, Montana Water Board	Helena, Montana
R. G. Lyman	W.P.A. District Supervisor, Water Resources Projects	
Rockwood Brown	Montana Water Board and Member of Compact Commission	Billings, Montana
L. F. Thornton	Member, Wyoming Planning and Water Conservation Board; Member, Compact Commission	Thermopolis, Wyo.
Will G. Metz	Wyoming Member, Compact Commission	Buffalo, Wyo.
Kenneth R.L. Simmons	District Counsel, Indian Service	Billings, Montana
W. S. Hanna	District Engineer, Indian Service	Billings, Montana
J. C. Cory	W.P.A.	Butte, Montana
O. Leon Anderson	Area Conservationist, Soil Conservation Service	Billings, Montana
Edgar Reeves	State Coordinator, Soil Conservation Service	Laramie, Wyoming
L. S. Wing	Federal Power Commission	Denver, Colorado
H. O. Caperton	Federal Power Commission	Denver, Colorado

Submitted by: H. O. Caperton, Federal Power Commission, Secretary of the Meeting.

0123

Burke Draft, April 14, 1950

Burke Draft of Compact

0125

(Draft, 4/14/50)

YELLOWSTONE RIVER COMPACT

The State of Montana, the State of North Dakota, and the State of Wyoming, being moved by consideration of interstate comity, and desiring to remove all causes of present and future controversy between said States and between persons in one and persons in another with respect to the waters of the Yellowstone River and its tributaries, other than waters within or waters which contribute to the flow of streams within the Yellowstone National Park, and desiring to provide for an equitable division and apportionment of such waters, and to encourage the beneficial development and use thereof, have resolved to conclude a Compact as authorized under the Act of Congress of the United States of America, approved June 2, 1949 (Public Law 83, 81st Congress, First Session), for the attainment of these purposes, and to that end, through their respective governments, have named as their respective Commissioners:

For the State of Montana:

For the State of North Dakota:

For the State of Wyoming:

who, after negotiations participated in by R. J. Newell, appointed as the representative of the United States of America, have agreed upon the following articles, to-wit:

ARTICLE I

A. Where the name of a State is used in this Compact, as a party thereto, it shall be construed to include the individuals, corporations, partnerships, associations, districts, administrative departments, bureaus, political subdivisions, agencies, persons, permittees, appropriators, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State.

B. Any individual, corporation, partnership, association, district, administrative department, bureau, political subdivision, agency, person, permittee, or appropriator authorized by or under the laws of a signatory State, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State, shall be subject to the terms of this Compact. Where the singular is used in this article, it shall be construed to include the plural.

ARTICLE II

A. The State of Montana, the State of North Dakota, and the State of Wyoming are hereinafter designated as "Montana," "North Dakota," and "Wyoming," respectively.

B. The terms "Commission" and "Yellowstone River Compact Commission" mean the agency created as provided herein for the administration of this Compact.

C. The term "Yellowstone River Basin" means areas in Wyoming, Montana, and North Dakota drained by the Yellowstone River and its tributaries, and includes the area in Montana known as Lake Basin.

D. The term "Yellowstone River System" means the Yellowstone River and all of its tributaries, including springs and swamps, from their sources to the mouth of the Yellowstone River near Buford, North Dakota, except those portions thereof which are within or contribute to the flow of streams within the Yellowstone National Park.

E. The term "Tributary" means any stream which in a natural state contributes to the flow of the Yellowstone River, including interstate tributaries and tributaries thereof, but excluding those which are within or contribute to the flow of streams within the Yellowstone National Park.

F. The term "Interstate Tributaries" means the Clarks Fork, Yellowstone River; the Big Horn River; the Tongue River; and the Powder River; whose confluences with the Yellowstone River are respectively at or near the city (or town) of Laurel, Big Horn, Miles City, and Terry, all in the State of Montana

0128

MT v. WY/M.T.D. App.
198 (WY)

G. The term "Point of Diversion" means the point or place at which water is taken or removed from the channel of the Yellowstone River or from any tributary thereof.

H. The terms "Divert" and "Diversion" mean the taking or removing of water from the Yellowstone River or any tributary thereof when the water so taken or removed is not returned directly into the channel of the Yellowstone River or of the tributary from which it is taken.

I. The term "Divertible Flow" means the quantity of water that could be diverted from the stream flow above a designated point of measurement during a specified period of time. It is comprised of three elements: (a) the total net inflow to storage; (b) the total diversions; and (c) the remaining flow in the stream at the designated point of measurement for which the divertible flow is being determined. It is computed as follows:

The algebraic sum of:

(a) The quantity of water (in acre-feet) that flowed into reservoirs situated above the point of measurement during the specified period of time; less the outflow and diversions made directly from reservoirs (in acre-feet) during the same period; plus

(b) The quantity of water (in acre-feet) that was diverted from the stream above the point of measurement (including diversions made directly from reservoirs) during the specified period of time; plus

(c) The quantity of water in the stream (in acre-feet) that flowed past the point of measurement for which divertible flows are being determined during the specified period of time.

J. The term "Mean Divertible Daily Flow" means the average divertible flow occurring during a twenty-four hour period, beginning at 12:00 midnight.

K. The term "Mean Daily Flow" at any point means the average stream flow occurring at that point during a twenty-four hour period, beginning at 12:00 midnight.

L. The term "Beneficial Use" is herein defined to be that use by which the water supply of a drainage basin is depleted when use-fully employed by the activities of man, and includes water lost by evaporation, percolation, and other natural causes from streams, canals, ditches, irrigated areas, and reservoirs.

0130

MT v. WY/M.T.D. App.
200 (WY)

ARTICLE III

A. This Compact is entered into by each signatory State in the exercise of its sovereign powers for a governmental purpose, and its provisions shall be administered by a Commission, composed of one representative from each signatory State, to be known as the Yellowstone River Compact Commission. The State representatives on this Commission shall be selected in such manner as each signatory State shall choose. The State Engineer of each signatory State, or other similar official, shall be and act as the State representative on the Commission at all times when a vacancy may exist thereon either from failure to designate a method of selection or otherwise. The President of the United States shall be requested by the Commission to designate a representative of the United States to sit with such Commission, and such representative of the United States, if designated by the President, shall, when present, act as Chairman of the Commission without vote.

B. The salaries and necessary expenses of each State representative shall be paid by the respective State; all other expenses incident to the administration of this Compact not borne by the United States shall be allocated to and borne by each state as follows: One-fifth by the State of North Dakota; and two-fifths each by the States of Montana and Wyoming.

C. In addition to other powers and duties herein conferred upon the Commission and the members thereof, the jurisdiction of the Commission shall include the collection, correlation, and presentation

0131

MT v. WY/M.T.D. App.
201 (WY)

or factual data, the maintenance of records having a bearing upon the administration of this Compact, and, by unanimous action, the making of recommendations to the respective States upon matters connected with the administration of this Compact. In connection with the performance of its duties hereunder, the Commission may employ such services and make such expenditures as may be reasonably necessary, within the limit of funds provided for that purpose by the respective States. The Commission shall compile a report for each year ending September 30th, and shall transmit it to the Governors of the signatory States on or before December 31st of that year.

D. The Secretary of War; the Secretary of the Interior; the Secretary of Agriculture; the Chairman, Federal Power Commission; the Chief, Federal Weather Bureau, or comparable officers of whatever Federal agencies may succeed to the functions and duties of these agencies, and such other Federal officers and officers of appropriate agencies of the signatory States having services or data useful or necessary to the Compact Commission, shall cooperate, ex-officio, with the Commission in the execution of its duty in the collection, correlation, and publication of records and data necessary for the proper administration of the Compact; and these officers may perform such other services related to the Compact as may be mutually agreed on with the Commission.

E. The Commission shall have power to formulate rules of procedure, rules and regulations, and to perform any and all acts it may find necessary to carry out the provisions of this Compact, and to prescribe, issue, make, amend, and rescind such orders, rules, and

MT v. WY/M.T.D. App.
202 (WY)

0132

regulations. All rules of procedure, rules, and regulations of the Commission shall be filed in the Office of the State Engineer of each signatory State and shall be kept in a convenient form for public inspection and examination during reasonable business hours.

F. The Commission herein authorized shall have power to sue and be sued in its official capacity in any Federal Court of the signatory States, and may adopt and use an official seal which shall be judicially noticed.

MT v. WY/M.T.D. App. 203 (WY)

0133

ARTICLE IV

The Commission shall itself, or in conjunction with other responsible agencies, cause to be established, maintained, and operated such suitable water gaging and evaporation stations as it finds necessary in connection with its duties.

0134

MT v. WY/M.T.D. App.
204 (WY)

ARTICLE V

A. The States of Montana, North Dakota, and Wyoming hereby agree that the waters of the Yellowstone River and its interstate tributaries shall be apportioned among said States as follows:

1. Clarks Fork, Yellowstone River.

All existing rights to the beneficial use of the waters of the Clarks Fork Basin in the States of Montana and Wyoming valid under the laws of these States as of January 1, 1950, are hereby recognized and shall be and remain unimpaired by this Compact.

The total unused or unappropriated divertible flow of the Clarks Fork River Basin is divided:

40% to Montana

60% to Wyoming

0135

MT v. WY/M.T.D. App.
205 (WY)

2. Big Horn River (Exclusive of Little Horn River).

Subject to existing Indian Treaty Rights, all existing rights to the beneficial use of the waters of the Big Horn River Basin in the States of Montana and Wyoming, valid under the laws of these States as of January 1, 1950, are hereby recognized and shall be and remain unimpaired by this Compact: Provided, That at times when insufficient water is available to supply all existing rights in both States the water that is available will be apportioned to rights in the two States on the basis of priority of rights in the two States.

The total unused or unapportioned divertible flow of the Big Horn River Basin is divided:

____% to Montana

____% to Wyoming

(The percentages are to be based on potential irrigable areas in the two States as determined by the Engineering Committee and approved by the Compact Commissioners.)

0136

MT v. WY/M.T.D. App.
206 (WY)

3. Tongue River

Appropriative rights to the beneficial uses of the water of the Tongue River System existing in each signatory State as of January 1, 1950, shall continue to be enjoyed in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation,

Wyoming and Montana agree that the unappropriated waters of the Tongue River System subsequent to January 1, 1950, shall be allocated to each State as follows:

60% to Montana

40% to Wyoming

0137

MT v. WY/M.T.D. App.
207 (WY)

4. Powder River (Exclusive of Little Powder River).

All existing rights to the beneficial use of the waters of the Powder River in the States of Montana and Wyoming valid under the laws of these States as of January 1, 1950, are hereby recognized and shall be and remain unimpaired by this Compact.

The total unused or unappropriated divertible flow of the Powder River Basin is divided:

58% to Montana

42% to Wyoming

0138

MT v. WY/M.T.D. App.
208 (WY)

5. Yellowstone River—Main Stem (Near Montana-North Dakota State Line).

During the period May 1st to September 30th, inclusive, of each year, lands within the Yellowstone River Basin in Montana and in North Dakota below Intake, Montana, shall be entitled to the beneficial use of the available residual flow of the waters of the Yellowstone River below Intake, Montana, on a pro rata basis of acreage irrigated.

0139

MT v. WY/M.T.D. App.
209 (WY)

B. From time to time following the consummation of this Compact, the Commission shall re-examine the allocations made under part "A" of this article and shall, after reaching unanimous agreement, make such modifications in these allotments as are fair, just, and equitable, giving consideration among other factors to:

(a) Priorities of water rights;

(b) Acreage irrigated;

(c) Acreage irrigable under existing works; and

(d) Potentially irrigable lands.

Provided, That if the Commission should fail to reach unanimous agreement as to the modification of any allotment provided for in this article, then, as to the stream affected, the allotment then existing shall continue in full force and effect until unanimous agreement thereon be reached; and

Provided further, That changes and amendments that are substantive and are not modifications of allotment as herein provided shall be subject to Article XII.

MT v. WY/M.T.D. App. 210 (WY)

0140

C. The allocations made herein shall be exclusive of the use of the waters for domestic and stock use, and each signatory State shall be allowed unrestricted use for these purposes, except that no reservoir for such use shall exceed 20 acre-feet in capacity.

0141

MT v. WY/M.T.D. App.
211 (WY)

D. It is recognized that variable climatic conditions, stream flow regulation, the administration of the interstate tributaries in Wyoming and Montana, and other causes will produce diurnal and other unavoidable variations and fluctuations in the stream flows at the interstate measuring stations, and it is agreed that in the performance of provisions of part "A" of this article and subsequent modifications thereof, minor compensating irregularities and fluctuations in the flow shall be permitted; but where any deficiency of the mean daily flow at an interstate measuring station may be occasioned by neglect, error, or failure in the performance of the duty of the upstream-state water officials having charge of the administration of the diversions from the stream, each such deficiency shall be made up within the next succeeding period of 72 hours by delivery of additional flow at the interstate measuring station over and above the amount allotted, sufficient to compensate for such deficiency. Notwithstanding the allocations of this Compact, the Commission, in its administration, shall direct the regulation of the streams within each of the signatory States to avoid unreasonable carriage losses.

0142

MT v. WY/M.T.D. App.
212 (WY)

'RTICLE VI

'll rights to the beneficial use of the waters of the Yellowstone River System, heretofore and hereafter established under the laws of any signatory State, shall be satisfied solely from the portion of the water allotted to that State as provided in Article V.

0143

MT v. WY/M.T.D. App.
213 (WY)

'RTICLE VII

Notwithstanding all other provisions in this Compact, the apportionment of water for which provision is made in this Compact is subject to the first and prior water rights reserved for Indians, for Indian tribes, and for Indian reservations, whether such first and prior water rights of the Indians are inchoate or covered by Federal Court decrees at the date of this Compact.

0144

MT v. WY/M.T.D. App.
214 (WY)

ARTICLE VIII

A lower signatory State shall have the right, by compliance with the laws of an upper signatory State, to file application for and receive permits to appropriate and use any waters in the Yellowstone River System not specifically apportioned to or appropriated by such upper State as provided in Article V; and to construct or participate in the construction and use of any dam, storage reservoir, or diversion works in such upper State for the purpose of conserving and regulating water that may be apportioned to or appropriated by the lower State: Provided, That such right is subject to the rights of the upper State to control, regulate, and use the water apportioned to and appropriated by it: And provided further, That should an upper State elect, it may share in the use of any such facilities constructed by a lower State to the extent of its reasonable needs upon assuming or guaranteeing payment of its proportionate share of the cost of the construction, operation, and maintenance. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

MT v. WY/M.T.D. App. 215 (WY)

0145

B. Each claim hereafter initiated for an appropriation of water in one signatory State for use in another signatory State shall be filed in the Office of the State Engineer of the signatory State in which the water is to be diverted, and a duplicate copy of the application including a map showing the character and location of the proposed facilities and the lands to be irrigated shall be filed in the Office of the State Engineer of the signatory State in which the water is to be used. If a portion or all the lands proposed to be reclaimed are located in a State other than the one in which the water is to be diverted, then, before approval of the application shall be granted, said application shall be checked against the records of the appropriate office of the State in which the water is to be used, and a notation shall be placed thereon by the officer in charge of such records to the effect that the land description does not indicate a conflict with existing water rights. All endorsements shall be placed on both the original and duplicate copies of all such maps filed, to the end that the records in both States may be complete and identical.

0146

MT v. WY/M.T.D. App.
216 (WY)

C. Appropriations may hereafter be adjudicated in the State in which the water is diverted, and where a portion or all of the lands irrigated are in another signatory State, such adjudications shall be confirmed in that State by the proper authority. Each adjudication is to conform with the laws of the State where the water is diverted and shall be recorded in the County and State where the water is used.

ARTICLE IX

A lower signatory State shall have the right upon compliance with the laws of an upper signatory State, to acquire in such upper State by purchase, or through exercise of the power of eminent domain, such easements and rights-of-way for the construction, operation, and maintenance of pumping plants, storage reservoirs, canals, conduits, and appurtenant works as may be required for the enjoyment of the privileges granted herein to such lower State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

0148

MT v. WY/M.T.D. App.
218 (WY)

'RTICLE X

Should any facilities be constructed by a lower signatory State in an upper signatory State under the provisions of 'rticle VIII, the construction, operation, repairs, and replacements of such facilities shall be subject to the laws of the upper State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

0149

MT v. WY/M.T.D. App.
219 (WY)

'RTICLE XI

In the event water from another drainage basin shall be imported into the Yellowstone River Basin or transferred from one tributary basin to another by the United States, Montana, North Dakota, or Wyoming, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in determining its share of the divertible flows apportioned in accordance with 'rticle V herein.

MT v. WY/M.T.D. App.
220 (WY)

0150

ARTICLE XII

The provisions of this Compact shall remain in full force and effect until amended in the same manner as it is required to be ratified to become operative as provided in Article XVII.

0151

MT v. WY/M.T.D. App.
221 (WY)

'RTICLE XIII

No action taken by the Compact Commission shall be valid except by the unanimous consent of the Commissioners representing the signatory States.

MT v. WY/M.T.D. App.
222 (WY)

0152

ARTICLE XIV

This Compact may be terminated at any time by unanimous consent to (of) the signatory States, and upon such termination all rights then established hereunder shall continue unimpaired.

MT v. WY/M.T.D. App.
223 (WY)

0153

ARTICLE XV

Nothing in this Compact shall be construed to limit or prevent any State from instituting or maintaining any action or proceeding, legal or equitable, in any Federal Court or the United States Supreme Court, for the protection of any right under this Compact or the enforcement of any of its provisions.

0154

MT v. WY/M.T.D. App. 224 (WY)

ARTICLE XVI

The physical and other conditions characteristic of the Yellowstone River and peculiar to the territory drained and served thereby and to the development thereof, have actuated the signatory States in the consummation of this Compact, and none of them nor the United States by its consent and approval, concedes thereby the establishment of any general principle or precedent with respect to other interstate streams.

0155

MT v. WY/M.T.D. App.
225 (WY)

:RTICLE XVII

This Compact shall become operative when approved by the Legislature of each of the signatory States and consented to and approved by the Congress of the United States.

0156

MT v. WY/M.T.D. App. 226 (WY)

ARTICLE XVIII

Nothing in this Compact shall be deemed:

(a) To impair or affect any rights or powers of the United Sates, its agencies, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters;

(b) To subject any property of the United States, its agencies, or instrumentalities to taxation by any State or subdivision thereof, nor to create an obligation on the part of the United States, its agencies, or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatsoever kind, to make any payments to any State or political subdivision thereof, State agency, municipality, or entity whatsoever in reimbursement for the loss of taxes;

(c) To subject any property of the United States, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the Compact.

0157

MT v. WY/M.T.D. App.
227 (WY)

ARTICLE XIX

Should a Court of competent jurisdiction hold any part of this Compact to be contrary to the constitution of any signatory State or of the United States, all other severable provisions of this Compact shall continue in full force and effect.

0158

MT v. WY/M.T.D. App.
228 (WY)

IN WITNESS WHEREOF the Commissioners have signed this Compact in quadruplicate original, one of which shall be filed in the archives of the Department of State of the United States of 'merica and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each signatory State.

Done at the City of _____ in the State of _____, this ____ day of _____, in the year of Our Lord, One Thousand Nine Hundred and _____.

Commissioners for the State of Montana:

Commissioners for the State of North Dakota:

Commissioners for the State of Wyoming:

"I have participated in the negotiation of this Compact and intend to report favorably thereon to the Congress of the United States.

_____
R. J. Newell,
Representative of the United
States of 'merica"

0159

Engineering Committee Draft

0160

Engineering committee Draft of Compact

0161

YELLOWSTONE RIVER COMPACT

The State of Montana, the State of North Dakota, and the State of Wyoming, being moved by consideration of interstate comity, and desiring to remove all causes of present and future controversy between said States and between persons in one and persons in another with respect to the waters of the Yellowstone River and its tributaries, other than waters within or waters which contribute to the flow of streams within the Yellowstone National Park, and desiring to provide for an equitable division and apportionment of such waters, and to encourage the beneficial development and use thereof, have resolved to conclude a Compact as authorized under the Act of Congress of the United States of America, approved June 2, 1949 (Public Law 83, 81st Congress, First Session), for the attainment of these purposes, and to that end, through their respective governments, have named as their respective Commissioners:

For the State of Montana:

For the State of North Dakota:

For the State of Wyoming:

who, after negotiations participated in by R. J. Newell, appointed as the representative of the United States of America, have agreed upon the following articles, to-wit:

ARTICLE I

A. Where the name of a State is used in this Compact, as a party thereto, it shall be construed to include the individuals, corporations, partnerships, associations, districts, administrative departments, bureaus, political subdivisions, agencies, persons, permittees, appropriators, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State.

B. Any individual, corporation, partnership, association, district, administrative department, bureau, political subdivision, agency, person, permittee, or appropriator authorized by or under the laws of a signatory State, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State, shall be subject to the terms of this Compact. Where the singular is used in this article, it shall be construed to include the plural.

ARTICLE II

A. The State of Montana, the State of North Dakota, and the State of Wyoming are hereinafter designated as "Montana," "North Dakota," and "Wyoming," respectively.

B. The terms "Commission" and "Yellowstone River Compact Commission" mean the agency created as provided herein for the administration of this Compact.

C. The term "Yellowstone River Basin" means areas in Wyoming, Montana, and North Dakota drained by the Yellowstone River and its tributaries, and includes the area in Montana known as Lake Basin.

D. The term "Yellowstone River System" means the Yellowstone River and all of its tributaries, including springs and swamps, from their sources to the mouth of the Yellowstone River near Buford, North Dakota, except those portions thereof which are within or contribute to the flow of streams within the Yellowstone National Park.

E. The term "Tributary" means any stream which in a natural state contributes to the flow of the Yellowstone River, including interstate tributaries and tributaries thereof, but excluding those which are within or contribute to the flow of streams within the Yellowstone National Park.

F. The term "Interstate Tributaries" means the Clarks Fork, Yellowstone River; the Big Horn River (except Little Big Horn River); the Tongue River; and the Powder River, whose confluences with the Yellowstone River are respectively at or near the city (or town) of Laurel, Big Horn, Miles City, and Terry, all in the State of Montana.

G. The terms "Divert" and "Diversion" mean the taking or removing of water from the Yellowstone River or any tributary thereof when the water so taken or removed is not returned directly into the channel of the Yellowstone River or of the tributary from which it is taken.

H. The term "Beneficial Use" is herein defined to be that use by which the water supply of a drainage basin is depleted when usefully employed by the activities of man, and includes water lost by evaporation, percolation, and other natural causes from streams, canals, ditches, irrigated areas, and reservoirs.

I. The term "Domestic Use" shall mean the use of water by an individual, or by a family unit or household for drinking, cooking, laundering, sanitation and other personal comforts and necessities; and for the irrigation of a family garden or orchard not exceeding one-half acre in area.

J. The term "Stock Water Use" shall mean the use of water for livestock and poultry.

ARTICLE III

A. It is considered that no Commission or administrative body is necessary to administer this Compact or divide the waters of the Yellowstone River Basin as between the States of Montana and North Dakota. The provisions of this Compact, as between the States of Wyoming and Montana, shall be administered by a Commission composed of one representative from the State of Wyoming and one representative from the State of Montana, to be selected by the Governors of said States as such States may choose, and one representative selected by the Director of the United States Geological Survey or whatever Federal agency may succeed to the functions and duties of that agency, to be appointed by him at the request of the States to sit with the Commission and who shall, when present, act as Chairman of the Commission without vote, except as herein provided.

Recommended Alternate:

A. The provisions of this Compact shall be administered by a Commission composed of the State Engineers of the signatory States, and one representative selected by the Director of the United States Geological Survey or whatever Federal agency may succeed to the functions and duties of that agency, to be appointed by him at the request of the States to sit with the Commission and who shall, when present, act as Chairman of the Commission without vote, except as herein provided. In matters concerning two States only, the representatives of those states, and the Federal

0166

representative, shall constitute the Commission, in which case the Federal representative shall have a vote. All decisions of the Commission shall be by majority vote, except as provided in paragraph F of Article V (this exception to be deleted if recommendation as to paragraph F of Article V is adopted).

B. The salaries and necessary expenses of each State representative shall be paid by the respective State; all other expenses incident to the administration of this Compact not borne by the United States shall be allocated to and borne one-half by the State of Wyoming and one-half by the State of Montana.

Recommended Alternate:

B. The salaries and necessary expenses of each State representative shall be paid by the respective State; all other expenses incident to the administration of this Compact not borne by the United States shall be allocated to and borne by the signatory States as follows:

North Dakota	10%
Montana	45%
Wyoming	45%

C. In addition to other powers and duties herein conferred upon the Commission and the members thereof, the jurisdiction of the Commission shall include the collection, correlation, and presentation of factual

0167

data, the maintenance of records having a bearing upon the administration of this Compact, and recommendations to such States upon matters connected with the administration of this Compact, and the Commission may employ such services and make such expenditures as reasonable and necessary within the limit of funds provided for that purpose by the respective States, and shall compile a report for each year ending September 30 and transmit it to the Governors of the signatory States on or before December 31 of each year.

D. The Secretary of Defense; the Secretary of the Interior; the Secretary of Agriculture; the Chairman, Federal Power Commission; the Secretary of Commerce, or comparable officers of whatever Federal agencies may succeed to the functions and duties of these agencies, and such other Federal officers and officers of appropriate agencies of the signatory States having services or data useful or necessary to the Compact Commission, shall cooperate, ex-officio, with the Commission in the execution of its duty in the collection, correlation, and publication of records and data necessary for the proper administration of the Compact; and these officers may perform such other services related to the Compact as may be mutually agreed upon with the Commission.

E. The Commission shall have power to formulate rules and regulations and to perform any act which they may find necessary to carry out the provisions of this Compact, and to amend such rules and regulations. All such rules and regulations shall be filed in the office of the State Engineer of each of the signatory States for public inspection.

F. 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 Federal representative 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 Federal representative, each being entitled to one vote.

Recommended Alternate:

Omit paragraph F if alternates A and B are adopted.

G. The Commission herein authorized shall have power to sue and be sued in its official capacity in any Federal Court of the signatory States, and may adopt and use an official seal which shall be judicially noticed.

0169

ARTICLE IV

The Commission shall itself, or in conjunction with other responsible agencies, cause to be established, maintained, and operated such suitable water gaging and evaporation stations as it finds necessary in connection with its duties.

MT v. WY/M.T.D. App.
242 (WY)

0170

ARTICLE V

A. Appropriative rights to the beneficial uses of the water of the Yellowstone River System existing in each signatory State as of January 1, 1950, shall continue to be enjoyed in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation.

B. The unused and unappropriated waters of the interstate tributaries of the Yellowstone River, exclusive of uses coming within the provisions of paragraph E of this Article V, are hereby allocated to each State for storage or direct diversion as follows:

1. Clarks Fork, Yellowstone River

   a. To Wyoming 60%

      To Montana 40%

   b. The point of measurement shall be below the last diversion from Clarks Fork above Rock Creek.

2. Big Horn River (Exclusive of Little Big Horn River)

   This paragraph being referred to Big Horn representatives and will be inserted later.

3. Tongue River

   a. To Wyoming 40%

      To Montana 60%

   b. The point of measurement shall be below the last diversion from the Tongue River above its junction with the Yellowstone River.

MT v. WY/M.T.D. App. 243 (WY)

0171

Article V, Paragraph B:

2. Big Horn River (Exclusive of Little Big Horn River)

a. To Wyoming 80%

To Montana 20%

b. The point of measurement shall be below the last diversion from the Big Horn River above its junction with the Yellowstone River, and the inflow of the Little Big Horn River shall be excluded from the quantity of water subject to allocation.

0172

MT v. WY/M.T.D. App.
244 (WY)

4. Powder River (including the Little Powder River)

a. To Wyoming 42%

To Montana 58%

b. The point of measurement shall be below the last diversion from the Powder River above its junction with the Yellowstone River.

C. The quantity of water subject to the above percentage allocations shall be determined on an annual water year basis measured from October 1st of any year through September 30th of the succeeding year. The quantity to which the percentage factors shall be applied through a given date in any water year shall be, in acre-feet, equal to the algebraic sum of:

1. The total diversions, in acre-feet, above the point of measurement, for irrigation, municipal, and industrial uses in Wyoming and Montana developed after January 1, 1950, during the period from October 1st to that given date;

2. The net change in storage, in acre-feet, in all reservoirs in Wyoming and Montana above the point of measurement completed subsequent to January 1, 1950, during the period from October 1st to that given date;

3. The net change in storage, in acre-feet, in existing reservoirs in Wyoming and Montana above the point of measurement, which is used for irrigation, municipal, and industrial purposes developed after January 1, 1950, during the period October 1st to that given date;

4. The quantity of water, in acre-feet, that passed the point of measurement in the stream during the period from October 1st to that given date.

0173

D. All existing rights to the beneficial use of waters of the Yellowstone River in the States of Montana and North Dakota, below Intake, Montana, valid under the laws of these States as of January 1, 1950, are hereby recognized and shall be and remain unimpaired by this Compact. During the period May 1 to September 30, inclusive, of each year, lands within Montana and North Dakota shall be entitled to the beneficial use of the flow of waters of the Yellowstone River below Intake, Montana, on a proportionate basis of acreage irrigated. Waters of tributary streams, having their origin in North Dakota, situated entirely therein and flowing into the Yellowstone River below Intake, Montana, are allotted to North Dakota.

E. There are hereby excluded from the provisions of this Compact:

1. Existing and future domestic and stock water uses of water: Provided, That the capacity of any reservoir for stock water so excluded shall not exceed 20 acre-feet;

2. Supplemental water for use on lands under existing developments.

F. From time to time the Commission shall re-examine the allocations herein made and upon unanimous agreement may recommend modifications therein as are fair, just, and equitable, giving consideration among other factors to:

Priorities of water rights;

Acreage irrigated;

MT v. WY/M.T.D. App.
246 (WY)

0174

Acreage irrigable under existing works; and

Potentially irrigable lands.

Recommended Alternate:

Omit paragraph F.

MT v. WY/M.T.D. App.
247 (WY)

0175

ARTICLE VI

Nothing contained in this Compact shall be so construed or interpreted as to affect adversely any rights to the use of the waters of Yellowstone River and its tributaries owned by or for Indians, Indian tribes, and their reservations.

MT v. WY/M.T.D. App.
248 (WY)

0176

ARTICLE VII

A. A lower signatory State shall have the right, by compliance with the laws of an upper signatory State, except as to legislative consent, to file application for and receive permits to appropriate and use any waters in the Yellowstone River System not specifically apportioned to or appropriated by such upper State as provided in Article V; and to construct or participate in the construction and use of any dam, storage reservoir, or diversion works in such upper State for the purpose of conserving and regulating water that may be apportioned to or appropriated by the lower State: Provided, That such right is subject to the rights of the upper State to control, regulate, and use the water apportioned to and appropriated by it: And provided further, That should an upper State elect, it may share in the use of any such facilities constructed by a lower State to the extent of its reasonable needs upon assuming or guaranteeing payment of its proportionate share of the cost of the construction, operation, and maintenance. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

B. Each claim hereafter initiated for an appropriation of water in one signatory State for use in another signatory State shall be filed in the Office of the State Engineer of the signatory State in which the water is to be diverted, and a duplicate copy of the application or notice shall be filed in the office of the State Engineer of the signatory State in which the water is to be used.

C. Appropriations may hereafter be adjudicated in the State in which the water is diverted, and where a portion or all of the lands irrigated are in another signatory State, such adjudications shall be confirmed in that State by the proper authority. Each adjudication is to conform with the laws of the State where the water is diverted and shall be recorded in the County and State where the water is used.

ARTICLE VIII

A lower signatory State shall have the right to acquire in an upper State by purchase, or through exercise of the power of eminent domain, such lands, easements, and rights-of-way for the construction, operation, and maintenance of pumping plants, storage reservoirs, canals, conduits, and appurtenant works as may be required for the enjoyment of the privileges granted herein to such lower State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

ARTICLE IX

Should any facilities be constructed by a lower signatory State in an upper signatory State under the provisions of Article VII, the construction, operation, repairs, and replacements of such facilities shall be subject to the laws of the upper State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

MT v. WY/M.T.D. App.
252 (WY)

0180

ARTICLE X

In the event water from another drainage basin shall be imported into the Yellowstone River Basin or transferred from one tributary basin to another by the United States, Montana, North Dakota, or Wyoming, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in determining its share of the water apportioned in accordance with Article V herein.

ARTICLE XI

The provisions of this Compact shall remain in full force and effect until amended in the same manner as it is required to be ratified to become operative as provided in Article XV.

MT v. WY/M.T.D. App.
254 (WY)

0182

ARTICLE XII

This Compact may be terminated at any time by unanimous consent of the signatory States, and upon such termination all rights then established hereunder shall continue unimpaired.

ARTICLE XIII

Nothing in this Compact shall be construed to limit or prevent any State from instituting or maintaining any action or proceeding, legal or equitable, in any Federal Court or the United States Supreme Court, for the protection of any right under this Compact or the enforcement of any of its provisions.

ARTICLE XIV

The physical and other conditions characteristic of the Yellowstone River and peculiar to the territory drained and served thereby and to the development thereof, have actuated the signatory States in the consummation of this Compact, and none of them, nor the United States by its consent and approval, concedes thereby the establishment of any general principle or precedent with respect to other interstate streams.

ARTICLE XV

This Compact shall become operative when approved by the Legislature of each of the signatory States and consented to and approved by the Congress of the United States.

ARTICLE XVI

Nothing in this Compact shall be deemed:

(a) To impair or affect any rights or powers of the United States, its agencies, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters;

(b) To subject any property of the United States, its agencies, or instrumentalities to taxation by any State or subdivision thereof, nor to create an obligation on the part of the United States, its agencies, or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatsoever kind, to make any payments to any State or political subdivision thereof, State agency, municipality, or entity whatsoever in reimbursement for the loss of taxes;

(c) To subject any property of the United States, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the Compact.

ARTICLE XVII

Should a Court of competent jurisdiction hold any part of this Compact to be contrary to the constitution of any signatory State or of the United States, all other severable provisions of this Compact shall continue in full force and effect.

ARTICLE XVIII

No sentence, phrase, or clause in this Compact or in any provision thereof, shall be construed or interpreted to divest any signatory State or any of the agencies or officers of such States of the jurisdiction of the water of each State as apportioned in this Compact.

MT v. WY/M.T.D. App. 261 (WY)

0189

IN WITNESS WHEREOF the Commissioners have signed this Compact in quadruplicate original, one of which shall be filed in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each signatory State.

Done at the City of _____ in the State of _____, this _____ day of _____, in the year of Our Lord, One Thousand Nine Hundred and _____.

Commissioners for the State of Montana:

Commissioners for the State of North Dakota:

Commissioners for the State of Wyoming:

"I have participated in the negotiation of this Compact and intend to report favorably thereon to the Congress of the United States.

_____

R. J. Newell,
Representative of the United States of America."

ARTICLE V

Paragraph B
Subparagraph 2

Alternate No. 1

2. Big Horn River (Exclusive of Little Big Horn River)

a. To Wyoming 82%

To Montana 18%

Provided, That when new land to the extent of 46,000 acres in Montana or 211,250 acres in Wyoming, shall have been irrigated subsequent to January 1, 1950, the remaining unused and unappropriated water in excess of that required for the irrigation of 46,000 acres in Montana and 211,250 acres in Wyoming shall be apportioned between the States of Montana and Wyoming, as provided in Article XI, on the basis of the then estimated ultimate requirements of each State: And provided further, That such additional apportionment shall not be made before January 1, 1970.

b. The point of measurement shall be below the last diversion from the Big Horn River above its junction with the Yellowstone River, and the inflow of the Little Big Horn River shall be excluded from the quantity of water subject to allocation.

0191

Alternate No. 2

2. Big Horn River (Exclusive of Little Big Horn River)

a. The first 1,250,000 acre-feet of unused and unappropriated water subject to allocation under this Compact shall be divided as follows:

To Wyoming	82%
To Montana	18%

b. When either State shall have beneficially applied its share of the water allocated in subparagraph 2.a. of paragraph B of this Article V, an agreement shall be made between the States of Montana and Wyoming for an equitable division of the remaining unused water in excess of the above allocation on a basis of need within the Big Horn River Basin in the two States; Provided, That said additional apportionment shall not be made before January 1, 1970.

c. The point of measurement shall be below the last diversion from the Big Horn River above its junction with the Yellowstone River, and the inflow of the Little Big Horn River shall be excluded from the quantity of water subject to allocation.

MT v. WY/M.T.D. App.
264 (WY)

0192

ARTICLE V

Paragraph B
Subparagraph 2

Alternate No. 1

2. Big Horn River (Exclusive of Little Big Horn River)

a. To Wyoming 82%

To Montana 18%

Provided, That when new land to the extent of 46,000 acres in Montana or 211,250 acres in Wyoming, shall have been irrigated subsequent to January 1, 1950, the remaining unused and unappropriated water in excess of that required for the irrigation of 46,000 acres in Montana and 211,250 acres in Wyoming shall be apportioned between the States of Montana and Wyoming, as provided in Article XI, on the basis of the then estimated ultimate requirements of each State: And provided further, That such additional apportionment shall not be made before January 1, 1970.

b. The point of measurement shall be below the last diversion from the Big Horn River above its junction with the Yellowstone River, and the inflow of the Little Big Horn River shall be excluded from the quantity of water subject to allocation.

Alternate No. 2

2. Big Horn River (Exclusive of Little Big Horn River)

a. The first ~~1,250,000~~ 1,500,000 acre-feet of unused ~~and unappropriated~~ water subject to allocation under this Compact shall be divided as follows:

To Wyoming	82%
To Montana	18%

b. When either State shall have beneficially applied its share of the water allocated in subparagraph 2.a. of paragraph B of this Article V, an agreement shall be made between the States of Montana and Wyoming for an equitable division of the remaining unused water in excess of the above allocation on a basis of need within the Big Horn River Basin in the two States; Provided, That said additional apportionment shall not be made before January 1, 1970.

c. The point of measurement shall be below the last diversion from the Big Horn River above its junction with the Yellowstone River, and the inflow of the Little Big Horn River shall be excluded from the quantity of water subject to allocation.

MT v. WY/M.T.D. App.
266 (WY)

0194

Myers Draft, September 18, 1950, with cover letter

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Yellowstone District
P. O. Box 1264
Billings, Montana

SEP 10 1950

Memorandum

To: Fred Buck, Helena, Montana
Earl Lloyd, Cheyenne, Wyoming
W. S. Hanna, Billings, Montana
J. J. Walsh, Bismarck, North Dakota

Subject: Draft of Compact

There is enclosed a rough draft of a possible Compact which I hope you can look over before our next meeting. It is based on these principles:

a. Existing rights are to be undisturbed and not administered under the Compact.

b. Each State is to be allotted sufficient water for its probable needs, to be consumptively used.

c. That the provisions made for the Yellowstone River will fit into any future Compact covering more, or all, of the Missouri River Basin.

d. That the total water production of an interstate basin is to be stored by the States concerned on the same basis. That is, an upper State is entitled to no special privilege by reason of its geography, and a lower State must include in the compacted water its own intrastate production.

There are several variations of this theory that might be considered. Existing rights might be included, in which case the depletions would be in terms of virgin flow at the basin mouth; administration could be through State officials instead of by a Commission; and apportionment might be on the basis of a moving 5 or 10 year average. You can think of others.

I had in mind that the consumptive use figures to be inserted would be made up as follows:

0196

a. Consumptive use of potential and reasonably possible irrigable areas.

b. Losses from potential new reservoirs.

c. Miscellaneous expected uses, such as stock water, spreaders, and industrial uses.

d. A generous factor of safety.

All this should total considerably less than the annual run-off of the streams as now depleted. The balance will be available for appropriation as provided in Article IX and for future apportionment by the Commission.

Indian rights, though the draft does not specifically state, would come out of the State's apportionment, and their priorities would be exercised within the State. I know of no case to date where Indian priorities have been excercised across State lines, although I understand the Little Horn may provide one soon. At any rate, on the Big Horn this would actually involve Indians against Indians, since by the time a priority enforcement would be required the Indian rights in Wyoming would be about the only ones receiving water.

We will also want to consider including the Little Big Horn and Little Powder Rivers.

I am writing the Irma Hotel in Cody for reservations for Sunday night, September 24. I assume that we will finish in two days, arriving at Thermopolis on Tuesday night, and that Wednesday we will draft our report. Accordingly, I am writing the Carter Hotel for reservations on that date for all except Mr. Thornton. I am also having two members of our staff meet us there with aerial photos, maps, etc.

Very truly yours,

Carl L. Myers, Chairman
Engineering Committee
Yellowstone Compact Commission

Enclosure

0197

(Draft 9/18/50)

YELLOWSTONE RIVER COMPACT

The State of Montana, the State of North Dakota, and the State of Wyoming, being moved by consideration of interstate comity, and desiring to remove all causes of present and future controversy between said States and between persons in one and persons in another with respect to the waters of the Yellowstone River and its tributaries, other than waters within or waters which contribute to the flow of streams within the Yellowstone National Park, and desiring to provide for an equitable division and apportionment of such waters, and to encourage the beneficial development and use thereof, have resolved to conclude a Compact as authorized under the Act of Congress of the United States of America, approved June 2, 1949 (Public Law 83, 81st Congress, First Session), for the attainment of these purposes, and to that end, through their respective governments, have named as their respective Commissioners:

For the State of Montana:

For the State of North Dakota:

For the State of Wyoming:

who, after negotiations participated in by R. J. Newell, appointed as the representative of the United States of America, have agreed upon the following articles, to-wit:

0198

MT v. WY/M.T.D. App.
269 (WY)

ARTICLE I

A. Where the name of a State is used in this Compact, as a party thereto, it shall be construed to include the individuals, corporations, partnerships, associations, districts, administrative departments, bureaus, political subdivisions, agencies, persons, permittees, appropriators, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State.

B. Any individual, corporation, partnership, association, district, administrative department, bureau, political subdivision, agency, person, permittee, or appropriator authorized by or under the laws of a signatory State, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State, shall be subject to the terms of this Compact. Where the singular is used in this article, it shall be construed to include the plural.

0199

MT v. WY/M.T.D. App.
270 (WY)

ARTICLE II

A. The State of Wyoming, the State of North Dakota, and the State of Wyoming are hereinafter designated as "Montana," "North Dakota," and "Wyoming," respectively.

B. The terms "Commission" and "Yellowstone River Compact Commission" mean the agency created as provided herein for the administration of this Compact.

C. The term "Yellowstone River Basin" means areas in Wyoming, Montana, and North Dakota drained by the Yellowstone River and its tributaries, and includes the area in Montana known as Lake Basin.

D. The term "Yellowstone River System" means the Yellowstone River and all of its tributaries, including springs and swamps, from their sources to the mouth of the Yellowstone River near Buford, North Dakota, except those portions thereof which are within or contribute to the flow of streams within the Yellowstone National Park.

0200

E. The term "Tributary" means any stream which in a natural state contributes to the flow of the Yellowstone River, including interstate tributaries and tributaries thereof, but excluding those which are within or contribute to the flow of streams within the Yellowstone National Park.

F. The terms "Divert" and "Diversion" mean the taking or removing of water from the Yellowstone River or any tributary thereof when the water so taken or removed is not returned directly into the channel of the Yellowstone River or of the tributary from which it is taken.

MT v. WY/M.T.D. App.
271 (WY)

G. The term "Beneficial Use" is herein defined to be that use by which the water supply of a drainage basin is depleted when usefully employed by the activities of man, and includes water lost by evaporation, percolation, and other natural causes from streams, canals, ditches, irrigated areas, and reservoirs.

H. The term "Established Rights" means rights to the beneficial use of surface water acquired under the laws of a signatory State prior to June 1, 1951.

I. The term "Acre-foot" means the quantity of water required to cover an acre to the depth of one foot, and is equivalent to 43,560 cubic feet.

J. The term "Domestic Use" shall mean the use of water by an individual, or by a family unit or household for drinking, cooking, laundry, sanitation, and other personal comforts and necessities, and for the irrigation of a family garden or orchard not exceeding one-half an acre in area.

K. The term "Stock Water Use" shall mean the use of water for livestock and poultry.

ARTICLE III

A. This Compact is entered into by each signatory State in the exercise of its sovereign powers for a governmental purpose, and its provisions shall be administered by a Commission, composed of one representative from each signatory State, to be known as the Yellowstone River Compact Commission. The State representatives on this Commission shall be selected in such manner as each signatory State shall choose. The State Engineer of each signatory State, or other similar official, shall be and act as the State representative on the Commission at all times when a vacancy may exist thereon either from failure to designate a method of selection or otherwise. The President of the United States shall be requested by the Commission to designate a representative of the United States to sit with such Commission, and such representative of the United States, if designated by the President, shall, when present, act as Chairman of the Commission without vote.

B. The salaries and necessary expenses of each State representative shall be paid by the respective State; all other expenses incident to the administration of this Compact not borne by the United States shall be allocated to and borne by each State as follows: One-fifth by the State of North Dakota; and two-fifths each by the States of Montana and Wyoming.

C. In addition to other powers and duties herein conferred upon the Commission and the members thereof, the jurisdiction of the Commission shall include the collection, correlation, and presentation

0202

MT v. WY/M.T.D. App.
273 (WY)

of factual data, the maintenance of records having a bearing upon the administration of this Compact, and, by unanimous action, the making of recommendations to the respective States upon matters connected with the administration of this Compact. In connection with the performance of its duties hereunder, the Commission may employ such services and make such expenditures as may be reasonably necessary, within the limit of funds provided for that purpose by the respective States. The Commission shall compile a report for each year ending September 30th, and shall transmit it to the President and to the Governors of the signatory States on or before December 31st of that year.

D. The Secretary of the Army; the Secretary of the Interior, the Secretary of Agriculture; the Chairman, Federal Power Commission; the Chief, Federal Weather Bureau, or comparable officers of whatever Federal agencies may succeed to the functions and duties of these agencies, and such other Federal officers and officers of appropriate agencies of the signatory States having services or data useful or necessary to the Compact Commission, shall cooperate, ex-officio, with the Commission in the execution of its duty in the collection, correlation, and publication of records and data necessary for the proper administration of the Compact; and these officers may perform such other services related to the Compact as may be mutually agreed on with the Commission.

E. The Commission shall have power to formulate rules of procedure, rules and regulations, and to perform any and all acts it may find necessary to carry out the provisions of this Compact, and to prescribe, issue, make, amend, and rescind such orders, rules, and regulations.

MT v. WY/M.T.D. App.
274 (WY)

0203

All rules of procedure, rules, and regulations of the Commission shall be filed in the Office of the State Engineer of each signatory State and shall be kept in a convenient form for public inspection and examination during reasonable business hours.

F. The Commission herein authorized shall have power to sue and be sued in its official capacity in any Federal Court of the signatory States, and may adopt and use an official seal which shall be judicially noticed.

0204

MT v. WY/M.T.D. App.
275 (WY)

ARTICLE IV

The Commission shall itself, or in conjunction with other responsible agencies, cause to be established, maintained, and operated such suitable water gaging and evaporation stations as it finds necessary in connection with its duties.

MT v. WY/M.T.D. App.
276 (WY)

0205

ARTICLE V

A. There is hereby apportioned from the Yellowstone River System in perpetuity to the States of North Dakota, Montana, and Wyoming, respectively, exclusive of established rights and other uses coming within the provisions of paragraph D of this Article V, the consumptive use per annum of water, as follows:

Main Stem Yellowstone River

To Montana _____ acre-feet

To North Dakota _____ acre-feet

Powder River

To Montana _____ acre-feet

To Wyoming _____ acre-feet

Tongue River

To Montana _____ acre-feet

To Wyoming _____ acre-feet

Big Horn River

To Montana _____ acre-feet

To Wyoming _____ acre-feet

Clarks Fork River

To Montana _____ acre-feet

To Wyoming _____ acre-feet

B. The apportionment made to the respective States by paragraph A hereof shall be determined on an annual water year basis measured from October 1 of any year through September 30 of the succeeding year.

0206

MT v. WY/M.T.D. App.
277 (WY)

C. The consumptive use of water, which use is apportioned in paragraph A hereof, shall be determined for each State by the inflow-outflow method in terms of man made depletions in addition to existing depletions as of January 1, 1951.

D. There are hereby excluded from the provisions of this Compact:

1. Existing and future domestic and stock water uses of water: Provided, That the capacity of any reservoir for stock water so excluded shall not exceed 10 acre-feet.

2. Established rights to the beneficial use of water in each signatating State existing on January 1, 1951, including losses from reservoirs constructed prior to January 1, 1951.

ARTICLE VI

A. In the event that stream flow in the Yellowstone River System should be insufficient to meet the apportionment made herein, the shortage shall be prorated between the States concerned, according to their respective apportionments made in Article V.

B. If a signatory State, in any water year, shall have consumptively used more water than it was entitled to use under the apportionment made in Article V, such State, upon demand of the lower State, shall deliver to the lower State during the next water year a quantity of water equal to its overdraft.

MT v. WY/M.T.D. App.
279 (WY)

0208

ARTICLE VII

All rights to the beneficial use of the waters of the Yellowstone River System, heretofore and hereafter established under the laws of any signatory State, shall be satisfied solely from the portion of the water allotted to that State as provided in Article V.

MT v. WY/M.T.D. App.
280 (WY)

ARTICLE VIII

Notwithstanding all other provisions in this Compact, the apportionment of water for which provision is made in this Compact is subject to the first and prior water rights reserved for Indians, for Indian tribes, and for Indian reservations, whether such first and prior water rights of the Indians are inchoate or covered by Federal Court decrees at the date of this Compact.

MT v. WY/M.T.D. App.
281 (WY)

0210

ARTICLE IX

A. A lower signatory State shall have the right, by compliance with the laws of an upper signatory State, to file application for and receive permits to appropriate and use any waters in the Yellowstone River System not specifically apportioned to or appropriated by such upper State as provided in Article V; and to construct or participate in the construction and use of any dam, storage reservoir, or diversion works in such upper State for the purpose of conserving and regulating water that may be apportioned to or appropriated by the lower State: Provided, That such right is subject to the rights of the upper State to control, regulate, and use the water apportioned to and appropriated by it: And provided further, That should an upper State elect, it may share in the use of any such facilities constructed by a lower State to the extent of its reasonable needs upon assuming or guaranteeing payment of its proportionate share of the cost of the construction, operation, and maintenance. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

B. Each claim hereafter initiated for an appropriation of water in one signatory State for use in another signatory State shall be filed in the Office of the State Engineer of the signatory State in which the water is to be diverted, and a duplicate copy of the application including a map showing the character and location of the proposed facilities and the lands to be irrigated shall be filed in the Office of the State Engineer of the

MT v. WY/M.T.D. App.
282 (WY)

0211

signatory State in which the water is to be used. If a portion or all the lands proposed to be reclaimed are located in a State other than the one in which the water is to be diverted, then, before approval of the application shall be granted, said application shall be checked against the records of the appropriate office of the State in which the water is to be used, and a notation shall be placed thereon by the officer in charge of such records to the effect that the land description does not indicate a conflict with existing water rights. All endorsements shall be placed on both the original and duplicate copies of all such maps filed, to the end that the records in both States may be complete and identical.

C. Appropriations may hereafter be adjudicated in the State in which the water is diverted, and where a portion or all of the lands irrigated are in another signatory State, such adjudications shall be confirmed in that State by the proper authority. Each adjudication is to conform with the laws of the State where the water is diverted and shall be recorded in the County and State where the water is used.

0212

MT v. WY/M.T.D. App.
283 (WY)

ARTICLE X

A lower signatory State shall have the right upon compliance with the laws of an upper signatory State, to acquire in such upper State by purchase, or through exercise of the power of eminent domain, such easements and rights-of-way for the construction, operation, and maintenance of pumping plants, storage reservoirs, canals, conduits, and appurtenant works as may be required for the enjoyment of the privileges granted herein to such lower State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

0213

MT v. WY/M.T.D. App.
284 (WY)

ARTICLE XI

Should any facilities be constructed by a lower signatory State in an upper signatory State under the provisions of Article VIII, the construction, operation, repairs, and replacements of such facilities shall be subject to the laws of the upper State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

MT v. WY/M.T.D. App.
285 (WY)

0214

ARTICLE XII

In the event water from another drainage basin shall be imported into the Yellowstone River Basin or transferred from one tributary basin to another by the United States, Montana, North Dakota, or Wyoming, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in determining its share of the water apportioned in accordance with Article V herein. Water diverted from one basin to another, within the Yellowstone River System, shall be charged as a consumptive use to the originating basin.

MT v. WY/M.T.D. App.
286 (WY)

0215

ARTICLE XIII

The provisions of this Compact shall remain in full force and effect until amended in the same manner as it is required to be ratified to become operative as provided in Article XVIII.

0216

MT v. WY/M.T.D. App.
287 (WY)

ARTICLE XIV

No action taken by the Compact Commission shall be valid except by the unanimous consent of the Commissioners representing the signatory States

MT v. WY/M.T.D. App.
288 (WY)

0217

ARTICLE XV

This Compact may be terminated at any time by unanimous consent to (of) the signatory States, and upon such termination all rights then established hereunder shall continue unimpaired.

MT v. WY/M.T.D. App.
289 (WY)

0218

ARTICLE XVI

Nothing in this Compact shall be construed to limit or prevent any state from instituting or maintaining any action or proceeding, legal or equitable, in any Federal Court or the United States Supreme Court, for the protection of any right under this Compact or the enforcement of any of its provisions.

MT v. WY/M.T.D. App.
290 (WY)

0219

ARTICLE XVII

The physical and other conditions characteristic of the Yellowstone River and peculiar to the territory drained and served thereby and to the development thereof, have actuated the signatory States in the consummation of this Compact, and none of them, nor the United States by its consent and approval, concedes thereby the establishment of any general principle or precedent with respect to other interstate streams.

0220

MT v. WY/M.T.D. App.
291 (WY)

ARTICLE XVIII

At intervals of 10 years subsequent to the approval of this Compact, the Commission shall meet to consider the apportionment of such additional waters of the Yellowstone River System as may be surplus. Such additional apportionments shall become part of this Compact, and have the same force and effect as though included in the original apportionment.

0221

MT v. WY/M.T.D. App.
292 (WY)

ARTICLE XIX

This Compact shall become operative when approved by the Legislature of each of the signatory States and consented to and approved by the Congress of the United States.

MT v. WY/M.T.D. App.
293 (WY)

0222

ARTICLE XX

Nothing in this Compact shall be deemed:

(a) To impair or affect any rights or powers of the United States, its agencies, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters;

(b) To subject any property of the United States, its agencies, or instrumentalities to taxation by any State or subdivision thereof, nor to create an obligation on the part of the United States, its agencies, or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatsoever kind, to make any payments to any State or political subdivision thereof, State agency, municipality, or entity whatsoever in reimbursement for the loss of taxes;

(c) To subject any property of the United States, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the Compact.

MT v. WY/M.T.D. App.
294 (WY)

0223

ARTICLE XXI

Should a Court of competent jurisdiction hold any part of this Compact to be contrary to the constitution of any signatory State or of the United States, all other severable provisions of this Compact shall continue in full force and effect.

0224

MT v. WY/M.T.D. App.
295 (WY)

IN WITNESS WHEREOF the Commissioners have signed this Compact in quadruplicate original, one of which shall be filed in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each signatory State.

Done at the City of _____ in the State of _____, this ____ day of _____, in the year of Our Lord, One Thousand Nine Hundred and _____.

Commissioners for the State of Montana:

Commissioners for the State of North Dakota:

Commissioners for the State of Wyoming:

"I have participated in the negotiation of this Compact and intend to report favorably thereon to the Congress of the United States.

_____

R. J. Newell,
Representative of the United States
of America."

0225

MT v. WY/M.T.D. App.
296 (WY)

Engineering Committee Minutes of Meeting
August 22-23, 1950

0226

RECEIVED
SEP 5 1950
STATE ENGINEER
Cheyenne, Wyo.

YELLOWSTONE RIVER COMPACT COMMISSION

Memorandum Notes of Meeting of Drafting and Engineering Committees
Billings, Montana
August 22 and 23, 1950

A joint meeting of the representatives of the Drafting and Engineering Committees of the Yellowstone River Compact Commission was called to order by O. C. Reedy, Secretary, at 10:30 a.m. on August 22, 1950. Mr. Reedy requested he be excused from the meeting as he felt his presence unnecessary. During the course of the meeting Mr. Carl L. Myers was elected chairman. Those attending were:

August 22:	August 23:
E. C. Gwillim	E. C. Gwillim
Earl Lloyd	Earl Lloyd
H. T. Person	H. T. Person
P. F. Leonard	Fred Buck
Fred Buck	R. E. McNally
J. J. Walsh	W. S. Hanna
I. A. Acker	Earl T. Bower
R. E. McNally	H. W. Bunston
W. S. Hanna	L. F. Thornton
Earl T. Bower	C. L. Myers
H. W. Bunston	G. J. Oravetz
L. F. Thornton	H. A. Williams
C. L. Myers	F. H. Brown

The nonmembers of the committees who attended were invited by the various members of the committees as advisors or observers.

There was considerable discussion on potential irrigable areas. Mr. McNally stated that the compact's principal purpose is to clear the way for new storage in both states, with the mouth of the Tongue River an exception. The Tongue River Dam will always have a problem—cost proposition, change of administration, etc. The question of who was going to pay for this was brought up by Mr. Hanna. The necessity to use flood water and surplus water for future development was stressed by Mr. Myers. Mr. Leonard brought out the fact that if Moorhead and Yellowtail were built, the water problems would probably be solved for 100 years. Mr. Myers told about talking to Mr. J. R. Riter of Denver about dividing by percentages and suggested the use of some other method. Mr. McNally commented on the possibility of putting responsibility of administration on the state engineers, as in the case of the Belle-Fourche and Cheyenne compacts, since the people don't want a compact administered by a commission of three states. The power of state engineers was discussed, and it was found that the State Engineer of Montana did not have the same power as the State Engineer of Wyoming.

It was then recommended by Mr. Leonard that the compact written by Mr. Burke be reviewed and objections voiced. The changes proposed by Mr. Leonard were discussed, together with those of Mr. McNally for Wyoming. Drafts of these changes were circulated.

Reference was made to a letter Mr. McNally wrote to Mr. Burke dated August 17, enclosing a letter to Mr. Thornton from Mr. McNally dated August 9. These letters were read. The letter to Mr. Newell from President Truman was also referred to. Mr. Myers explained that it was not prepared by the Bureau of Reclamation, but probably by the Bureau of Budget in terms of all streams in the United States and covering everything from navigation to irrigation. It was pointed out that our recommendations will be made to Mr. Newell only.

Mr. Leonard stated that the Commission will be entitled only to water that has been stored and would otherwise go to waste, other supplies are subject to appropriation of the states and no one else. Mr. Myers discussed the use of across-the-line administration of water rights (existing and future).

Mr. Acker made the suggestion that Mr. Leonard write a compact for Montana and Mr. McNally write one for Wyoming, in order to find out definitely what each State expects. When the Commission meets again, they can be read together to eliminate parts disagreeing and combine parts agreeing.

Mr. Bunston then started his arguments on potential, reading several reports, letters, and quoting figures, together with a suggested formula for dividing water at present and in the future. The Bureau was criticized for not having a survey of Montana such as has been accomplished for Wyoming. This was the basis for his not accepting the acreage that the Bureau gives for the Big Horn County. They also are not interested in the power development at Yellowtail--only irrigation. Mr. Myers stated that irrigation was always paramount with the Bureau of Reclamation, and that to pump water was the cheapest way to get it out. Mr. Bunston remarked that it should be diverted only, and that the percentage basis of potential cannot be made fair on the basis of our knowledge of surveys in the Big Horn. Mr. Lloyd then asked if he wanted to hold up development in one State until the other caught up with it, and Mr. Bunston stated he could interpret it the way he wished.

The meeting adjourned at 6:00 p.m., with the arrangement for the engineering committee and others who wish to attend to meet on August 23.

The meeting was called to order on August 23 by Mr. Myers at 9:00 a.m.

Mr. Bunston started the meeting by quoting figures from the Big Horn Power and Irrigation Company's report. Mr. Myers stated that the only problem he could see to solve was how to provide for new storage, and that the simplest kind of compact was most practical and easy to administer. One of the ways to make it simple is to put a ceiling on the depletion to take place upstream, using whatever standards we need.

0228

MT v. WY/M.T.D. App.
231 (WY)

Mr. McNally requested that "potential" be cleared up, asking if it was subject to priority. Mr. Myers stated that the Bureau was not concerned with priority dates as they worked only with surplus water.

It was finally decided to settle the matter of the Big Horn and any other questions by an inspection trip to the territories concerned. This trip will enable the engineering committee to obtain something specific to work with. Messrs. Person, Lloyd, Gwillim, Myers, Bower, Buck, and Hanna are to go. Mr. Walsh is to be invited, although he is not expected to attend. Mr. Bunston was excused from the trip due to his recent illness. It was suggested that the committee take along any one else they think should go. It is planned to leave the morning of September 11 at 8:00 a.m., proceeding to Hardin. Mr. Buck suggested that they attend the Wyoming Reclamation Association meeting in Buffalo while on the trip.

The meeting adjourned at 12:30 p.m.

Carl L. Myers, Chairman
Engineering Committee

Enclosures: Suggested Changes by Mr. Leonard
Suggested Changes by Mr. McNally
Suggested Formula by Mr. Bunston
Letter to Mr. Burke dated August 17
with letter to Mr. Thornton dated
August 9, both by Mr. McNally

0229

Engineering Committee Letter to R.J. Newell of October 23, 1950

0230

COPY: JP

YELLOWSTONE RIVER COMPACT COMMISSION
Engineering Committee
Billings, Montana

October 23, 1950

Mr. R. J. Newell
P. O. Box 1866
Boise, Idaho

Dear Mr. Newell:

At the joint meeting of the drafting and engineering committees of the Yellowstone River Compact Commission held in Billings, Montana on August 22-23, 1950, the engineering committee agreed to recommend a basis for the Yellowstone River Compact. This subject has been carefully considered by the committee, which herewith submits its report and recommendations.

It is a generally accepted fact that irrigation development in the Yellowstone River Basin, particularly on the interstate tributaries, has very nearly reached its maximum practicable limit without the provision of additional new storage capacity. The committee feels that clearing the way for this new storage should be the underlying objective of any interstate Compact. From an interstate standpoint, the situation in the Yellowstone River Basin is extremely favorable since on three of the four interstate tributaries there is a reservoir site at or near the State line which can provide adequate control of residual flows from the upper State for continued development in the lower State. The fourth tributary, Clarks Fork, is not likely to experience water shortages. The reservoir on Tongue River has already been constructed, and those on the Big Horn River and the Powder River are authorized by Congress for construction by the Bureau of Reclamation. When these reservoirs are in operation they will have the practical effect of permitting full development in the upper States without affecting the progress of development in the lower States. That fact should be borne in mind.

Concerning treatment of existing developments in the Compact, the committee is of the opinion that there is little to be gained from a water supply standpoint by regulating and administering existing diversions under a Compact. It is, of course, entirely up to the Commission whether or not existing rights are to be administered under the Compact, but from an engineering standpoint, the committee feels

0231

that the expense and difficulties of such an administration would in no way justify the benefits that might be obtained. There are insufficient data upon which to base this type of administration due principally to differences in the water laws of the States involved. It would be a major research project to place existing rights in all States on an equivalent basis. Such procedure undoubtedly would involve interstate adjudication proceedings.

There are two principles upon which a satisfactory allocation of the unused waters of the Yellowstone River could be based. One is the so-called divertible flow principle, which has been used in previous Yellowstone River Compact attempts. The other is the depletion principle as used in the Upper Colorado River Basin Compact. The committee feels, that since the divertible flow principle has been previously used as a basis for a compact, it should be retained, but modified to make the apportionment operative on other than a daily basis so that allocation could be in terms of cumulative volumes of water through an entire year, or portion thereof rather than by daily stream flow. This is because substantially all new development will be based on storage rather than direct flow. A suggested draft of an apportionment article is attached, together with the supporting definitions.

Whatever principle is used in allocating the water under the Compact, it is necessary to select some index upon which to base apportionment, either directly in acre-feet or by percentage. The committee believes that the most practicable basis of apportionment of the unused water is the area of irrigable land in the States. The irrigable lands in the States are tabulated in the report and the addendum, dated September 27, 1950, of the engineering committee. The committee feels the irrigable lands as shown by this report and addendum are a reasonable measure of the new development that is likely to take place in the basin for a long time to come.

If the Commission feels that the available data are insufficient on any of the interstate tributaries (Clarks Fork, Big Horn, Tongue, or Powder Rivers) to allocate all of the unused waters of that tributary, it could apportion a first block of water sufficient to take care of the presently indicated potential development.

Some consideration must be given to supplemental water supply and since such water is for use on existing projects, it is felt that such allocation should be made under the category of existing irrigation works rather than potential.

0232

MT v. WY/M.T.D. App.
298 (WY)

The committee definitely feels that there is enough information available at the present upon which to base a workable and realistic Compact, and that nothing would be gained but much might be lost if a Compact were postponed until all the development possibilities in the basin are completely and thoroughly studied. This will take a long time and cost a great deal of money, and if a Compact is delayed until it is completed, the basin may well be deprived of the use and benefit of many worth-while projects which otherwise could be constructed. ..

Sincerely yours,

(Signed)

Fred E. Buck

(Signed)

Earl Lloyd

(Signed)

J. J. Walsh

(Signed)

W. S. Hanna

(Signed)

Carl L. Myers

Attachment

Copy to: Each Commission Member
(with attachment)

Proposals made by P.F. Leonard, August 23, 1950

COPY: ARC
6-23-50

Proposals made by P. F. Leonard
as a member of the drafting committee
of the Yellowstone River Compact

Article 3, Page 7, Division C, second and third line, modify so as to read, "and the making of commissions." The modification is to eliminate the words, "unanimous action."

Article 3, Division G to be added as follows:

G. In the case of failure of the administrative officials of the three states involved in this compact to unanimously agree on any matter necessary to the proper administration of this compact, then such points of disagreement shall be decided by a majority vote of the administrative officials on the basis that each of the states involved shall be entitled to one vote.

Article 4, Amend to read as follows:

ARTICLE IV

The Commission shall itself, or in conjunction with other responsible agencies, cause to be established, maintained, and operated such suitable water gaging, precipitation and evaporation stations as it finds necessary in connection with its duties, and the division or quantity of waters herein agreed upon as between the states of Wyoming and Montana of the Clarks Fork, Big Horn, Tongue River and Powder River, tributaries of the Yellowstone River and which flow into Montana from Wyoming shall be determined as to each of said tributaries at the Wyoming-Montana State line by or on the basis of gaging stations located on each of said tributaries at or near the said state line between said states at points determined by said commissions.

0235

Article 5 to be amended to read as follows:

ARTICLE V

A. The states of Montana, North Dakota and Wyoming hereby agree that the waters of the Yellowstone River and its interstate tributaries shall be apportioned among said states as follows:

Appropriative water rights in the Yellowstone River Basin, including the Clarks Fork, Big Horn River, Tongue River and Powder River existing as of January 1, 1950, shall continue to be enjoyed in accordance with the general law governing the acquisition and use of waters under the Doctrine of Appropriation and on the basis of priorities thereunder as single streams and regardless of state lines.

The total unused or unappropriated divertible flow of said tributaries as of January 1, 1950, shall be divided as follows:

Clarks Fork River
80% to Montana
20% to Wyoming

Big Horn River
% to Montana
% to Wyoming

Tongue River
60% to Montana
40% to Wyoming

Powder River
58% to Montana
42% to Wyoming

B. During the period May 1 to September 30, inclusive of each year, water within the Yellowstone River Basin in Montana and in North Dakota below Intake, Montana, shall be entitled to the beneficial use of the flow of the waters of the Yellowstone River and divided as between said states under the doctrine of Appropriation and priorities thereunder regardless of the boundary line between said states.

C. The compact commission appointed hereunder shall allocate, divide and apportion the waters of said Yellowstone River Basin between the states of this compact in accordance with the provisions herein.

Amend Article 11 to read as follows:

ARTICLE XI

Hereafter no water shall be diverted from the Yellowstone River Basin or from any tributary or water shed therein to another basin, tributary or water shed.

Amend Article 13 by entirely omitting said article.

Amend Article 19 by entirely omitting said article.

0236

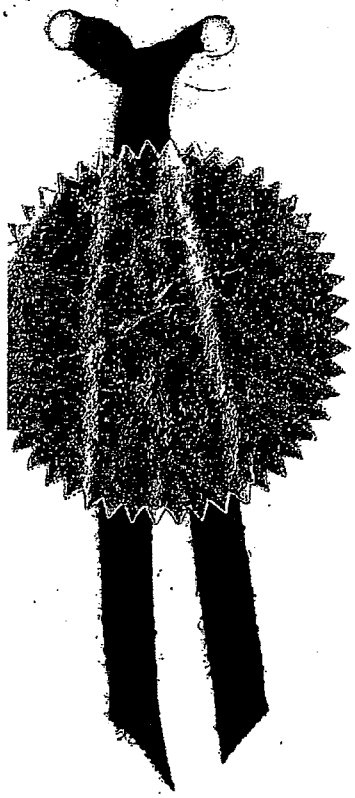
Proposal by Mr. Bunston which modifies the proposal which P. F. Leonard had made regarding Article V.

A. The States of Montana, North Dakota and Wyoming hereby agree that the divertible flow of the waters of the Yellowstone River and its interstate tributaries shall be apportioned among such states as follows:

(Bunston's proposal) Waters put to actual beneficial use prior to January 1, 1950, on the Yellowstone River, Clarks Fork River, Big Horn River, Tongue River, and Powder River shall continue to be enjoyed in accordance with the general law governing the acquisition and use of water under the doctrine of appropriation and on the basis of priorities thereunder as single streams and regardless of state lines. PROVIDED, HOWEVER, that when a shortage of water is available for existing rights, such water shall be apportioned on the basis of priority of rights.

1944 Compact

0238



YELLOWSTONE RIVER COMPACT

Montana, North Dakota
and Wyoming

YELLOWSTONE RIVER COMPACT

The State of Montana, the State of North Dakota, and the State of Wyoming, being moved by consideration of interstate comity, and desiring to remove all causes of present and future controversy between said States and between persons in one and persons in another with respect to the waters of the Yellowstone River and its tributaries, other than waters within or waters which contribute to the flow of streams within the Yellowstone National Park, and desiring to provide for an equitable division and apportionment of such waters, and to encourage the beneficial development and use thereof, have resolved to conclude a Compact as authorized under the Act of the Congress of the United States of America, approved March 16, 1944 (Public No. 257, 78th Congress, Second Session), for the attainment of these purposes, and to that end, through their respective governments, have named as their respective Commissioners:

For the State of Montana:

Fred E. Buck	E. E. Tiffany
W. E. Ogden	D. M. Manning
P. F. Leonard	Chester E. Onstad
H. W. Bunston	Paul J. Hagan
Wesley A. D'Ewart	Axel Persson

For the State of North Dakota:

J. J. Walsh	M. M. Millhouse
Kenneth W. Simons	Frank P. Whitney
Einar H. Dahl	John T. Tucker

For the State of Wyoming:

L. F. Thornton	David G. Anderson
John Gonin	W. B. Snyder
Earl Bower	Mark N. Partridge
Ray Bower	L. C. Bishop
R. E. McNally	H. J. Paustian
E. J. Johnson	W. R. Holt
Ernest J. Goppert	

who, after negotiations participated in by Harold D. Comstock, appointed as the representative of the United States of America, have agreed upon the following articles, to-wit:

ARTICLE I

A. Where the name of a State is used in the Compact, as a party thereto, it shall be construed to include the individuals, corporations, partnerships, associations, districts, administrative departments, bureaus, political subdivisions, agencies, persons, permittees, appropriators, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State.

0240

B. Any individual, corporation, partnership, association, district, administrative department, bureau, political subdivision, agency, person, permittee, or appropriator authorized by or under the laws of a signatory State, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State, shall be subject to the terms of this Compact. Where the singular is used in this article, it shall be construed to include the plural.

ARTICLE II

A. The State of Montana, the State of North Dakota, and the State of Wyoming are hereinafter designated as "Montana", "North Dakota", and "Wyoming", respectively.

B. The terms "Commission" and "Yellowstone River Compact Commission" mean the agency created as provided herein for the administration of this Compact.

C. The term "Yellowstone River Basin" means areas in Wyoming, Montana, and North Dakota drained by the Yellowstone River and its tributaries, and includes the area in Montana known as Lake Basin.

D. The term "Yellowstone River System" means the Yellowstone River and all of its tributaries, including springs and swamps, from their sources to the mouth of the Yellowstone River near Buford, North Dakota, except those portions thereof which are within or contribute to the flow of streams within the Yellowstone National Park.

E. The term "Tributary" means any stream which in a natural state contributes to the flow of the Yellowstone River, including interstate tributaries and tributaries thereof, but excluding those which are within or contribute to the flow of streams within the Yellowstone National Park.

F. The term "Interstate Tributaries" means the Clarks Fork, Yellowstone River; the Big Horn River; the Tongue River; and the Powder River; whose confluences with the Yellowstone River are respectively at or near the city (or town) of Laurel, Big Horn, Miles City, and Terry, all in the State of Montana.

G. The term "Point of Diversion" means the point or place at which water is taken or removed from the channel of the Yellowstone River or from any tributary thereof.

H. The terms "Divert" and "Diversion" mean the taking or removing of water from the Yellowstone River or any tributary thereof when the water so taken or removed is not returned directly into the channel of the Yellowstone River or of the tributary from which it is taken.

0241

MT v. WY/M.T.D. App.
63 (WY)

I. The term "Divertible Flow" means the quantity of water that could be diverted from the stream flow above a designated point of measurement during a specified period of time. It is comprised of three elements: (a) the total net inflow to storage; (b) the total diversions; and (c) the remaining flow in the stream at the designated point of measurement for which the divertible flow is being determined. It is computed as follows:

The algebraic sum of:

(a) The quantity of water (in acre-feet) that flowed into reservoirs situated above the point of measurement during the specified period of time; less the outflow and diversions made directly from reservoirs (in acre-feet) during the same period; plus

(b) The quantity of water (in acre-feet) that was diverted from the stream above the point of measurement (including diversions made directly from reservoirs) during the specified period of time; plus

(c) The quantity of water in the stream (in acre-feet) that flowed past the point of measurement for which divertible flows are being determined during the specified period of time.

J. The term "Mean Divertible Daily Flow" means the average divertible flow occurring during a twenty-four hour period, beginning at 12:00 midnight.

K. The term "Mean Daily Flow" at any point means the average stream flow occurring at that point during a twenty-four hour period, beginning at 12:00 midnight.

L. The term "Beneficial Use" is herein defined to be that use by which the water supply of a drainage basin is depleted when usefully employed by the activities of man, and includes water lost by evaporation, percolation, and other natural causes from streams, canals, ditches, irrigated areas, and reservoirs.

0242

ARTICLE III

A. This Compact is entered into by each signatory State in the exercise of its sovereign powers for a governmental purpose, and its provisions shall be administered by a Commission, composed of one representative from each signatory State, to be known as the Yellowstone River Compact Commission. The State representatives on this Commission shall be selected in such manner as each signatory State shall choose. The State Engineer of each signatory State, or other similar official, shall be and act as the State representative on the Commission at all times when a vacancy may exist thereon either from failure to designate a method of selection or otherwise. The President of the United States

shall be requested by the Commission to designate a representative of the United States to sit with such Commission, and such representative of the United States, if designated by the President, shall, when present, act as Chairman of the Commission without vote.

B. The salaries and necessary expenses of each State representative shall be paid by the respective State; all other expenses incident to the administration of this Compact not borne by the United States shall be allocated to and borne by each state as follows: One-fifth by the State of North Dakota; and two-fifths each by the States of Montana and Wyoming.

C. In addition to other powers and duties herein conferred upon the Commission and the members thereof, the jurisdiction of the Commission shall include the collection, correlation, and presentation of factual data, the maintenance of records having a bearing upon the administration of this Compact, and, by unanimous action, the making of recommendations to the respective States upon matters connected with the administration of this Compact. In connection with the performance of its duties hereunder, the Commission may employ such services and make such expenditures as may be reasonably necessary, within the limit of funds provided for that purpose by the respective States. The Commission shall compile a report for each year ending September 30th, and shall transmit it to the Governors of the signatory States on or before December 31st of that year.

D. The Secretary of War; the Secretary of the Interior; the Secretary of Agriculture; the Chairman, Federal Power Commission; the Chief, Federal Weather Bureau, or comparable officers of whatever Federal agencies may succeed to the functions and duties of these agencies, and such other Federal officers and officers of appropriate agencies of the signatory States having services or data useful or necessary to the Compact Commission, shall cooperate, ex-officio, with the Commission in the execution of its duty in the collection, correlation, and publication of records and data necessary for the proper administration of the Compact; and these officers may perform such other services related to the Compact as may be mutually agreed on with the Commission.

E. The Commission shall have power to formulate rules of procedure, rules, and regulations, and to perform any and all acts it may find necessary to carry out the provisions of this Compact, and to prescribe, issue, make, amend, and rescind such orders, rules, and regulations. All rules of procedure, rules, and regulations of the Commission shall be filed in the Office of the State Engineer of each signatory State and shall be kept in a convenient form for public inspection and examination during reasonable business hours.

F. The Commission herein authorized shall have power to sue and be sued in its official capacity in any Federal Court of the signatory States, and may adopt and use an official seal which shall be judicially noticed.

MT v. WY/M.T.D. App.
65 (WY)

0243

ARTICLE IV

The Commission shall itself, or in conjunction with other responsible agencies, cause to be established, maintained, and operated such suitable water gaging and evaporation stations as it finds necessary in connection with its duties.

ARTICLE V

A. The States of Montana, North Dakota, and Wyoming hereby agree that the waters of the Yellowstone River and its interstate tributaries shall be apportioned among said states as follows:

1. Clarks Fork, Yellowstone River

Each day, during the period May 1st to September 30th, inclusive, of each year, the first 1,600 acre-feet of mean divertible daily flow of the main stem of the Clarks Fork, Yellowstone River, determined immediately above the confluence of Rock Creek with Clarks Fork in Montana, shall be divided fourteen (14) per cent to Wyoming and eighty-six (86) per cent to Montana; however, either State may temporarily divert, consume, or store for its beneficial use any unused part of the above flow allotted to the other, but no continuing right to such unused flow shall be established thereby. Unappropriated divertible daily flows in excess of 1,600 acre-feet occurring during the period May 1st to September 30th, inclusive, of each year, and all presently unappropriated flows occurring during the period October 1st to April 30th, inclusive, shall be subject to future appropriation for beneficial use within the Yellowstone River Basin in Montana, North Dakota and Wyoming in accordance with the laws of said respective States.

2. Big Horn River (Exclusive of Little Horn River)

Each day during the period May 1st to September 30th, inclusive, of each year, after due consideration being given to all Indian-treaty-water rights of the lands in Wyoming and Montana served directly from the main stem of the Big Horn River, the first 15,000 acre-feet of mean divertible daily flow of the Big Horn River, determined at or near the Big Horn River Bridge on U. S. Highway 87 near Hardin, Montana, shall be divided ninety (90) per cent to Wyoming and ten (10) per cent to Montana; and the next 15,000 acre-feet of mean divertible daily flow shall be divided ninety-three (93) per cent to Wyoming and seven (7) per cent to Montana; provided, however, that either State may temporarily divert, consume, or store for its beneficial use any unused part of the above flows allotted to the other, but no continuing right to such unused flows shall be established thereby. Subject to Indian-treaty-water rights, the unappropriated divertible daily flows in excess of 30,000 acre-feet occurring during the period May 1st to September 30th, inclusive, of each year, and all presently unappropriated flows occurring during the period October 1st to April 30th, inclusive, shall be subject to future appropriation for beneficial use within the Yellowstone River Basin in Montana, Wyoming and North Dakota in accordance with the laws of said respective States.

MT v. WY/M.T.D. App.
66 (WY)

0244

3. Tongue River

Each day during the period May 1st to September 30th, inclusive, of each year, the first 2,200 acre-feet of mean divertible daily flow of the Tongue River, determined at the lowest point of diversion on this stream, shall be divided seventy-two (72) per cent to Wyoming and twenty-eight (28) per cent to Montana; and the next 1,200 acre-feet of mean divertible daily flow shall be divided forty-three (43) per cent to Wyoming and fifty-seven (57) per cent to Montana: Provided, That either State may temporarily divert, consume, or store for its beneficial use any unused part of the above flows allotted to the other, but no continuing right to such unused flows shall be established thereby. Unappropriated divertible daily flows in excess of 3,400 acre-feet occurring during the period May 1st to September 30th, inclusive, and all presently unappropriated flows occurring during the period October 1st to April 30th, inclusive, of each year, shall be subject to future appropriation for beneficial use within the Yellowstone River Basin in Wyoming, Montana, and North Dakota in accordance with the laws of said respective States.

The provisions herein, and each of them, and in particular the allotments, and each of them, shall be subject to the following conditions:

(a) For the purpose of determining the engineering feasibility, particularly as to water supply, of any project or program of the United States for the further conservation and utilization of the waters of the Tongue River, particularly the storage of waters in the State of Wyoming for beneficial use in that State, the allotments hereinabove made, and each of them, may be assumed as the measure of an equitable apportionment of the waters of the Tongue River between the States of Wyoming and Montana to satisfy, as of the date of this Compact, those established rights for beneficial consumptive uses which are exercised beneficially and which are valid under the laws of the States of Wyoming or Montana, as the case may be.

(b) Such provisions and allotments shall become operative either ten (10) years from and after the date that this Compact is ratified by the Congress; or on June 15 of the year in which water is available for release through any adequate distributary system, other than the stream bed, from the Tongue River Reservoir of the Montana Water Conservation Board for beneficial uses in Montana, the amount of water so released, however, shall be equal to at least one-half of the working capacity of such reservoir; or on June 15 of the year in which water is available for release through any adequate distributary system, other than the stream bed, if such be necessary, from any storage reservoir constructed in Wyoming to conserve for beneficial uses in Wyoming the waters of the Tongue River, the amount of water released, however, shall be equal to at least one-half of the working capacity of such reservoir; or whichever of said dates is the earlier.

MT v. WY/M.T.D. App.
67 (WY)

0245

4. Powder River (Exclusive of Little Powder River)

Each day during the period May 1st to September 30th, inclusive, of each year, the first 2,000 acre-feet of mean divertible daily flow of the Powder River, determined at the Wyoming-Montana State line, shall be divided ninety-six and one-half (96½) per cent to Wyoming and three and one-half (3½) per cent to Montana: Provided, That when in the judgment of the Compact Commission the carriage loss in and through the stream bed depletes the divertible flow to such an extent that an unreasonable waste of water would result if Wyoming were regulated to produce such percentage to Montana, then such regulation shall be enforced only to the extent directed by the Commission. The next 2,600 acre-feet of mean divertible daily flow shall be divided sixty (60) per cent to Wyoming, and forty (40) per cent to Montana; however, either State may temporarily divert, consume, or store for beneficial use any unused part of the above flows allotted to the other, but no continuing right to such unused flows shall be established thereby. Unappropriated divertible daily flows in excess of 4,600 acre-feet occurring during the period May 1st to September 30th, inclusive, and all presently unappropriated flows occurring during the period October 1st to April 30th, inclusive, of each year, shall be subject to future appropriation for beneficial use within the Yellowstone River Basin in Montana, Wyoming, and North Dakota in accordance with the laws of said respective States.

5. Yellowstone River--Main Stem (Near Montana-North Dakota State Line)

During the period May 1st to September 30th, inclusive, of each year, lands within the Yellowstone River Basin in Montana and in North Dakota below Intake, Montana, shall be entitled to the beneficial use of the available residual flow of the waters of the Yellowstone River below Intake, Montana, on a pro rata basis of acreage irrigated.

All residual flows of the Yellowstone River below Sidney, Montana, after the States of Montana and Wyoming have made, or may make, full beneficial use of the waters of said stream, is hereby allotted to the State of North Dakota.

B. From time to time following the consummation of this Compact, the Commission shall re-examine the allocations made under part "A" of this article and shall, after reaching unanimous agreement, make such modifications in these allotments as are fair, just, and equitable, giving consideration among other factors to:

(a) priorities of water rights;
(b) acreage irrigated;
(c) acreage irrigable under existing works; and
(d) potentially irrigable lands.

Provided, That if the Commission should fail to reach unanimous agreement as to the modification of any allotment provided for in this

MT v. WY/M.T.D. App.
68 (WY)

0246

article, then, as to the stream affected, the allotment then existing shall continue in full force and effect until unanimous agreement thereon be reached; and

Provided further, That changes and amendments that are substantive and are not modifications of allotments as herein provided shall be subject to Article XI.

C. The allocations made herein shall be exclusive of the use of the waters for domestic and stock use, and each signatory State shall be allowed unrestricted use for these purposes, except that no reservoir for such use shall exceed 20 acre-feet in capacity.

D. It is recognized that variable climatic conditions, stream flow regulation, the administration of the interstate tributaries in Wyoming and Montana, and other causes will produce diurnal and other unavoidable variations and fluctuations in the stream flows at the interstate measuring stations, and it is agreed that in the performance of provisions of part "A", of this article and subsequent modifications thereof, minor compensating irregularities and fluctuations in the flow shall be permitted; but where any deficiency of the mean daily flow at an interstate measuring station may be occasioned by neglect, error, or failure in the performance of the duty of the upstream-state water officials having charge of the administration of the diversions from the stream, each such deficiency shall be made up within the next succeeding period of 72 hours by delivery of additional flow at the interstate measuring station over and above the amount allotted, sufficient to compensate for such deficiency. Notwithstanding the allocations of this Compact, the Commission, in its administration, shall direct the regulation of the streams within each of the signatory States to avoid unreasonable carriage losses.

0247

ARTICLE VI

Present vested rights within each State and between States relating to the beneficial use of the waters of the Yellowstone River System are recognized by this Compact and shall be administered by the proper officials of the respective States. All rights to the beneficial use of the waters of the Yellowstone River System, heretofore and hereafter established under the laws of any signatory State, shall be satisfied solely from the portion of the water allotted to that State as provided in Article V. All Indian Treaty rights pertaining to the waters of the Yellowstone River Basin are unaffected by this Compact and are excluded therefrom.

ARTICLE VII

A. A lower signatory State shall have the right, by compliance with the laws of an upper signatory State, to file application for and receive permits to appropriate and use any waters in the Yellowstone River System not specifically apportioned to or appropriated by such upper State as provided in Article V; and to construct or participate

in the construction and use of any dam, storage reservoir, or diversion works in such upper State for the purpose of conserving and regulating water that may be apportioned to or appropriated by the lower State, provided that such right is subject to the rights of the upper State to control, regulate, and use the water apportioned to and appropriated by it; and, provided further, that should an upper State elect, it may share in the use of any such facilities constructed by a lower State to the extent of its reasonable needs upon assuming or guaranteeing payment of its proportionate share of the cost of construction, operation, and maintenance. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

B. Each claim hereafter initiated for an appropriation of water in one signatory State for use in another signatory State shall be filed in the Office of the State Engineer of the signatory State in which the water is to be diverted, and a duplicate copy of the application including a map showing the character and location of the proposed facilities and the lands to be irrigated shall be filed in the Office of the State Engineer of the signatory State in which the water is to be used. If a portion or all the lands proposed to be reclaimed are located in a State other than the one in which the water is to be diverted, then, before approval of the application shall be granted, said application shall be checked against the records of the appropriate office of the State in which the water is to be used, and a notation shall be placed thereon by the officer in charge of such records to the effect that the land description does not indicate a conflict with existing water rights. All endorsements shall be placed on both the original and duplicate copies of all such maps filed, to the end that the records in both States may be complete and identical.

C. Appropriations may hereafter be adjudicated in the State in which the water is diverted, and where a portion or all of the lands irrigated are in another signatory State, such adjudications shall be confirmed in that State by the proper authority. Each adjudication is to conform with the laws of the State where the water is diverted and shall be recorded in the County and State where the water is used.

0248

ARTICLE VIII

A lower signatory State shall have the right, upon compliance with the laws of an upper signatory State, to acquire in such upper State by purchase, or through exercise of the power of eminent domain, such easements and rights of way for the construction, operation, and maintenance of pumping plants, storage reservoirs, canals, conduits, and appurtenant works as may be required for the enjoyment of the privileges granted herein to such lower State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

ARTICLE IX

Should any facilities be constructed by a lower signatory State in an upper signatory State under the provisions of Article VII, the construction, operation, repairs, and replacements of such facilities shall be subject to the laws of the upper State. This provision shall apply with equal force and effect to an upper State in the circumstance of the necessity of the acquisition of rights by an upper State in a lower State.

ARTICLE X

In the event water from another drainage basin shall be imported into the Yellowstone River Basin or transferred from one tributary basin to another by the United States, Montana, North Dakota, or Wyoming, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in determining its share of the divertible flows apportioned in accordance with Article V herein.

ARTICLE XI

The provisions of this Compact shall remain in full force and effect until amended in the same manner as it is required to be ratified to become operative as provided in Article XVII.

ARTICLE XII

No action taken by the Compact Commission shall be valid except by the unanimous consent of the Commissioners representing the signatory States.

ARTICLE XIII

This Compact may be terminated at any time by unanimous consent of the signatory States, and upon such termination all rights then established hereunder shall continue unimpaired.

ARTICLE XIV

Nothing in this Compact shall be construed to limit or prevent any State from instituting or maintaining any action or proceeding, legal or equitable, in any Federal Court or the United States Supreme Court, for the protection of any right under this Compact or the enforcement of any of its provisions.

ARTICLE XV

Nothing in this Compact shall be construed as affecting any rights to the use of the waters of the Big Horn or Wind River and the Little Horn River and their tributaries, existing by virtue of Indian treaties.

ARTICLE XVI

The physical and other conditions characteristic of the Yellowstone River and peculiar to the territory drained and served thereby and to the development thereof, have actuated the signatory States in the consummation of this Compact, and none of them, nor the United States by its consent and approval, concedes thereby the establishment of any general principle or precedent with respect to other interstate streams.

ARTICLE XVII

This Compact shall become operative when approved by the Legislature of each of the signatory States and consented to and approved by the Congress of the United States.

ARTICLE XVIII

Nothing in this Compact shall be deemed:

(a) To impair or affect any rights or powers of the United States, its agencies, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters;

(b) To subject any property of the United States, its agencies, or instrumentalities to taxation by any State or subdivision thereof, nor to create an obligation on the part of the United States, its agencies, or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatsoever kind, to make any payments to any State or political subdivision thereof, State agency, municipality, or entity whatsoever in reimbursement for the loss of taxes;

(c) To subject any property of the United States, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the Compact.

ARTICLE XIX

Should a Court of competent jurisdiction hold any part of this Compact to be contrary to the constitution of any signatory State or of the United States, all other severable provisions of this Compact shall continue in full force and effect.

IN WITNESS WHEREOF the Commissioners have signed this Compact in quadruplicate original, one of which shall be filed in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each signatory State.

MT v. WY/M.T.D. App.
72 (WY)

0250

Done at the City of Billings in the State of Montana, this 18th day of December, in the year of Our Lord, One Thousand Nine Hundred and Forty-four.

Commissioners for the State of Montana:

(Fred E. Buck)

(E. E. Tilfany)

(W. E. Ogden)

(D. M. Manning)

(P. F. Leonard)

(Chester E. Onstad)

(H. W. Bunston)

(Paul Hagen)

(Wesley A. D'Ewart)

(Axel Persson)

Commissioners for the State of North Dakota:

(John T. Tucker)(J. J. Walsh)

(M. M. Millhouse)

(Kenneth W. Simons)

(Frank P. Whitney)

(Einar Dahl)

(John T. Tucker)

MT v. WY/M.T.D. App.
73 (WY)

0251

Commissioners for the State of Wyoming:

(L. F. Thornton)

(David Anderson)

(John Gonin)

(W. B. Snyder)

(Earl Bower)

(Mark N. Partridge)

(Ray Bower)

(L. C. Bishop)

(R. E. McNally)

(H. J. Paustian)

(E. J. Johnson)

(W. R. Holt)

(Ernest J. Goppert)

I have participated in the negotiation of this Compact and intend to report favorably thereon to the Congress of the United States.

Harold D. Comstock
Representative of the United States of America

0252

1942 Compact

YELLOWSTONE RIVER COMPACT

Copy for Wyoming

YELLOWSTONE RIVER COMPACT

The State of Montana, the State of North Dakota, and the State of Wyoming, being moved by consideration of interstate comity, and desiring to remove all causes of present and future controversy between said States and between persons in one and persons in another with respect to the waters of the Yellowstone River and its tributaries, other than waters within or waters which contribute to the flow of streams within the Yellowstone National Park, and desiring to provide for an equitable division and apportionment of such waters, and to encourage the beneficial development and use thereof, have resolved to conclude a Compact as authorized under the Act of the Congress of the United States of America, approved June 15, 1940 (Public No. 632, 76th Congress, Third Session), for the attainment of these purposes, and to that end, through their respective governments, have named as their respective Commissioners:

For the State of Montana:

Fred E. Buck
W. E. Ogden
P. F. Leonard
H. W. Bunston
Wesley A. D'Ewart

For the State of North Dakota:

John T. Tucker
Kenneth W. Simons
Einar Dahl
M. M. Millhouse
Frank P. Whitney

For the State of Wyoming:

L. C. Bishop
L. F. Thornton
John Gonin
Earl Bower
Ray Bower

Ernest Goppert
David Anderson
~~R. E. McNally~~
Will G. Metz
Ed J. Johnson

who, after negotiations participated in by Clyde L. Seavey, appointed as the representative of the United States of America, have agreed upon the following articles, to wit:

ARTICLE I

A. Where the name of a State is used in this Compact, as a party thereto, it shall be construed to include the individuals, corporations, partnerships, associations, districts, administrative departments, bureaus, political subdivisions, agencies, persons, permittees, appropriators, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State.

B. Any individual, corporation, partnership, association, district, administrative department, bureau, political subdivision, agency, person, permittee, or appropriator authorized by or under the laws of a signatory State, and all others using, claiming, or in any manner asserting any right to the use of the waters of the Yellowstone River System under the authority of said State shall be subject to the terms of this Compact. Where the singular is used in this article, it shall be construed to include the plural.

ARTICLE II

A. The State of Montana, the State of North Dakota, and the State of Wyoming are hereinafter designated as "Montana", "North Dakota", and "Wyoming", respectively.

MT v. WY/M.T.D. App.
35 (WY)

0256

B. The terms "Commission" and "Yellowstone River Compact Commission" mean the agency created as provided herein for the administration of this Compact.

C. The term "Yellowstone River Basin" means areas in Wyoming, Montana, and North Dakota drained by the Yellowstone River and its tributaries, and includes the area in Montana known as Lake Basin.

D. The term "Yellowstone River System" means the Yellowstone River and all of its tributaries, including springs and swamps, from their sources to the mouth of the Yellowstone River near Buford, North Dakota, except those portions thereof which are within or contribute to the flow of streams within the Yellowstone National Park.

E. The term "Tributary" means any stream which in a natural state contributes to the flow of the Yellowstone River, including interstate tributaries and tributaries thereof, but excluding those which are within or contribute to the flow of streams within the Yellowstone National Park.

F. The term "Interstate Tributaries" means the Clarks Fork, Yellowstone River; the Big Horn River; the Tongue River; and the Powder River; whose confluences with the Yellowstone River are respectively at or near the city (or town) of Laurel, Big Horn, Miles City, and Terry, all in the State of Montana.

G. The term "Point of Diversion" means the point or place at which water is taken or removed from the channel of the Yellowstone River or from any tributary thereof.

MT v. WY/M.T.D. App.
36 (WY)

0257

H. The terms "Divert" and "Diversion" mean the taking or removing of water from the Yellowstone River or any tributary thereof when the water so taken or removed is not returned directly into the channel of the Yellowstone River or of the tributary from which it is taken.

I. The term "Divertible Flow" means the quantity of water that could be diverted from the stream flow above a designated point of measurement during a specified period of time. It is comprised of three elements: (a) the total net inflow to storage; (b) the total diversions; and (c) the remaining flow in the stream at the designated point of measurement for which the divertible flow is being determined. It is computed as follows:

The algebraic sum of:

(a) The quantity of water (in acre-feet) that flowed into reservoirs situated above the point of measurement during the specified period of time; less the outflow and diversions made directly from reservoirs (in acre-feet) during the same period; plus

(b) The quantity of water (in acre-feet) that was diverted from the stream above the point of measurement (including diversions made directly from reservoirs) during the specified period of time; plus

(c) The quantity of water in the stream (in acre-feet) that flowed past the point of measurement for which divertible flows are being determined during the specified period of time.

J. The term "Mean Divertible Daily Flow" means the average divertible flow occurring during a twenty-four hour period, beginning at 12:00 midnight.

MT v. WY/M.T.D. App.
37 (WY)

0258

K. The term "Mean Daily Flow" at any point means the average stream flow occurring at that point during a twenty-four hour period, beginning at 12:00 midnight.

L. The term "Beneficial Use" is herein defined to be that use by which the water supply of a drainage basin is depleted when usefully employed by the activities of man, and includes water lost by evaporation, percolation, and other natural causes from streams, canals, ditches, irrigated areas, and reservoirs.

ARTICLE III

A. This Compact is entered into by each signatory State in the exercise of its sovereign powers for a governmental purpose, and its provisions shall be administered by a Commission, composed of one representative from each signatory State, to be known as the Yellowstone River Compact Commission. The State representatives on this Commission shall be selected in such manner as each signatory State shall elect. The President of the United States shall be requested by the Commission to designate a representative of the United States to sit with such Commission, and such representative of the United States, if designated by the President, shall, when present, act as Chairman of the Commission without vote.

B. The salaries and necessary expenses of each State representative shall be paid by the respective State; all other expenses incident to the administration of this Compact not borne by the United States shall be allocated to and borne by each state as follows: One-

MT v. WY/M.T.D. App.
38 (WY)

0259

fifth by the State of North Dakota, and two-fifths each by the States of Montana and Wyoming.

C. In addition to other powers and duties herein conferred upon the Commission and the members thereof, the jurisdiction of the Commission shall include the collection, correlation, and presentation of factual data, the maintenance of records having a bearing upon the administration of this Compact, and, by unanimous action, the making of recommendations to the respective States upon matters connected with the administration of this Compact. In connection with the performance of its duties hereunder, the Commission may employ such services and make such expenditures as may be reasonably necessary, within the limit of funds provided for that purpose by the respective States. The Commission shall compile a report for each year ending September 30th, and shall transmit it to the Governors of the signatory States on or before December 31st following the year covered by the report.

D. The Commissioner, United States Bureau of Reclamation; The Commissioner of Indian Affairs; The Chairman, Federal Power Commission; The Chief, Federal Weather Bureau; The Chief of Engineers, U.S. Army; The Director, United States Geological Survey, or comparable officers of whatever Federal agencies may succeed to the functions and duties of these agencies, and such other Federal officers and officers of appropriate agencies of the signatory States having services or data useful or necessary to the Compact Commission, shall cooperate, ex officio, with the Commission in the execution of its duty in the collection, correlation, and publication of records and data necessary for the proper administration of the Compact; and these officers may perform such other services related to the Compact as may be mutually agreed on with the Commission.

E. The Commission shall have power to formulate rules of procedure, rules, and regulations, and to perform any and all acts it may find necessary to carry out the provisions of this Compact, and to prescribe, issue, make, amend, and rescind such orders, rules, and regulations. All rules of procedure, rules, and regulations of the Commission shall be filed in the Office of the State Engineer of each signatory State and shall be kept in a convenient form for public inspection and examination during reasonable business hours.

F. The Commission herein authorized shall have power to sue and be sued in its official capacity in any Federal Court of the signatory States, and may adopt and use an official seal which shall be judicially noticed.

ARTICLE IV

The Commission shall itself, or in conjunction with other responsible agencies, cause to be established, maintained, and operated such suitable water gaging and evaporation stations as it finds necessary in connection with its duties.

ARTICLE V

A. The States of Montana, North Dakota, and Wyoming hereby agree that the waters of the Yellowstone River and its interstate tributaries shall be apportioned among said states as follows:

1. Clarks Fork, Yellowstone River

Each day during the period May 1st to September 30th, inclusive, of each year, the first 1,600 acre-feet of mean divertible

daily flow of the Clarks Fork, Yellowstone River, determined immediately above the confluence of Rock Creek with Clarks Fork in Montana, shall be divided twenty-seven (27) per cent to Wyoming and seventy-three (73) per cent to Montana; however, either State may temporarily divert, consume, or store for its beneficial use any unused part of the above flow allotted to the other, but no continuing right to such unused flow shall be established thereby. Unappropriated divertible daily flows in excess of 1,600 acre-feet occurring during the period May 1st to September 30th, inclusive, of each year, and all presently unappropriated flows occurring during the period October 1st to April 30th, inclusive, shall be subject to future appropriation by Montana, North Dakota, and Wyoming for beneficial use within the Yellowstone River Basin.

2. Big Horn River (Exclusive of Little Horn River)

Each day during the period May 1st to September 30th, inclusive, of each year, after supplying the reasonable water requirements of the lands having Indian Treaty water rights in Wyoming, and the lands having Indian Treaty water rights in Montana served directly from the main stem of the Big Horn River, the remainder of the first 15,000 acre-feet of mean divertible daily flow of the Big Horn River, determined at the lowest point of diversion on this stream, shall be divided ninety (90) per cent to Wyoming and ten (10) per cent to Montana; and the next 15,000 acre-feet of mean divertible daily flow shall be divided ninety-three (93) per cent to Wyoming and seven (7) per cent to Montana; provided, however, that either State may temporarily divert, consume, or store for its beneficial use any unused part of the above flows allotted to the other, but no continuing right to such unused

0262

flows shall be established thereby. Unappropriated divertible daily flows in excess of 30,000 acre-feet occurring during the period May 1st to September 30th, inclusive, of each year, and all presently unappropriated flows occurring during the period October 1st to April 30th, inclusive, shall be subject to future appropriation by Montana, North Dakota, and Wyoming for beneficial use within the Yellowstone River Basin.

3. Tongue River

Each day during the period May 1st to September 30th, inclusive, of each year, the first 2,200 acre-feet of mean divertible daily flow of the Tongue River, determined at the lowest point of diversion on this stream, shall be divided seventy-two (72) per cent to Wyoming and twenty-eight (28) per cent to Montana; and the next 1,200 acre-feet of mean divertible daily flow shall be divided forty-three (43) per cent to Wyoming, and fifty-seven (57) per cent to Montana; however, either State may temporarily divert, consume, or store for its beneficial use any unused part of the above flows allotted to the other, but no continuing right to such unused flows shall be established thereby. Unappropriated divertible daily flows in excess of 3,400 acre-feet occurring during the period May 1st to September 30th, inclusive, and all presently unappropriated flows occurring during the period October 1st to April 30th, inclusive, of each year, shall be subject to future appropriation by Montana, North Dakota, and Wyoming for beneficial use within the Yellowstone River Basin.

4. Powder River (Exclusive of Little Powder River)

Each day during the period May 1st to September 30th, inclusive, of each year, the first 2,000 acre-feet of mean divertible daily

MT v. WY/M.T.D. App.
42 (WY)

0263

flow of the Powder River, determined at the Wyoming-Montana State line, shall be divided ninety-six and one-half (96½) per cent to Wyoming and three and one-half (3½) per cent to Montana; and the next 2,600 acre-feet of mean divertible daily flow shall be divided sixty (60) per cent to Wyoming, and forty (40) per cent to Montana; however, either State may temporarily divert, consume, or store for beneficial use any unused part of the above flows allotted to the other, but no continuing right to such unused flows shall be established thereby. Unappropriated divertible daily flows in excess of 4,600 acre-feet occurring during the period May 1st to September 30th, inclusive, and all presently unappropriated flows occurring during the period October 1st to April 30th, inclusive, of each year, shall be subject to future appropriation by Montana, North Dakota, and Wyoming for beneficial use within the Yellowstone River Basin.

5. Yellowstone River - Main Stem (Near Montana-North Dakota State Line)

During the period May 1st to September 30th, inclusive, of each year, lands within the Yellowstone River Basin in Montana and in North Dakota below Intake, Montana, shall be entitled to the beneficial use of the available residual flow of the waters of the Yellowstone River below Intake, Montana, on a pro rata basis of acreage irrigated.

All residual flows of the Yellowstone River below Sidney, Montana, after the States of Montana and Wyoming have made full beneficial use of the waters of said stream, is hereby allotted to the State of North Dakota subject to existing water rights of lower States.

0264

MT v. WY/M.T.D. App.
43 (WY)

B. Before the expiration of the first ten (10) year period following the consummation of this Compact and at the end of each ten (10) year period thereafter, the Commission shall re-examine the allocations made under part "A" of this article and shall, after reaching unanimous agreement, make such modifications in these allotments as are fair, just, and equitable, giving consideration among other factors to:

(a) priorities of water rights;

(b) acreage irrigated;

(c) acreage irrigable under existing works; and

(d) potentially irrigable lands.

Provided, that if the Commission by the end of the first ten (10) year period should fail to reach a unanimous agreement as to the continuation or the modification of any of the allotments specified in part "A" of this article, then, the allotment as to the stream affected shall be suspended, and during such suspension and until unanimous agreement be reached, the rights of appropriators thereon shall revert temporarily to the same status as would exist had the Compact not been entered into; and

Provided, that if the Commission should fail to reach unanimous agreement as to the modification of any allotment provided for in this article in any ten (10) year period subsequent to the first ten (10) year period, then, as to the stream affected, the allotment then existing shall continue in full force and effect until unanimous agreement thereon be reached; and

0265

Provided further, that changes and amendments that are substantive and are not modifications of allotments as herein provided shall be subject to Article XI.

C. It is recognized that variable climatic conditions, stream flow regulation, the administration of the interstate tributaries in Wyoming and Montana, and other causes will produce diurnal and other unavoidable variations and fluctuations in the stream flows at the interstate measuring stations, and it is agreed that in the performance of provisions of part "A", of this article and subsequent modifications thereof, minor compensating irregularities and fluctuations in the flow shall be permitted; but where any deficiency of the mean daily flow at an interstate measuring station may be occasioned by neglect, error, or failure in the performance of the duty of the upstream-state water officials having charge of the administration of the diversions from the stream, each such deficiency shall be made up within the next succeeding period of 72 hours by delivery of additional flow at the interstate measuring station over and above the amount allotted, sufficient to compensate for such deficiency.

0266

ARTICLE VI

Present vested rights within each State and between States relating to the beneficial use of the waters of the Yellowstone River System are recognized by this Compact. All rights to the beneficial use of the waters of the Yellowstone River System, heretofore and

hereafter established under the laws of any signatory State, shall be satisfied solely from the proportion of the water allotted to that State as provided in Article V. All Indian Treaty rights pertaining to the waters of the Yellowstone River Basin are unaffected by this Compact and are excluded therefrom.

ARTICLE VII

A. A lower signatory State shall have the right, by compliance with the laws of an upper signatory State, to file application for and receive permits to appropriate and use any waters in the Yellowstone River System not specifically apportioned to or appropriated by such upper State as provided in Article V; and to construct or participate in the construction and use of any dam, storage reservoir, or diversion works in such upper State for the purpose of conserving and regulating water that may be apportioned to or appropriated by the lower State, provided that such right is subject to the rights of the upper State to control, regulate, and use the water apportioned to and appropriated by it; and, provided further, that should an upper State elect, it may share in the use of any such facilities constructed by a lower State to the extent of its reasonable needs upon assuming and guaranteeing payment of its proportionate share of the cost of construction, operation, and maintenance.

B. Each claim hereafter initiated for an appropriation of water in one signatory State for use in another signatory State shall

0267

MT v. WY/M.T.D. App.
46 (WY)

be filed in the Office of the State Engineer of the signatory State in which the water is to be diverted, and a duplicate copy of the application including a map showing the character and location of the proposed facilities and the lands to be irrigated shall be filed in the Office of the State Engineer of the signatory State in which the water is to be used. If a portion or all the lands proposed to be reclaimed are located in a State other than the one in which the water is to be diverted, then, before approval of the application shall be granted, said application shall be checked against the records of the appropriate office of the State in which the water is to be used, and a notation shall be placed thereon by the officer in charge of such records to the effect that the land description does not indicate a conflict with existing water rights. All endorsements shall be placed on both the original and duplicate copies of all such maps filed, to the end that the records in both States may be complete and identical.

C. Appropriations may hereafter be adjudicated in the State in which the water is diverted, and where a portion or all of the lands irrigated are in another signatory State, such adjudications shall be confirmed in that State by the proper authority. Each adjudication is to conform with the laws of the State where the water is diverted and shall be recorded in the County and State where the water is used.

0268

ARTICLE VIII

A lower signatory State shall have the right, upon compliance with the laws of an upper signatory State, to acquire in such upper State by purchase, or through exercise of the power of eminent domain, such easements and rights of way for the construction, operation, and maintenance of pumping plants, storage reservoirs, canals, conduits, and appurtenant works as may be required for the enjoyment of the privileges granted herein to such lower State.

ARTICLE IX

Should any facilities be constructed by a lower signatory State in an upper signatory State under the provisions of Article VII, the construction, operation, repairs, and replacements of such facilities shall be subject to the laws of the upper State.

ARTICLE X

In the event water from another drainage basin shall be imported into the Yellowstone River Basin or transferred from one tributary basin to another by the United States, Montana, North Dakota, or Wyoming, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in determining its share of the divertible flows apportioned in accordance with Article V. herein.

0269

MT v. WY/M.T.D. App.
48 (WY)

ARTICLE XI

The provisions of this Compact shall remain in full force and effect until amended by unanimous action of the Legislatures of the signatory States and consented to and approved by the Congress of the United States in the same manner as this Compact is required to be ratified to become effective.

ARTICLE XII

No action taken by the Compact Commission shall be valid except by the unanimous consent of the Commissioners representing the signatory States.

ARTICLE XIII

This Compact may be terminated at any time by unanimous consent of the signatory States, and upon such termination all rights then established hereunder shall continue unimpaired.

ARTICLE XIV

Nothing in this Compact shall be construed to limit or prevent any State from instituting or maintaining any action or proceeding, legal or equitable, in any Federal Court or the United States Supreme Court, for the protection of any right under this Compact or the enforcement of any of its provisions.

MT v. WY/M.T.D. App.
49 (WY)

0270

ARTICLE XV

Nothing in this Compact shall be construed as affecting any rights which may legally exist to the use of the waters of the Big Horn or Wind River and the Little Horn River and their tributaries attaching to lands now being irrigated and susceptible of irrigation on the Crow Indian Reservation and the ceded portions thereof in Montana, and the Wind River Reservation and the ceded portions thereof in Wyoming, as established by the Crow Treaty of May 7, 1868 (15 Stat. 649) and the Fort Bridger Treaty of February 26, 1869 (15 Stat. 673).

ARTICLE XVI

The physical and other conditions characteristic of the Yellowstone River and peculiar to the territory drained and served thereby and to the development thereof, have actuated the signatory States in the consummation of this Compact, and none of them, nor the United States by its consent and approval, concedes thereby the establishment of any general principle or precedent with respect to other interstate streams.

ARTICLE XVII

This Compact shall become operative when approved by the Legislature of each of the signatory States and consented to and approved by the Congress of the United States.

0271

ARTICLE XVIII

Nothing in this Compact shall be deemed:

(a) To impair or affect any rights or powers of the United States, its agencies, or instrumentalities, in and to the use of the waters of the Yellowstone River Basin nor its capacity to acquire rights in and to the use of said waters;

(b) To subject any property of the United States, its agencies, or instrumentalities to taxation by any State or subdivision thereof, nor to create an obligation on the part of the United States, its agencies, or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatsoever kind, to make any payments to any State or political subdivision thereof, State agency, municipality, or entity whatsoever in reimbursement for the loss of taxes;

(c) To subject any property of the United States, its agencies, or instrumentalities, to the laws of any State to an extent other than the extent to which these laws would apply without regard to the Compact.

ARTICLE XIX

Should a Court of competent jurisdiction hold any part of this Compact to be contrary to the constitution of any signatory State or of the United States, all other severable provisions of this Compact shall continue in full force and effect.

MT v. WY/M.T.D. App.
51 (WY)

0272

IN WITNESS WHEREOF the Commissioners have signed this Compact in quadruplicate original, one of which shall be filed in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each of the signatory States.

Done at the City of Billings in the State of Montana, this 31st day of December, in the year of Our Lord, One Thousand Nine Hundred and Forty-two.

Commissioners
For the State of Montana:

Commissioners
For the State of North Dakota:

Commissioners for the State of Wyoming:

Approved:

Clyde L. Seavey

Representative of the
United States of America.

MT v. WY/M.T.D. App.
52 (WY)

0273

1935 Compact

0274

YELLOWSTONE RIVER COMPACT

BETWEEN

THE STATES OF WYOMING AND MONTANA

The State of Wyoming and the State of Montana, desiring to remove all causes of present and future controversy between the said states, and between the citizens of one against citizens of the other with respect to the waters of the Yellowstone River and the waters of streams tributary thereof, and being moved by considerations of interstate comity and being theretofore duly authorized by Act of Congress of the United States approved June 14th, 1932, have resolved to conclude a compact for these purposes and have named as their Commissioners:

For the State of Wyoming - Mr. Edwin W. Burritt,
and
For the State of Montana - Mr. J. S. James,

who, after negotiations participated in by Mr. W. A. Lamb, appointed by the President as the representative of the United States of America, have agreed upon the following Articles:

ARTICLE I

The major purposes of this compact are to provide for the equitable division and apportionment of the use of the waters of the Yellowstone River; to so conserve and use the waters of the river as to obtain maximum benefits; to

0275

promote interstate comity; to preserve the autonomy of the signatory states; to promote peaceable and expeditious agricultural and industrial development; and to promote the general welfare of each of the signatories.

ARTICLE II

As used in this compact:

The signatory states are designated as "Montana" and "Wyoming", respectively.

The term "Yellowstone River" means that river, together with all its tributaries, which rises in northwestern Wyoming, flows through Wyoming and Montana and joins the Missouri River near Buford, North Dakota.

The term "Tributary to the Yellowstone River" means any stream which naturally contributes water to said river.

The term "Domestic Use", as applied to the use of water, means all ordinary household, culinary and other domestic uses incident to residential properties, street sprinkling, sewer flushing, watering of parks and lawns, uses of water by cities through waterworks systems, and for transportation purposes, but shall not include the use of water for the generation of power.

The term "Agricultural Use", as applied to the use of water, means the application of water to land by

artificial means for agricultural purposes such as raising of crops and other products of the soil.

The term "Power Use", as applied to the use of water, means use for the development of electrical or any other form of energy by means of turbine, impulse or other forms of water wheels.

ARTICLE III

Where the name of a state is used in this compact, as a party thereto, it shall be construed to include the citizens, corporations, partnerships, associations, districts, administrative departments, bureaus, political subdivisions, agencies, persons, permittees, appropriators, and all others using, claiming, or in any manner asserting any right to the use of the waters of either the Yellowstone River or its tributaries within said state except as in this compact provided.

Any citizen, corporation, partnership, association, district, administrative department, bureau, political subdivision, agency, person, permittee or appropriator authorized by or under the laws of a signatory state, and all other using, claiming, or in any manner asserting any right to the use of the waters of either the Yellowstone River or its tributaries within said state, shall be subject to the terms of this compact. Where the singular is used in this paragraph, it shall be construed to include the plural.

0277

ARTICLE IV

(a) The Yellowstone River and its tributaries are non-navigable.

(b) Subject to the provisions of this compact, water of the Yellowstone River may be used or impounded and used for the generation of power, provided such use or impounding and use shall, at all times, be subservient to the use and consumption of such water for either domestic or agricultural uses and shall not interfere with or prevent uses for such dominant purposes.

(c) Water for either agricultural or power uses shall be subservient to domestic use.

ARTICLE V

(a) The waters of the Yellowstone River and tributaries are public waters and as such are the properties of the states within which they originate and flow, but the use of such waters is subject to appropriation for beneficial use under the laws of the separate states and under general water-right law as interpreted by the Courts.

(b) Priority of appropriation for beneficial uses shall give the better right. The right of a prior appropriator is such that he is entitled to have the stream flow, within the amount of his right, and within the needs of the beneficial use for which appropriation was made, as it did when he appropriated, undiminished by the use of any later appropriator or by any increased

0278

MT v. WY/M.T.D. App. 4 (WY)

use of earlier priority. Beneficial use is the basis, the measure and the limit of any right to the use of public water.

(c) Wherever and whenever practical the waters of all interstate streams shall be divided at the state line, having due regard to elements of return flow, priority, and established uses. Such division shall be determined by mutual agreement as, in this compact, further provided.

(d) It is mutually agreed that no water shall be diverted from the Yellowstone River or any tributary for use in another watershed except as specifically provided in this compact or in compacts supplementary hereto.

(e) It is specifically provided that waters of Big Horn River may be diverted to the drainage basin of Clarks Fork of the Yellowstone, and that waters of Powder River drainage basin may be diverted to the drainage basin of Tongue River, and that waters of the Upper Yellowstone and tributaries may be diverted to the drainage basin of Big Horn River.

(f) That any unused and unappropriated waters of the Yellowstone River, whether the source of the same is in Wyoming or Montana, may be located, appropriated, and used either in Wyoming or Montana, or in both of said states by either of said states, and the respective states shall issue permits for such appropriations to

0279

MT v. WY/M.T.D. App. 5 (WY)

either state, without distinction or discrimination.

(g) Montana shall have the right by a compliance with the laws of Wyoming to file application for and receive permits to appropriate and use, in Montana, any unappropriated and unused water in the Yellowstone River in Wyoming, and also locate and file upon reservoir sites in said river, and also be entitled to the benefits of all laws of the State of Wyoming affecting reservoirs, to construct, operate and maintain reservoirs, to impound such water and may construct and maintain ditches and diversion works to divert said water into Montana and may use the natural streams for such purpose. Provided that as to any such impounded water, Wyoming shall have the right to acquire and use not exceeding fifty percent upon giving notice prior to the commencement of the construction of said works to the parties in interest and by financing its proportionate share of the cost of construction, operation and maintenance of such reservoirs, ditches and other diversion works. Wyoming may likewise, and under corresponding conditions, acquire such reciprocal rights in Montana.

(h) The signatories, for their common welfare, agree to cooperate: first, in the development of the water resources of the Yellowstone River within both states, particularly along the upper reaches of the stream and its tributaries thereby increasing the useful flow along

the lower reaches through ground storage and return flow; second, in securing the construction of canals and reservoirs for the conservation and utilization of the waters of the Yellowstone River in both Montana and Wyoming; third, to prevent waste of water; fourth, to equalize stream flow; fifth, to obtain maximum benefits from uses of water.

ARTICLE VI

(a) To determine rights and relative priorities as between the states to the waters of any stream crossing the state boundary, there is hereby established a Commission, herein designated "The Commission", consisting of the State Engineer of Wyoming, The State Engineer of Montana, and such representatives of the Federal Government, as may be designated by the President of the United States.

(b) The Commission shall at once begin the study of the various interstate streams and shall determine the amount of water to be divided between the states at the state line. The conclusions reached are to be based on the law of priority, the law of beneficial use, due regard to stream increases caused by underground storage and return flow and any other salient facts, that in the opinion of the Commission, may have a bearing upon the equitable distribution of water, within the intents and purposes of this compact.

(c) When the Commission has made such determination for any interstate stream, it shall report its findings to the President of the United States and to the Governor of each state in the form of an agreement supplemental to this compact, which agreement shall be in full force and effect from the time of its approval by the Commission, until disapproved by the Congress of the United States or by the Legislature of Wyoming or by the Legislature of Montana.

(d) The Commission may employ personnel as may be necessary and make such surveys and studies in either state or both states, as may be needed.

(e) The costs of the Commission, including such surveys and studies, and including travel and personal expenses of the members of the Commission, shall be borne equally by the two states. The Commission shall keep account of all such expenditures and of the amount paid by each state, and at the end of each fiscal year, the account shall be balanced by the payment by Montana to Wyoming of any amount the latter may have paid in excess of the amount paid by the former, or by Wyoming to Montana of any amount the latter may have paid in excess of the amount paid by the former.

0282

ARTICLE VII

Should any claim or controversy arise between the signatory states:

(a) With respect to the waters of the Yellowstone River;

(b) Over the meaning of interpretation of any of the terms of this compact;

(c) As to the construction or operation of any works in one state for the benefit of the other state; the Governors of the signatory states, upon request of one of them, shall forthwith appoint commissioners with power to consider and adjust any such claim or controversy, subject to ratification by the Legislatures of the signatory states. Nothing in this article contained, shall prevent the adjustment of any such claim or controversy by direct legislative action of the states, or be construed to limit or prevent any state from instituting or maintaining suit to protect any right under this compact or to enforce any of its provisions.

ARTICLE VIII

This compact may be terminated or modified by the mutual consent of the signatories hereto, provided, termination or modification thereof shall not impair rights previously established hereunder.

ARTICLE IX

This compact shall be in full force and effect as of the date when it shall have been approved by the Legislature of each of the signatory states and by the Congress of the United States.

Notice of approval by the Legislature of each

signatory state shall be given by the Governor to the Governor of the other state and to the President of the United States, and the President of the United States is requested to give notice to the Governors of the signatory states of approval by the Congress of the United States.

Executed in three original copies at Cheyenne, in the State of Wyoming, this Sixth day of February, A. D. 1935.

COMMISSIONER FOR THE UNITED STATES.

COMMISSIONER FOR THE STATE OF MONTANA.

COMMISSIONER FOR THE STATE OF WYOMING.

Letter from R.E. McNally to Wyoming members of YRCC, Oct. 3, 1950

R. E. McNALLY
ATTORNEY
FIRST NATIONAL BANK BUILDING
SHERIDAN, WYOMING

October 3, 1950

To the Wyoming members of the Yellowstone River Compact Commission:

Gentlemen:

The time is rapidly approaching when we must do something about this Compact. In a feeble sort of way I am trying to contribute my part.

A few days ago I sent you a tentative draft of a Compact which was largely prepared by Attorney W. J. Wehrli and to which I contributed a small part.

Today I received from Mr. Gwillim a tentative draft of a Compact which was prepared presumably by Mr. Carl Myers. In any event Mr. Myers handed it to Mr. Gwillim. In many ways I like the Myers version very much. It may well be that between the Wehrli draft and the Myers draft (so-called) we can find a common ground of agreement.

I think that the Myers draft handles the matter of "established rights" in a very satisfactory fashion. Mr. Wehrli approaches the same thing in an entirely different manner but also very effectively, I think.

Certainly there should be no disposition on the part of anyone to want to disturb, or disrupt, or invade long-established water rights. I doubt if this could be successfully done even if we wanted to and, it is my humble opinion that those who have any idea of disturbing vested rights, or impairing or restricting those rights, such persons are simply looking for trouble. These people just don't want a Compact at all. And so, at the very beginning of the next session of the Commission a poll should be taken of the

0286

Commissioners. This question should be propounded to them individually: "Are you or are you not in favor of recognizing the existing vested and long-established rights of water appropriators in the Yellowstone River Basin?" If any sizeable number of the Commissioners should answer in the negative, then, a motion to adjourn would be in order, it seems to me.

Now, for purposes of comparison, I call your attention to Article III of the Wehrli draft which I mailed you a few days ago. And, at the same time, read Article V of the Myers draft which I enclose herewith. Mr. Myers excludes "established rights". Mr. Wehrli affirmatively makes an allotment in perpetuity of those rights based upon the maximum annual consumptive and beneficial use of water in the respective states during the ten year period ending January 1, 1951. After all, as stated in paragraph 7 of Article III of the Wehrli draft it is stated that "beneficial use shall be the basis, the measure, and the limit of the right to the use of water herein apportioned". In the Platte river decision the Court gave Wyoming the prior right to water for every acre of land actually irrigated. "Paper rights" were not recognized. We all know that a great many of these "paper rights" are fictitious. Mr. Wehrli seeks by his formula to eliminate these fictitious rights, while Mr. Myers excludes all "established rights" without providing a definite rule defining what those rights are. It will be up to the Commission to decide upon the best method of arriving at this result: the protection of all existing rights.

It will be noted that Mr. Wehrli apportions "unused" water on a percentage basis, whereas Mr. Myers makes his apportionment upon an "acre-foot" basis. It may be that this latter method will prove more desirable. In Article VI Mr. Myers provides that any shortage of water on an annual basis exclusive of established rights and other uses shall be apportioned according to the apportionments made in his Article V. Mr. Wehrli in his Article III, first paragraph, apportions the water of the Yellowstone River system according to the beneficial

consumptive use. If this apportionment of the waters is followed, then during the low flow period of Tongue River during July and August, Wyoming could be forced to restrict its diversions to supply Montana with about thirty percent of the stream flow on some measurement basis to be hereafter determined. The Tongue River water users in Wyoming objected to the former Compact because they would have to deliver twenty-eight percent of the "Daily Divertable Flow" to Montana users. The Wyoming people would never sign such a Compact. Therefore the first paragraph, Article III, of the Wehrli Compact must be changed to read: "there is hereby apportioned, on an annual basis, from the Yellowstone River system, etc.".

You will note that Mr. Myers in paragraph C of his Article V provides that the apportionment shall be determined by the inflow-outflow method. This is good, in my opinion. Also, Mr. Myers provides in paragraph B of his Article V that the determination shall be made on an annual water year basis. I favor both of these ideas.

Neither draft contains a proper definition of "domestic use". In my opinion the Upper Colorado River Basin Compact was as carefully and skilfully prepared as any Compact that I know of. The definition of "domestic use" contained in paragraph (m) Article II should be adopted here. I might properly quote that definition as follows: "the term "domestic use" shall include the use of water for household, stock, municipal, mining, industrial, and other like purposes, but shall exclude the generation of electrical power". In sub-paragraph 1. of paragraph D of Article V of the Myers draft I think that the maximum capacity of any reservoir for stock water should be at least twenty acre-feet instead of ten acre-feet.

Mr. Myers does not exclude the Little Big Horn River. Mr. Wehrli, at my suggestion, excluded the Little Horn. I don't know what is best. I have told some of the ranchers on the Little Horn and its tributaries in Wyoming that the Little Horn was to be excluded. If it is to be included these ranchers ought to be given an

0288

opportunity to be represented and to be heard before the Commission. There may be entanglements here between the Indian rights on the Crow Reservation and the rights in Wyoming. I had hoped to avoid these entanglements by omitting the Little Horn. This conflict of rights should be settled in the Courts and not elsewhere. This Commission is not a judicial tribunal.

And, speaking of Indian rights, I am dissatisfied with Article VIII of the Myers draft which speaks of the "first and prior water rights reserved for Indians, for Indian tribes, and for Indian reservations, whether such first and prior water rights of the Indians are inchoate or covered by Federal Court decrees at the date of this Compact". I don't like this language. I prefer this language: "all prior existing water rights of Indians, Indian tribes, and Indian reservations are hereby recognized and shall be and shall remain unimpaired by this Compact.

This matter was discussed at great length in the negotiations leading up to the adoption of the Upper Colorado River Compact. This language was finally agreed upon: "nothing in this Compact shall be construed as affecting the obligations of the United States of America to Indian tribes".

I dislike very much the idea of a super-government in the form of an inter-state Commission. I think that the matter of administering the Compact should rest with our State Engineers as has been done with most of our other Compacts. I hesitate to see the power and control over our waters which was vested by our constitution in our State Engineer and our Board of Control taken away from them and given over to a Commission, two of whose members, a majority, are not even citizens of Wyoming. I think that Article VI of the Wehrli draft ought to take care of that situation. A part of this was taken from the Snake River Compact recently negotiated by the State of Wyoming.

I would favor striking the words "heretofore and" from the second line of Article VII of the Myers draft.

Many of the Articles of the Wehrli draft and the Myers draft are identical and may be adopted in their entirety.

I believe that we are getting close to an agreement. The only thing that can prevent our getting together, as I have hereinbefore indicated, will probably be the disposition on the part of some members of the Commission to disregard, disrupt and invade the vested rights of the ancient appropriators and users of the waters of our streams and thereby to destroy the economy which has long been based upon these rights. I think that every Compact that Wyoming has negotiated from the Colorado River Compact to the Snake River Compact has protected "established rights". We cannot depart from that policy here.

Very sincerely yours,

R. E. McNally

Encl.
REM:mln

RECEIVED
OCT 5 1950
STATE ENGINEER

ARTICLE I (Myers)

A. There is hereby apportioned from the Yellowstone River System in perpetuity to the States of North Dakota, Montana, and Wyoming, respectively, exclusive of established rights and other uses coming within the provisions of paragraph D of this Article I, the consumptive use per annum of water, as follows:

Main Stem Yellowstone River

To Montana _____ acre-feet
To North Dakota _____ acre-feet

Powder River

To Montana _____ acre-feet
To Wyoming _____ acre-feet

Tongue River

To Montana _____ acre-feet
To Wyoming _____ acre-feet

Big Horn River

To Montana _____ acre-feet
To Wyoming _____ acre-feet

Clarks Fork River

To Montana _____ acre-feet
To Wyoming _____ acre-feet

B. The apportionment made to the respective States by paragraph A hereof shall be determined on an annual water year basis measured from October 1 of any year through September 30 of the succeeding year.

C. The consumptive use of water, which use is apportioned in paragraph A hereof, shall be determined for each State by the inflow-outflow method in terms of man made depletions in addition to existing depletions as of January 1, 1951.

0291

D. There are hereby excluded from the provisions of this Compact:

1. Existing and future domestic and stock water uses of water;

Provided, That the capacity of any reservoir for stock water so excluded shall not exceed 10 acre-feet.

2. Established rights to the beneficial use of water in each signatating State existing on January 1, 1951, including losses from reservoirs constructed prior to January 1, 1951.

RECEIVED
OCT 5 1950
STATE ENGINEER

0292

Letter from R.E. McNally to Burke,
Aug, 17, 1950

R. E. McNALLY
ATTORNEY
FIRST NATIONAL BANK BUILDING
SHERIDAN, WYOMING

150 N9D 8/18

BUREAU OF RECLAMATION
RE...
AUG 18 1950

August 17, 1950

Mr. W. J. Burke
Regional Counsel
c/o Bureau of Reclamation
P. O. Box 1638
Billings, Montana

Dear Mr. Burke:

This will acknowledge your letter of August 14 in which you ask me for a copy of my letter of June 8, 1950, addressed to Governor Bonner.

I hasten to comply with your request. I am also enclosing a copy of a letter written under date of August 9, 1950 to Mr. L. F. Thornton of Thermopolis, one of our Commissioners.

I am mailing a copy of this letter and of both of the enclosed copies to Mr. Newell in order that he will be fully informed as to our position in advance of our meeting. I hope in this way to save time when we get together in Billings.

I might say to you that most of our Wyoming Commissioners, including Mr. Thornton, got together last May and reached a tentative agreement on most of the important questions which will arise when the Drafting Committee meets. The Tongue River Water Users Association has employed Mr. Wenrich and we expect him to be present at our meeting next Tuesday. He is fully informed.

I might mention here a few of the more important items upon which our Commissioners are agreed:

I

We will submit for consideration Paragraph A of Article V in the following words: "A. All existing rights to the beneficial use of the waters of Clarks Fork Basin, Yellowstone River, Big Horn River Basin (exclusive of Little Horn River), Tongue River Basin, and Powder River Basin (inclusive of Little Powder River), respectively, in the States of Montana and Wyoming valid under the laws of those States, respectively, as of January 1, 1940, are hereby recognized and shall be and remain unimpaired by this compact."

0294

This phraseology, we think, should be made applicable to all of the rivers involved in these negotiations. As to the apportionment of the waters of each river basin we are favorable to the use of the following words: "The total unused or unappropriated divertible flow is divided _____% to Montana; _____% to Wyoming.

II

We are opposed to any interstate administration. We offer for adoption the plan used in the Cheyenne River and Bellefourche River Compacts. We are unyieldingly opposed to Mr. Leonard's suggestion of an interstate administration without regard to State boundary lines based upon the "priority rule". We believe that the rule of "equitable apportionment" as defined in the Platte River decision, 325 U.S. 589, should apply. As I stated in my letter to Mr. Thornton, "priority" is only one of many factors.

III

We have re-drawn Article VI and VII of the old compact. As to Article VI, in particular, we recognize all prior existing water rights of Indians, Indian Tribes, and Indian Reservations, and these rights shall remain unimpaired by the compact. We are not prepared to say with exactitude what these rights are. But, whatever they are, the compact will recognize them. And likewise, as to the Federal Government, we are glad to recognize all of the Government's rights, whatever they are, but we are not willing to extend or enlarge those rights by agreement.

It might be advantageous to all of us if the Government would lay out on the table its position with reference to the unappropriated waters of these interstate streams. If the Government is going to take the position and make the contention as to ownership of the unappropriated waters that it made in the Platte River Case, there isn't any use in devoting much time to these negotiations. After having recognized all existing rights of appropriators in the various States as of January 1, 1950 (and these rights would have to be recognized in any event), our meeting will have nothing to consider except the unappropriated water, and if the Government has a superior title to these rights, as it claimed to have in the Platte River Case, there wouldn't be much advantage in the States dealing

0295

with something that they don't own. If the representatives of these three States recognize the superior right of the Government to these unappropriated waters, it would be equivalent to these States giving a quitclaim Deed to the Federal Government for all of the unappropriated waters. I, personally, will never subscribe to the States' recognizing that the Government has any superior title to these waters. That is a matter beyond the powers and beyond the jurisdiction of our Commission. We must not, by agreement, make an adjudication here either for or against the Government. We must not by innuendo or by inference attempt to settle this matter of ownership of the unappropriated waters. That is not our province.

And so, inasmuch as all vested rights are, and must be, recognized and remain unimpaired as of January 1, 1950, and inasmuch as the representatives of these States are dealing only with the unappropriated waters, if the Government intends to assert, and later establishes, its superior right to these waters, anything that may be agreed upon between the States as to these waters would be futile.

I am glad to have this opportunity of making my position perfectly clear. Of course, I am only one member of our Commission. I think that I reflect the views of most if not all of the other members. But I am speaking here only as an individual.

Very sincerely yours,

R. E. McNally

REM/mr
Enc. 2

0296

Letter from Burke to R.J. Newell,
Apr. 20, 1950

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
P.O. Box 1558
Billings, Montana

April 20, 1950

Mr. R. J. Newell, Chairman
Yellowstone River Compact Commission
Bureau of Reclamation
P. O. Box 937
Boise, Idaho

Dear Mr. Newell:

The Yellowstone River Compact Commission in its second meeting held in Billings, Montana, February 1 and 2, 1950, appointed a drafting committee and designated engineering advisors to prepare a draft of the Yellowstone River Compact. I agreed at the request of the drafting committee to undertake the preparation of a "work-draft" of the compact. That draft has been prepared and a copy is attached. Distribution of the draft to the drafting committee, to the engineering advisors, and to the Secretary of the Commission has been made as indicated at the foot of this letter.

In agreeing to assist the drafting committee, I asked for instructions as to whether the draft should be an amendment of the 1944 compact or a new draft. The minutes of the February 1-2, 1950, meeting show that a motion was adopted unanimously favoring the preparation of a completely new draft. In seeming contrast, the minutes of the November 29, 1949, meeting show that Mr. Fred Buck, State Engineer of Montana, suggested that the compact should be based on the same general theory as the 1944 compact. The minutes do not show the disposition of Mr. Buck's suggestion. For reasons which I shall develop, I was unable to prepare the draft in accordance with the instruction given to me by the Commission.

At the first meeting of the Commission, an engineering committee was appointed. From the minutes of that meeting, it seems that eight items were suggested for coverage by the engineering committee. An examination of the report of the engineering committee discloses that these items are covered.

The February 1-2, 1950, minutes of the Commission show:

(1) The report of the engineering committee was accepted as a basis for negotiation.

(2) The engineering committee report was a unanimous report.

0298

(3) A motion to accept and approve the engineering committee report as the best data available and for use as a basis for the division of the water, although seconded, was, after discussion, withdrawn.

(4) The engineering committee was not discharged but continued for consultation and advice.

(5) While there was discussion as to the principles to be used in developing the compact, no action was taken by the Commission.

(6) Area committees were appointed to agree upon the division of the waters of each of the streams to be covered by the compact.

(7) The reports of the area committees generally were accepted and referred to the drafting committee.

While the report of the engineering committee contains data that are material to the development of a principle for compacting the several streams, the report does not recommend such a principle. As shown above, the Commission did not use the report of the engineering committee to develop a compact principle. The only principle that I can deduce from the report of the engineering committee is that existing appropriative rights in each State shall be recognized both as to validity and enjoyment and that the stream flows after depletion by existing appropriative rights shall be apportioned on a rate basis that shall be determined by taking the total of the interstate potential acreage as the base and the total of the intrastate potential acreage as the percentage. To give effect to this principle, and because of the action of the Commission that the report of the engineering committee be accepted as a basis for negotiation of the compact, it was necessary for me to use the "divertible flow" theory adopted by the Commission that negotiated the 1944 compact. Accordingly, the "work-draft" that I am submitting is not a new compact but an amendment of the 1944 compact. The amendments of the 1944 compact are:

(1) The deletion from the 1944 compact of the apportionments of each stream and the substitution of the apportionments reported by the area committees and accepted by the Commission for the use of the drafting committee. (This is Article V of the "work-draft.")

(2) The last paragraph of Article V, A, 5 of the 1944 compact, allotting residual flows of the Yellowstone River below Sidney, Montana, after Montana and Wyoming have made or may make full beneficial use of those waters, to North Dakota, is deleted. (This accords with the view expressed by Mr. Acker.)

0299

(3) From Article VI of the 1944 compact the first and the last sentences have been deleted, because the subject of the first sentence, present vested rights, is covered in Article V, A of the "work-draft" in the compacting of each of the streams; and the subject of the last sentence, Indian rights, is covered in Article VII of the "work-draft."

(4) The deletion from the 1944 compact of Article XV (Indian rights) and the inclusion of Article VII in the "work-draft" is as requested by the Bureau of Indian Affairs.

Your attention is called to the following particulars of the "work-draft":

(1) The proviso to Article V, A, 2 seems to be in conflict with the last sentence of Article V, D.

(2) In Article V, A, 3 (Tongue River), "unappropriated waters" are allocated, whereas in all other instances "unappropriated divertible flow" is allocated. (In Article V, A, 2 "unapportioned" is used rather than "unappropriated.")

For your convenience, I am enclosing a mimeographed copy of the 1944 compact. For your information, the 1944 compact as ratified by the Legislature of North Dakota is Chapter 61-23, 1947 Supplement to the North Dakota Revised Code of 1943; and as ratified by the Legislature of Montana is Chapter 85, Laws of Montana of 1945. Since the Wyoming ratifying act was vetoed by the Governor of Wyoming, there is no Wyoming citation. It is assumed that the Wyoming act as vetoed is available to the Wyoming representatives.

Very truly yours,

W. J. Burke

Enclosures

(See attached sheet for distribution)

0300

Copy, in dupl., to drafting committee, with copy of "work-draft" of compact, in dupl.:

P. F. Leonard, Miles City, Mont.
I. A. Acker, State Capitol, Bismarck, N.D.
R. E. McNally, First National Bank Bldg., Sheridan, Wyo.

Copy to engineering advisors, with copy of "work-draft" of compact:

Carl Myers, Chairman, Engineering Committee,
c/o Bureau of Reclamation, Box 1264, Billings, Mont.
Fred Buck, State Engineer, Capitol Bldg., Helena, Mont.
J. J. Walsh, State Engineer, Capitol Bldg., Bismarck, N.D.
L. C. Bishop, State Engineer, Capitol Bldg., Cheyenne, Wyo.
W. S. Hanna, Bureau of Indian Affairs, 302 N. 29th, Billings, Mont.
Dean R. D. Goodrich, 803 Fremont St., Laramie, Wyo.
H. T. Persons, c/o University of Wyoming, Laramie, Wyo.
Axel Persson, c/o Bureau of Reclamation, Box 2130, Billings, Mont.

Copy to:

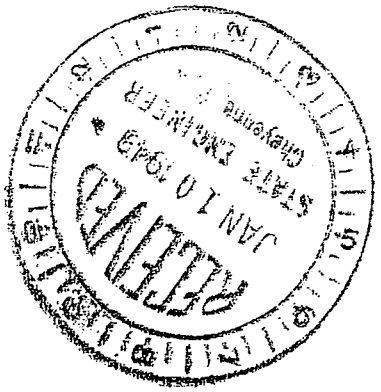
O. C. Reedy, Secretary, Yellowstone River Compact Commission,
c/o Bureau of Reclamation, Box 2130, Billings, Mont.,
with 38 copies of draft of compact. (N.B.: It is suggested that no distribution be made by Mr. Reedy, unless instructed to do so by Mr. Newell. Distribution, except as above, is not advised for the reason that better progress, it is thought, will be made if the "work-draft" be kept within the drafting committee and the engineering advisors pending agreement upon a draft for submittal to the Commission sitting as a whole. W.J.B.)

0301

Letter from R.E. McNally to Bishop,
Jan. 7, 1949

0302

R. E. McNALLY
ATTORNEY
FIRST NATIONAL BANK BUILDING
SHERIDAN, WYOMING



January 7, 1949

Mr. L. C. Bishop
State Engineer
Cheyenne, Wyoming

Dear Mr. Bishop:

I am going to make this final appeal to you on behalf of the water-users of the upper Tongue River Basin in Sheridan County. It seems to me that an appeal should not be necessary because it is your duty, as State Engineer, to protect and defend the rights and the interests of the people in all parts of this State. It appears to us, in Sheridan County, that your course of action in connection with the Yellowstone River Compact is directed toward the impairment of our water rights, and that for more than six years you have persisted in this endeavor.

You profess to be disinterested in this matter. You deny that you are sponsoring the re-submission of this matter to the State Legislature. And yet, your communications to the Governor and to many others are conclusive evidence of your purpose and design to force this Compact down the throats of our people.

If you are not sponsoring this thing, who is sponsoring it?

Why do you refer in your communications to threatened litigation, when there is no threatened litigation?

Why do you say that Attorney-General L. J. D'Marr was in favor of this Compact in 1945?

Why didn't you bring this thing before the Legislature in 1947? Was it because you knew that Governor Hunt would again veto it? Do you think, now that Governor Hunt is gone, that there is less chance of the measure being vetoed?

You have not, in the last six years, made any attempt to obtain accurate information as to the irrigated and irrigable acreages on Tongue River in Montana or in Wyoming. The people here feel, and justly so, I think, that you have never visited

this part of the State except in an antagonistic attitude towards our best interests. They think that this matter of compacts has become an obsession with you, and that you favor compacts regardless of how they may injuriously affect the people of this State.

I am speaking very frankly in this letter, because I think that I must.

If you would study the decision of the Supreme Court of the United States in the Platte River Case, you would find that the Yellowstone River Compact, in terms of present-day thinking, is a monstrosity. It follows obsolete notions as regards the measurement, division and distribution of the waters of interstate streams. If a compact is necessary on Tongue River, it should be negotiated with a view to modern engineering methods of division, diversion, consumptive or beneficial use, measurement and allocation, and with a clear understanding of priorities and equities. None of these things are recognized in the old Compact.

In the Platte River Case, the Supreme Court did not disturb any existing water appropriations in Wyoming in the upper River Basin. All appropriations were recognized. These appropriations, all of them, amounted to 168,000 acres. The contention of Nebraska was that junior appropriators in Wyoming should have their headgates closed to supply water to senior appropriators in Nebraska. This contention by Nebraska was denied. Junior appropriators in Wyoming can freely use the waters of the Platte River without regard to senior appropriations in Nebraska. Said the Court in answer to this contention by Nebraska, "but as the Special Master points out, those Wyoming appropriations, though junior, represent old, established uses in existence from forty to over fifty years".

Many of our appropriations have been in existence for 69 years. You would reduce and impair those appropriations. This Compact does just that. But if the matter were submitted to the Supreme Court, these ancient rights would be protected as they were in the Platte River Case.

We should have no fear of litigation. The Courts would give us more, by far, than we are getting under this Compact. You have good irrigation lawyers available to you. Why don't you consult them, and take their advice?

Why can't you negotiate the Tongue River problem separately? Why tie us in with the other interstate streams? You are forcing the other parts of the State who are satisfied with their part of the Compact to take a dog-in-the-manger attitude towards Tongue River. They are getting what they want even though, in doing so, they are jeopardizing and impairing the water rights on Tongue River.

Montana is getting such an advantage on Tongue River that they can afford to be generous in the division of the waters of the other interstate streams.

This is all wrong. You should be for justice and equity. Otherwise, when another dry cycle comes, and it will come, when our crops are withering and dying and when our headgates are closed by an Interstate Commission, a super-government, our misfortunes will be attributed to you.

You have said very emphatically to Mr. Munro and to others that this Compact will not become operative for ten years. What difference does that make? If it is a bad thing now, it will still be bad ten years from now. Do you find consolation in postponing the evil day?

But, the Compact provides that it shall become operative "on June 15 of the year in which water is available for release through any adequate distributary system, other than the stream bed, from the Tongue River Reservoir". Don't you know that there is 70,000 acre-feet now available for release in the Tongue River Reservoir? The Interstate Commission, the super-government, will decide what is an "adequate distributary system". An adequate system might consist of pumping stations installed along the river bottom. That might happen this year or next. This disaster may come upon us much sooner than ten years from now. You are careless in making that statement.

Now, Sheridan gets its municipal water supply from Big Goose Creek. There is no place in the Compact that provides protection for our municipal water supply. Sub-paragraph C of Article V provides "the allocations made herein shall be exclusive of the use of the waters for domestic and stock use". That reservation does not protect the right to use water for lawns and gardens and drinking fountains, or for industrial or commercial uses, such as our garages, filling stations, brewery, flour mill and our other industries that represent a considerable payroll in this town. These uses will be subject to regulation

by this Interstate Commission whenever the dry cycle comes. The term "domestic use" according to Court decisions means purely household and culinary uses, not municipal uses such as the sprinkling of our parks and cemetery. It is possible that in a dry year, our lawns and gardens, and parks and cemeteries will be regulated, and limited and restricted in their use of water by an Interstate Commission. Likewise our commercial, industrial and manufacturing establishments. When that day comes, if it does come, the names of those sponsoring or promoting this inequitable thing will be well, but not favorably, remembered by the victims of their folly.

In your letter addressed to Mr. James Munro, under date of December 21, 1948, you state very emphatically that "there will always be more water entering the river below the Wyoming state line than necessary to make up their seepage and evaporation between the state line, and the last point of diversion in Montana."

If you were familiar with the true situation you would not make that statement, because I have the positive statement of one man who has lived in that country for 70 years, a very prominent and honorable man, and another man who has lived there for more than half a century, to this effect:

That there is no living stream which contributes any water to Tongue River between the State line and the lowest point of diversion in July and August of any year.

You seem to have faith in Article V, sub-paragraph 5 D of the Compact which provides that the Commission shall direct the regulation of the streams to avoid unreasonable carriage losses. But you seem to overlook paragraph 5 B which provides that "if the Commission shall fail to reach unanimous agreement as to the modification of any allotment***** then, as to the stream affected, the allotment then existing shall continue in full force and effect until unanimous agreement thereon be reached".

It takes a fertile imagination for anyone to think that in a dry year, when crops are withering for need of water, that the Montana representative on the Commission will become a "good fellow" and yield up any part of Montana's rights under this Compact. Can't you see that such a situation is unthinkable?

The Compact provides that the first block of 2200 acre-feet

shall be divided 72-28 between Wyoming and Montana. At many times in every year during the irrigation season, and always in a dry year, the gross, mass, production of water in the Tongue River Basin is less than that amount. In a dry year practically no water crosses the Montana line. And this is as it should be, because it would be uneconomic to close headgates in Wyoming to supply water to meet appropriations 150 miles distant, even senior appropriations. The Supreme Court of the United States has emphasized this point in the Colorado and Nebraska decisions. Why don't you apply those well-established principles to this Compact?

Assuming that the gross, daily, aggregate, mass production of water in the upper Tongue River should amount to exactly 2200 acre-feet, that would mean that we would have to shut off enough headgates in Sheridan County to give Montana a flow of water amounting to 308 cubic feet per second of time. That is more than double the size of any irrigation ditch in this entire region. And that water, or the part of it that would remain after deducting seepage and evaporation, would be released for beneficial uses 150 miles below. And that water in its 150-mile journey would flow serenely through a Reservoir in Montana, already constructed and already containing 70,000 acre-feet of stored water.

Think of the number of acres of fertile Wyoming land that could be irrigated with that quantity of water.

Do you know that in the upper Tongue River Basin in Wyoming there are 95,000 acres of adjudicated water rights? Do you know that we only have water for 60,000 acres of that land?

Does anyone know how many acres of irrigable land are situated in Sheridan County which could be added to our adjudicated acreage if our water supply could be augmented?

You have made no survey to ascertain this essential information. The Montana Legislature has appropriated money for a survey. Why have you not asked the Wyoming Legislature for an appropriation for a similar purpose?

Under this Compact, this new Commission, this new Interstate Board of Control will be required to measure each diversion every day.

Do you know that there are more than 400 diversions in Sheridan County out of Tongue River?

If this Compact is to work as a practical thing, the countryside in Sheridan County will be filled with the employees of this Interstate Board of Control measuring, and gauging, and checking each diversion every day.

Why wouldn't this be a simple solution to this whole controversy:

The Case of Wyoming versus Colorado(the Laramie River Case) was decided by the Supreme Court of the United States on May 31, 1932.

Mr. James A. Greenwood, Attorney-General of Wyoming, argued the case for Wyoming.

The Case of Nebraska versus Wyoming was decided by the United States Supreme Court on June 11, 1945.

Attorney W. J. Wehrli argued the case for the State of Wyoming.

Both of these lawyers are available to us now.

Why can't we submit this Compact to these very reputable and able men? Let us have them tell us whether my contentions are right or wrong, and whether your position in this matter is right or wrong. If these gentlemen tell us that this Compact is fair and equitable, if they tell us that it conforms with the law as enunciated in the Colorado and Nebraska cases, if they tell us that this Compact is intelligible and is in accordance with present-day thinking and present-day engineering practices, I believe that the people of this County will immediately yield and will join in asking for the ratification of this Compact.

If you will not consent to this compromise, I will recommend that the matter be exhaustively considered by the Wyoming Legislature and by Governor Crane, and that we be given an opportunity to be heard, and if it should pass the Legislature and be signed by the Governor, the people of this County will be compelled to demand a Congressional hearing when the matter reaches Congress, and lastly, if all else fails, we will have to have recourse to to the Courts. All of these things will be expensive and unpleasant. It is well for you to remember that not a single Commissioner from the upper Tongue River Basin signed that Compact. And that it is being forced upon us in a sort of trade

in which Sheridan County is being unjustly and unfairly discriminated against.

I will certainly expect you to agree to my proposition that the whole matter be submitted to Mr. Greenwood and Mr. Wehrli, and that we all be bound by their findings.

Very sincerely yours,

R. E. McNally

REMc/mr

Letter from P.F. Leonard to Comstock,
June 29, 1944

PHONE 767

SUITE 1 & 2, ARNOLD BLOCK

P. F. LEONARD

Attorney at Law

MILES CITY, MONTANA

June 29, 1944

RECEIVED
STATE ENGINEER, CHEYENNE, WYO.
JUL 1. 1944
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Mr. H. D. Comstock
Regional Director
Bureau of Reclamation
Billings, Montana

Dear Mr. Comstock:

I have your letter of June 28th in regard to the proposed meeting of the Yellowstone Compact on July 22nd.

In the first place allow me to congratulate you on your selection as a federal representative.

It is my opinion that the compact can be agreed to without delay provided two items be agreed upon:

1. Agreement be made as to the division of the waters of the Tongue River and

2. That the point of division be at the State line instead of some internal point within Montana.

I do not believe that Powder River need go in the compact as there is very little irrigation on Powder River in Montana and the proposed Moorhead dam should take care of the potential irrigation.

During our previous meetings we had more or less difficulty concerning the Tongue. I have recently written Mr. Bishop of Cheyenne suggesting that he get in touch with the water users in Wyoming on the Tongue River and see if they could not arrive at a mutual agreement that would give Montana at least 25% of the initial 2800 acre feet. That was in line with the compact proposed through the Power Commission and is less than the division proposed under the previous compact.

It is my theory that the only purpose of a compact is to divide the water at the State line in order to avoid the conflicts by reason of the State line. The compact can not settle or determine questions within the boundaries of a State. I do not believe that the commissioners appointed under a compact would have authority to come into the State of Montana and divide water or interstate tributaries at the point where such tributaries join the Yellowstone River in Montana. The compact commissioners have no business attempting to measure or divide waters that have their source within or supply from territory entirely within the State of Montana. Any attempt to do so would be unlawful and would lead to confusion and discord and I do not believe it has ever been attempted previously.

If we could settle in advance the division of the Tongue River and the point of measurement I feel certain that we could agree upon a compact without any trouble or delay.

I might add that division five of Article five of the previously proposed compact provided that after the expiration of ten years the commission appointed could re-examine the allocations made. It is my opinion that that time is too short. I think it should be ~~timed for re-examination and re-allocation for~~ 25 years.

I am sending a copy of this letter to Mr. Bishop and to Mr. Buck.

Sincerely yours,

P. F. LEONARD

PFL:JS

0312

Letter from L.C. Bishop to L.C. Hunt, Feb. 9, 1943

0313

State of Wyoming

STATE ENGINEER'S OFFICE

Cheyenne

RECEIVED
NOV 19 2008
ATTORNEY GENERALS OFFICE
HELENA, MONTANA

February 9, 1943

HON. LESTER C. HUNT, GOVERNOR
MEMBERS OF THE 27TH WYOMING LEGISLATURE

Gentlemen:

As Interstate Streams Commissioner for Wyoming I deem it my duty at this time to outline for your information a brief summary of the history of the Yellowstone River Compact and some pertinent facts concerning which, it would seem, you should be advised.

The first Congressional authorization for a Yellowstone River Compact was in 1932 and included only the states of Montana and Wyoming. Clyde L. Seavey was appointed as the Federal Representative.

The first attempt at an allocation of any portion of the Yellowstone watershed was a so-called "Declaration of Plan of Allocating Water in the Big Horn Basin", which was signed by members of the Big Horn Dam Association and by the Governors and State Engineers of Montana and Wyoming. It seems that this was not participated in or signed by a Federal representative, which may have been the reason it was never passed on by the Legislatures of the two states.

The next attempt at negotiations of which we have a record was February 6th, 1935, when a so-called Yellowstone River Compact, for allocation of the waters of the Yellowstone River between the states of Montana and Wyoming was negotiated and signed at Cheyenne, Wyoming, by representatives of the two states and of the United States.

We have no record of this having been submitted to the State Legislatures for ratification.

The record shows no other representatives than the Governors and State Engineers at the 1933 meeting and only the State Engineers and the Federal representative at the second meeting. The only representative provided by law to represent the State prior to 1941 was the Interstate Streams Commissioner.

MT v. WY/M.T.D. App.
A (WY)

On August 2nd, 1937, the Congress again authorized the states of Montana and Wyoming to negotiate and enter into a compact for the equitable division of the waters of the Yellowstone River watershed and Clyde L. Seavey was appointed by the President to represent the United States and the Governors of each state appointed four representatives.

These commissioners met in Billings, Montana, May 5th, 1938, and again in Thermopolis, Wyoming, November 21st and 22nd, 1938. Each time negotiations were deferred pending the final report of the Bureau of Reclamation with reference to their basin-wide investigations including the watershed of the Yellowstone River in Montana and Wyoming.

June 5th, 1940, Congress extended the time for negotiating the compact to June 1, 1943, and included North Dakota as a party to the negotiations.

October 10th, 1940, a meeting was held in Billings, Montana, where Wyoming was represented by Thornton, Metz and Bishop, and where it was agreed to postpone further negotiations until the basin-wide report of the Bureau of Reclamation was completed.

The 1941 Legislature amended the Interstate Streams Commissioner law to provide for appointment of assistant commissioners upon the recommendation of the Interstate Streams Commissioner. Upon my recommendation at that time, Governor Smith appointed L. F. Thornton, John Gonin, Ray Bower, Ernest Goppert, David Anderson, R. E. McNally and Will G. Metz. Later Ed J. Johnson became a member of the Commission by virtue of his appointment on the Planning and Water Conservation Board, and just before November, 1942, meeting in Billings, Mr. Earl Bower was appointed as an assistant commissioner on my recommendation.

The first meeting where a tentative draft of the Yellowstone River Compact as prepared by Lesher S. Wing was considered, was held in the office of Mr. E. B. Debler, the Chief Hydraulic Engineer of the U. S. Bureau of Reclamation, in Denver, Colorado, from 7:30 to 9:30 p. m. on October 15th, 1942. Mr. Fred E. Buck represented the State of Montana, Mr. John T. Tucker, the State of North Dakota, and Mr. L. F. Thornton, Mr. Ed J. Johnson and Mr. L. C. Bishop, the State of Wyoming. Mr. Lesher S. Wing, Engineer of the Federal Power Commission, acted as a substitute for Mr. Clyde L. Seavey, Mr. W. G. Sloan, Engineer of the the Bureau of Reclamation, acted in an advisory capacity answering questions concerning the progress of the basin-wide investigations of his department. It was agreed that the entire day of October 17th was to be spent in further consideration of the tentative draft of the compact.

The meeting was held on October 17th and a preliminary draft was agreed upon with the understanding that Mr. Lesher S. Wing was to prepare it in proper form and furnish copies to the Commissioners of the three states.

The revised draft was submitted to the joint commission at a meeting held in Billings, Montana, on December 1st, 1942. (Our Wyoming Commissioners spent the entire day of November 30th in organizing and preparing for the negotiations that were to take place the following days.)

A public hearing was held at the Chamber of Commerce Building in Billings the entire day of December 2nd with Mr. Clyde L. Seavey presiding. This meeting had been advertised in all the papers covering the Yellowstone River watershed area.

December 3rd, the Commissioners of the three states met at the Chamber of Commerce Building with Mr. Clyde L. Seavey presiding, and, while a general plan was finally agreed upon, the Commissioners were not satisfied to sign a compact without further hearings in the basin and further consideration of the provisions. The meeting was adjourned at 11:50 p. m. to re-convene at the call of the chairman.

At the call of the chairman, the Commission again met at Billings, Montana, on December 29th, 1942, with Mr. Beebe presiding, and continued during December 30th and, at 1:15 a. m. December 31st, a unanimous agreement of the Commissioners was reached and all agreed to sign except Mr. R. E. McNally who was obliged to leave early in the evening of the 30th, and who later decided not to sign. Will G. Metz was not present at the meetings but signed the Compact as drafted and agreed upon.

The entire day of December 31st was spent by the engineers and some of the others in checking computations made by Mr. Wing and the wording of the draft as approved by the Commissioners.

This compact, as presented to the Legislature for ratification, represents conclusions which, in some instances, were compromises arrived at and unanimously agreed upon by the entire group of State representatives and the representative of the United States, assisted by engineers and attorneys of the Federal Power Commission, U. S. Bureau of Reclamation, Army Engineers and the U. S. Indian Service.

Mr. John A. Whiting, former State Engineer of Wyoming, Mr. Howard Bell, Civil Engineer of Cody, and Mr. Elmer K. Nelson, Civil Engineer of Laramie, were employed as engineer advisors for the Wyoming delegation with Mr. L. J. O'Marr, Wyoming Attorney General, and Mr. W. J. Wehrli, attorney from Casper, acting as legal advisors.

Also, on our commission, we had Mr. Ernest Goppert and Mr. R. E. McNally, attorneys, who rendered very able assistance, and contrary to the opinion expressed by some, the representatives of Federal Agencies have assisted by every means at their disposal to aid us in solving this problem.

Since the printed copies have been distributed, several protests have been registered, but, in my opinion, none have merits that will offset the benefits that will accrue to all concerned by approval of the Compact at this time. It is my opinion that without exception, the allotments are just and equitable and that the draft as a whole is as favorable to Wyoming as we could expect by any compact later entered into, and for reason stated herein, I recommend the passage of House Bill No. 99 entitled "A Bill for AN ACT to provide for the ratification and approval of the Yellowstone River Compact."

Respectfully submitted,

L. C. BISHOP, State Engineer and
Interstate Streams Commissioner
For Wyoming.

LCB:orp

1952 Annual Report

0317

YELLOWSTONE RIVER COMPACT COMMISSION

408 Federal Building
Helena, Montana

December 24, 1952

His Excellency, Frank A. Barrett
Governor of the State of Wyoming
Cheyenne, Wyoming

His Excellency, John W. Bonner
Governor of the State of Montana
Helena, Montana

His Excellency, Norman Brunsdale
Governor of the State of North Dakota
Bismarck, North Dakota

Sirs:

Pursuant to Article III of the Yellowstone River Compact, the Commission created by the terms of said Compact makes the following report for the period ending September 30, 1952.

The Yellowstone River Compact was made effective on October 30, 1951 upon approval of the Congress of the United States. The Governor of Wyoming appointed Mr. L. C. Bishop, Wyoming State Engineer as the representative of the State of Wyoming. The Governor of Montana appointed Mr. F. E. Buck, Montana State Engineer as the representative of the State of Montana. In mid-May 1952, the Governors of the States of Wyoming and Montana separately notified the Director of the United States Geological Survey of their selections and requested the appointment of a third party. The Director appointed Mr. Frank Stermitz on June 9, 1952, to sit with the Commission and act as Chairman. The Yellowstone River Compact Commission so constituted met at Helena, Montana on July 15, 16, 1952, and at Sheridan, Wyoming on November 25, 1952.

The Commission being satisfied that the allocations of the upstream state or states were not approached for the period ending September 30, 1952, did not factually determine the extent of allocable use.

0318

MT v. WY/M.T.D. App.
324 (WY)

The expenses of the Commission are being borne as stipulated in Article III (B) of the Compact. The sum of $1200 has been made available for the period ending June 30, 1953.

Pertinent data and records are available in the files of the Commission in the office of the District Engineer, U. S. Geological Survey, Helena, Montana.

The Yellowstone River Compact 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 therefor are also supplied. Your attention is called to the need for the enactment of regulations or laws in Wyoming and Montana which will make it feasible to maintain reliable records of the appropriative water rights and water use subject to allocation by this Compact. This matter is discussed in greater detail in the accompanying report under the heading of Diversions.

Respectfully Submitted,

L. C. Bishop
Commissioner for Wyoming

Fred E. Buck
Commissioner for Montana

Attest

Frank Stermitz, Chairman

MT v. WY/M.T.D. App.
325 (WY)

0319

GENERAL REPORT

Effective date:

The Yellowstone River Compact became effective on October 30, 1951 upon approval of the Congress of the United States of America.

Organization of the Commission:

As provided in Article III (A) of the Compact, Mr. L. C. Bishop, State Engineer of Wyoming was selected to represent the State of Wyoming and Mr. F. E. Buck, State Engineer of Montana was selected to represent that state. Upon the request of the Governors of those two states, the Director of the United States Geological Survey selected Frank Stermitz, District Engineer, Surface Water Branch, United States Geological Survey of Helena, Montana on June 9, 1952 to sit with the Commission and act as Chairman, without vote except as specifically provided.

The Commission met at Helena, Montana on July 15, 16, 1952, and at Sheridan, Wyoming on November 25, 1952.

The office of the Commission was designated as the business office of the Chairman, namely, 408 Federal Building, Helena, Montana. The Chairman was requested to make provisions for secretarial service as required.

The Commission has under advisement the formulation of rules and regulations as authorized in Article III (E) of the Compact.

Cost:

The work of the Commission is being financed by cooperative arrangements between the States of Wyoming and Montana and the United States of America. For the period ending June 30, 1953 the total sum of $1200 is being made available for that purpose. The following is a tentative budget for the collection of basic records and other expense of administration which may be incurred by the Commission during the fiscal year ending June 30, 1954:

MT v. WY/M.T.D. App.
326 (WY)

0320

	Total Cost	Borne by United States	Borne by Wyoming	Borne by Montana
Gaging station operations ---	$1800	$ 900	$ 450	$ 450
Replacement or improvement of gaging stations ------	3200	1600	800	800
Collection and assembly of miscellaneous data and administrative expense -----	1000	500	250	250
Annual Total -----	$6000	$3000	$1500	$1500

The above budget does not include the salaries and necessary expenses of the State representatives which are to be borne by the respective states, nor the cost of collection of hydrologic data now being made available from the records of state and federal agencies.

Acknowledgements:

The Commission gratefully acknowledges the assistance and data furnished by various state and federal agencies.

Gaging stations:

The Commission considered the appropriateness of existing gaging stations for the determination of stream flows as required by Article IV and has under study future improvements or modifications. No critical error was considered to result from the use of data collected at existing gaging stations during the period ending September 30, 1952. The descriptions of the gaging stations and the summaries of monthly discharge are given in Appendix A.

Clarks Fork, Yellowstone River.-

Records of discharge collected at a gaging station operated on the Clarks Fork at Edgar, Montana, have been accepted as being satisfactory for the designated point of measurement without adjustment for the time being. The effect of upstream diversions into the basin from Rock Creek was considered to be a balancing factor to diversions from the Clarks Fork between Edgar and the mouth of Rock Creek. Improvements of the existing station by the installation of a recording gage or the establishment of a gaging station further downstream are to be investigated further.

0321

Bighorn River (Exclusive of Little Bighorn River).-

Discharge records of the Bighorn River as collected at the gaging station four and one half miles upstream from the mouth known as the Bighorn River near Custer, Montana, excluding the discharge records of the Little Bighorn River as collected at the gaging station fourteen miles upstream from its mouth and known as the Little Bighorn River near Crow Agency, Montana, were considered as sufficiently indicative of Compact requirements to be used for this first Annual report. No records of the quantities diverted from the Little Bighorn River below the gage by the Agency Ditch are available. More suitable means of determing the flow past the point of measurement designated in the Compact will be investigated promptly.

Tongue River.-

The existing gaging station, four miles south of Miles City, Montana, eight miles upstream from the mouth, and which is known as the Tongue River at Miles City, Montana, is considered the acceptable point of measurement on this stream.

Powder River (Including the Little Powder River).-

The existing station three miles upstream from Locate Creek and known as the Powder River near Locate, Montana, has been temporarily designated as the point of measurement. Location of a new gage nearer the mouth of the Powder River was not considered justifiable since the present extent of allocable water use is minor.

Diversions.

No records of the quantities of water subject to percentage allocation by this Compact were available to this Commission. The two state representatives assurred the Commission that diversions subject to allocation in their states had been minor during the report period. The lack of information must be remedied if the Compact is to be properly administered.

The laws of Wyoming provide for the filing of all applications for water use with the State Engineer and the issuance of permits and certificates

MT v. WY/M.T.D. App.
328 (WY)

0322

of appropriation upon proof of beneficial use of water. This centralized system is a distinct advantage, however, some modification would facilitate the work of the Commission.

In Montana the right to use water can be established by making a filing with the County Clerk and Recorder or by diversion without filing. The State Engineer has no jurisdiction over the issuance of water rights, nor information on rights acquired, nor the quantities of water used.

The States of Wyoming and Montana by entering into the Yellowstone River Compact have assumed a responsibility which cannot be properly discharged until information on water rights acquired since January 1, 1950 and the quantities of water diverted under those rights, can be made a matter of ready record. The Commission recommends to applicable authorities in Wyoming and Montana that the grant, adjudication or establishment of water rights or use which is subject to Compact allocation be upon condition that the user install satisfactory headgates or measuring devices in order that accurate data on diversions be made available to the Commission. The Commission further suggests that legislation be enacted in Montana which will make available to the State Engineer information on water rights whose enjoyment is subject to allocation under this Compact.

Storage:

In reservoirs completed after January 1, 1950:

Information available to the Commission indicated that Boysen Reservoir on the Bighorn River was the only reservoir of consequence coming under this category. Storage therein began October 11, 1951. The quantities in storage at given dates are shown in Appendix B.

In reservoirs existing on January 1, 1950:

Information available to the Commission indicated quantities of water stored therein and subject to Compact allocation was nil or inconsequential during the report period. No records of quantity stored will be incorporated in this report. Tabulation of reservoirs in this category and the summary by states are given in Appendix C.

MT v. WY/M.T.D. App.
329 (WY)

0323

MONTHLY SUMMARY OF DISCHARGE

Clarks Fork at Edgar, Montana

Location.--Lat 45°28', long. 108°51', in SW¼ sec. 24, T. 4 S., R. 23 E., near center of span on downstream side of highway bridge half a mile east of Edgar and 6 miles upstream from Rock Creek.

Records available.--July 1921 to September 1952.

Gage.--Wire-weight gage read twice daily.

Average discharge.--19 years (1930-31, 1934-52), 1,031 cfs.

Extremes.--Maximum discharge observed during year ending September 30, 1952, 7,990 cfs June 7 (gage height, 7.52 ft); minimum daily, 200 cfs Dec. 15. 1921-52: Maximum discharge observed, 10,900 cfs June 2, 1936 (gage height, 8.62 ft); minimum observed, 41 cfs July 25, 1931; minimum gage height observed, 1.13 ft Mar. 11, 1950.

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
January 1950	11,570	410	350	373	22,950
February	10,640	410	370	380	21,100
March	11,600	590	186	374	23,010
April	14,216	759	341	474	28,200
May	35,950	2,960	359	1,160	71,310
June	136,720	7,310	2,070	4,557	271,200
July	119,760	7,110	1,840	3,863	237,500
August	32,093	1,640	609	1,035	63,660
September 1950	23,727	1,100	510	791	47,060
Period	396,276	7,310	186	1,452	786,000

0324

MT v. WY/M.T.D. App.
330 (WY)

MONTHLY SUMMARY OF DISCHARGE

Appendix A

Clarks Fork at Edgar, Montana

Water Year 1951

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1950	27,772	1,080	658	896	55,080
November	21,837	881	626	728	43,310
December	18,068	760	300	583	35,840
January 1951	14,600	530	380	471	28,960
February	14,380	600	440	514	28,520
March	15,429	800	381	498	30,600
April	17,225	1,040	393	574	34,170
May	82,637	7,190	711	2,666	163,900
June	102,610	7,710	1,500	3,420	203,500
July	114,440	4,810	2,310	3,692	227,000
August	47,776	2,960	783	1,541	94,760
September 1951	21,721	819	620	724	43,080
Water Year 1951	498,495	7,710	300	1,366	988,700

Water Year 1952

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1951	22,976	934	664	741	45,570
November	18,458	741	520	615	36,610
December	12,784	587	200	412	25,360
January 1952	14,120	550	340	455	28,010
February	13,920	620	340	480	27,610
March	12,564	540	342	405	24,920
April	25,382	2,440	384	846	50,340
May	75,880	3,770	1,370	2,448	150,500
June	119,420	7,860	1,810	3,981	236,900
July	50,520	2,960	753	1,630	100,200
August	25,852	1,330	423	834	51,280
September 1952	12,001	826	288	400	23,800
Water Year 1952	403,877	7,860	200	1,103	801,100

MT v. WY/M.T.D. App.
331 (WY)

0325

MONTHLY SUMMARY OF DISCHARGE

Bighorn River near Custer, Montana

Location.--Lat 46°07', long. 107°28', near center of sec. 10, T. 4 N., R. 34 E., on left bank just downstream from Manning diversion dam, 3 miles upstream from Tullock Creek, 4 miles southeast of Custer, and 4½ miles upstream from mouth.

Records available.--May 1945 to September 1952.

Gage.--Water-stage recorder. Prior to December 7, 1945, wire-weight gage at different datum.

Average discharge.--7 years, 4,267 cfs.

Extremes.--Maximum discharge during year ending September 30, 1952, 14,800 cfs May 23 (gage height, 6.65 ft); minimum daily, 800 cfs Dec. 16.
1945-52: Maximum discharge, 26,200 cfs June 24, 1947 (gage height, 8.79 ft), from rating curve extended above 12,500 cfs by logarithmic plotting; maximum gage height recorded, 10.65 ft Mar. 20, 1947 (ice jam); minimum discharge, 766 cfs Dec. 13, 1950 (gage height, 0.89 ft).

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
January 1950	51,480	1,850	1,300	1,661	102,100
February	74,230	6,000	1,740	2,651	147,230
March	150,190	6,400	3,200	4,845	297,900
April	90,620	3,530	2,320	3,021	179,700
May	114,390	6,120	2,000	3,690	226,900
June	315,350	13,700	5,940	10,510	625,500
July	272,550	12,800	4,610	8,792	540,600
August	100,660	5,610	2,030	3,247	199,700
September 1950	98,830	5,430	1,510	3,294	196,000
Period	1,268,300	13,700	1,300	4,646	2,510,000

MT v. WY/M.T.D. App.
332 (WY)
0326

MONTHLY SUMMARY OF DISCHARGE

Appendix A

Bighorn River near Custer, Montana

Water Year 1951

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1950	125,860	4,860	3,210	4,060	249,600
November	107,780	3,860	2,940	3,593	213,800
December	86,080	3,800	950	2,777	170,700
January 1951	67,200	2,700	1,100	2,168	133,300
February	73,100	3,000	1,900	2,611	145,000
March	96,910	6,000	1,700	3,126	192,200
April	109,640	5,170	2,530	3,655	217,500
May	208,030	14,800	4,180	6,711	412,600
June	372,870	18,300	8,400	12,430	739,600
July	293,160	13,700	6,400	9,457	581,500
August	150,830	8,740	2,620	4,865	299,200
September 1951	94,830	3,510	2,750	3,161	188,100
Water Year 1951	1,786,290	18,300	950	4,894	3,543,000

Water Year 1952

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1951	99,470	4,740	2,600	3,209	197,300
November	81,570	2,990	2,500	2,719	161,800
December	63,560	2,670	800	2,050	126,100
January 1952	65,590	2,440	1,900	2,116	130,100
February	66,130	2,540	1,750	2,280	131,200
March	98,870	5,330	2,100	3,189	196,100
April	107,120	7,080	2,200	3,571	212,500
May	190,670	11,900	3,480	6,151	378,200
June	174,190	10,500	2,650	5,806	345,500
July	85,650	6,310	1,400	2,763	169,900
August	70,910	2,990	1,840	2,287	140,600
September 1952	76,040	2,850	2,040	2,535	150,800
Water Year 1952	1,179,770	11,900	800	3,223	2,340,000

MONTHLY SUMMARY OF DISCHARGE

Little Bighorn River near Crow Agency, Montana

Location.--Lat 45°34', long. 107°27', in E½ SE¼ sec. 13, T. 3 S., R. 34 E., on right bank, at Chicago, Burlington and Quincy Railroad bridge, 2 miles south of Crow Agency and 14 miles upstream from mouth.

Drainage area.--1,190 sq mi.

Records available.--September 1911 to September 1924, August 1928 to December 1932, April 1938 to September 1952 (few winter records in earlier years). March 1905 to June 1906 at site at Crow Agency, 2 miles downstream; records not equivalent owing to Crow Agency ditch which diverts water between the two sites.

Gage.--Water-stage recorder. March 1905 to June 1906, chain gage 2 miles downstream at different datum. Prior to May 7, 1947, recorder, staff or chain gage used for extensive intermittent periods.

Average discharge.--16 years (1928-29, 1931-32, 1938-52), 280 cfs.

Extremes.-- Maximum discharge during year ending September 30, 1952, 1,550 cfs Mar. 30 (gage height, 7.67 ft); minimum daily, 35 cfs Jan. 24, 25. 1912-24, 1928-32, 1938-52: Maximum discharge observed, about 8,200 cfs July 23, 1923 (gage height, 14.0 ft); no flow July 28 to Aug. 6, 1921.

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
January 1950	2,030	85	40	65.5	4,030
February	2,750	250	68	98.2	5,450
March	5,151	300	90	166	10,220
April	6,456	305	157	215	12,810
May	5,976	298	108	193	11,850
June	11,931	605	200	398	23,660
July	5,260	288	91	170	10,430
August	2,147	137	39	69.3	4,260
September 1950	2,010	115	28	67.0	3,990
Period	43,711	605	28	160	86,700

MT v. WY/M.T.D. App.
334 (WY)

0328

MONTHLY SUMMARY OF DISCHARGE

Appendix A

Little Bighorn River near Crow Agency, Montana

Water Year 1951

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1950	3,842	137	113	124	7,620
November	3,716	150	103	124	7,370
December	4,440	180	95	143	8,810
January 1951	3,760	140	105	121	7,460
February	3,520	150	100	126	6,980
March	7,575	650	110	244	15,020
April	6,560	430	149	219	13,010
May	8,089	510	168	261	16,040
June	13,017	565	325	434	25,820
July	8,382	515	146	270	16,630
August	4,394	225	83	142	8,720
September 1951	3,730	280	77	124	7,400
Water Year 1951	71,025	650	77	195	140,900

Water Year 1952

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1951	5,475	235	160	177	10,860
November	4,499	187	125	150	8,920
December	3,358	150	75	108	6,660
January 1952	2,140	95	35	69.0	4,240
February	3,090	140	90	107	6,130
March	7,990	1,490	110	258	15,850
April	11,748	1,060	246	392	23,300
May	16,956	805	306	547	33,630
June	11,558	670	177	385	22,920
July	5,426	490	49	175	10,760
August	3,251	184	44	105	6,450
September 1952	2,611	115	65	87.0	5,180
Water Year 1952	78,102	1,490	35	213	154,900

MT v. WY/M.T.D. App.
335 (WY)

0329

MONTHLY SUMMARY OF DISCHARGE

Tongue River at Miles City, Montana

Location.--Lat 46°21', long. 105°48', in SE¼ sec. 23, T. 7 N., R. 47 E., on right bank 4 miles south of Miles City and 8 miles upstream from mouth.

Records available.--April 1938 to April 1942, April 1946 to September 1952. Published as "near Miles City" April 1938 to April 1942. Not equivalent to records published as "near Miles City" May 1929 to September 1932.

Gage.--Water-stage recorder. April 1938 to April 1942, wire-weight gage at site 8 miles upstream at different datum.

Average discharge.--8 years (1939, 1941, 1946-52), 431 cfs.

Extremes.--Maximum discharge during year ending September 30, 1952, 7,520 cfs Mar. 30 (gage height, 7.93 ft); minimum, 58 cfs Aug. 2.
1938-42, 1946-52: Maximum discharge, 12,000 cfs Mar. 6, 1949 (float measurement during ice breakup); maximum gage height, 11.80 ft (corrected) Mar. 6, 1949 (ice jam); no flow at various times July to September 1940.

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
January 1950	5,185	270	115	167	10,280
February	4,395	300	120	157	8,720
March	10,975	500	305	354	21,770
April	12,378	1,000	186	413	24,550
May	17,213	1,100	260	555	34,140
June	20,400	1,290	350	680	40,460
July	10,737	1,290	126	346	21,300
August	3,816	650	11	123	7,570
September 1950	7,437	532	67	248	14,750
Period	92,536	1,290	11	339	183,500

MT v. WY/M.T.D. App.
336 (WY)

0330

MONTHLY SUMMARY OF DISCHARGE

Appendix A

Tongue River at Miles City, Montana

Water Year 1951

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1950	10,713	568	129	346	21,250
November	12,227	530	360	408	24,250
December	6,630	360	135	214	13,150
January 1951	6,425	270	150	207	12,740
February	6,260	240	180	224	12,420
March	7,200	320	200	232	14,280
April	7,363	466	61	245	14,600
May	15,285	867	38	493	30,320
June	18,106	1,170	135	604	35,910
July	15,282	790	238	493	30,310
August	8,297	1,310	42	268	16,460
September 1951	14,617	1,630	234	487	28,990
Water Year 1951	128,405	1,630	38	352	254,700

Water Year 1952

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1951	10,178	466	170	328	20,190
November	15,930	900	163	531	31,600
December	5,895	350	140	190	11,690
January 1952	4,265	145	130	137	8,440
February	4,740	180	140	163	9,400
March	15,880	5,420	160	512	31,500
April	43,987	4,350	270	1,466	87,250
May	33,436	1,960	335	1,079	66,320
June	31,653	2,090	250	1,055	62,780
July	8,722	741	76	281	17,300
August	3,182	214	69	103	6,310
September 1952	3,616	182	80	121	7,170
Water Year 1952	181,474	5,420	69	498	360,000

MT v. WY/M.T.D. App.
337 (WY)

0331

MONTHLY SUMMARY OF DISCHARGE

Powder River near Locate, Montana

Location.--Lat 46°26', long. 105°18', in NE¼ sec. 26, T. 8 N., R. 51 E., on right bank 50 ft downstream from bridge on U.S. Highway 12, 3 miles upstream from Locate Creek, 5 miles west of former site of Locate, and 25 miles east of Miles City.

Records available.--March 1938 to September 1952.

Gage.--Water-stage recorder. Prior to July 11, 1947, wire-weight gage at bridge 50 ft upstream at same datum.

Average discharge.--14 years, 723 cfs.

Extremes.--Maximum discharge during year ending September 30, 1952, 23,900 cfs (gage height, 9.53 ft); minimum daily, 40 cfs Sept. 23, 24.
1938-52: Maximum discharge observed, 31,000 cfs Feb. 19, 1943 (gage height, 11.23 ft), from rating curve extended above 14,000 cfs; no flow Jan. 16 to Feb. 12, Feb. 22-24, 1950.

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
January 1950	140.5	20	0	4.53	279
February	78.9	40	0	2.82	156
March	2,485	200	25	80.2	4,930
April	37,077	3,000	673	1,236	73,540
May	44,862	2,190	829	1,447	88,980
June	31,478	1,590	630	1,049	62,440
July	9,316	558	84	301	18,480
August	2,946	330	17	95.0	5,840
September 1950	837.2	98	3.4	27.9	1,660
Period	129,220.6	3,000	0	473	256,300

MT v. WY/M.T.D. App.
338 (WY)

0332

MONTHLY SUMMARY OF DISCHARGE

Appendix A

Powder River near Locate, Montana

Water Year 1951

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1950	5,488	259	100	177	10,890
November	3,666	210	58	122	7,270
December	4,015	150	80	130	7,960
January 1951	2,580	120	60	83.2	5,120
February	3,329	180	54	119	6,600
March	14,614	3,680	150	471	28,990
April	13,448	1,410	241	448	26,670
May	14,975	657	265	483	29,700
June	10,066	878	107	336	19,970
July	7,056	526	38	228	14,000
August	11,215	2,640	58	362	22,240
September 1951	18,940	1,600	185	631	37,570
Water Year 1951	109,392	3,680	38	300	217,000

Water Year 1952

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1951	8,392	429	225	271	16,650
November	9,772	1,560	75	326	19,380
December	11,897	2,500	100	384	23,600
January 1952	2,525	110	70	81.4	5,010
February	6,245	400	120	215	12,390
March	53,960	22,100	160	1,741	107,000
April	56,872	12,800	586	1,893	112,600
May	49,899	7,010	550	1,610	98,970
June	26,808	1,900	222	894	53,170
July	13,922	1,690	124	449	27,610
August	3,538	330	44	114	7,020
September 1952	1,687	105	40	56.2	3,350
Water Year 1952	245,427	22,100	40	671	486,800

MT v. WY/M.T.D. App.
339 (WY)

0333

RESERVOIRS COMPLETED AFTER JANUARY 1, 1950
YELLOWSTONE RIVER BASIN

Boysen Reservoir

Water-stage recorder at dam on Bighorn River, about 21 miles south of Thermopolis, Wyoming. Reservoir formed by earth fill dam, construction of which began in 1947. Storage began on October 11, 1951. Dead storage, 62,000 acre-feet at elevation 4657.0. Usable contents, 758,000 acre-feet at elevation 4725.0 (top of gates). Crest of dam at elevation 4758.

The filling of dead storage was aided by the release of about 53,000 acre-feet of water from Bull Lake Reservoir. Until April 1952 releases from Boysen Reservoir were made for municipal and industrial use, sewage dilution and maintenance of fish life. Releases thereafter were also made to meet irrigation requirements and beginning in July 1952 for the generation of electrical power. Data furnished by U. S. Bureau of Reclamation.

Month	Usable contents in acre-feet	Change in contents during month (acre-feet)
September 30, 1951	0	-
October 31	25,200	* + 25,200
November 30	58,800	+ 33,600
December 31, 1951	71,400	+ 12,600
January 31	92,400	+ 21,000
February 29	122,000	+ 29,600
March 31	152,400	+ 30,400
April 30	233,400	+ 81,000
May 31	429,900	+196,500
June 30	656,500	+226,600
July 31	678,200	+ 21,700
August 31	668,500	- 9,700
September 30, 1952	647,800	-20,700
Water year 1951-52	-	* +647,800

* Does not include dead storage of 62,000 acre-feet.

MT v. WY/M.T.D. App.
340 (WY)

0334

RESERVOIRS COMPLETED PRIOR TO JANUARY 1, 1950
YELLOWSTONE RIVER BASIN

Appendix C

List of existing reservoirs submitted by the Engineering Committee in a report to the commission negotiating the Yellowstone River Compact on February 1, 1950. Boysen Reservoir has been deleted from the list as information available indicates that completion thereof was not prior to January 1, 1950. Details regarding Boysen Reservoir will be found in Appendix B.

Reservoir	State	Stream	Capacity Acre-feet
Sweetgrass Creek Basin			
Wolvoord	Mont.	Sweetgrass Cr.	9,700
Adam	Mont.	Sweetgrass Cr.	5,700
Stillwater River Basin			
Mystic Lake	Mont.	W. Rosebud Cr.	20,300
Clarks Fork Basin			
Cooney	Mont.	Red Lodge Cr.	27,500
Glacier Lake	Mont.	Rock Cr.	4,200
Bighorn River Basin			
Bull Lake	Wyo.	Bull Lake Cr.	152,000
Pilot Butte	Wyo.	Wind R.	31,500
Washakie	Wyo.	S.Fk.Little Wind R.	8,000
Ray Lake	Wyo.	N.&E.Fk.Little Wind R.	7,000
Christine Lake	Wyo.	Little Popo Agie R.	5,900
Frye Lake	Wyo.	M.Fk. Popo Agie R.	1,600
Shoshone	Wyo.	Shoshone R.	380,250
Sunshine	Wyo.	Greybull R.	50,000
Meadow Lark Lake	Wyo.	Trib. Tensleep Cr.	3,400
Ralston	Wyo.	Shoshone	1,490
Lake Adelaide	Wyo.	Adelaide Cr.	1,400
Lake Creek	Wyo.	Cottonwood Cr.	1,100
Deaver	Wyo.		600
Willow Creek	Mont.	Willow Cr.	23,000
Tongue River Basin			
Park	Wyo.	E.Fk.Goose Cr.	7,350
Weston	Wyo.	Mill Cr.	370
Big Horn	Wyo.	Cross Cr.	2,600
Last Chance	Wyo.	Little Goose Cr.	210
Farmers	Wyo.	Little Goose Cr.	570
Willetts	Wyo.	Little Goose Cr.	80
Twin Lake	Wyo.	W.Fk. Goose Cr.	1,200
Dome Lake	Wyo.	W.Fk. Goose Cr.	1,800
Tongue River	Mont.	Tongue R.	69,440
Powder River Basin			
Lake DeSmet	Wyo.	Piney Cr.	32,250
Cloud Peak	Wyo.	S.Fk.Piney Cr.	2,720
Kearney Lake	Wyo.	S.Fk.Piney Cr.	1,860

(Summary by states on the following page.)

MT v. WY/M.T.D. App.
341 (WY)

0335

RESERVOIRS COMPLETED PRIOR TO JANUARY 1, 1950
YELLOWSTONE RIVER BASIN

- SUMMARY -

(From Engineering Committee Report of February 1, 1950, excluding Boysen Reservoir)

	Storage Capacity in Acre-Feet		
	Total	Wyoming	Montana
Yellowstone Main Stream.....	0	0	0
Shields River Basin.....	0	0	0
Sweetgrass Creek Basin.....	15,400	0	15,400
Stillwater River Basin.....	20,300	0	20,300
Bighorn River Basin.....	665,600	642,600	23,000
Tongue River Basin.....	83,600	14,200	69,400
Powder River Basin.....	36,800	36,800	0
T O T A L	821,700	693,600	128,100

MT v. WY/M.T.D. App.
342 (WY)

0336

1962 Annual Report

0337

State Engineer
Library

ELEVENTH ANNUAL REPORT

YELLOWSTONE RIVER COMPACT COMMISSION

1962

0338

MT v. WY/M.T.D. App.
343 (WY)

YELLOWSTONE RIVER COMPACT COMMISSION

408 Federal Building

Helena, Montana

December 21, 1962

Honorable Jack R. Gage
Governor of the State of Wyoming
Cheyenne, Wyoming

Honorable Tim M. Babcock
Governor of the State of Montana
Helena, Montana

Honorable William L. Guy
Governor of the State of North Dakota
Bismarck, North Dakota

Sirs:

Pursuant to Article III of the Yellowstone River Compact, the Commission created according to the terms of said Compact, makes the following eleventh annual report on activities for the period ending September 30, 1962.

The eleventh annual meeting of the Yellowstone River Compact Commission was held in the conference room of the U. S. Bureau of Reclamation at Billings, Montana on November 28, 1962. Mr. Earl Lloyd represented Wyoming and Mr. C. S. Heidel, deputy State Engineer for Montana was designated to act for Mr. F. E. Buck, Montana State Engineer. Others in attendance were Mr. E. J. Van Camp, of Wyoming Natural Resources Board and A. S. Sollid of the U. S. Geological Survey at Billings, Montana. Mr. J. W. Ross, attorney-at-law of Fromberg, Montana appeared. Mr. Frank Stermitz, Federal representative, presided.

Stream flow was above average at all designated points of measurement for the water year as a whole. Flows of the fall and winter months were generally greater than usual. June and July flows were high and more than adequate for demands in the remainder of the water year. Storage during the water year increased by about 320,000 acre feet in the Bighorn River Basin in Wyoming.

The substantial flows of the year were indicative that the prescribed shares of Wyoming were not exceeded and no attempts at detailed administration were made. Mr. J. W. Ross told the Commission that critical situations of water supply arose on the Clark's Fork of Yellowstone River during 1961 and may be expected again with greater severity. He had no information to indicate that Wyoming has exceeded its prorata share. He stated new pumping installations have been made or are ready for installation in both states. Mr. Ross said clarification of water rights in Montana should be undertaken for proper administration of the Compact when that should become necessary and also for apportionment of limited flows in Montana. The Commission assured him of its desire to assist in matters pertinent to the Compact, but suggested the division of waters within either State was a matter of local or State control.

During the fiscal year ending June 30, 1962, the expense of the Commission was $8,000. Contributions of $2,000 each were made by the States of Wyoming and Montana and the Federal Government expended $4,000. A like budget is in force for the fiscal year ending June 30, 1963. A tentative budget of $9,000 was considered as being reasonable for each year of the succeeding biennium.

Respectfully submitted

Earl Lloyd

Earl Lloyd
Commissioner for Wyoming

Fred E. Buck

Fred E. Buck
Commissioner for Montana

Frank Stermitz

Frank Stermitz
Federal Representative

0340

Cost:

The work of the Commission is financed through annual cooperative agreements between the States of Montana and Wyoming and the United States of America. The costs considered do not include the salaries and necessary expenses of the State representatives which are borne by the respective States, nor the cost of the collection of hydrologic data now being made available through other sources. The expense of the Commission during the fiscal year ending June 30, 1962 is given:

	Total Cost	Borne by United States	Borne by Wyoming	Borne by Montana
Gaging Station operation, Maintenance	$7,000			
Data assembly and administration	1,000			
Total	$8,000	$4,000	$2,000	$2,000

The budget for the fiscal year ending June 30, 1963 was adopted for the above amount and the same proportionate shares. It is expected the auxiliary gage on the Bighorn River at Big Horn, Montana will be installed after delays incident to the construction of the interstate highway in this vicinity.

At the eleventh annual meeting, tentative budgets of $9,000 were suggested for each year of the coming biennium. It is anticipated that the rising cost index, additions to data collection and items relating to administration will require this sum.

Gaging Stations:

Discharge records were generally collected at the designated points of measurement. Supplementary data were collected on the Clark's Fork Yellowstone River near Edgar, Montana to evaluate the change in discharge below the gaging station at Edgar. The records of discharge are given in Appendix B.

The annual flows at the points of measurement ranged from 131 to 206 percent of the 1931-40 average and 145 to 1,320 percent of those for 1961. The least relative increase was on the Clark's Fork Yellowstone River and the greatest on the Powder River. Flows of the first six months of the water year were generally above average. April flows were low on some streams. Rains of June and July resulted in a sharp upturn in stream flow and a higher base flow level. The bar graphs of Appendix B illustrate the relative magnitude of the monthly and annual flows in comparison with various bases.

Diversions:

The Commissioners for Montana and Wyoming were agreed that allocable uses under the Compact were less than the proportionate shares in either State. The Compact only provides for the allocation of water uses originating after January 1, 1950.

0341

Mr. Buck furnished a list of reported water right filings in Montana for the period November 21, 1961 through October 31, 1962. Three previous listings are on file. Mr. Lloyd stated he would soon furnish another list to supplement the furnished listing of 1957. The printed biennial reports of the Wyoming State Engineer carry complete lists for all of Wyoming.

Storage:

In reservoirs completed after January 1, 1950:

Boysen Reservoir on the Wind River, operated by the U. S. Bureau of Reclamation, is the principal reservoir in this category. There was a net gain of 279,000 acre feet of storage during the water year. Month-end storage data are given in Appendix C.

The sealing operation of Anchor Reservoir on Owl Creek in the Bighorn River basin continued. The limited use is illustrated in the data furnished by the U. S. Bureau of Reclamation in Apprendix C.

The Commission is aware of some small reservoirs which may properly come in this category. At present their aggregate effect is considered to be insufficient to justify the collection of storage data that is not readily available.

In reservoirs existing on January 1, 1950

Compact allocations are only affected by the storage in these reservoirs as it may be used for developments completed after January 1, 1950. The extent of pertinent use is considered to be minor. The quantitites in storage in the principal reservoirs in this category are given in Appendix D as a matter of hydrologic information.

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, the following rules and regulations are adopted 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 stream flow 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 at Edgar, Montana and which is located in SW¼ sec.24, T.4 S., R.24 E., shall temporarily be the point of measurement for the Clarks Fork, subject to whatever mutually agreeable corrections to the streamflow records at this point as may be deemed practical to meet the terms of the Compact.

2. Bighorn River (exclusive of Little Bighorn River)

The gaging station known as the Bighorn River near Custer, Montana and located near the center of sec.10, 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 S½, SE¼ sec.18, 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.

MT v. WY/M.T.D. App.
348 (WY)

0343

3. Tongue River

The gaging station known as the Tongue River at Miles City, Montana and located in SE¼ 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 NE¼ sec.26, 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 specified 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 is 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, and be that of the United States Geological Survey in Helena, Montana.

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.

0344

MT v. WY/M.T.D. App.
349 (WY)

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. 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 on the third Tuesday of 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.

Fred E. Buck
Commissioner for Montana

Earl Lloyd
Commissioner for Wyoming

Attested:

Frank Stermitz
Federal Representative

Adopted November 17, 1953
Amended November 16, 1959

MT v. WY/M.T.D. App.
351 (WY)

0346

MONTHLY SUMMARY OF DISCHARGE
Clarks Fork Yellowstone River at Edgar, Montana

Location.--Lat 45°28'00", long 108°50'30", in SE¼SE¼ sec.23, T.4 S., R.23 E., on right bank just downstream from highway bridge, half a mile east of Edgar and 6 miles upstream from Rock Creek.

Drainage area.--2,032 sq mi.

Records available.--July 1921 to September 1962. Monthly discharge only for some periods, published in WSP 1309. Records since January 1950, available in annual reports of Yellowstone River Compact Commission.

Gage.--Water-stage recorder. Altitude of gage is 3,440 ft (by barometer). Prior to Sept. 18, 1940, chain gage and Sept. 18, 1940, to Aug. 31, 1953, wire-weight gage, at same site and datum.

Average discharge.--41 years, 1,034 cfs (748,600 acre-ft per year).

Extremes.--Maximum discharge during year, 7,830 cfs June 16 (gage height, 7.40 ft); minimum daily, 200 cfs Jan. 20, Feb. 23, 28.

1921-62: Maximum discharge observed, 10,900 cfs June 2, 1936 (gage height, 8.62 ft); minimum, 36 cfs Apr. 22, 1961.

Remarks.--Records excellent except those for periods of ice effect, which are poor. Upstream diversions for irrigation of about 41,500 acres, of which 840 acres lie below the station. In addition, about 6,300 acres of land lying above station are irrigated by diversions from the adjoining Rock Creek basin. Information similar to that previously given herein for Whitehorse Canal will be found on page 10.

Month	Second-foot days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1961	25,159	1,020	693	812	49,900
November	17,310	780	440	577	34,330
December	12,935	510	280	417	25,660
January 1962	9,825	460	200	317	19,490
February	11,195	800	200	400	22,200
March	11,043	480	230	356	21,900
April	26,768	2,040	335	892	53,090
May	54,830	2,650	748	1,769	108,800
June	146,980	7,210	2,260	4,899	291,500
July	66,390	4,250	1,200	2,142	131,700
August	28,197	1,960	407	910	55,930
September 1962	18,629	779	456	621	36,950
Water year 1961-62	429,261	7,210	200	1,176	851,400

0347

MONTHLY SUMMARY OF DISCHARGE

Clarks Fork Yellowstone River at Edgar, Montana

Supplementary Data

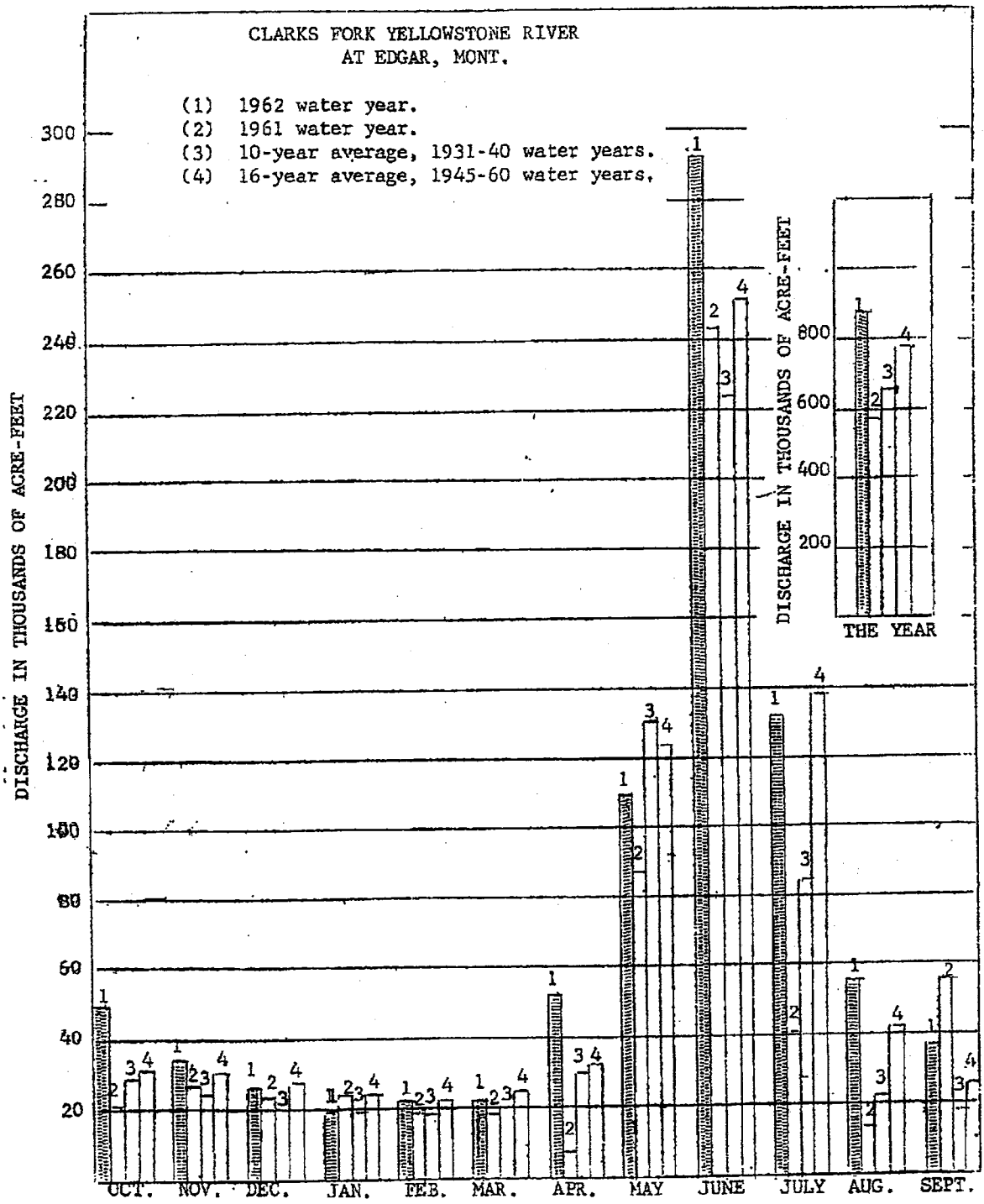
The Compact specified the official point of measurement of the Clarks Fork Yellowstone River shall be just above the mouth of Rock Creek about 6 miles downstream from the gaging station at Edgar. The known intervening diversion is the Whitehorse Canal which begins in SW¼ sec.1, T.4 S., R.23 E., about 4 miles downstream from the gaging station. The canal serves about 1,000 acres. Based upon periodic discharge measurements of the diversion and information on canal operation, that seasonal diversion is estimated at 6,000 acre-feet.

A cableway for discharge measurements was constructed across the Clarks Fork Yellowstone River about half a mile downstream from the Whitehorse Canal in SE¼ sec.1, T.4 S. R.23 E. The periodic measurements of discharge of the stream at this point, those of the Whitehorse Canal and concurrent daily discharge flow at the gaging station are presented. No adjustment has been made to the mean daily flow at Edgar which could be a factor at times of significantly changing stage. The apparent inflow may generally be return flow from irrigated lands served by Rock Creek.

Discharge in cfs at selected points

Date	Clarks Fork at Edgar	Whitehorse Canal	Clarks Fork at SE¼ sec.1	Apparent inflow in reach
Dec. 18, 1961	445	0.	466	+21
Apr. 30 1962	1,170	0.	1,160	-10
June 11	3,760	-	3,760	-
June 21	5,880	12.7	5,870	0
July 11	2,260	41.6	2,080	-138
Aug. 2	1,590	18.8	1,470	-100
Aug. 27	446	19.6	505	+79
Sept.15	705	7.3	754	+56

0348



Comparison of discharge during 1962 water year with 1961 water year and with average discharge for water years 1931-40 and 1945-60.

11

0349

MONTHLY SUMMARY OF DISCHARGE

Little Bighorn River near Hardin, Montana

Location.--Lat 45°44'20", long 107°33'40", in SE¼SE¼ sec.18, T.1 S., R.34 E., on right bank 425 ft upstream from highway bridge, half a mile upstream from mouth, and 2 miles east of Hardin.

Drainage area.--1,294 sq mi.

Records available.--June 1953 to September 1962, in reports of the Geological Survey and in annual reports of the Yellowstone River Compact Commission.

Gage.--Water-stage recorder. Altitude of gage is 2,880 ft (by barometer). Prior to Oct. 7, 1953, wire-weight gage on bridge 425 ft downstream at different datum.

Average discharge.--9 years, 182 cfs (131,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,300 cfs June 17; maximum recorded gage height, 8.99 ft Mar. 19 (backwater from ice); minimum daily discharge, 10 cfs Dec. 12, 13.

1953-62: Maximum discharge, about 3,000 cfs Mar. 21, 1960; maximum gage height, 11.78 ft Mar. 20, 1960 (backwater from ice); minimum discharge observed, 0.2 cfs Aug. 7, 1961, result of discharge measurement.

Remarks.--Records good except those for periods of ice effect, no gage-height record, and those for period June 14-17, which are poor. Diversions for irrigation of about 17,000 acres above station. Flow partly regulated since about 1940 by Willow Creek Reservoir (capacity, 23,000 acre-ft).

Month	Second-foot days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1961	3,499	175	68	113	6,940
November	3,436	167	55	115	6,820
December	2,129	142	10	68.7	4,220
January 1962	2,545	190	20	82.1	5,050
February	6,180	360	65	221	12,260
March	6,103	377	70	197	12,110
April	7,651	450	175	255	15,180
May	10,767	476	222	347	21,360
June	15,947	1,120	339	532	31,630
July	5,099	340	52	164	10,110
August	2,390	157	38	77.1	4,740
September 1962	3,496	177	90	117	6,930
Water year 1961-62	69,242	1,120	10	190	137,400

0350

MONTHLY SUMMARY OF DISCHARGE

Bighorn River at Bighorn, Montana

Location.--Lat 46°08'50", long 107°28'00" (revised), in NE¼NE¼ sec.33, T.5 N., R.34 E., on right bank just downstream from bridge on U. S. Highway 10, three-quarters of a mile upstream from mouth, 1 mile southwest of Bighorn, and 4 miles east of Custer.

Drainage area.--22,885 sq mi. At site used prior to Oct. 7, 1955, 22,410 sq mi.

Records available.--May 1945 to September 1962. Published as "near Custer", 1945-55. Records since January 1950, available in annual reports of Yellowstone River compact Commission.

Gage.--Water-stage recorder. Altitude of gage is 2,690 ft (by barometer). May 11 to Dec. 6, 1945, wire-weight gage and Dec. 7, 1945, to Oct. 6, 1955, water-stage recorder, at site 4 miles upstream at different datum.

Average discharge.--17 years, 3,586 cfs (2,596,000 acre-ft per year).

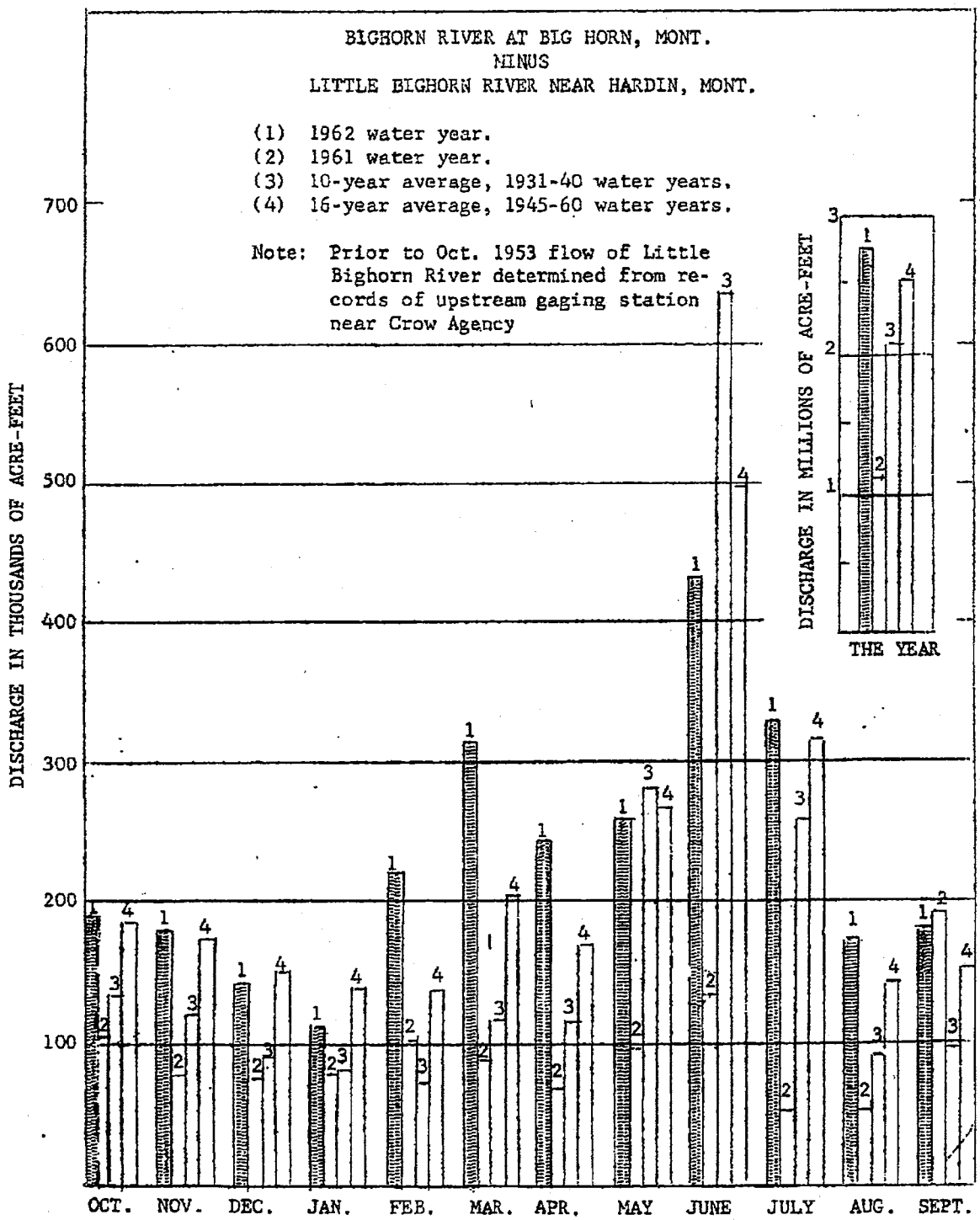
Extremes.--Maximum discharge during year, about 15,000 cfs Feb. 15 (gage height, 10.29 ft, backwater from ice); minimum recorded, 767 cfs Dec. 10 (gage height, 0.94 ft).

1945-62: Maximum discharge, 26,200 cfs June 24, 1947 (gage height, 8.79 ft, site and datum then in use), from rating curve extended above 12,500 cfs by logarithmic plotting; maximum gage height recorded, 10.65 ft, Mar. 20, 1947 (ice jam), site and datum then in use; minimum discharge, about 275 cfs Nov. 15, 1959, result of freezeup; minimum daily, 540 cfs July 22, 1960.

Remarks.--Records good except those for periods of ice effect or backwater from Yellowstone River, which are poor. Diversions for irrigation of about 465,000 acres above station. Major regulation by 14 reservoirs in Wyoming and 1 in Montana with combined usable capacity of about 1,400,000 acre-ft (see Appendices C and D).

Month	Second-foot days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1961	99,160	6,550	2,620	3,199	196,700
November	93,680	3,430	2,720	3,123	185,800
December	73,790	3,010	1,400	2,380	146,400
January 1962	58,800	2,700	1,000	1,897	116,600
February	118,070	13,000	1,810	4,217	234,200
March	165,220	10,400	2,000	5,330	327,700
April	129,950	6,200	2,630	4,332	257,800
May	141,460	10,100	3,310	4,563	280,600
June	234,380	12,600	3,930	7,813	464,900
July	171,740	10,700	2,090	5,540	340,600
August	89,130	5,510	1,870	2,875	176,800
September 1962	95,040	3,870	2,720	3,168	188,500
Water year 1961-62	1,470,420	13,000	1,000	4,029	2,917,000

0351



Comparison of discharge during 1962 water year with 1961 water year and with average discharge for water years 1931-40 and 1945-60.

MT v. WY/M.T.D. App.
357 (WY)

0352

MONTHLY SUMMARY OF DISCHARGE

Tongue River at Miles City, Montana

Location.--Lat 46°21', long 105°48', in SE¼ sec.23, T.7 N., R.47 E., on right bank 4 miles south of Miles City and 8 miles upstream from mouth.

Drainage area.--5,379 sq mi.

Records available.--April 1938 to April 1942, April 1946 to September 1962. Published as "near Miles City" April 1938 to April 1942. Not equivalent to records published as "near Miles City" May 1929 to September 1932. Monthly discharge only for some periods, published in WSP 1309. Records since January 1950, available in annual report of Yellowstone River Compact Commission.

Gage.--Water-stage recorder. Altitude of gage is 2,370 ft (by barometer). April 1938 to April 1942, wire-weight gage at site 8 miles upstream at different datum.

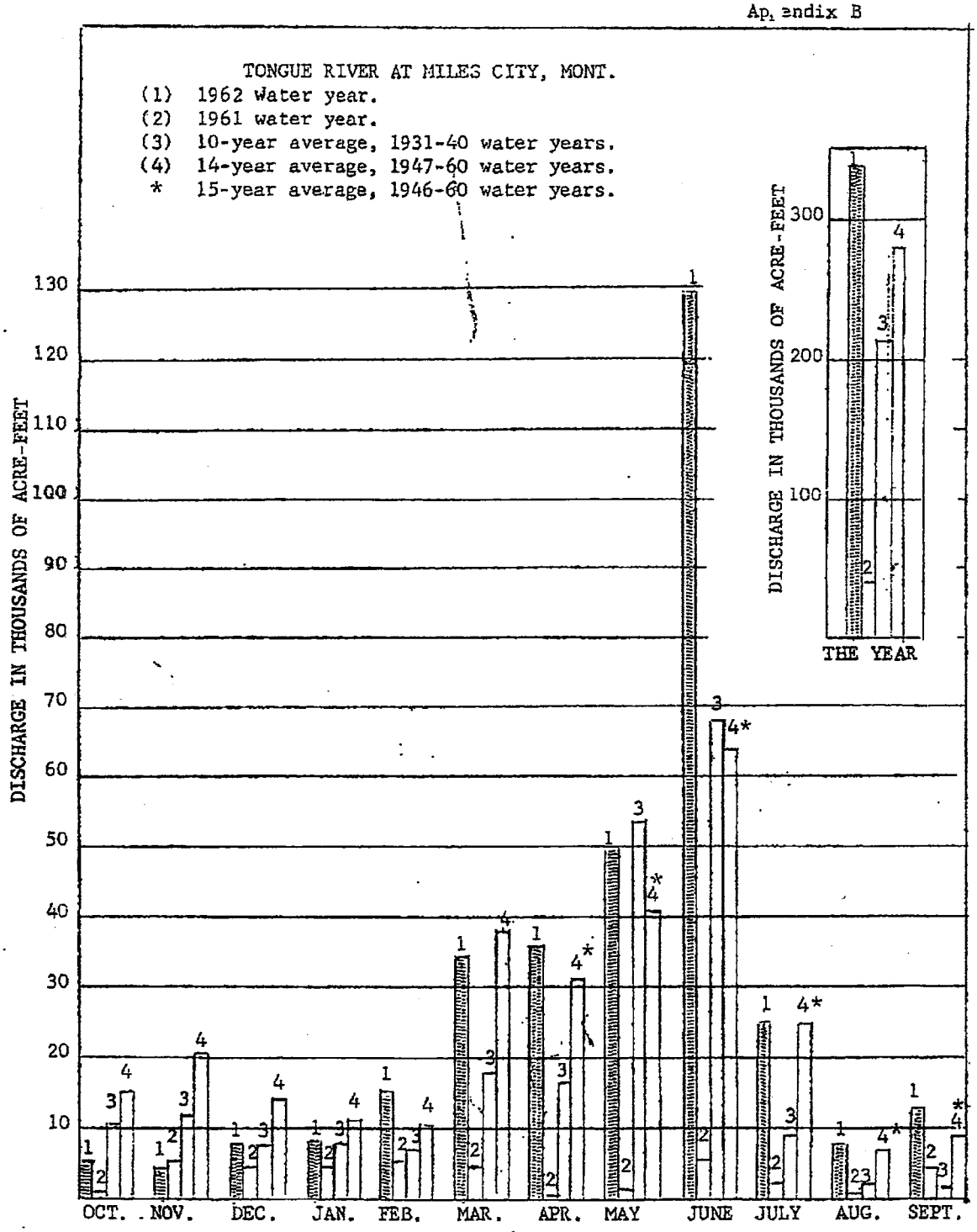
Average discharge.--19 years (1938-41, 1946-62), 347 cfs (251,200 acre-ft per year).

Extremes.--Maximum discharge during year, 13,300 cfs June 15 (gage height, 11.33 ft); from rating curve extended above 3,200 cfs on basis of float measurement; minimum daily, 15 cfs Nov. 17.

1938-42, 1946-62: Maximum discharge, that of June 15, 1962; maximum gage height, 12.27 ft Mar. 19, 1960 (ice jam); no flow July 9-19, Aug. 13, 14, Sept. 28, 1940.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversions for irrigation of about 90,000 acres above station. Flow regulated by Tongue River Reservoir (Appendix C) and many small reservoirs (combined capacity, about 15,000 acre-ft).

Month	Second-foot days	Maximum	Minimum	Mean	Runoff in Acre-feet
October 1961	2,475	139	45	79.8	4,910
November	2,375	199	15	79.2	4,710
December	4,121	180	90	133	8,170
January 1962	4,215	220	85	136	8,360
February	7,650	460	180	273	15,170
March	17,563	1,600	290	567	34,840
April	18,503	1,140	274	617	36,700
May	24,961	1,540	191	805	49,510
June	65,293	9,290	833	2,176	129,500
July	12,707	1,610	73	410	25,200
August	4,060	220	35	131	8,050
September 1962	6,698	270	155	223	13,290
Water year 1961-62	170,621	9,290	15	467	338,400



Comparison of discharge during 1962 water year with 1961 water year and with average discharge for water years 1931-40 and 1947-60.

0354

MONTHLY SUMMARY OF DISCHARGE

Powder River near Locate, Montana

Location.--Lat 46°26', long 105°18', in NE¼ sec.26, T.8 N., R.51 E., on right bank 50 ft downstream from bridge on U. S. Highway 12 at present site of Locate (5 miles west of former site of Locate), 3 miles upstream from Locate Creek, and 25 miles east of Miles City.

Drainage area.--13,189 sq mi.

Records available.--March 1938 to September 1962. Records since January 1950 available in annual reports of Yellowstone River Compact Commission.

Gage.--Water-stage recorder and wire-weight gage. Altitude of gage is 2,400 ft (by barometer). Prior to July 11, 1947, wire-weight gage at bridge 50 ft upstream at same datum.

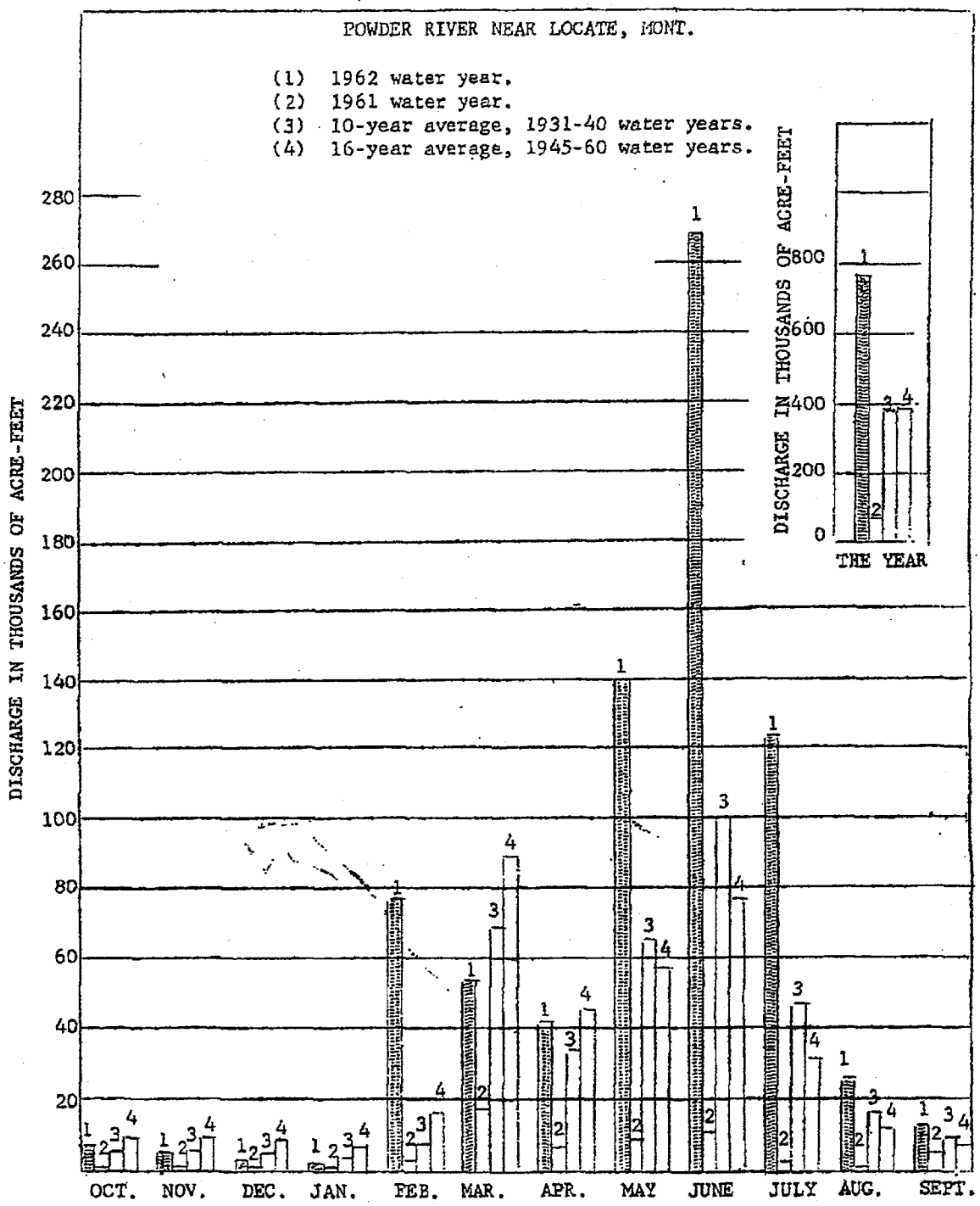
Average discharge.--24 years, 590 cfs (427,100 acre-ft per year).

Extremes.--Maximum discharge during year, 19,400 cfs June 20 (gage height, 8.75 ft); minimum daily, 4 cfs Dec. 28.

1938-62: Maximum discharge observed, 31,000 cfs Feb. 19, 1943 (gage height, 11.23 ft), from rating curve extended above 17,000 cfs; no flow Jan. 16 to Feb. 12, Feb. 22-24, 1950, July 27, Sept. 21-27, Oct. 1, 1960, Sept. 4-8, 1961.

Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of about 52,000 acres above station. Some regulation by tributary reservoirs with combined usable capacity of 36,800 acre-ft.

Month	Second-foot days	Maximum	Minimum	Mean	Runoff in Acre-ft
October 1961	3,628	301	58	117	7,200
November	2,680	150	60	89.3	5,320
December	1,559	150	4	50.3	3,090
January 1962	990	100	5	31.9	1,960
February	38,905	10,000	45	1,389	77,170
March	26,990	3,800	95	871	53,530
April	21,115	1,530	383	704	41,880
May	70,538	9,780	572	2,275	139,900
June	135,540	15,000	1,640	4,518	268,800
July	62,136	11,200	505	2,004	123,200
August	13,187	1,170	161	425	26,160
September 1962	6,500	723	117	217	12,890
Water year 1961-62	383,768	15,000	4	1,051	761,100



Comparison of discharge for 1962 water year with 1961 water year and with average discharge for water years 1931-40 and 1945-60.

MT v. WY/M.T.D. App.
361 (WY)

0356

RESERVOIRS COMPLETED AFTER JANUARY 1, 1950

BOYSEN RESERVOIR

Water-stage recorder at dam on Wind River, about 21 miles south of Thermopolis, Wyoming. Reservoir formed by earth-fill dam, construction of which began in 1947. Storage began October 11, 1951. Dead storage, 62,000 acre-feet at elevation 4657.0. Usable contents, 758,000 acre-feet at elevation 4725.0 (top of gates). Crest of dam at elevation 4758.

Records given herein represent usable contents. Water is used for irrigation and power development. Allocation for flood control provided. Date furnished by U. S. Bureau of Reclamation.

Extremes.--Maximum usable contents during year, 757,400 acre-feet Aug. 2, 3 (elevation, 4,724.98 ft); minimum, 319,100 acre-feet Apr. 19 (elevation, 4,696.73 ft).

1953-62: Maximum usable contents, 857,400 acre-feet, July 5, 1957 (elevation, 4,729.85 ft); minimum, 189,800 acre-ft March 18, 19, 1956 (elevation, 4,684.18 ft).

Month	Water-Surface elevation in feet	*Contents in Acre-feet	Change in contents during month in acre-feet
September 30, 1961	4,703.45	403,100	
October 31	4,704.10	412,000	+8,900
November 30	4,703.49	403,600	-8,400
December 31	4,701.55	377,900	-25,700
January 31, 1962	4,700.17	360,300	-17,600
February 28	4,703.32	401,300	+41,000
March 31	4,698.17	336,000	-65,300
April 30	4,697.88	332,500	-3,500
May 31	4,702.03	384,100	+51,600
June 30	4,720.55	673,600	+289,500
July 31	4,724.92	756,200	+82,600
August 31	4,722.71	713,600	-42,600
September 30, 1962	4,721.02	682,200	-31,400
Water year 1961-62			+279,100

* Does not include dead storage of 62,000 acre-feet.

0357

RESERVOIRS COMPLETED AFTER JANUARY 1, 1950

ANCHOR RESERVOIR

Water-stage recorder at dam on South Fork Owl Creek, 31 miles west of Thermopolis, Wyoming. Reservoir formed by thin concrete arch dam, construction of which began in 1957. Closure of dam made November 21, 1960. Temporary outlet at elevation 6,304.30 ft still in use. Lowest permanent outlet sill at elevation 6,343.75 ft, total contents, 148 acre-feet. Total contents, 17,420 acre-feet at upper active capacity level of 6,441 ft. Crest of dam at elevation 6,452.5 ft.

Records given in this report are total contents to reflect storage changes below normal dead storage level. Water is to be used for irrigation. Data furnished by U. S. Bureau of Reclamation.

Month	Water-Surface elevation in feet	*Contents in acre-feet	Change in contents during month in acre-feet
September 30, 1961	6,339.00	89	
October 31	6,347.85	215	+126
November 30	6,344.88	163	-52
December 31, 1961	6,335.00	55	-108
January 31, 1962	6,332.09	40	-15
February 28	6,343.61	146	+106
March 31	6,353.19	339	+193
April 30	6,354.50	375	+36
May 31	6,304.30	0	-375
June 30	6,357.03	454	+454
July 31	6,340.00	98	-356
August 31	6,304.30	0	-98
September 30, 1962	6,304.30	0	0
Water year 1961-62			-89

* Includes dead storage

MT v. WY/M.T.D. App.
363 (WY)

0358

RESERVOIRS IN EXISTENCE ON JANUARY 1, 1950

The extent, if any, of the use of reservoirs in this category which may be subject to Compact allocations was not determined. As a matter of hydrologic interest, the month-end contents in acre-feet of four reservoirs are given. The first three reservoirs are in the Bighorn River Basin in Wyoming and data on contents were furnished by the U. S. Bureau of Reclamation. Tongue River Reservoir in Montana is operated under the supervision of the Montana State Water Conservation Board which agency furnished operating data.

Revisions.--Data received subsequent to publication of the Tenth Annual Report, reveals some interpolated month-end contents for Tongue River Reservoir are incorrect in the 1961 report. A revised yearly table is given herewith:

September 30, 1960	800	April 30, 1961	22,600
October 31	1,000	May 31	40,700
November 30	4,100	June 30	50,400
December 31, 1960	7,200	July 31	35,700
January 31, 1961	9,800	August 31	22,400
February 28	16,500	September 30, 1961	20,400
March 31	22,600	Change in contents during year	+19,600

Contents in Acre-feet

	Bull Lake	Pilot Butte Reservoir	a/Buffalo Bill Reservoir	b/Tongue River c/ Reservoir
September 30,1961	89,800	4,600	285,200	20,400
October 31	94,500	6,200	294,400	30,700
November 30	97,500	6,200	282,200	39,000
December 31, 1961	95,600	8,900	255,400	39,900
January 31, 1962	88,700	10,600	228,500	41,100
February 28	85,600	12,700	204,300	48,600
March 31	78,000	23,700	176,200	47,300
April 30	84,100	28,400	212,800	40,600
May 31	107,500	28,700	249,200	46,500
June 30	151,000	27,600	443,600	46,900
July 31	151,600	19,700	420,300	47,400
August 31	139,700	5,200	369,100	33,000
September 30,1962	109,400	5,000	319,000	27,000
Change in contents during year	+19,600	+400	+33,800	+6,600

a/ Revised capacity table based on survey of 1959; contents prior to October 1960, based on survey of 1941.

b/ Contents based upon sedimentation surveys of October, 1948.

c/ Contents for April, May, June, and July interpolated from readings made near end of month. Contents for February, August, and September 1962, estimated.

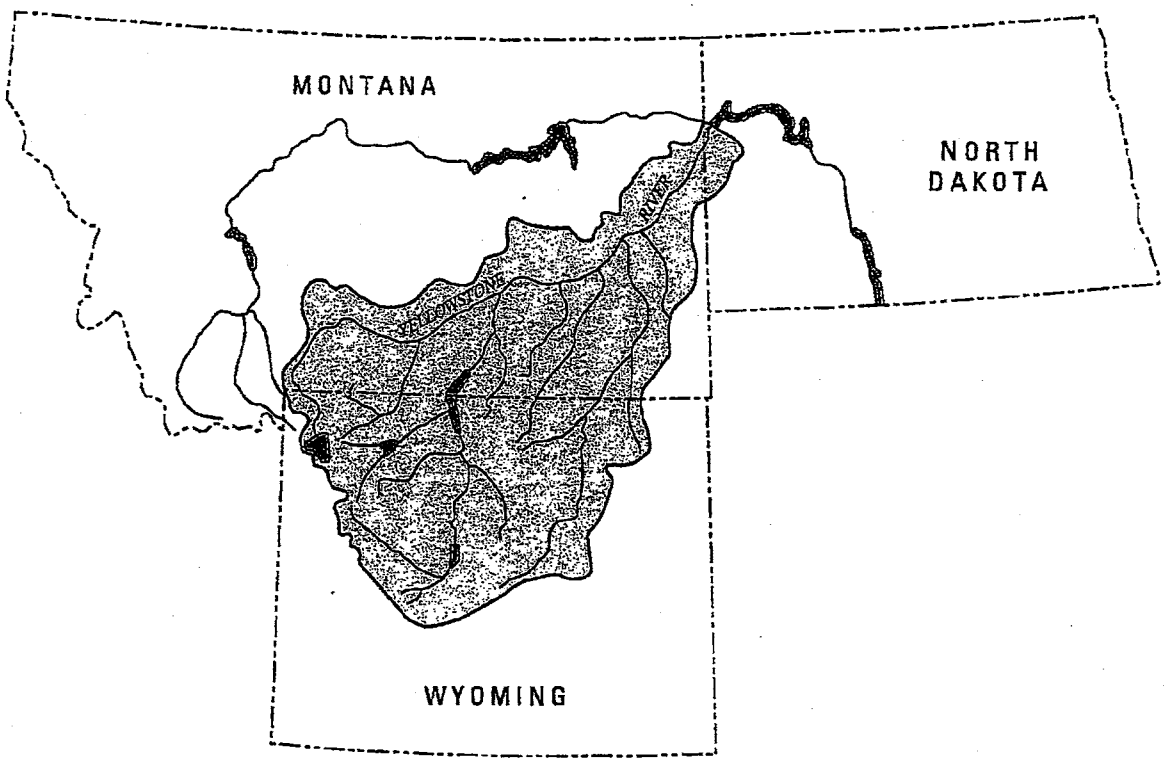
0359

2004 Annual Report

0360

YELLOWSTONE RIVER COMPACT COMMISSION

WYOMING MONTANA NORTH DAKOTA



FIFTY-THIRD ANNUAL REPORT
2004

0361

YELLOWSTONE RIVER

COMPACT COMMISSION

FIFTY-THIRD ANNUAL REPORT

2004

0362

MT v. WY/M.T.D. App.
494 (WY)

YELLOWSTONE RIVER COMPACT COMMISSION
DENVER FEDERAL CENTER, BUILDING 53, ROOM F-1200
LAKEWOOD, COLORADO 80225

Honorable David Freudenthal
Governor of the State of Wyoming
Cheyenne, Wyoming 82002

Honorable Brian Schweitzer
Governor of the State of Montana
Helena, Montana 59620

Honorable John Hoeven
Governor of the State of North Dakota
Bismarck, North Dakota 58501

Dear Governors:

Pursuant to Article III of the Yellowstone River Compact, the Commission submits the following fifty-third annual report of activities for the period ending September 30, 2004.

Members of the Yellowstone River Compact Commission convened the first of two meetings in 2004 on April 15 at 9:30 a.m. in Sheridan, Wyoming. In attendance were Mr. James Kircher, U.S. Geological Survey, Chairman and Federal Representative; Mr. Jack Stults, Administrator, Water Resources Division, Montana Department of Natural Resources and Conservation and Commissioner for Montana; and Mr. Patrick Tyrrell, Wyoming State Engineer and Commissioner for Wyoming. Also in attendance were Ms. Sue Lowry, Mr. Mike Whitaker, and Mr. Loren Smith, Wyoming State Engineer's Office; Mr. Keith Kerbel, Mr. Kevin Smith, and Mr. James Robinson, Montana Department of Natural Resources and Conservation; Mr. Todd Parfitt and Mr. Dan Hengel, Wyoming Department of Environmental Quality; Mr. Roy Kaiser, Natural Resources Conservation Service; Mr. Art Hayes, Jr., Tongue River Water Users Association; Mr. Wade Irion, HKM Engineering; and Mr. Wayne Berkas, Mr. Robert Swanson, and Mr. Robert Davis, U.S. Geological Survey.

0363

Mr. Kircher called the meeting to order. All attendees introduced themselves.

Mr. Davis reported that costs for the program of streamflow-data collection and preparation of the annual report are $70,000 for Federal fiscal year 2004 and are expected to be $73,500 or less for fiscal year 2005.

Mr. Berkas reported that most of the streamflows in the Yellowstone River basin are less than average for mid-April. Streamflows at several sites throughout Montana were at a record daily low for April 15.

Ms. Lowry provided a summary of the April 14, 2004, meeting of the Technical Committee (minutes appended). Less-than-average runoff is forecast for 2004. Possible formats for reporting storage and other information for additional reservoirs in the annual report were discussed. Possible ways of making all hydrologic information relevant to the Compact readily available to all also were discussed. Mr. Kerbel reported that options were considered for developing a process or plan for managing and sharing water under the rules of the Compact, particularly for dry years. The Commissioners expressed the need to include some flexibility in order to meet existing obligations and agreed to continue to discuss options for administering the Compact and managing the available water. Mr. Hayes noted that flow in the Tongue River presently is less than the flow desired by Montana Fish, Wildlife and Parks. Mr. Stults stated that Montana tries to meet the desired instream flows in the Tongue River and other rivers but is obligated to meet the needs of the senior water-rights holders.

Mr. Kaiser reported that streamflow forecasts for water year 2003 were useful for planning even though many of the forecasts were less than the actual streamflow volumes. Refinements are being made to forecasting procedures for the Tongue River basin to try to improve accuracy of future forecasts. For water year 2004, the average snow-water equivalent in snowpack for measurement sites in the upper and lower Yellowstone River basin is less than the 1971-2000 average and less than for 2003. Maximum snowpack, which typically occurs in mid- to late-April, appears to have reached the maximum in March 2004 and is decreasing. Streamflow forecasts for water year 2004 for the upper and lower Yellowstone River basin indicate less-than-average streamflows, and peak streamflows from snowmelt are anticipated to occur about one month earlier in the year than average. Mr. Kerbel reported that precipitation in March 2004 in southeastern Montana was much less than average and drought conditions continue to prevail in many parts of Montana. Mr. Tyrrell discussed indications by researchers that very prolonged droughts have occurred in some areas of the western United States in the past. He also noted that much of the current need for water in this area was established during the early 1900's, which was a period of relatively abundant precipitation. Mr. Swanson noted that many of the streamflow stations in the Yellowstone River basin are operated on a seasonal basis that begins on April 1 of each year. If snowmelt-runoff peaks continue to occur earlier in the year than average, then cooperating agencies might want to consider support for full-year operation to avoid missing data collection for the peak periods. He also noted the importance of long-term streamflow information in preparing forecasts.

Ms. Lowry and others described the Technical Committee recommendations for reporting contents and other information for additional reservoirs in the annual Commission report. Mr. Davis and Mr. Berkas will consult with Ms. Lowry to prepare draft formats for reporting the reservoir information in future reports.

Mr. Tyrrell stated that semi-annual meetings of the Commission might be desirable, particularly during dry periods, and Mr. Stults and Mr. Kircher agreed. The Commissioners discussed the need to provide information from the spring Technical Committee and Commission meetings to the public in a timely manner. Mr. Kerbel, Ms. Lowry, and Mr. Davis agreed to try to develop a process for providing the information to the public.

Mr. Kircher asked for any other items recommended by the Technical Committee for consideration by the Commission for action. Ms. Lowry recommended consideration of preparing letters of support for snowpack and streamflow monitoring, along with a list of priority sites. Potential recipients of the letters include Congressional staff and officials of the U.S. Department of the Interior and the U.S. Department of Agriculture.

Mr. Stults stated his desire for the Commission to establish a process for developing some type of plan for water management in accordance with the Compact, on an annual basis or as needed. Mr. Tyrrell recommended sharing all pertinent administrative and technical information and defining specific issues that would need to be addressed in a plan. Mr. Stults concurred. The Commissioners agreed to continue discussions and asked for continued assistance from the Technical Committee.

Mr. Robinson thanked the Wyoming representatives for loaning the aerial photographs of Wyoming to Montana at the December 2003 meeting and returned them to the Wyoming representatives.

Mr. Stults reported that no new developments have occurred with Montana's water conservation programs and that the Montana Governor's Drought Advisory Committee continues to meet regularly. Mr. Tyrrell reported that the Wyoming Drought Task Force also continues to meet regularly due to drought conditions. Both Commissioners expressed concern about the persisting drought conditions.

Mr. Tyrrell introduced Mr. Parfitt of the Wyoming Department of Environmental Quality who described current water-quality aspects of coal-bed methane development in Wyoming. Development in the Powder and Tongue River drainage basins is increasing. A growing trend is for much of the produced water to be treated, if necessary, and discharged directly to perennial streams rather than to ephemeral or

intermittent tributary streams. Currently, Montana water-quality standards are being considered by Wyoming as part of the permitting process for coal-bed methane wells in Wyoming, particularly in the Tongue River basin. Wyoming is hiring additional field staff and inspectors and has obtained funds for additional streamflow and water-quality monitoring, beginning July 2004. The amount of produced water that reaches the Powder River is currently estimated to be about four cubic feet per second. Wyoming is working cooperatively with Montana in the process of determining TMDLs for the Tongue and Powder Rivers in Montana by sharing data and expertise. Mr. Parfitt reported that the main water-quality concerns for produced water and receiving streams are specific conductance and sodium adsorption ratio. Other concerns are iron and barium, though mostly on a local basis. Toxicity tests, developed by the U.S. Environmental Protection Agency, are being used to evaluate water for acute and chronic toxicity to biota. Future permitting in Wyoming will likely be based on a watershed concept and will utilize the results of the TMDL studies in Montana, as applicable, as part of the process. Mr. Parfitt was asked how water-quality standards were considered as part of Wyoming's permitting process. He replied that the current procedure is to consider the most stringent standard of either Wyoming or the downstream State and permit to that standard with respect to water quality at the State boundary. Mr. Parfitt added that information on permit applications is shared with the downstream State before approval. Mr. Hayes asked if the difference between the standard and the existing water quality would be shared among Montana, Wyoming, and other entities. Mr. Parfitt replied that current procedure is to permit to the standard but added that the standard would not likely be equaled or exceeded at the State boundary. When asked about treatment procedures for produced water, Mr. Parfitt replied that reverse osmosis seems to be the mostly widely used process at present, although ion exchange is also used. Mr. Hayes expressed concern about water stored in ponds and the changes in water quality that can occur as water from the ponds infiltrates into the subsurface. He encouraged the assessment and use of information from studies conducted in the 1970's and 1980's as well as new information. Mr. Tyrrell and Mr. Parfitt noted that ground water is being monitored at several pond sites in Wyoming.

Mr. Davis reported that a surface-water-quality monitoring network is being implemented in the Tongue River basin. The network consists of 11 sites—6 on the mainstem and 5 at the mouths of major tributaries. Information about the network and data for the 11 sites are available on the web at *http://TongueRiverMonitoring.cr.usgs.gov*.

Mr. Tyrrell provided an update on permitting in Wyoming. As of April 2, 2004, Wyoming has received a total of 2,661 applications for reservoirs to hold water produced from coal-bed methane activities, of which 255 were received in 2004. Of the total, 201 are in the Belle Fourche River basin, 113 are in the Cheyenne River basin, and 2,347 are in the Tongue and Powder River basins. The types of reservoirs include both on-channel reservoirs and off-channel pits. Additional funds have become available for field inspections of the reservoirs. The Wyoming State Engineer's Office permits off-channel pits only if a beneficial use of the water is specified. If no beneficial use is specified, then the permits are handled by the Wyoming Oil and Gas Conservation Commission. Permits with beneficial use are time limited. As of April 14, 2004, Wyoming has issued 24,271 active permits for coal-bed methane wells, of which 1,341 were issued in 2004. Mr. Tyrrell noted that not all permits result in active wells. Mr. Hayes asked if off-channel pits are reclaimed after the permit expires. Mr. Tyrrell replied that off-channel pits are not necessarily reclaimed because they are not considered to have a significant effect on the surface-water system. However, on-channel reservoirs do need to be breached when the permit expires. Mr. Tyrrell also noted that a suction-technology process is increasingly used in some mature methane-production areas. No water is involved in this process but methane yields are increased.

Mr. Kerbel reported that the Montana Department of Natural Resources and Conservation issues permits for discharge of coal-bed-methane produced water only when the water is put to beneficial use. To date, the only permits the Department has issued have been interim permits. Mr. Stults asked if land application of produced water is still being practiced in Wyoming. Mr. Whitaker replied that the practice is still being used. Mr. Tyrrell noted that the average water yield for coal-bed-methane production wells in Wyoming currently is about seven gallons per minute.

Ms. Lowry reported on water rights within the Bighorn Canyon National Recreation Area. A meeting is scheduled for April 30, 2004, to begin discussions on the final decree language and the disposition of active water rights and rights that are only utilized periodically. The total amount of water rights under consideration is about 10,000 acre-feet, mostly for irrigation. Wyoming will work with Montana, the Bureau of Reclamation, and other entities before making any final decisions.

Mr. Tyrrell noted that Mr. Swanson of the U.S. Geological Survey will be transferring from Wyoming to Nebraska and thanked him for his valuable service to the Commission and the State of Wyoming.

Mr. Swanson reported that the summary report for the Yellowstone River basin National Water-Quality Assessment (NAWQA) study is expected to be available in mid-May 2004. Mr. Stults and Mr. Hayes requested copies of the report when it is available.

The next meeting of the Commission is tentatively scheduled for Wednesday, December 1, 2004, in Montana. The next spring meeting is tentatively scheduled for Tuesday, April 12, 2005, in Wyoming. The Technical Committee will meet in the morning on those dates and the Commission will meet in the afternoon.

The meeting adjourned at 1:30 p.m.

Members of the Yellowstone River Compact Commission convened the second of two meetings in 2004 on December 6 at 1:00 p.m. in Billings, Montana. In attendance were Mr. James Kircher, U. S. Geological Survey, Chairman and Federal Representative; Mr. William Horak, U.S. Geological Survey and future Chairman; Mr. Jack Stults, Administrator, Water Resources Division, Montana Department of Natural Resources and Conservation and Commissioner for Montana; and Mr. Patrick Tyrrell, Wyoming State Engineer and Commissioner for Wyoming. Also in attendance were Ms. Sue Lowry, Mr. Mike Whitaker, and Mr. Loren Smith, Wyoming State Engineer's Office; Mr. Richard Moy, Mr. Kevin Smith, and Mr. Keith Kerbel, Montana Department of Natural Resources and Conservation; Ms. Sarah Bond, Montana Department of Justice; Mr. Art Compton, Montana Department of Environmental Quality; Mr. Art Hayes, Jr., Tongue River Water Users Association; Mr. Orrin Ferris, HKM Engineering; Mr. Richard Aro, Bureau of Indian Affairs, Northern Cheyenne Agency; Mr. Douglas Davis, Bureau of Indian Affairs; Mr. Lenny Duberstein, Bureau of Reclamation; and Mr. Kirk Miller, Mr. Wayne Berkas, and Mr. Robert Davis, U.S. Geological Survey.

Mr. Kircher called the meeting to order. All attendees introduced themselves.

Mr. Davis presented budget information for the program of streamflow data collection and preparation of the annual report. The program cost was $70,000 for Federal fiscal year 2004 and will be $71,900 for fiscal year 2005. One-fourth of the cost is provided by the State of Wyoming, one-fourth by the State of Montana, and one-half by the U.S. Geological Survey through the Cooperative Water Program. Estimates of costs for future years were presented based on an approximate 5-percent inflation factor per year. Mr. Davis stated that salaries and travel for data collection were the major expenses of the program. He also noted that estimates typically have been higher than the final program costs of the program for a given year. Mr. Stults moved to accept the budget for the program for fiscal year 2005. The motion was seconded by Mr. Tyrrell.

Mr. Berkas reported that streamflow during water year 2004 was 74 percent of average for the Clarks Fork Yellowstone River at Edgar, 38 percent of average for the Bighorn River near Bighorn (adjusted for flow in the Little Bighorn River and change in contents in Bighorn Lake), 20 percent of average for the Tongue River at Miles City, and 14 percent of average for the Powder River near Locate, which is a new record annual low. Total adjusted streamflow in the four rivers in water year 2004 was 1,621,000 acre-feet, compared to 2,174,000 acre-feet in water year 2003 and 1,685,000 acre-feet in water year 2002.

Reservoir storage increased during water year 2004 in Boysen Reservoir, Anchor Reservoir, Bull Lake, and Pilot Butte Reservoir. Reservoir storage decreased in Bighorn Lake, Buffalo Bill Reservoir, and Tongue River Reservoir. The contents and amounts of increases and decreases are listed in the report. The total usable contents of these reservoirs at the end of water year 2004 was 1,739,800 acre-feet, which is an increase of 88,000 acre-ft from the end of water year 2003.

The Commission had previously requested that additional reservoirs be included in the annual report. Total usable contents of these additional reservoirs of interest in the Yellowstone River basin at the end of water year 2004 was 215,300 acre-feet, a decrease of 7,900 acre-feet from the end of water year 2003. A new table listing the additional reservoirs and their contents has been added to the annual report.

Mr. Stults inquired as to the amount of snow pack in the four basins for water year 2004 as compared to average snow pack and water year 2003 snow pack. Mr. Berkas did not have that information available, and Mr. Roy Kaiser, who normally would have that information, was not at the meeting. Mr. Stults felt that this information would be interesting, and asked if the Technical Subcommittee might provide that information in the future. Mr. Moy asked if the annual flow information was available with exceedance probabilities in addition to percentages of average. Mr. Berkas did not have that information at present but would ensure that flow-exceedance probabilities and snow-pack information would be available at next year's meeting.

Mr. Stults reported on water conservation programs in Montana. Montana producers are experiencing serious cumulative effects from the last 6 years of drought. However, good reservoir management and sharing of shortages has been an important part of making the best of the situation. Montana continues to have successful examples of that on the Big Hole River, Blackfoot River, Jefferson River, and several others in the State, where a sophisticated approach to timing of diversions and sensitivity to return flows has helped make the best use of available water supplies. This approach to water conservation--which includes traditional approaches to water conservation in terms of on-field efficiency along with developing systems to better understand the interrelationship between water supply, timing of diversion, location of diversions and return flows--has helped to maximize use of the water supply in any particular drainage.

Ms. Lowry reported on activities of the Wyoming Drought Task Force. The Wyoming State Climatologist has attempted to present data into a more usable format for irrigators and water users across the State. In the Wyoming system, water supplies are administered solely by prior-appropriation doctrine and the needs of senior water-rights holders are satisfied first. Water supplies and availability in Wyoming are similar to last year, although perhaps lower in some instances.

Mr. Stults and Mr. Tyrrell each described the water-right regulation procedures used in their respective States. Although both States' water rights are based on prior-appropriation doctrine, the specific regulation procedures used in each State are different in some aspects.

Mr. Tyrrell reported on progress in developing a website for this Commission, and handed out sample web pages. Mr. Moy asked if the USGS would be the proper host for the website, which could have active links to Wyoming and Montana. Mr. Kircher stated that funding support and computer-security issues would likely need to be addressed with regard to USGS hosting the website, but offered to inquire further into these aspects and discuss his findings at the next meeting. Both Wyoming and Montana agreed with that process.

Mr. Tyrrell provided a handout from the Coalbed Natural Gas Interagency Work Group that lists the current hydrologic monitoring in the Tongue and Powder River basins. The work group was created last year as a result of the EIS process for Federal minerals in Wyoming.

Mr. Tyrrell discussed the policy Wyoming adopted in April 2003 regarding reservoirs constructed for use during coal-bed natural gas production. The Wyoming State Engineer's Office and Wyoming

Department of Environmental Quality (DEQ) are considering the bonding of reservoirs used in coal-bed natural gas production. Bonding will make money available to reclaim the reservoir sites when coal-bed natural gas production is completed. The Bureau of Land Management has a bonding process. Currently the Wyoming Oil and Gas Commission bonds backfilling and reclamation of off-channel pits, but does not bond reclamation of on-channel dams. The permits for reservoirs used in coal-bed natural gas production will require removal of reservoirs. One exception is if the land owner chooses to retain the reservoir for stock watering. The final reservoir has to be modified to store less than 15 acre-feet.

Mr. Tyrrell stated that bypassing of reservoirs is not required if there is no downstream irrigation. If there is downstream irrigation, the bypass is designed to handle the average annual peak flow. Wyoming will accept a bypass large enough to satisfy downstream rights, or an administrative plan that would satisfy downstream rights.

The Wyoming State Engineer's Office has processed approximately 32,000 coal-bed natural gas applications for wells (approved and not-approved) as of the first of December 2004. So far in 2004, Wyoming has processed more than 4,100 applications, averaging about 400 applications a month. As of December 1, 2004, 2,332 surface-water reservoir permit applications have been received. These applications comprise a total of about 30,000 acre-feet of storage. About 800 of the applications have advanced to permit status and the remaining are still in review.

Mr. Compton reported that Montana has gotten a belated start in coal-bed natural gas development. Currently, Montana has permitted about 250 wells. Three permits are currently in review. One permit is receiving public review, and the other two permits are receiving Departmental review. The total number of permits for wells in Montana, either operating or planned, is approximately 450 to 475.

Montana DEQ is developing water-quality models for the Tongue River, Powder River, and Rosebud Creek. The model for the Tongue River is calibrated and is working well. A stakeholder committee oversees the development of the models. The stakeholders include Montana and Wyoming producers, environmental groups, Tongue River water users, and Tribal representatives. The Wyoming DEQ and Montana DEQ are discussing acceptable water-quality standards that would be applicable at the border. The quality of Tongue River water is good and there is some assimilative capacity to divide between Wyoming and Montana. Montana water-quality standards are regularly exceeded in the Powder River. Also, water-quality standards are exceeded in Rosebud Creek, but not as often as in the Powder River.

Mr. Berkas updated the Commission on USGS monitoring activities in the Tongue River basin. Eleven sites are monitored in the Tongue River network. Three sites are in Wyoming and eight sites are in Montana. Daily discharge is computed at all sites. Water-quality samples are collected about 20 times per year at mainstem sites and about 12 times per year at tributary sites. Continuous specific-conductance data are collected at all sites from April 1 through September 30 of each year. However, some specific-conductance data for 2004 were not obtained due to equipment problems. Equipment problems have been corrected and the equipment in place is expected to provide acceptable record for the remainder of the monitoring project. Most of the funding for these activities is appropriated to the USGS by Congress, although funding from other Federal agencies, State agencies, and Tribal governments supplements the Congressional funding to provide for complete or nearly complete operation of the monitoring network.

Ms. Lowry stated that Wyoming is completing the description of the water rights that are within the high-water line at Bighorn Lake and the boundary of the Bighorn National Recreation Area which surrounds Bighorn Lake. The parties have agreed to the water rights and the priority dates. Bighorn Lake was given a Wyoming reservoir water right, even though the dam is located in Montana. A letter has been sent to the Montana Area Office, Bureau of Reclamation, requesting they sign the letter that describes the elevation of Bighorn Lake. Mr. Stults requested a copy of the letter. Mr. Tyrrell stated that Wyoming has abandoned a good portion of the water rights within the high-water line.

Mr. Kerbel reported on the Montana adjudication program. November 8, 2004 was the deadline for filing objections for people having temporary preliminary decree issues on the middle Yellowstone River. Those objections will be received by the Water Courts and the Water Courts will respond. Most of the claims in that particular area were for stock water. Montana has finished examining all the claims in the Little Bighorn and Bighorn River basins, and is beginning to examine claims in the Tongue River basin. The Montana Environmental Quality Council is submitting a bill to the State legislature to speed up adjudication in the State of Montana. If the bill passes, the Department of Natural Resources and Conservation will have 10 years to examine the remaining water-rights claims in the State.

Ms. Lowry reported that Wyoming has been organized into seven basins for water-planning purposes. Assessments of six of those basins are complete. Assessment of the final basin (Platte River) is approximately 80-percent complete.

Mr. Kerbel reported on the Montana/Crow Compact. The newly elected chair for the Crow Tribe wishes to draft Federal legislation to get the compact ratified with Congress. The State has ratified the Compact but the Compact still has to get Federal approval, and then Tribal approval. The Tribe is working with the Federal government to reach settlement on damage claims regarding water rights.

Mr. Miller reported on the USGS National Water-Quality Assessment (NAWQA) study of the Yellowstone River basin, which is currently in the low-intensity phase. Due to cuts in the NAWQA program, sampling will continue only at the Yellowstone River at Sidney site. The next high-intensity phase of the program is currently scheduled to begin in 2007 and probably will not involve fixed-site monitoring. However, due to projected budget cuts in the NAWQA program, the high-intensity phase might not start until 2010.

Mr. Stults stated that 2004 flows in the Tongue River in Montana were deficient such that water rights senior to 1950 were not filled. Due to the continuing drought in the basin and the likelihood that average runoff will not fill depleted reservoirs, Montana and Wyoming should discuss an equitable plan so that users in both States get a fair share of the water in 2005 according to Article V of the Yellowstone River Compact. Montana felt that water rights in both States senior to 1950 should be filled before water rights junior to 1950 are filled. Montana specifically requested that Wyoming release post-1950 stored water so that pre-1950 users in Montana could satisfy their water rights. Wyoming indicated that this call would not be heeded as Wyoming believes there is no legal basis for making such deliveries.

Further discussion continued between the two States regarding terms of the Compact and interstate regulation of water rights. Montana posed the question concerning how water rights with priority dates prior to March 1945 were administered in Wyoming. Wyoming indicated that those rights were allowed to divert more than the one cubic foot per second per 70 acres during times of runoff events. Under a free river system, Wyoming appropriators are allowed to take more water when the system is full and no one is making a valid call for water. Wyoming streams are only administered when valid complaints are received and regulation is requested by an affected Wyoming appropriator. Mr. Stults and Mr. Tyrrell agreed to assign staff members (Mr. Moy and Ms. Lowry) to meet at a later date to discuss possible solutions for both States and report back to the Commission at the April 2005 meeting.

Montana asked if Wyoming had appointed a water commissioner for the mainstem of the Tongue River as requested at the June 2004 teleconference between Montana and Wyoming. Mr. Whitaker responded by saying that Wyoming does have two commissioners appointed to the Tongue River. However, Wyoming did not receive a valid call for regulation from a Wyoming appropriator on the mainstem Tongue River and therefore no one has been administering the Tongue River. Montana asked if a survey has been completed of the water rights on the mainstem of the Tongue River. Montana stated that it had appointed two commissioners for its portion of the mainstem Tongue River.

Discussion ensued regarding releases from Tongue River Reservoir. In summary, water is released sufficient to maintain water in the downstream river system to satisfy stock needs. Additional factors

include maintaining flow during periods of icing conditions and conveyance losses. Trying to support these needs, while simultaneously trying to store water during non-runoff periods (late summer, fall, and winter) when Wyoming is not diverting and storing water, has been impossible during the recent drought years. Montana feels the solution is to allocate the early season runoff according to their interpretation of the Compact to ensure that pre-1950 water rights on both sides of the border are satisfied. Wyoming questioned the accounting of Tongue River Reservoir releases toward the filling of the reservoir. The point was made that in Wyoming, if an appropriator chooses to release water from a reservoir during the normal storage period, that amount of water is accounted against the fill of that reservoir.

The Commissioners decided that April 7-8, 2005 would be the primary target for the next meeting, with April 25-26 as an alternate target. The meeting will be held in Sheridan, Wyoming and the Wyoming State Engineer's Office will make arrangements for the meeting.

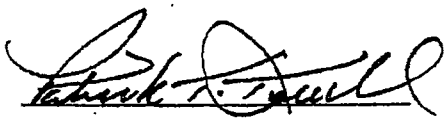
Mr. Kircher advised this would be his last meeting as Chairman. Mr. Horak will be the new Chairman. The Commissioners expressed their appreciation to Mr. Kircher for his service to the Commission.

Mr. Kircher called for items that could be removed from the agenda. The committee agreed to remove Yellowtail Claims, Wyoming Water Planning Program, and NAWQA from future agendas.

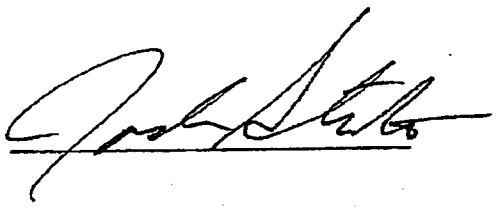
The committee agreed to add 'Post-1950 Water Rights Issues' to the next agenda.

Mr. Davis announced Mr. Berkas will assume most of his duties at future meetings.

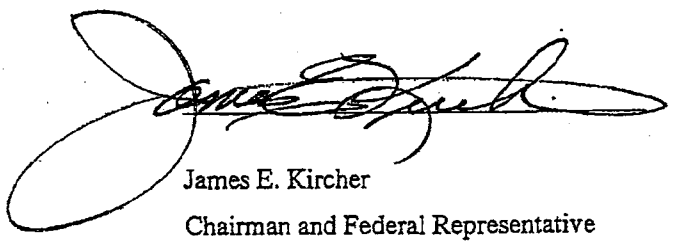
Mr. Tyrrell moved to adjourn the meeting. Mr. Stults seconded. The meeting adjourned at 4:30 p.m.



Patrick T. Tyrrell
Commissioner for Wyoming



Jack Stults
Commissioner for Montana



James E. Kircher
Chairman and Federal Representative

0370

CONTENTS

	Page
Letter to Governors of signatory States	II
General report	1
Cost of operation and budget	1
Streamflow-gaging station operation	1
Diversions	2
Reservoir contents	2
Reservoirs completed after January 1, 1950	2
Reservoirs existing on January 1, 1950	2
Annual summary of reservoir contents	2
Summary of discharge for Yellowstone River Compact Commission streamflow-gaging stations	3
Clarks Fork Yellowstone River at Edgar, Mont.	3
Little Bighorn River near Hardin, Mont.	5
Bighorn River above Tullock Creek, near Bighorn, Mont.	7
Tongue River at Miles City, Mont.	10
Powder River near Locate, Mont.	13
Monthly summary of contents for Yellowstone River Compact reservoirs completed after January 1, 1950	16
Boysen Reservoir, Wyo.	16
Anchor Reservoir, Wyo.	17
Bighorn Lake near St. Xavier, Mont.	18
Monthly summary of contents for Yellowstone River Compact reservoirs existing on January 1, 1950	19
Annual summary of contents for Yellowstone River Compact reservoirs or lakes	20
Rules and regulations for administration of the Yellowstone River Compact	21
Rules for the resolution of disputes over the administration of the Yellowstone River Compact	25
Rules for adjudicating water rights on interstate ditches	28
Claim form for interstate ditches	33
Conversion table	37

ILLUSTRATIONS

Plate 1.	Map showing locations of Yellowstone River Compact streamflow-gaging and reservoir-content stations	38
Figures 1-4.	Graphs showing comparison of discharge during water year 2004 with discharge during water year 2003 and with 10-year and 30-year average discharges for:	
	1. Clarks Fork Yellowstone River at Edgar, Mont.	4
	2. Bighorn River above Tullock Creek, near Bighorn, Mont.	9
	3. Tongue River at Miles City, Mont.	12
	4. Powder River near Locate, Mont.	15

0371

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 to the Commission 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 2004 was $70,000, in accordance with the budget adopted for the year.

The estimated budgets for Federal fiscal years 2005, 2006, 2007, and 2008, based on an approximate 5-percent increase per year, were tentatively adopted subject to the availability of appropriations. The budgets for the four fiscal years are summarized as follows:

October 1, 2004, to September 30, 2005 (fiscal year 2005):	
Estimate for continuation of existing streamflow-gaging programs	$71,900
October 1, 2005, to September 30, 2006 (fiscal year 2006):	
Estimate for continuation of existing streamflow-gaging programs	$76,000
October 1, 2006, to September 30, 2007 (fiscal year 2007):	
Estimate for continuation of existing streamflow-gaging programs	$80,000
October 1, 2007, to September 30, 2008 (fiscal year 2008):	
Estimate for continuation of existing streamflow-gaging programs	$84,000

Streamflow-gaging station operation

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

For measurement sites, horizontal coordinate information (latitude and longitude) is referenced to the North American Datum of 1927 (NAD 27). The gage datums and elevations listed in this report are referenced to the National Geodetic Vertical Datum of 1929 (NGVD 29).

During water year 2004, annual streamflow was below normal[1] at all reporting Yellowstone River Compact gaging stations.

Station number	Streamflow-gaging station	Percent of average streamflow[2]
06208500	Clarks Fork Yellowstone River at Edgar, Mont., minus diversions to White Horse Canal	74
06294500	Bighorn River above Tullock Creek, near Bighorn, Mont., minus Little Bighorn River near Hardin, Mont. Adjusted for change in contents in Bighorn Lake	38
06308500	Tongue River at Miles City, Mont.	20
06326500	Powder River near Locate, Mont.	14

[1]The "normal" range is 80 to 120 percent of average.
[2]Average is based on period of record at station.

0372

MT v. WY/M.T.D. App.
504 (WY)

Tabulation of water-discharge records for water year 2004 and graphical comparisons of discharge during water year 2004 with discharge during water year 2003 and with 10-year and 30-year average discharges are provided in the section "Summary of discharge for Yellowstone River Compact Commission streamflow-gaging stations."

Diversions

No diversions were regulated by the Commission during water year 2004.

Reservoir contents

Reservoirs completed after January 1, 1950

Boysen Reservoir, located on the Wind River and operated by the Bureau of Reclamation, began the water year with 311,900 acre-feet in storage and ended the water year with 475,100 acre-feet. Anchor Reservoir began the water year with 345 acre-feet in storage and ended the water year with 429 acre-feet. Bighorn Lake, a Bureau of Reclamation storage project on the Bighorn River that is the largest in the basin, contained 769,900 acre-feet at the beginning of the water year and 694,300 acre-feet at the end of the water year. Daily contents ranged from 634,300 acre-feet on May 8, 2004 to 799,100 acre-feet on November 13, 2003. Month-end and year-end contents and a description of these reservoirs are given in the section "Monthly summary of contents for Yellowstone River Compact reservoirs completed after January 1, 1950."

Reservoirs existing on January 1, 1950

As a matter of record and general information, month-end contents data are given later in the report for four reservoirs in existence upstream from the points of measurement on January 1, 1950. The reservoirs are Bull Lake, Pilot Butte Reservoir, Buffalo Bill Reservoir, and Tongue River Reservoir. These data are pertinent to allocation under Article V, Section C, Item 3 of the Compact.

The storage capacity of Buffalo Bill Reservoir was increased in 1992 from 456,600 acre-feet to 644,540 acre-feet (listed as 646,565 acre-feet by Bureau of Reclamation). The storage capacity of Tongue River Reservoir was increased in 1999 from 68,000 acre-feet to 79,070 acre-feet.

Annual summary of reservoir contents

Information on reservoir contents at the end of the current and previous water years for the 7 reservoirs listed above plus 23 additional reservoirs was compiled at the request of the Commission. The information is provided in the section "Annual summary of contents for Yellowstone River Compact reservoirs or lakes."

MT v. WY/M.T.D. App.
505 (WY)

0373

SUMMARY OF DISCHARGE FOR YELLOWSTONE RIVER COMPACT COMMISSION STREAMFLOW-GAGING STATIONS

06208500 Clarks Fork Yellowstone River at Edgar, Mont.

LOCATION.--Lat 45°27'58", long 108°50'35" (NAD 27), in $SE^1/_4SE^1/_4SE^1/_4$ 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.--2,022 mi^2.

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

REVISED RECORDS.--WSP 1509: 1924, 1932(M). WSP 1729: Drainage area. WDR MT-04-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,460 ft (NGVD 29). Prior to Aug. 31, 1953, nonrecording gage at same site and elevation.

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. U.S. Geological Survey satellite telemeter at station. **Discharge values given herein have the diversion of White Horse Canal subtracted.**

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	619	556	e310	e340	322	425	192	940	3,040	486	463
2	289	577	514	e290	e340	310	536	146	769	3,080	456	408
3	289	589	493	e270	e340	302	586	170	793	2,880	430	437
4	283	597	488	e250	e340	301	504	377	1,120	2,650	792	605
5	276	633	480	e240	e330	298	477	864	1,860	3,050	569	660
6	268	624	e420	e260	e340	297	547	1,440	2,710	2,680	539	572
7	263	613	e480	e310	e340	287	664	1,820	3,700	2,340	540	485
8	273	598	473	e350	e350	283	725	2,010	4,200	2,220	482	418
9	278	567	456	e340	e340	299	783	1,960	3,920	2,120	427	370
10	306	586	437	e340	e340	317	746	1,680	4,520	1,950	353	342
11	375	614	e380	e340	e310	320	651	1,490	6,360	1,800	311	339
12	404	589	e370	e340	e300	313	636	1,500	4,440	1,670	269	342
13	400	565	e420	e340	e320	320	612	1,300	3,420	1,540	225	362
14	417	557	454	e350	e330	328	659	1,080	2,790	1,430	191	377
15	458	561	472	e350	e400	329	736	831	2,500	1,310	156	456
16	462	558	e420	e350	e500	321	713	631	2,360	1,260	133	567
17	462	552	e370	e350	e600	315	642	560	2,230	1,200	127	556
18	456	539	e370	e340	e700	308	569	502	1,980	1,110	128	658
19	456	533	e380	e350	489	316	568	468	1,820	1,020	148	673
20	459	549	e390	e350	371	334	487	598	1,750	1,060	153	720
21	457	e540	e450	e350	346	382	374	569	1,770	1,040	148	861
22	436	e470	445	e350	320	369	308	939	1,720	1,040	183	909
23	438	e400	e410	e350	311	385	241	1,010	1,900	1,140	205	865
24	430	e520	e380	e360	318	440	162	1,030	2,390	1,050	220	813
25	435	539	e380	e330	325	526	100	923	2,760	914	243	806
26	450	551	e430	e300	324	552	76	796	3,120	805	420	791
27	445	553	e410	e280	320	495	49	677	3,220	702	1,180	764
28	482	563	e400	e280	323	425	43	656	3,110	680	951	769
29	539	538	e330	e300	338	385	246	931	2,900	662	814	738
30	619	569	e320	e330	---	350	298	1,200	2,840	594	699	707
31	727	---	e330	e350	---	355	---	1,080	---	550	553	---
TOTAL	12,598	16,863	13,108	10,000	10,645	10,884	14,163	29,430	79,912	48,587	12,531	17,833
MEAN	406	562	423	323	367	351	472	949	2,664	1,567	404	594
MAX	727	633	556	360	700	552	783	2,010	6,360	3,080	1,180	909
MIN	263	400	320	240	300	283	43	146	769	550	127	339
AC-FT	24,990	33,450	26,000	19,840	21,110	21,590	28,090	58,370	158,500	96,370	24,860	35,370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2004, BY WATER YEAR (WY)*

MEAN	530	501	409	351	350	365	558	2,092	4,053	2,017	608	476
MAX	1,010	777	593	512	584	554	1,398	5,578	7,256	4,771	1,541	1,395
(WY)	(1942)	(1928)	(1996)	(1997)	(1963)	(1943)	(1943)	(1928)	(1996)	(1943)	(1951)	(1941)
MIN	298	310	217	200	180	220	123	757	1,768	290	49.5	156
(WY)	(1956)	(1936)	(1937)	(1922)	(1922)	(1924)	(1961)	(1968)	(1987)	(1988)	(1988)	(1988)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1921 - 2004*	
ANNUAL TOTAL	352,592		279,426			
ANNUAL MEAN	966		763		1,027	
HIGHEST ANNUAL MEAN					1,623	1997
LOWEST ANNUAL MEAN					644	2001
HIGHEST DAILY MEAN	8,760	Jun 1	6,390	Jun 11	10,600	Jun 2, 1936
LOWEST DAILY MEAN	116	Aug 28	43	Apr 28	37	May 11, 1961
ANNUAL SEVEN-DAY MINIMUM	125	Aug 23	144	Apr 23	43	Apr 18, 1961
MAXIMUM PEAK FLOW			6,950	Jun 11	11,100	Jun 12, 1997
MAXIMUM PEAK STAGE			7.59	Jun 11	9.30	Jun 12, 1997
INSTANTANEOUS LOW FLOW					36	Apr 22, 1961
ANNUAL RUNOFF (AC-FT)	699,400		554,200		744,000	
10 PERCENT EXCEEDS	2,500		1,820		2,820	
50 PERCENT EXCEEDS	450		472		469	
90 PERCENT EXCEEDS	259		282		271	

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

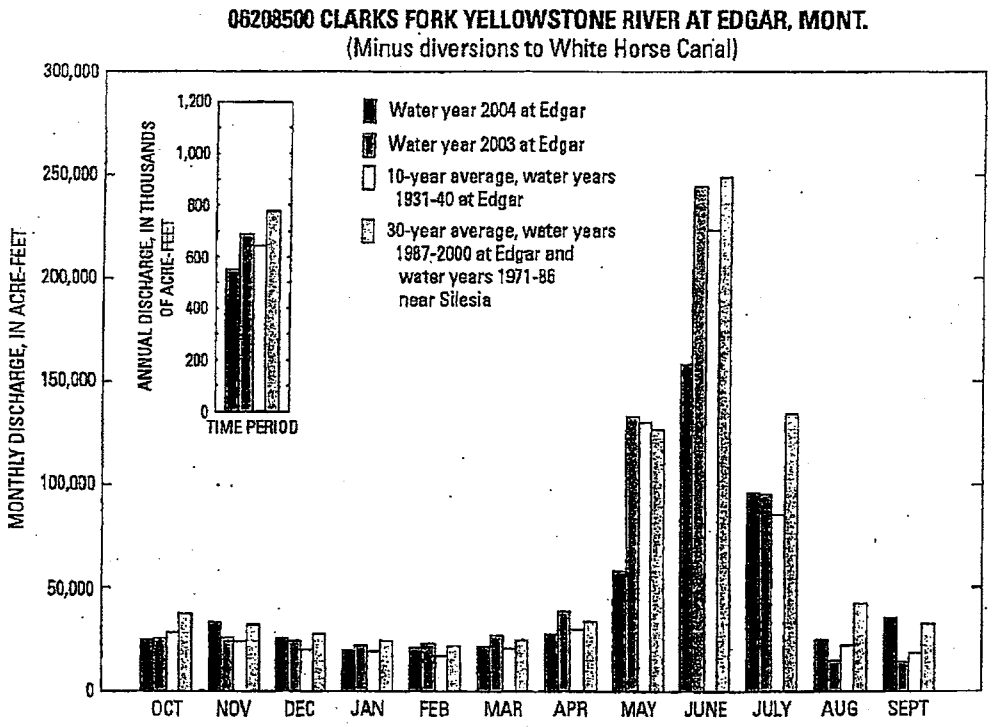


Figure 1. Comparison of discharge of the Clarks Fork Yellowstone River during water year 2004 with discharge during water year 2003 and with 10-year and 30-year average discharges.

0375

06294000 Little Bighorn River near Hardin, Mont.

LOCATION.--Lat 45°44'09", long 107°33'24" (NAD 27), in SE¼NE¼NE¼ sec.19, T.1 S., R.34 E., Big Horn County, Hydrologic Unit 10080016, on left bank 50 ft downstream from bridge on Sarpy Road, 0.2 mi upstream from terminal wasteway of Agency Canal, 0.6 mi upstream from mouth, and 2.3 mi east of Hardin.

DRAINAGE AREA.--1,294 mi^2.

PERIOD OF RECORD.--June 1953 to current year.

REVISED RECORDS.--WDR MT-86-1: 1978.

GAGE.--Water-stage recorder. Elevation of gage is 2,882.29 ft (NGVD 29) (levels by U.S. Army Corps of Engineers). Prior to Oct. 7, 1953, nonrecording gage at site 0.4 mi downstream. Oct. 7, 1953 to May 6, 1963, water-stage recorder at site 0.3 mi downstream. May 6, 1963 to Nov. 6, 1963, nonrecording gage at site 0.4 mi downstream. All at different elevations. Nov. 7, 1963 to Aug. 15, 1976, water-stage recorder at site 35 ft downstream at present elevation. Aug. 15, 1976 to Sept. 30, 1979, water-stage recorders were located on each bank downstream from Sarpy Road bridge and were used depending on control conditions.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow partly regulated by Willow Creek Reservoir (capacity 23,000 acre-ft). Diversions for irrigation of 20,980 acres upstream from station. Discharge values given herein include flow of terminal wasteway of Agency Canal. U. S. Geological Survey satellite telemeter at station. Unpublished records of instantaneous water temperature and specific conductance available in files of the District office.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	e100	e130	e100	e100	289	108	37	109	79	59	51
2	87	e100	e140	e90	e100	266	107	43	109	70	51	49
3	84	e95	e140	e80	e110	214	108	43	82	64	48	51
4	88	e95	e130	e80	e120	191	110	36	66	69	55	56
5	90	e90	e110	e70	e120	183	110	34	59	80	51	53
6	92	e100	e130	e60	e120	169	109	33	67	149	61	67
7	98	e100	e130	e70	e120	174	109	30	78	177	60	76
8	100	e100	e130	e100	e130	189	110	49	76	162	62	77
9	97	e110	e120	e90	e120	168	113	79	86	125	57	68
10	97	e120	e110	e90	e110	191	114	108	90	98	53	69
11	98	e130	e100	e90	e100	197	117	126	154	83	52	71
12	93	e130	e100	e90	e110	198	112	130	195	67	53	69
13	97	e120	e120	e90	e120	185	110	146	238	56	52	68
14	97	e120	e130	e90	e130	170	109	149	220	42	52	71
15	113	e120	e110	e90	e140	161	108	136	228	37	49	77
16	108	e130	e110	e90	e140	160	107	119	211	28	43	82
17	107	e130	e110	e100	e140	150	107	109	190	30	34	84
18	108	136	e110	e100	e140	149	105	86	176	48	40	83
19	107	132	e110	e100	e140	153	96	90	174	52	49	80
20	107	e130	e110	e100	e150	160	91	84	168	40	46	99
21	104	e110	e110	e100	e170	e150	95	100	164	34	49	122
22	103	e90	e110	e110	e200	152	99	101	165	32	41	140
23	105	e80	e120	e120	e250	134	94	155	161	26	42	142
24	105	e90	e120	e130	e300	126	89	136	138	25	42	125
25	101	e100	e120	e100	e350	122	83	124	118	49	43	105
26	103	e110	e120	e90	403	122	74	118	121	61	40	87
27	108	e120	e110	e80	395	123	67	114	117	44	40	80
28	111	e130	e100	e80	387	120	67	106	105	39	50	74
29	123	e150	e100	e90	342	119	69	95	88	41	50	69
30	e120	e130	e100	e100	—	116	38	95	77	46	55	75
31	e100	—	e100	e100	—	112	—	104	—	58	56	—
TOTAL	3,128	3,398	3,590	2,870	5,257	5,113	2,935	2,915	4,030	2,011	1,535	2,420
MEAN	101	113	116	92.6	181	165	97.8	94.0	134	64.9	49.5	80.7
MAX	123	150	140	130	403	289	117	155	238	177	62	142
MIN	77	80	100	60	100	112	38	30	59	25	34	49
AC-FT	6,200	6,740	7,120	5,690	10,430	10,140	5,820	5,780	7,990	3,990	3,040	4,800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2004, BY WATER YEAR (WY)

MEAN	153	152	134	139	200	309	309	601	807	260	117	126
MAX	276	248	223	366	610	987	748	2,852	1,981	1,333	382	267
(WY)	(1979)	(1979)	(1979)	(1975)	(1971)	(1972)	(1965)	(1978)	(1968)	(1975)	(1975)	(1978)
MIN	60.7	82.6	65.6	71.6	70.3	71.1	54.8	71.9	117	8.50	2.46	19.1
(WY)	(2002)	(2002)	(2002)	(1988)	(1989)	(2002)	(1961)	(1961)	(1961)	(1961)	(1961)	(1960)

0376

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1954 - 2004	
ANNUAL TOTAL	67,087		39,202			
ANNUAL MEAN	184		107		275	
HIGHEST ANNUAL MEAN					676	1975
LOWEST ANNUAL MEAN					70.4	1961
HIGHEST DAILY MEAN	1,220	Jun 1	403	Feb 26	15,800	May 20, 1978
LOWEST DAILY MEAN	29	Jul 31	a25	Jul 24	0.30	Aug 5, 1961
ANNUAL SEVEN-DAY MINIMUM	32	Jul 29	37	May 1	0.40	Aug 3, 1961
MAXIMUM PEAK FLOW			b427	Feb 26	d22,600	May 19, 1978
MAXIMUM PEAK STAGE			c4.86	Jan 19	f11.78	Mar 20, 1960
INSTANTANEOUS LOW FLOW					g0.20	Aug 7, 1961
ANNUAL RUNOFF (AC-FT)	133,100		77,760		199,500	
10 PERCENT EXCEEDS	391		161		598	
50 PERCENT EXCEEDS	108		100		160	
90 PERCENT EXCEEDS	70		49		74	

a--Includes Agency Canal.
b--Gage height, 3.30 ft.
c--Backwater from ice.
d--Gage height, 11.20 ft.
e--Estimated.
f--Site and elevation then in use.
g--Result of discharge measurement.

06294500 Bighorn River above Tullock Creek, near Bighorn, Mont.

LOCATION.--Lat 46°07'29", long 107°28'06" (NAD 27), in SE$^1/_4$SE$^1/_4$NE$^1/_4$ sec.3, T.4 N., R.34 E., Treasure County, Hydrologic Unit 10080015, on right bank 1.9 mi upstream from Tullock Creek, 3.6 mi southwest of Bighorn, 4.5 mi southeast of Custer, and at river mile 3.0.

DRAINAGE AREA.--22,414 mi^2. Area at site used Oct. 7, 1955, to Sept. 30, 1981, 22,885 mi^2.

PERIOD OF RECORD.--October 1981 to current year. Previously published as "06294700 Bighorn River at Bighorn, MT" 1956-81, and as "near Custer" 1945-55. Flows are equivalent at all sites.

GAGE.--Water-stage recorder. Elevation of gage is 2,700 ft (NGVD 29). May 11, 1945 to Dec. 6, 1945, nonrecording gage, and Dec. 7, 1945 to Oct. 6, 1955, water-stage recorder 1.7 mi upstream at different elevation. Oct. 7, 1955 to Sept. 30, 1981, at site 2.3 mi downstream at different elevation.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Flow regulated by Bighorn Lake beginning November 1965 (usable capacity, 1,312,000 acre-ft). Major regulation prior to November 1965 by 14 reservoirs in Wyoming and 1 in Montana with combined usable capacity of about 1,400,000 acre-ft. Diversion for irrigation of about 445,200 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,160	1,340	1,600	e1,600	e1,500	1,850	1,700	1,450	1,410	1,590	1,640	1,060
2	1,150	1,330	1,600	e1,550	e1,500	1,810	1,700	1,240	1,350	1,570	1,690	1,150
3	1,140	1,330	1,620	e1,500	e1,500	1,770	1,700	1,190	1,330	1,380	1,670	1,240
4	1,140	1,340	1,720	e1,400	e1,500	1,760	1,700	1,140	1,310	1,390	1,710	1,350
5	1,120	1,320	1,710	e1,300	e1,500	1,740	1,690	1,110	1,360	1,430	1,680	1,370
6	1,110	1,280	1,720	e1,400	e1,500	1,760	1,680	1,090	1,350	1,590	1,670	1,220
7	1,090	1,290	1,760	e1,500	e1,500	1,740	1,660	1,100	1,300	1,650	1,650	1,200
8	1,090	1,300	1,800	e1,550	e1,600	1,800	1,700	1,130	1,200	1,590	1,590	1,270
9	1,030	1,340	1,810	e1,600	e1,500	1,790	1,700	1,160	1,150	1,500	1,580	1,400
10	989	1,370	1,820	e1,600	e1,500	1,880	1,690	1,220	1,220	1,460	1,520	1,380
11	976	1,390	1,770	e1,650	e1,450	1,850	1,700	1,280	2,420	1,420	1,500	1,380
12	939	1,400	1,600	e1,700	e1,400	1,850	1,690	1,350	2,420	1,340	1,490	1,380
13	923	1,380	1,620	e1,700	e1,400	1,810	1,550	1,430	2,180	1,210	1,490	1,400
14	930	1,390	1,660	e1,750	e1,400	1,780	1,650	1,440	2,180	1,250	1,480	1,440
15	938	1,420	1,710	e1,800	e1,450	1,770	1,640	1,420	2,070	1,270	1,460	1,440
16	983	1,410	1,710	e1,850	e1,500	1,740	1,580	1,400	2,000	1,240	1,460	1,480
17	938	1,420	1,740	e1,850	e1,500	1,730	1,520	1,470	1,990	1,260	1,400	1,530
18	959	1,430	1,750	e1,900	e1,500	1,740	1,540	1,470	1,940	1,340	1,370	1,500
19	943	1,440	1,760	e1,950	e1,500	1,730	1,520	1,550	1,920	1,390	1,350	1,510
20	1,490	1,470	1,800	e1,950	e1,500	1,730	1,390	1,500	1,920	1,460	1,370	1,540
21	1,430	1,500	e1,800	e2,000	e1,500	1,740	1,420	1,500	1,920	1,460	1,320	1,630
22	1,230	e1,450	e1,800	e2,050	e1,500	1,740	1,470	1,620	1,840	1,480	1,300	1,490
23	e1,150	e1,350	e1,800	e2,100	1,790	1,720	1,400	1,790	1,890	1,510	1,260	1,470
24	1,210	e1,400	e1,800	e2,150	1,750	1,710	1,270	1,840	1,830	1,530	1,140	1,430
25	1,240	1,450	e1,800	e2,150	1,740	1,700	1,380	1,810	1,730	1,550	1,090	1,390
26	1,260	1,490	e1,800	e2,100	1,750	1,700	1,440	1,740	1,730	1,560	1,120	1,350
27	1,270	1,510	e1,800	e2,000	1,820	1,730	1,460	1,670	1,740	1,530	1,130	1,320
28	1,290	1,530	e1,750	e1,400	1,840	1,700	1,390	1,530	1,710	1,550	1,140	1,310
29	1,360	1,560	e1,750	e1,500	1,920	1,690	1,490	1,470	1,650	1,610	1,160	1,300
30	1,340	1,590	e1,700	e1,500	—	1,700	1,480	1,440	1,580	1,600	1,140	1,260
31	1,340	—	e1,650	e1,500	—	1,710	—	1,440	—	1,590	1,090	—
TOTAL	35,158	42,220	53,730	53,550	45,310	54,470	46,900	43,990	51,640	45,300	43,660	41,190
MEAN	1,134	1,407	1,733	1,727	1,562	1,757	1,563	1,419	1,721	1,461	1,408	1,373
MAX	1,490	1,590	1,820	2,150	1,920	1,880	1,700	1,840	2,420	1,650	1,710	1,630
MIN	923	1,280	1,600	1,300	1,400	1,690	1,270	1,090	1,150	1,210	1,090	1,060
AC-FT	69,740	83,740	106,600	106,200	89,870	108,000	93,030	87,250	102,400	89,850	86,600	81,700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

MEAN	3,180	3,250	3,103	2,993	3,156	3,644	3,497	4,315	6,822	5,228	2,816	2,807
MAX	5,546	5,599	4,907	5,478	5,314	6,580	7,881	9,102	15,180	19,090	6,972	4,952
(WY)	(1972)	(1974)	(1968)	(1968)	(1971)	(1972)	(1997)	(1947)	(1948)	(1967)	(1997)	(1973)
MIN	1,103	1,223	1,280	1,382	1,544	908	1,063	1,304	1,050	707	868	1,009
(WY)	(2003)	(1978)	(1961)	(1961)	(2003)	(1966)	(1966)	(1966)	(1966)	(1960)	(1961)	(1966)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	554,328		557,118			
ANNUAL MEAN	1,519		1,522		3,717	
HIGHEST ANNUAL MEAN					5,594	1997
LOWEST ANNUAL MEAN					1,474	2003
HIGHEST DAILY MEAN	2,450	Jun 1	2,420	Jun 11	50,000	May 20, 1978
LOWEST DAILY MEAN	923	Oct 13	923	Oct 13	400	Apr 4, 1967
ANNUAL SEVEN-DAY MINIMUM	944	Oct 12	944	Oct 12	528	May 6, 1961
MAXIMUM PEAK FLOW			a2,910	Jun 11	d59,200	May 20, 1978
MAXIMUM PEAK STAGE			b6.14	Jan 9	14.15	May 20, 1978
INSTANTANEOUS LOW FLOW			c915	Oct 13	f275	Nov 15, 1959
ANNUAL RUNOFF (AC-FT)	1,100,000		1,105,000		2,693,000	
10 PERCENT EXCEEDS	1,800		1,810		6,220	
50 PERCENT EXCEEDS	1,490		1,500		3,130	
90 PERCENT EXCEEDS	1,280		1,160		1,620	

SUMMARY STATISTICS	WATER YEARS 1946 - 1961 *		WATER YEARS 1957 - 2004**	
ANNUAL MEAN	3,358		3,745	
HIGHEST ANNUAL MEAN	5,501	1947	5,594	1997
LOWEST ANNUAL MEAN	1,623	1961	1,474	2003
HIGHEST DAILY MEAN	25,700	Jun 23, 1947	50,000	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
MAXIMUM PEAK FLOW	g26,200	Jun 24, 1947	d59,200	May 20, 1978
MAXIMUM PEAK STAGE	10.65	May 20, 1947	14.15	May 20, 1978
INSTANTANEOUS LOW FLOW	f275	Nov 15, 1959		
ANNUAL RUNOFF (AC-FT)	2,578,000		2,713,000	
10 PERCENT EXCEEDS	6,200		6,170	
50 PERCENT EXCEEDS	2,810		3,320	
90 PERCENT EXCEEDS	1,500		1,710	

*Prior to construction of Yellowtail Dam.
**--After completion of Yellowtail Dam.
a--Gage height, 1.92 ft.
b--Backwater from ice.
c--Gage height, 0.12 ft.
d--Gage height, 14.50 ft, at different site and datum.
e--Estimated.
f--About, result of freezeup.
g--Gage height, 8.79 ft, at different site and datum.

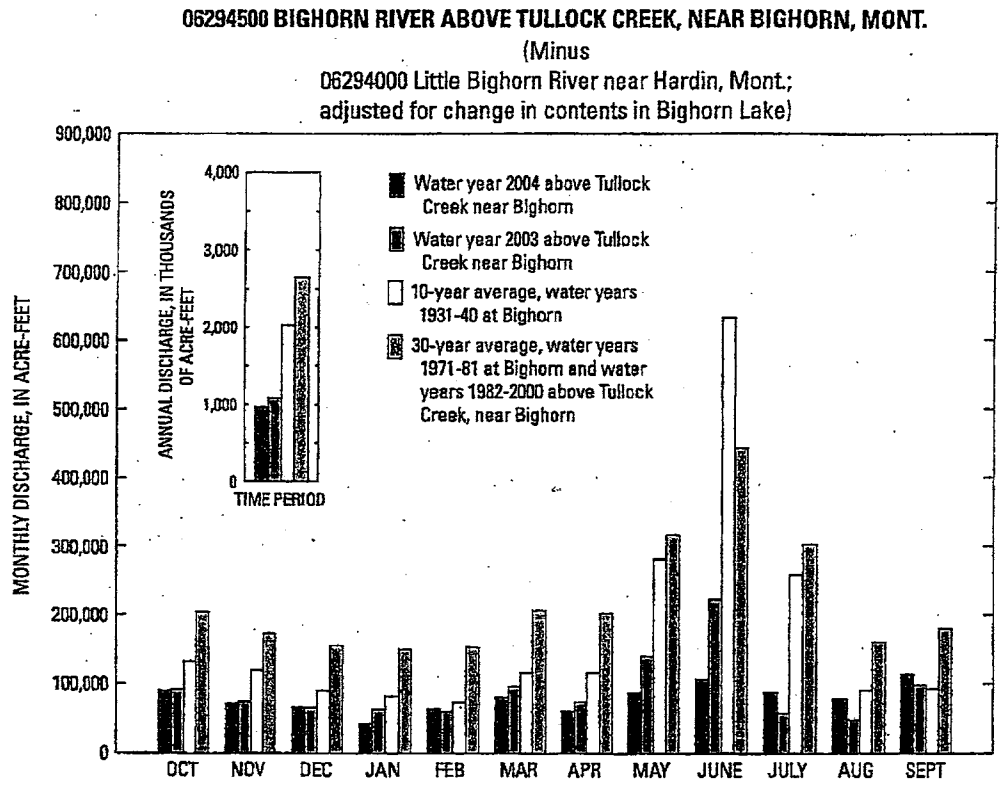


Figure 2. Comparison of discharge of the Bighorn River during water year 2004 with discharge during water year 2003 and with 10-year and 30-year average discharges.

0380

06308500 Tongue River at Miles City, Mont.

LOCATION.--Lat 46°23'05", long 105°50'41" (NAD 27), in $SE^1/_4SE^1/_4SE^1/_4$ sec. 4, T.7 N., R.47 E., Custer County, Hydrologic Unit 10090102, on right bank 1.5 mi south of Miles City and at river mile 2.3.

DRAINAGE AREA.--5,397 mi^2. Area at site used prior to Oct. 4, 1995, 5,379 mi^2.

PERIOD OF RECORD.--April 1938 to April 1942, April 1946 to current year. Published as "near Miles City" April 1938 to April 1942. Not equivalent to records published as "near Miles City" May 1929 to October 1932. April 1946 to Oct. 4, 1995, at site 2.5 mi upstream from present site. Flows at present site are equivalent with flows at site operated from 1946. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,360 ft (NGVD 29). April 1938 to April 1942, nonrecording gage at site 8 mi upstream from present site at different elevation. April 1946 to Sept. 30, 1963, at elevation 1.00 ft higher than present site. Oct. 4, 1995, gage was moved 2.5 miles downstream.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Flow regulation by Tongue River Reservoir (station 0630700) with capacity of 79,100 acre-feet, and many small reservoirs in Wyoming with combined capacity about 15,000 acre-ft. Diversions for irrigation of about 100,800 acres upstream from station. U. S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	e70	e110	e90	e70	e100	221	11	112	53	50	17
2	63	e70	e120	e80	e70	e90	200	11	97	32	49	16
3	53	e60	e120	e70	e70	e90	188	8.5	91	21	55	18
4	48	e50	e120	e60	e70	e100	208	8.7	65	24	36	18
5	44	e40	e120	e50	e70	e100	226	8.9	39	34	33	18
6	39	e50	e120	e60	e70	e110	227	8.3	23	213	27	17
7	37	e60	e120	e70	e70	e150	221	8.3	19	120	25	15
8	39	e60	e120	e80	e80	e200	208	7.6	16	76	49	16
9	43	e70	e110	e90	e70	e250	180	9.1	16	49	54	15
10	43	e80	e100	e100	e70	e500	162	10	15	36	39	14
11	48	e80	e110	e100	e70	e300	162	12	122	23	29	14
12	51	e80	e110	e100	e70	e250	153	10	246	19	27	15
13	46	e80	e110	e100	e70	225	152	9.7	120	18	27	19
14	43	e80	e100	e90	e65	176	134	8.4	106	24	26	40
15	47	e80	e90	e90	e60	168	117	8.0	108	26	23	54
16	54	e80	e90	e90	e70	166	113	9.5	88	22	20	49
17	69	e80	e100	e100	e80	161	109	13	90	16	26	49
18	71	e90	e100	e100	e90	166	113	14	83	13	29	48
19	71	e90	e100	e100	e90	170	119	20	92	13	29	51
20	71	e70	e100	e100	e100	151	120	40	103	14	23	56
21	74	e50	e100	e100	e100	138	130	47	103	16	21	57
22	72	e30	e100	e100	e90	143	135	50	97	19	21	72
23	69	e35	e100	e110	e90	176	125	71	99	20	21	80
24	60	e40	e90	e100	e90	207	109	298	98	16	23	79
25	51	e50	e100	e90	e100	210	89	232	53	13	27	79
26	69	e60	e100	e70	e100	213	64	165	33	14	26	74
27	80	e70	e110	e60	e100	207	18	140	21	35	24	74
28	e90	e80	e110	e60	e100	199	10	109	18	50	22	75
29	e100	e90	e100	e60	e100	193	9.4	92	21	49	21	77
30	e80	e100	e100	e60	—	197	11	90	34	50	19	75
31	e70	—	e100	e70	—	216	—	97	—	52	18	—
TOTAL	1,853	2,025	3,280	2,600	2,345	5,722	4,033.4	1,627.0	2,228	1,180	919	1,301
MEAN	59.8	67.5	106	83.9	80.9	185	134	52.5	74.3	38.1	29.6	43.4
MAX	100	100	120	110	100	500	227	298	246	213	55	80
MIN	37	30	90	50	60	90	9.4	7.6	15	13	18	14
AC-FT	3,680	4,020	6,510	5,160	4,650	11,350	8,000	3,230	4,420	2,340	1,820	2,580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)*

MEAN	241	251	189	193	275	528	432	677	1,244	457	178	196
MAX	694	585	423	529	1,794	1,783	1,693	2,983	3,825	2,207	700	599
(WY)	(1972)	(1942)	(1950)	(1999)	(1971)	(1971)	(1965)	(1978)	(1978)	(1975)	(1975)	(1968)
MIN	10.3	60.9	68.0	76.9	74.5	74.5	12.5	29.2	41.9	12.6	6.08	2.40
(WY)	(1961)	(1989)	(1990)	(2002)	(2003)	(2002)	(1961)	(1961)	(2002)	(1960)	(1949)	(1938)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004*	
ANNUAL TOTAL	95,263		29,113.4			
ANNUAL MEAN	261		79.5		402	
HIGHEST ANNUAL MEAN					986	1978
LOWEST ANNUAL MEAN					57.2	1961
HIGHEST DAILY MEAN	4,000	Mar 15	500	Mar 10	9,290	Jun 15, 1962
LOWEST DAILY MEAN	30	Nov 22	7.6	May 8	0.00	Jul 9, 1940
ANNUAL SEVEN-DAY MINIMUM	42	Oct 4	8.5	May 3	0.00	Jul 9, 1940
MAXIMUM PEAK FLOW			unknown		b13,300	Jun 15, 1962
MAXIMUM PEAK STAGE			a5.07	Mar 10	b13.27	Mar 19, 1960
INSTANTANEOUS LOW FLOW					0.00	Jul 9, 1940
ANNUAL RUNOFF (AC-FT)	189,000		57,750		291,000	
10 PERCENT EXCEEDS	711		161		900	
50 PERCENT EXCEEDS	110		70		220	
90 PERCENT EXCEEDS	69		16		65	

*--During period of record (April 1938 to April 1942, April 1946 to current year).
a--About, backwater from ice.
b--At previous site and elevation.
e--Estimated.

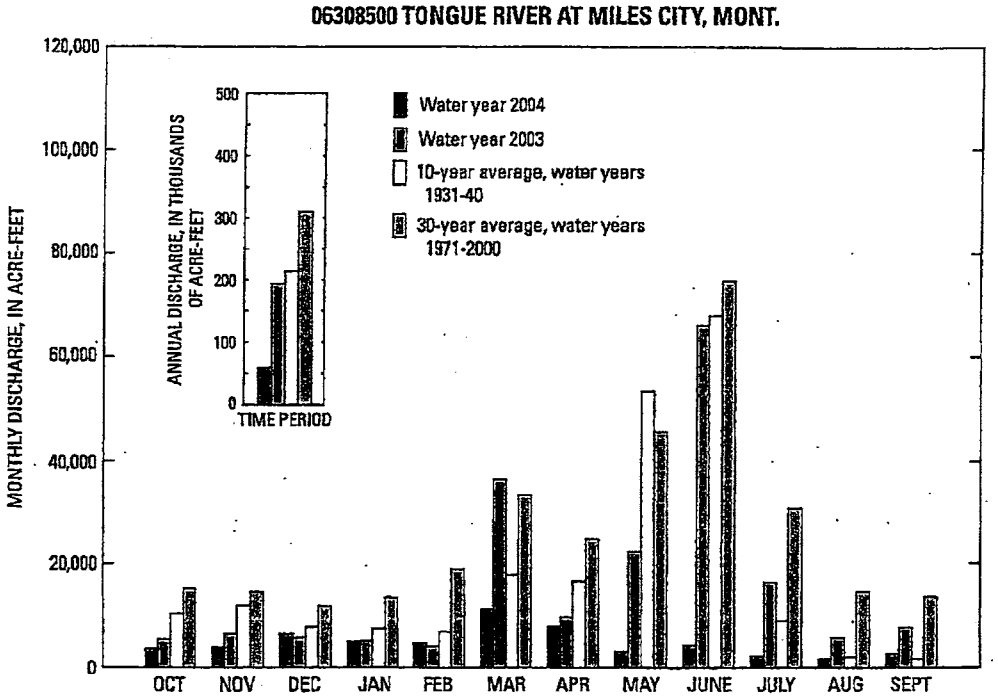


Figure 3. Comparison of discharge of the Tongue River during water year 2004 with discharge during water year 2003 and with 10-year and 30-year average discharges.

0383

06326500 Powder River near Locate, Mont.

LOCATION.--Lat 46°25'48", long 105°18'34" (NAD 27), in SW¼SW¼SE¼ sec. 23, T.8 N., R.51 E., Custer County, Hydrologic Unit 10090209, on left bank at downstream side of bridge on U.S. Highway 12, 0.1 mi west of Locate, and 25 mi east of Miles City, and at river mile 29.4.

DRAINAGE AREA.--13,068 mi^2.

PERIOD OF RECORD.--March 1938 to current year.

REVISED RECORDS.--WSP 926: 1939. WSP 1309: 1938-39 (M). WSP 1729: Drainage area. WDR MT-04-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,384.79 ft (NGVD 29) (levels by U.S. Army Corps of Engineers). Prior to July 11, 1947, nonrecording gage at bridge 1.5 mi upstream, and July 11, 1947 to Sept. 30, 1965, water-stage recorder at site near upstream bridge at different elevation. Oct. 1, 1965 to Oct. 4, 1966, nonrecording gage, and Oct. 5, 1966 to Mar. 21, 1978, water-stage recorder at present site and elevation. Mar. 22, 1978 to Apr. 23, 1981, water-stage recorder 1.5 mi upstream at different elevation, Apr. 24 to Aug. 20, 1981, water-stage recorder at present site and elevation, and Aug. 21, 1981 to Sept. 30, 1981, water-stage recorder 1.5 mi upstream at different elevation. Oct. 1, 1981 to Apr. 5, 1995 water-stage recorder at site 1.5 miles downstream at different elevation. Apr. 7, 1995 to present, water-stage recorders located on each bank and used depending on control conditions.

REMARKS.--Water-discharge records fair except those for estimated daily discharges, which are poor. Some regulation by three reservoirs in Wyoming with combined usable capacity of 36,800 acre-ft. Diversions for irrigation of about 101,800 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	81	e80	e80	e60	e70	262	59	65	20	48	2.4
2	75	87	e90	e70	e60	e70	240	63	64	14	66	2.0
3	75	79	e100	e60	e60	e70	271	51	55	10	43	2.8
4	76	67	e90	e50	e60	e75	267	51	42	9.7	218	3.4
5	75	e40	e80	e40	e55	e80	259	34	39	10	229	3.2
6	75	e45	e100	e45	e55	e80	247	30	26	11	133	2.7
7	71	e45	e110	e50	e55	e80	233	29	24	11	86	2.4
8	64	e50	e120	e60	e55	e80	234	27	28	19	69	2.4
9	61	e55	e120	e70	e60	e80	204	20	25	23	69	2.7
10	60	e60	e110	e70	e70	e90	183	17	24	20	58	2.4
11	49	e60	e100	e70	e65	e100	173	18	35	20	39	2.4
12	47	e60	e110	e70	e65	e200	182	17	50	19	28	4.7
13	46	e60	e120	e70	e60	e300	193	21	42	17	21	12
14	47	e60	e120	e70	e65	469	184	20	31	16	14	33
15	47	e55	e110	e70	e65	605	168	18	23	11	8.3	53
16	48	e60	e100	e70	e70	704	158	20	17	8.1	5.3	45
17	48	e65	e110	e70	e70	597	145	37	22	6.6	4.2	29
18	53	e70	e100	e70	e75	529	154	48	12	5.2	3.4	22
19	51	e70	e100	e70	e75	e500	156	57	14	4.1	2.7	19
20	47	e65	e100	e70	e80	e500	139	67	16	4.2	2.5	19
21	47	e60	e100	e70	e75	e450	107	104	15	3.5	3.2	20
22	49	e50	e100	e70	e75	e450	102	70	15	2.8	4.2	17
23	44	e45	e100	e80	e70	e400	96	64	13	2.6	4.5	15
24	37	e50	e100	e75	e75	354	82	118	13	2.6	4.2	14
25	44	e60	e100	e70	e75	350	75	152	13	2.3	3.3	14
26	42	e70	e100	e60	e80	323	98	76	12	2.1	3.1	16
27	38	e80	e100	e50	e80	289	95	78	12	2.0	2.9	e17
28	45	e90	e90	e50	e80	263	77	70	10	3.5	2.7	e17
29	88	e100	e80	e50	e75	271	78	56	9.6	3.1	2.4	e13
30	87	e90	e80	e60	---	285	65	51	11	3.3	2.5	e30
31	71	---	e80	e60	---	277	---	43	---	2.9	2.7	---
TOTAL	1,783	1,929	3,100	1,990	1,965	8,991	4,927	1,586	777.6	289.6	1,183.1	438.5
MEAN	57.5	64.3	100	64.2	67.8	290	164	51.2	25.9	9.34	38.2	14.6
MAX	88	100	120	80	80	704	271	152	65	23	229	53
MIN	37	40	80	40	55	70	65	17	9.6	2.0	2.4	2.0
AC-FT	3,540	3,830	6,150	3,950	3,900	17,830	9,770	3,150	1,540	574	2,350	870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	248	217	149	142	425	1,215	732	1,126	1,577	556	210	167
MAX	921	790	417	476	3,850	4,627	3,062	5,970	8,045	2,015	1,096	898
(WY)	(1941)	(1999)	(1942)	(1981)	(1943)	(1972)	(1965)	(1978)	(1944)	(1993)	(1941)	(1941)
MIN	1.77	12.5	12.5	4.53	2.82	80.2	109	51.2	25.9	9.34	1.30	0.19
(WY)	(1961)	(1961)	(1961)	(1950)	(1950)	(1950)	(1961)	(2004)	(2004)	(2004)	(1988)	(1960)

0384

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL TOTAL	93,584.09		28,959.8			
ANNUAL MEAN	256		79.1		564	
HIGHEST ANNUAL MEAN					1,622	1944
LOWEST ANNUAL MEAN					79.1	2004
HIGHEST DAILY MEAN	2,000	Mar 18	704	Mar 16	26,000	Feb 19, 1943
LOWEST DAILY MEAN	0.10	Sep 8	2.0	Jul 27	0.00	Jan 16, 1950
ANNUAL SEVEN-DAY MINIMUM	0.17	Sep 2	2.5	Aug 28	0.00	Jan 16, 1950
MAXIMUM PEAK FLOW			a875	Mar 15	31,000	Feb 19, 1943
MAXIMUM PEAK STAGE			b4.14	Mar 8	b12.20	Mar 16, 1978
INSTANTANEOUS LOW FLOW					c0.00	Many days
ANNUAL RUNOFF (AC-FT)	185,600		57,440		408,300	
10 PERCENT EXCEEDS	694		170		1,310	
50 PERCENT EXCEEDS	130		60		230	
90 PERCENT EXCEEDS	8.7		4.2		39	

a--Gage height, 2.63 ft.
b--Backwater from ice.
c--On many days in 1950, 1960-61, and 1998.
e--Estimated.

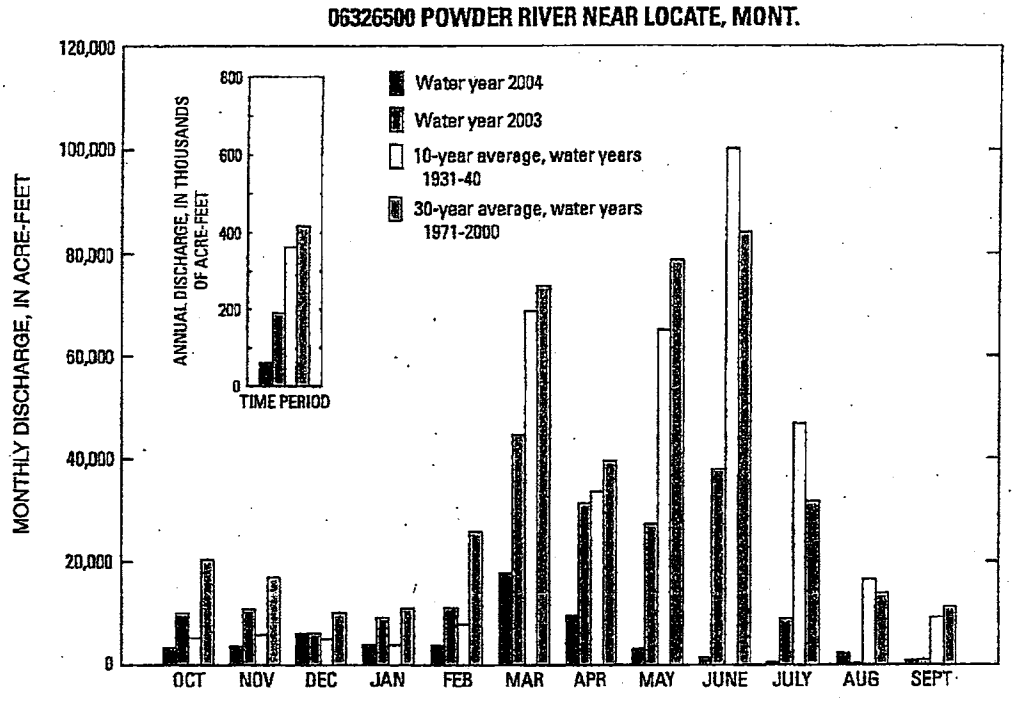


Figure 4. Comparison of discharge of the Powder River during water year 2004 with discharge during water year 2003 and with 10-year and 30-year average discharges.

MT v. WY/M.T.D. App.
518 (WY)

0386

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

06258900 Boysen Reservoir, Wyo.

LOCATION.--Lat 43°25'00", long 108°10'37" (NAD 27), in $NW^1/_4NW^1/_4$ 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 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1951. Storage began Oct. 11, 1951. Usable capacity, 701,500 acre-ft between elevation 4,657.00 ft, invert of penstock pipe, and 4,725.00 ft, top of spillway gate. Dead storage, 40,080 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. Between January 1966 and October 1996, usable capacity was 742,100 acre-ft and dead storage was 59,880 acre-ft, at same elevations. Crest of dam is at elevation 4,758.00 ft. Water used for irrigation, flood control, and power generation.

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, 496,800 acre-ft, July 14, 15, elevation, 4,713.09 ft; minimum daily contents, 312,500 acre-ft, Oct. 1, elevation, 4,698.59 ft.

Month	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 2003	4,698.53	311,900	---
October 31	4,699.16	318,800	+6,900
November 30	4,700.61	335,100	+16,300
December 31	4,701.95	350,500	+15,400
January 31, 2004	4,702.84	361,000	+10,500
February 29	4,703.87	373,400	+12,400
March 31	4,706.18	402,000	+28,600
April 30	4,706.57	406,900	+4,900
May 31	4,707.07	413,400	+6,500
June 30	4,709.79	449,700	+36,300
July 31	4,712.84	493,100	+43,400
August 31	4,711.45	473,000	-20,100
September 30, 2004	4,711.60	475,100	+2,100
2004 water year			+163,200

06260300 Anchor Reservoir, Wyo.

LOCATION.--Lat 43°39'50", long 108°49'27" (NAD 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 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (Bureau of Reclamation benchmark).

REMARKS.--Reservoir is formed by concrete arch dam completed in 1960. Usable capacity, 17,410 acre-ft (revised) 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. Water is used for irrigation of land in Owl Creek basin.

COOPERATION.--Elevations and capacity table 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 contents on many days some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 540 acre-ft, Mar. 30, elevation, 6,363.10 ft; minimum daily contents, 254 acre-ft, many days, elevation, 6,355.00 ft.

Month	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 2003	6,358.11	345	---
October 31	6,357.00	314	-31
November 30	6,355.00	254	-60
December 31	6,355.00	254	0
January 31, 2004	6,355.60	271	+17
February 29	6,355.00	254	-17
March 31	6,363.00	535	+281
April 30	6,355.00	254	-281
May 31	6,358.30	355	+101
June 30	6,358.30	355	0
July 31	6,360.40	429	+74
August 31	6,360.40	429	0
September 30, 2004	6,360.40	429	0
2004 water year			+84

0388

06286400 Bighorn Lake near St. Xavier, Mont.

LOCATION.--Lat 45°18'27", long 107°57'26" (NAD 27), in $SW^1/_4SE^1/_4$ sec.18, T.6 S., R.30 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 southwest of St. Xavier, and at river mile 86.6.

DRAINAGE AREA.--19,626 mi^2.

PERIOD OF RECORD.--November 1965 to current year (month-end contents only). Prior to October 1969, published as "Yellowtail Reservoir." Records of daily elevations and contents on file at the USGS office in Helena, Mont.

GAGE.--Water-stage recorder in powerhouse control room. Datum of gage is 3,296.5 feet (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed from thin concrete-arch dam; construction began in 1961; completed in 1967. Storage began Nov. 3, 1965. Usable capacity, 1,312,000 acre-ft, between elevation 3,296.50 ft, river outlet invert, and 3,657.00 ft, top of flood control. Elevation of spillway 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. 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 contents, 1,346,000 acre-ft, July 6, 1967, elevation, 3,656.43 ft; minimum contents since first filling, 591,400 acre-ft, Mar. 11, 2003, elevation, 3,572.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 799,100 acre-ft, Nov. 13, elevation, 3,611.84 ft; minimum contents, 634,300 acre-ft, May 8, elevation, 3,581.76 ft.

Month	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 2003	3,607.20	769,900	---
October 31	3,611.40	796,200	+26,300
November 30	3,610.52	790,500	-5,700
December 31	3,605.13	757,600	-32,900
January 31, 2004	3,594.58	699,300	-58,300
February 29	3,591.51	683,300	-16,000
March 31	3,588.22	666,500	-16,800
April 30	3,582.94	640,100	-26,400
May 31	3,584.12	646,000	+5,900
June 30	3,586.80	659,300	+13,300
July 31	3,587.29	661,800	+2,500
August 31	3,586.40	657,300	-4,500
September 30, 2004	3,593.63	694,300	+37,000
2004 water year			-75,600

0389

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

The extent, if any, to which the use of reservoirs in this section may be subject to Compact allocations was not determined. As a matter of hydrologic interest, the month-end 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 and the reservoir-capacity table.

	Usable contents, in acre-feet[1]			
Month	06224500 Bull Lake	Pilot Butte Reservoir	06281500 Buffalo Bill Reservoir	06307000 Tongue River Reservoir
September 30, 2003	55,620	9,290	465,700	39,050
October 31	56,800	24,990	444,700	41,160
November 30	56,890	24,670	450,500	43,240
December 31	56,930	24,560	458,000	45,070
January 31, 2004	57,290	24,460	463,700	45,070
February 29	57,380	24,580	468,600	46,110
March 31	57,380	24,430	483,600	48,710
April 30	60,920	27,880	473,900	48,970
May 31	60,370	15,200	442,400	45,580
June 30	99,190	24,020	519,300	42,200
July 31	137,400	17,510	521,400	35,500
August 31	107,300	19,630	463,700	26,620
September 30, 2004	88,940	15,630	438,800	26,620
Change in contents during water year	+33,320	+6,340	-26,900	-12,430

[1]Pre-Compact water rights and post-Compact water rights for these reservoirs are presented in the table, "Annual summary of contents for Yellowstone River Compact Commission reservoirs or lakes."

0390

ANNUAL SUMMARY OF CONTENTS FOR YELLOWSTONE RIVER COMPACT RESERVOIRS OR LAKES

[Contents are in acre feet. Reservoirs or lakes are listed in alphabetical order by drainage basin. Symbol: --, data not applicable or not available]

Reservoir or lake name	Pre-Compact 1950 water right	Post-Compact 1950 water right	Usable capacity	Usable contents on Sept. 30, 2004	Usable contents on Sept. 30, 2003	Change in contents
Bighorn River basin						
(Lake) Adelaide Reservoir[1]	1,450	4,760	6,210	800	--	---
Anchor Reservoir[2]	17,410	0	17,410	429	345	84
Bighorn Lake[2]	--	1,312,000	1,312,000	694,300	769,900	-75,600
Boysen Reservoir[2]	701,500	0	701,500	475,100	311,900	163,200
Buffalo Bill Reservoir[2]	456,600	190,000	646,600	438,800	465,700	-26,900
Bull Lake[2]	152,000	0	152,000	88,940	55,620	33,320
Greybull Valley Reservoir[1]	0	33,170	33,170	1,100	1,480	-380
Pilot Butte Reservoir[2]	34,600	0	34,600	15,630	9,290	6,340
Sunshine Reservoir[1]	52,990	0	52,990	6,600	1,800	4,800
Lower Sunshine Reservoir[1]	42,640	42,300	84,940	1,010	1,490	-480
Powder River basin						
Cloud Peak Reservoir[1]	3,400	172	3,570	0	0	0
Dull Knife Reservoir[1]	--	4,320	4,320	504	987	-483
Healy Reservoir[1]	--	5,140	5,140	2,620	3,080	-460
Kearney Reservoir[1]	1,850	4,470	6,320	2,500	2,710	-210
Lake DeSmet[1]	37,520	197,500	235,000	185,600	197,600	-12,000
Muddy Guard Reservoir[1]	--	2,340	2,340	0	492	-492
Tie Hack Reservoir[1]	1,650	2,440	2,440	2,440	2,440	0
Willow Park Reservoir[1]	4,460	--	4,460	2,230	1,320	910
Tongue River basin						
Bighorn Reservoir[1]	2,750	1,880	4,630	794	1,030	-236
Cross Creek Reservoir[1]	--	798	798	0	324	-324
Dome Reservoir[1,3]	1,840	188	2,030	1,180	1,480	-300
Granger Reservoir[1]	146	--	146	0	0	0
Last Chance Reservoir[1]	90	--	90	0	0	0
Martin Reservoir[1]	561	--	561	0	0	0
Park Reservoir[1]	7,350	3,020	10,360	4,160	4,150	10
Sawmill Lakes Reservoir[1]	--	1,280	1,280	703	0	703
Tongue River Reservoir[4]	68,000	11,070	79,070	26,620	39,050	-12,430
Twin Lakes Reservoir[1,5]	1,180	2,220	3,400	3,100	2,820	280
Weston Reservoir[1]	370	--	370	0	0	0
Willits Reservoir[1]	79	--	79	0	0	0

[1]Reservoirs managed by the State of Wyoming
[2]Reservoirs managed by Bureau of Reclamation.
[3]Data are combined contents of Dome Lake and Dome Lake Reservoir.
[4]Reservoir managed by the State of Montana.
[5]Data are combined contents of Twin Lakes Number 1 and Twin Lakes Number 2.

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. Christopulos
Commissioner for Wyoming

ATTESTED:

L. Grady Moore
Federal Representative

Adopted November 17, 1953
Amended December 16, 1986

0395

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.

0396

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.

0398

Gary Fritz
Commissioner for Montana

Gordon W. Fassett
Commissioner for Wyoming

William F. Horak
Federal Representative

July 22, 1996
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.

0400

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.

0403

YELLOWSTONE RIVER COMPACT COMMISSION

WYOMING

GORDON W. FASSETT
STATE ENGINEER
HERSCHLER BUILDING
4TH FLOOR EAST
CHEYENNE, WYOMING 82002
(307) 777-7354

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 ___¼ ___¼, Section _____, T.___R.____

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

   _____

   _____

0404

(b) Describe water measuring device: _____

_____

_____

(c) If the point of diversion is in Montana:

1. What flow rate has been claimed?

_____ ☐ cubic feet per second

☐ gallons per minute

☐ miner's inches

2. What volume of water has been claimed?

_____ acre-feet

7. Dimensions of ditch at headgate: Width at top (at waterline) _____ feet; width at bottom _____ feet; side slopes (vertical:horizontal) _____:_____; depth of water _____ feet; grade _____ feet per mile.

8. Place of use and acres irrigated: County_____ State _____ Give legal subdivisions of land owned by you on which water is being used (acres claimed): An example field is shown in the first line.

0405

T.	R.	SEC.	NE¼				NW¼				SW¼				SE¼				TOTAL
			NE¼	NW¼	SW¼	SE¼	NE¼	MW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
58N	95W	18			25.1											10.2			35.3

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: _____

_____

_____

0406

16. Describe ordinary annual period of use: _____ to _____
(mo/day) (mo/day)

_____.

17. Attach copies of aerial photographs, U. S. Geological Survey maps or other such documents showing the ditch and lands irrigated that give evidence to this claim and may be useful to the Commission.

* * * * * * * * * *

State of _____)
) SS
State of _____)

I, _____, having been duly sworn, depose and say that I, being of legal age and being the claimant of this claim for a water right, and the person whose name is signed to it as the claimant, know the contents of this claim and the matters and things stated there are correct.

_____

_____

Subscribed and sworn before me, this ____day of _____, 19__.

_____
Notary Public

Residing at: _____

My commission expires: _____

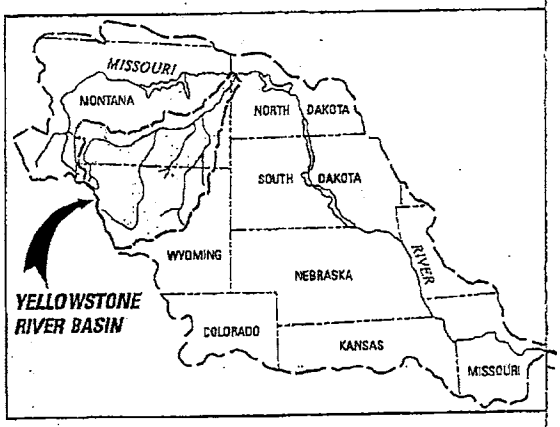
0407

CONVERSION TABLE

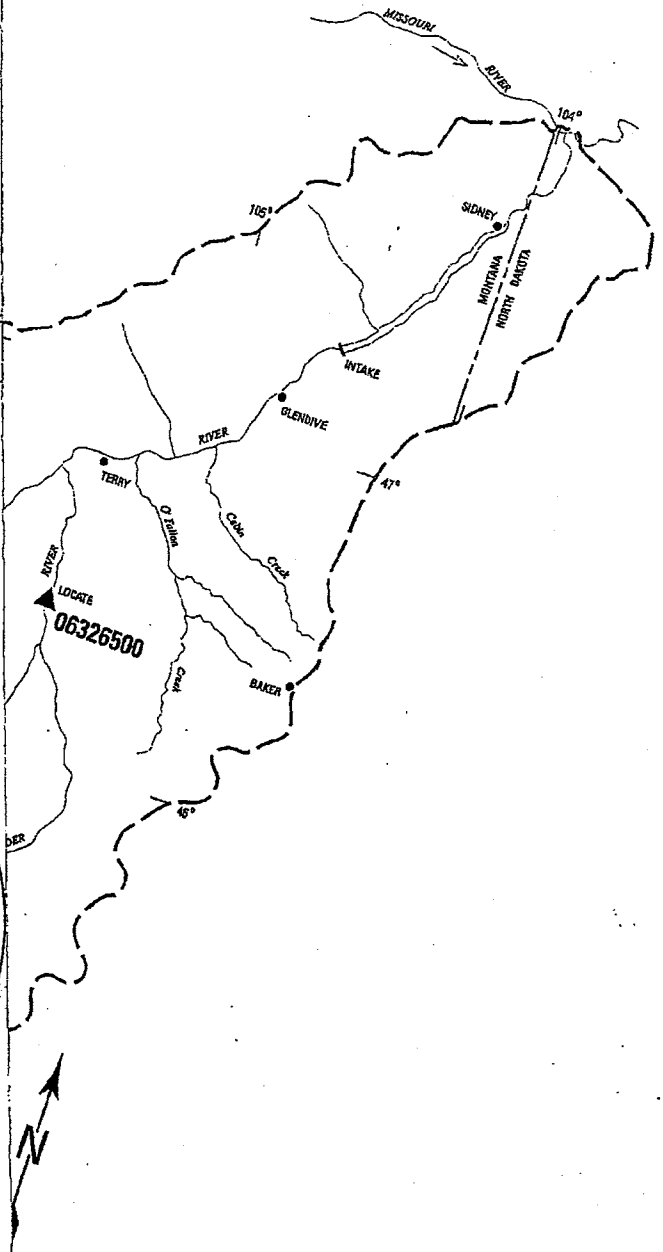
Multiply inch-pound units	By	To obtain SI units
	Length	
feet (ft)	0.3048	meters (m)
miles (mi)	1.609	kilometers (km)
	Area	
acres	4,047	square meters (m^2)
	0.4047	*hectares (ha)
	0.4047	square hectometer (hm^2)
	0.004047	square kilometers (km^2)
square miles (mi^2)	2.590	square kilometers (km^2)
	Volume	
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)
	Flow	
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)

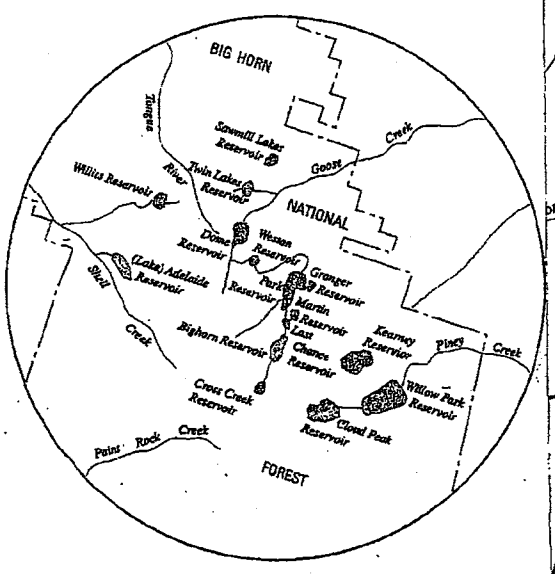
*The unit hectare is approved for use with the International System (SI) for a limited time. See National Bureau of Standards Special Bulletin 330, p. 12, 1977 edition.

0408



LOCATION MAP





YELLOWSTONE RIVER COMPACT COMMISSION

YELLOWSTONE RIVER BASIN

EXPLANATION

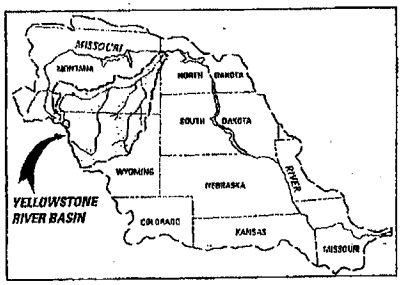
▲ COMPACT STREAMFLOW-GAGING STATION

◧ COMPACT RESERVOIR-CONTENT STATION

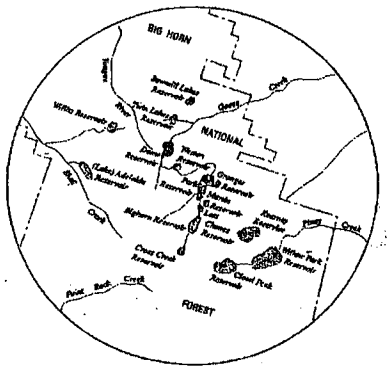
06260300 STATION NUMBER

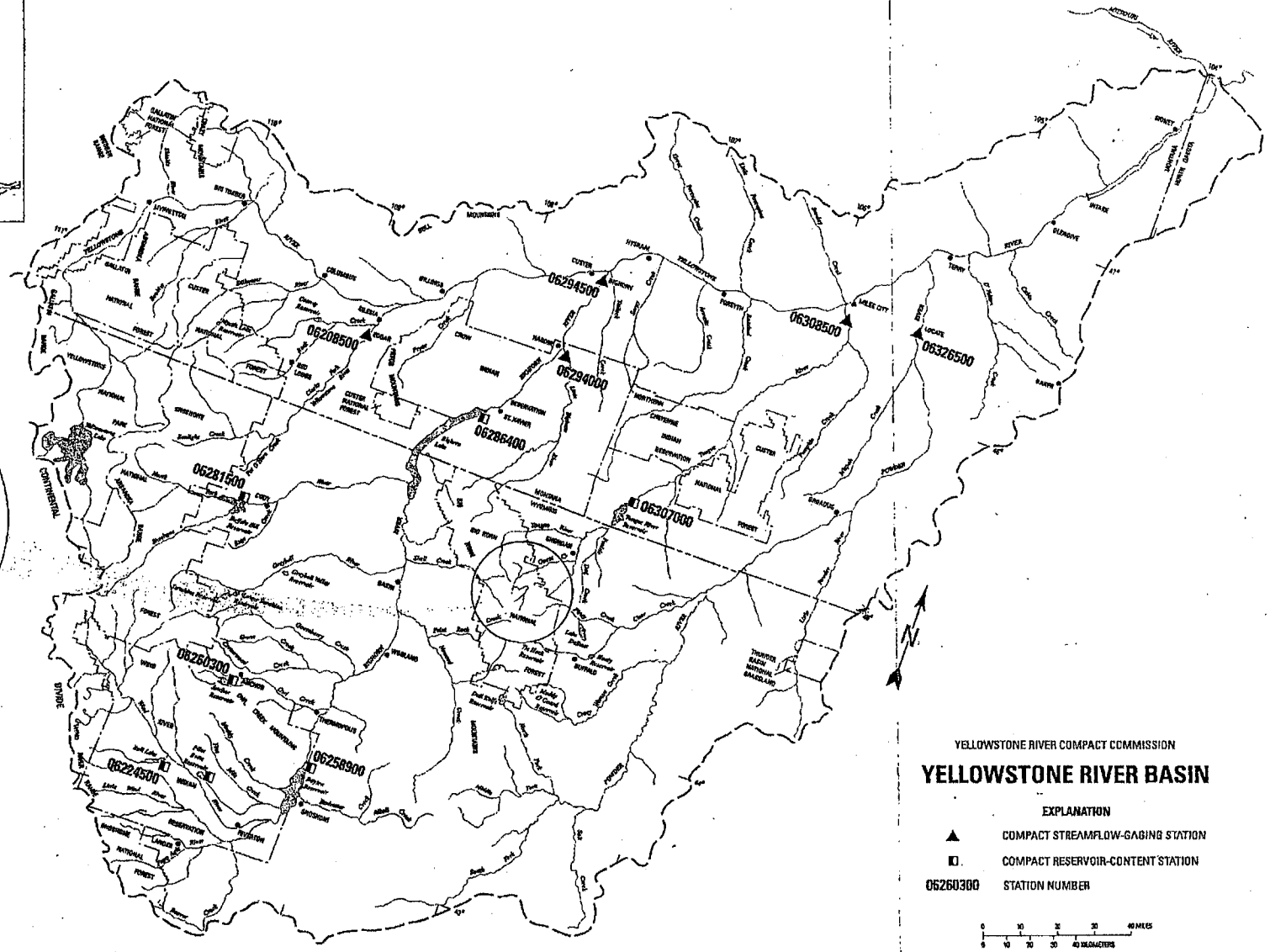
0 10 20 30 40 MILES
0 10 20 30 40 KILOMETERS

0409



LOCATION MAP





YELLOWSTONE RIVER COMPACT COMMISSION

YELLOWSTONE RIVER BASIN

EXPLANATION

▲ COMPACT STREAMFLOW-GAGING STATION

■ COMPACT RESERVOIR-CONTENT STATION

06260300 STATION NUMBER

0 10 20 30 40 MILES
0 10 20 30 40 KILOMETERS

MAP SHOWING LOCATIONS OF YELLOWSTONE RIVER COMPACT STREAMFLOW-GAGING AND RESERVOIR-CONTENT STATIONS

MT v. WY/M.T.D. App.
542 (WY)

2006 Annual Report

0441

Yellowstone River

Compact Commission

Fifty-Fifth Annual Report

2006

0412

MT v. WY/M.T.D. App.
543 (WY)

Contents

Minutes of April 13, 2006 v
Minutes of December 6, 2006 ix
Attachment A—Letter from the Governor of Montana Appointing Mary Sexton as the Acting Yellowstone River Compact Commissioner xx
Attachment B—Letter from Jack Stults, Commissioner for Montana (Montana's Call for Water) xxi
Attachment C—Letter from Patrick Tyrrell, Commissioner for Wyoming (Wyoming's Response) xxxiii
Attachment D—Letter from Mary Sexton, Acting Commissioner for Montana (Montana's Reply to Wyoming) xxxvi
Attachment E—Yellowstone River Compact Commission Resolution (Resolution Proposed by Montana) xxxviii
Attachment F—Letter from Montana and Wyoming Commissioners to Senator Max Baucus (Montana) in Support of USGS Tongue River Monitoring Network xli
Appended Minutes, Technical Committee — April 12, 2006 xlii
Appended Minutes, Technical Committee — December 5, 2006 xlvi
General Report 1
Cost of Operation and Budget 1
Streamflow-Gaging Station Operation 1
Diversions 2
Reservoir Contents 2
Reservoirs Completed after January 1, 1950 2
Reservoirs Existing on January 1, 1950 2
Annual Contents of Reservoirs 2
Summary of Discharge for Yellowstone River Compact Streamflow-Gaging Stations 3
06208500 Clarks Fork Yellowstone River at Edgar, Mont 3
06294000 Little Bighorn River near Hardin, Mont 6
06294500 Bighorn River above Tullock Creek, near Bighorn, Mont 8
06308500 Tongue River at Miles City, Mont 12
06326500 Powder River near Locate, Mont 15
Month-End Contents for Yellowstone River Compact Reservoirs[1] Completed after January 1, 1950 18
06258900 Boysen Reservoir, Wyo 18
06260300 Anchor Reservoir, Wyo 19
06286400 Bighorn Lake near St. Xavier, Mont 20
Month-End Contents for Yellowstone River Compact Reservoirs[1] Existing on January 1, 1950 21
Water-Year-End Contents for Yellowstone River Compact Reservoirs[1] or Lakes 22
Rules and Regulations for Administration of the Yellowstone River Compact 23
Rules for the Resolution of Disputes over the Administration of the Yellowstone River Compact 27
Rules for Adjudicating Water Rights on Interstate Ditches 30
Claim Form for Interstate Ditches 35
Conversion Table 39

MT v. WY/M.T.D. App. 545 (WY)

0413

Figures

Map showing locations of Yellowstone River Compact streamflow-gaging and reservoir-content stations.....in back
1–4. Graphs showing:
1. Streamflow data for the Clarks Fork Yellowstone River at Edgar, Mont. (06208500), minus diversions to Whitehorse Canal, water years 1922–2006: *A*, Statistical distribution of monthly and annual streamflow; *B*, Annual departure from the mean annual streamflow.....5
2. Streamflow data for Bighorn River above Tullock Creek, near Bighorn, Mont. (06294500), minus Little Bighorn River near Hardin, Mont. (0694000); adjusted for change in contents in Bighorn Lake, water years 1965–2006: *A*, Statistical distribution of monthly and annual streamflow; *B*, Annual departure from the mean annual streamflow.....11
3. Streamflow data for the Tongue River at Miles City, Mont. (06308500), water years 1939–2006: *A*, Statistical distribution of monthly and annual streamflow; *B*, Annual departure from the mean annual streamflow.....14
4. Streamflow data for the Powder River near Locate, Mont. (06326500), water years 1939–2006: *A*, Statistical distribution of monthly and annual streamflow; *B*, Annual departure from the mean annual streamflow.....17

Tables

1. Daily mean discharge for Clarks Fork Yellowstone River at Edgar, Mont., minus diversions to Whitehorse Canal, October 2005 to September 2006.....3
2. Daily mean discharge for Little Bighorn River near Hardin, Mont., October 2005 to September 2006.....6
3. Daily mean discharge for Bighorn River above Tullock Creek, near Bighorn, Mont., October 2005 to September 2006.....8
4. Daily mean discharge for Tongue River at Miles City, Mont., October 2005 to September 2006.....12
5. Daily mean discharge for Powder River near Locate, Mont., October 2005 to September 2006.....15
6. Month-end contents for Boysen Reservoir, Wyo.....18
7. Month-end contents for Anchor Reservoir, Wyo.....19
8. Month-end contents for Bighorn Lake, Mont.....20
9. Month-end contents for Yellowstone River Compact reservoirs[1] existing on January 1, 1950.....21
10. Water-year-end contents for Yellowstone River Compact reservoirs[1] or lakes.....22

[1]Wyoming disagrees with the term "Compact reservoirs" as used throughout this annual report. Wyoming's acceptance of this annual report should not be construed as Wyoming's acceptance of the use of that term.

0414

MT v. WY/M.T.D. App.
548 (WY)

YELLOWSTONE RIVER COMPACT COMMISSION
DENVER FEDERAL CENTER, BUILDING 53, ROOM F-1200
LAKEWOOD, COLORADO 80225

Honorable David Freudenthal
Governor of the State of Wyoming
Cheyenne, Wyoming 82002

Honorable Brian Schweitzer
Governor of the State of Montana
Helena, Montana 59620

Honorable John Hoeven
Governor of the State of North Dakota
Bismarck, North Dakota 58501

Dear Governors:

Pursuant to Article III of the Yellowstone River Compact, the Commission submits the following fifty-fifth annual report of activities for the period ending September 30, 2006.

Minutes of April 13, 2006

Members of the Yellowstone River Compact Commission convened the first of two meetings in 2006 on April 13 at 8:30 a.m. in Thermopolis, Wyoming. In attendance were Mr. William Horak, U.S. Geological Survey, Chairman and Federal Representative; Mr. Jack Stults, Administrator, Water Resources Division, Montana Department of Natural Resources and Conservation and Commissioner for Montana; and Mr. Patrick Tyrrell, Wyoming State Engineer and Commissioner for Wyoming. Also in attendance were Ms. Sue Lowry, Mr. Loren Smith, and Mr. Bill Knapp, Wyoming State Engineer's Office; Mr. David Willms, Wyoming Attorney General's Office; Mr. Keith Kerbel and Mr. Chuck Dalby, Montana Department of Natural Resources and Conservation; Ms. Sarah Bond, Montana Attorney General's Office; Mr. Art Compton, Montana Department of Environmental Quality; Mr. Art Hayes, Jr., Tongue River Water Users Association; Mr. Jason Whiteman, Water Resources Department, Northern Cheyenne Tribe; Mr. Doug Davis, Bureau of Indian Affairs; and Mr. Wayne Berkas, Mr. Myron Brooks, and Mr. Kirk Miller, U.S. Geological Survey.

Mr. Berkas reported that costs for the program of streamflow-data collection and preparation of the annual report are $80,000 for Federal fiscal year 2007 and are expected to be $84,000 or less for fiscal year 2008. The budget was approved by the Commissioners.

Mr. Berkas passed out the 2005 Yellowstone River Compact Commission report to Mr. Stults and Mr. Tyrrell (the two Commissioners) and to Mr. Horak (the Chairman). Mr. Berkas announced that the report has been printed and would be mailed to all on the mailing list. Anyone wishing a copy or additional copies should contact Mr. Berkas.

Mr. Dalby asked why reservoirs noted in the Compact report are not included on the map in the report. Mr. Berkas thanked Mr. Dalby for discovering this discrepancy and said that all reservoirs listed in the report will be located on the map. Also, the operators of the reservoirs will be identified in the report.

Mr. Berkas will revise the table listing the reservoirs and revise the map and pass this to the Technical Committee. The Technical Committee will approve the revisions before the next Yellowstone River Compact Committee meeting in the fall of 2006.

Mr. Stults noted that the reservoir table listed a post-1950 water right of 11,070 acre-feet for the Tongue River Reservoir. This is incorrect because there is no post-1950 water in the reservoir. Although the reservoir was enlarged between 1994 and 1997, and it was physically enlarged to store 11,070 more acre-feet of water, the additional water carries a priority date of the reserved water rights of the Northern Cheyenne Tribe. The Tribe and State settled the Tribe's claims, and the settlement was ratified by the U.S. Congress. Thus, the additional water stored in the reservoir has a water right decreed to the Northern Cheyenne Tribe with a date equivalent to the establishment of the Northern Cheyenne Reservation, and that water right pre-dates 1950 (1884 or 1901) (See Art. II a. 2.b of the Northern Cheyenne State of Montana Reserved Water Rights Compact). Mr. Berkas said that the correction would be made to reflect that the total water right of 79,070 acre-feet is a pre-1950 water right.

The Commissioners adopted the 2005 Yellowstone River Compact Commission report.

Ms. Lowry provided a summary of the April 12, 2006, meeting of the Technical Committee (minutes posted on the Web page). The Committee noted that the snow pack for 2006 is less than average, similar to the snow pack in 2005. Last year, above-normal rain and snow occurring after April helped streamflow conditions in the Yellowstone River basin tributaries to be near average for the 2005 water year. The Bureau of Reclamation projects that Buffalo Bill, Boysen, and Bull Lake Reservoirs will fill in 2006.

Mr. Tyrrell stated that Wyoming State Engineer's Office received $200,000 from the State legislature for a joint water-use study with Montana, with $100,000 for internal use and $100,000 to partner with Montana to study water use. The two-State study would begin after July 2007 if Montana is successful in obtaining their cost-share portion. The objective would be to obtain information in the Yellowstone River basin that helps both States better manage water operations in the river basin. The study would be done jointly between Wyoming and Montana. Wyoming and Montana will begin scoping the study between now and the fall Compact meeting, with the goal of presenting a draft scope to the Technical Committee for review prior to the fall Compact Commission meeting. The scoping effort and the study is not a Commission-directed activity. If something comes out of the study that provides a tool for better Compact administration, the States will submit it to the Commission.

Mr. Stults replied that Montana has a request for the 2007 legislative session for about $125,000, and has received positive feedback from the Governor's Office. Montana would like to see work focus on identifying the pre-January-1950 water uses in both States.

Mr. Stults stated that Montana's Governor's Drought Advisory Committee continues to meet on an ongoing basis to be prepared for drought response. Although drought conditions continue to improve, Montana feels that after 6 years of drought, conditions are tenuous and the State can slip back into drought fairly quickly. The Committee provides information that is disseminated across the State so that proactive actions can be taken to mitigate the effects of drought. The actions include water management and/or economic relief for affected parties. Montana has learned that the collaborative effort of managing water, scheduling diversions, and understanding return-flow regimes really works.

Mr. Tyrrell stated that Wyoming also has experienced drought. The difficulty is that sometimes there is a surplus of water in some areas and a deficit in others. Mr. Tyrrell also announced that Wyoming will fill the State Climatologist position in May 2006.

Mr. Stults announced that Montana has established a State Climatologist, and that person is Dr. Don Potts at the University of Montana College of Forestry and Conservation.

Mr. Stults announced that Montana had a request for more than 20 Water Court decrees to be enforced and many were enforced last year. These decrees are a result of the ongoing adjudication process. Many water managers are excited about the new Water Court decrees being enforceable. Historic District Court decrees, including the Miles City decree on the Tongue River, continue to be enforced as they always have been, by court-appointed Commissioners for those streams.

Mr. Tyrrell announced that Wyoming recently funded a weather-modification study for about $8.8 million. The study began in 2005 and is being run through the Water Development Commission under permits issued by the State Engineer. The Wyoming State Engineer's Office permits cloud seeding. The study will last for 5 years. Wyoming is hoping this study will lead to some additional water for the State to administer.

Coal-bed methane discussions were covered during the Technical Committee meeting held on April 12, 2006, (minutes appended) and Ms. Lowry provided a summary of those discussions. The main topics were:

1. The distribution of a draft executive summary by the Montana Bureau of Mines and Geology that discussed a ground-water monitoring network near the Montana-Wyoming State line.

2. The amount of coal-bed methane development in Wyoming. Wyoming provided a table listing the coal-bed methane disposal reservoirs in the Tongue, Powder, and Little Powder River drainages where applications have been received and where permits have been issued. Wyoming is requiring all reservoirs to be permitted, even those being used for activities other than coal-bed methane development. There are currently 2,481 permits and the average volume stored in each of the permitted reservoirs is about 12.5 acre-feet. Wyoming also presented a graph showing the number of coal-bed methane well applications by month. There have been 36,543 coal-bed methane well applications throughout Wyoming received from January 1997 to March 2006. Wells have not been drilled for all permits.

3. The Wyoming legislature established a Coal-Bed Methane Task Force during the 2006 legislative session. The task force is charged with reviewing current statutes and regulations and produced-water management alternatives, including disposal, and will prepare a report to the legislature by December 6, 2006, and a final report by October 1, 2007. The legislature also appropriated $500,000 to the Water Development Commission to explore the feasibility of running a pipeline for coal-bed methane produced water from areas where coal-bed methane water is produced in the Powder River drainage to water-short areas outside the Yellowstone River drainage (the Platte River). This feasibility study will be completed within 2 years.

Mr. Stults said that Montana is concerned about the feasibility study to divert water out of the Yellowstone River drainage basin because Article 10 of the Yellowstone River Compact prohibits the diversion of water out of the Yellowstone River drainage basin without the unanimous consent of the Signatory States (Montana, North Dakota, and Wyoming). Montana strongly feels the Yellowstone River Compact Commission must be fully informed as the proposal is developed. Language in Article 10 of the Compact says "no water shall be diverted from the Yellowstone River basin," and nowhere in the Compact is there a distinction made between ground water and surface water. Montana believes that all water, including ground water, falls under the Compact. Montana is comfortable with monitoring the proceedings of the study with the topic being on the agenda of the fall Compact Commission meeting.

Mr. Tyrrell replied that Wyoming feels that there is a window of opportunity under the Compact to look at the feasibility of transporting coal-bed methane (CBM) produced water out of the Yellowstone River drainage. Wyoming feels that the Yellowstone River Compact is a surface-water instrument and has no decision-making authority related to coal-bed methane produced water issues. Mr. Tyrrell explained that the feasibility study would look at numerous issues, including water treatment options, pipeline design, pumping costs, and potential ground-water connectivity.

Ms. Bond asked Wyoming what Wyoming Water Development Commission projects are in the Yellowstone River drainage?

Ms. Lowry replied that there are about 64 projects in Wyoming and about 25 percent are in the Yellowstone River drainage. A project that may be of interest to the Yellowstone River Compact Commission is a project in the Middle Fork Powder River drainage. Last November there were two applications to the Water Development Commission for storage projects on the Middle Fork, but these were withdrawn in favor of an application for a watershed study that focuses on irrigation scheduling.

Ms. Bond asked if the Middle Fork Powder River reservoir project had a pre-1950 development permit and if Wyoming considered that water right still viable after the project had been withdrawn in favor of a watershed study.

Mr. Tyrrell replied that the pre-1950 water right was still active because it is still on file in the Wyoming State Engineer's Office.

After questions regarding the Technical Committee's summary of coal-bed methane discussions ceased, Mr. Stults stated that Montana feels that coal-bed methane discussions pertain to Compact discussions because water is a unitary resource. Coal-bed methane development has the potential of manipulating large quantities of water. Montana believes that science shows that there are connections between ground water and surface water in some coal aquifers being de-pressurized and developed for coal-bed methane production within the basin, and that coal-bed methane development also affects the quality of ground water and surface water. Although water quality is not explicitly referenced within the Compact, Montana believes the

quality of water relates to the beneficial use of the water, and beneficial use is inherent within the fundamental principal of prior appropriation doctrine and is the foundation for the Yellowstone River Compact. Mr. Stults stated that a primary component of beneficial use is to have water with a quality to support the use.

Mr. Whiteman stated that the Northern Cheyenne Tribe has a first-right water right within the Tongue River drainage, and they are concerned that coal-bed methane development may alter the beneficial use of their water right. Thus, the Northern Cheyenne Tribe feels that water quality is an important topic for the Commission to discuss.

Mr. Stults reported that Montana passed a major piece of legislation (House Bill 22) to complete the adjudication of all water rights within the State. All basins are to have final decrees within 15 years. Montana Department of Natural Resources and Conservation (DNRC) is required to complete the work within 10 years. This work is being funded by the owners of the water rights. Currently, the DNRC is ahead of schedule in their work at processing water rights. Generally, the public is fully supporting the effort.

Mr. Kerbel added that the Billings DNRC office has concentrated their efforts on the Bighorn River. Currently, the Bighorn River adjudication is about 99 percent complete. Billings DNRC has examined 28 percent of the Tongue River Basin. The Powder River is fully adjudicated.

Mr. Kerbel reported that some claims with the Federal government under the Crow Compact have been resolved. There is hope that there may be some Federal legislation drafted to ratify the Compact.

Mr. Stults reported that DNRC also is working on compacts with other Tribes and the U.S. Forest Service. The compact with the U.S. Forest Service will establish instream-flow rights under the State reserve rights with a priority date of the date of compact.

Mr. Horak reported that both Commissioners have received a draft of the Yellowstone River Compact Commission Web site, and hopefully all the suggestions for improvement have been made. The USGS will soon have the 2005 Yellowstone River Compact Commission annual report available on the Web site, and all past reports will be scanned and added to the Web site. There will be two map options to access data: Google Earth and a static map. The static map will be available because Google Earth consumes a tremendous amount of resources and some users do not have high-speed Internet access. All active USGS sites within the Yellowstone River drainage will be displayed on the maps. In the future, other agencies' (State and local) data will be available through this site.

Mr. Whiteman reported that the Northern Cheyenne Tribe has a water-quality standard pending approval with EPA.

Mr. Compton reported that Montana Department of Environmental Quality has met with the Northern Cheyenne Tribe regarding minor differences between the State and Tribal standards. There remain a few differences that complicate permitting.

Mr. Hayes said that the water being pumped from coal aquifers to produce methane is "old water" that took a long time to get to its present location. He wondered how that water would be replaced and would like to see a study that identified the effect of coal-bed methane production on the reduction of other natural discharge points (such as springs) and the overall reduction of ground-water levels. Also, he is interested in restoring ground water to levels observed before coal-bed methane production.

Mr. Horak stated that at this time the Compact does not provide a clear mandate, nor does the Commission have the resources, to study effects of coal-bed methane development on ground water. Wyoming feels that the Technical Committee should continue to monitor and review coal-bed methane issues in the basin, but no extended agenda time for the full Commission should be dedicated to coal-bed methane or water-quality discussions.

Mr. Stults replied that large projects in the drainage basin that extract ground water may eventually affect surface-water characteristics, and thus should not be ignored. The Commission should not miss the opportunity to include coal-bed methane development and ground-water projects in their discussions because these projects are important in the overall budget and water management in the basin. The Commission has the Federal and State legal authority to understand and manage water resources in the Yellowstone River drainage basin.

The Commissioners agreed to have the next Yellowstone River Compact Commission meeting in Billings, in the morning of December 6, 2006. The Technical Committee would meet in the afternoon of December 5, 2006.

MT v. WY/M.T.D. App.
550 (WY)

0418

Minutes of December 6, 2006

Members of the Yellowstone River Compact Commission convened the second of two meetings in 2006 on December 6 at 8:30 a.m. in Billings, Montana. In attendance were Mr. William Horak, U.S. Geological Survey (USGS), Chairman and Federal Representative; Ms. Mary Sexton, Director, Montana Department of Natural Resources and Conservation (DNRC) and Acting Commissioner for Montana; and Mr. Patrick Tyrrell, Wyoming State Engineer and Commissioner for Wyoming. Also in attendance were Ms. Sue Lowry, Ms. Jodee Pring, Mr. Carmine LoGuidice, and Mr. Loren Smith, Wyoming State Engineer's Office; Mr. David Willms, Wyoming Attorney General's Office; Mr. Rich Moy, Mr. John Tubbs, Mr. Chuck Dalby, Mr. Keith Kerbel, Mr. Jim Robinson, and Mr. Kevin Smith, DNRC; Ms. Sarah Bond, Montana Department of Justice; Mr. Art Compton, Montana Department of Environmental Quality; Mr. Andy Brummond and Mr. Jim Darling, Montana Fish, Wildlife and Parks; Mr. Doug Haacke, Trout Unlimited; Mr. Tim Felchle, Mr. Gordon Aycock, Mr. Patrick Erger, and Mr. Lenny Duberstein, Bureau of Reclamation; Mr. Joe Fox, Jr., Mr. Allen Clubfoot, and Ms. Shanny Spang Gion, Northern Cheyenne Tribe; Ms. Jill Morrison, Powder River Basin Resource Council; Mr. Mark Fix, Northern Plains Resource Council; Mr. Roger Muggli, T&Y Irrigation District; Mr. Art Hayes, Jr., Tongue River Water Users Association; Ms. Susan Gilbertz, Montana State University, Billings; Mr. John Murdock, Department of the Interior Solicitor's Office; Ms. Rose Rennie, Office of the Solicitor; and Mr. Kirk Miller, Mr. Myron Brooks, Mr. Robert Davis, and Mr. Wayne Berkas, U.S. Geological Survey.

Mr. Horak called the meeting to order and announced that two individuals will be working as reporters or transcribers for the meeting. Ms. Kristin Coil will record the meeting for the Montana delegation, and Ms. Gabrielle Patterson will record the meeting for the USGS, who will prepare the minutes for the meeting.

Mr. Horak presented the agenda and asked if there were any additions. There were no additions and both Commissioners accepted the agenda.

Ms. Sexton presented a letter to the Chairman (Mr. Horak) and the Wyoming Commissioner (Mr. Tyrrell) from the Montana Governor, Mr. Brian Schweitzer, appointing Ms. Mary Sexton as the Acting Commissioner from Montana to the Yellowstone River Compact Commission (Attachment A). Ms. Sexton stated that the past Montana Commissioner, Mr. Jack Stults, resigned in July of this year. She was appointed the Acting Commissioner for Montana and she will remain the Acting Commissioner until a Commissioner is appointed by Governor Schweitzer.

Mr. Horak asked that the minutes for the April 13, 2006, Yellowstone River Compact Commission meeting be accepted and approved. State Commissioners approved the minutes.

Mr. Berkas presented budget information for the program of streamflow-data collection and preparation of the annual report. The program cost was $76,000 for Federal fiscal year 2006 and will be $80,000 for fiscal year 2007. One-fourth of the cost is provided by the State of Wyoming, one-fourth by the State of Montana, and one-half by the U.S. Geological Survey through the Cooperative Water Program. Cost estimates for 2008, 2009, and 2010 are $84,000, $88,200, and $92,600, respectively. These estimates are based on an approximate 5-percent inflation factor per year.

The budget was accepted by both Commissioners.

Mr. Berkas reported that streamflows during water year 2006 were below normal at all streamflow sites monitored by the Commission. Streamflow at Clarks Fork Yellowstone River at Edgar was 79 percent of average, and ranked eleventh lowest in 68 years. The streamflow at Bighorn River near Bighorn (minus flow of the Little Bighorn River and adjusted for change of contents in Bighorn Lake) was 55 percent of average and ranked tenth lowest of 40 years. The streamflow at Tongue River at Miles City was 37 percent of average and ranked fifth lowest in 63 years. The streamflow at Powder River near Locate was 47 percent of average and ranked ninth lowest in 68 years. Total adjusted streamflow of the four rivers in water year 2006 was 2,237,000 acre-feet, compared to 2,950,000 acre-feet in water year 2005 and 1,621,000 acre-feet in water year 2004.

Reservoir storage decreased in all the reservoirs historically monitored for the Commission (Bighorn Lake, Boysen Lake, Anchor Reservoir, Bull Lake, Pilot Butte Reservoir, Buffalo Bill Reservoir, and Tongue River Reservoir). The contents and the amounts of decrease are listed in the annual report. The total usable contents of these reservoirs at the end of water year 2006 was 1,689,100 acre-feet, compared to 2,149,000 acre-feet in water year 2005 and 1,739,800 acre-feet in water year 2004. Storage in other reservoirs in the four river basins at the end of water year 2006 was 208,860 acre-feet, a decrease of 78,860 acre feet from the end of water year 2005. The total usable contents of these other reservoirs are listed in the annual report.

MT v. WY/M.T.D. App.
551 (WY)

0419

Mr. Moy stated that the annual report contains data for measured flows and does not account for depletions, such as water consumed by irrigation. He recommended that the annual report include a statement that the total volume of water flowing from the four rivers does not account for depletions. Mr. Berkas replied that a statement to that effect will be included in the annual report.

Mr. Tyrrell suggested that the Yellowstone River Technical Committee look at headwater gages that are upstream from most diversions in the basin to determine if the lack of streamflow is due to climatic effects or water-use effects. After discussion, Mr. Tyrrell moved that, at the April 2007 meeting, the Yellowstone River Technical Committee look at available gage data in the four drainages (Clarks Fork Yellowstone River, Bighorn River, Tongue River, and Powder River) and identify an indicator gage in each drainage. These gages would be used to help determine climatic effects on the water supply. Ms. Sexton seconded the motion, and the motion passed.

Mr. Moy reported that the Yellowstone River Technical Committee met yesterday (December 5, 2006). Montana and Wyoming are experiencing severe drought conditions and there are impacts to both States. The degree to which each State is impacted is still to be determined. The minutes for the Technical Committee meeting are posted on the Yellowstone River Compact Commission Web page at *http://cr.water.usgs.gov/YRCC/index.html.*

Mr. Tyrrell reported on water-year administration highlights in Wyoming. In the Tongue River basin, water rights junior to 1883 were regulated on Little Goose Creek. Big Goose Creek was regulated to 1885 after June 27 and Sheridan was on water restrictions by mid-July. Reservoir water was released into Big Goose and Little Goose Creeks starting in mid-June and continued throughout the summer. Wolf Creek was regulated to 1883 after July 10. Little Tongue River was regulated to 1883 and Smith Creek was regulated to 1881 through the summer. By late August, only instream stock use was allowed on these rivers and creeks. In early September, flows in the Tongue River were regulated to 1891 on the reach above the Tongue River ditch at Ranchester.

This year (2006), Division 2 Superintendent Mike Whitaker ordered the construction of measuring devices for all diversions in the Tongue River. These measuring devices must be in place prior to the 2007 irrigation season.

In the Powder River drainage, water releases from Lake DeSmet began on May 19. The Powder River was regulated to 1894 on June 23. Piney Creek and lower Clear Creek were regulated to 1884 on June 30, and reservoir releases began from Willow Park and Kearney Lake Reservoirs. On Crazy Woman Creek, Muddy Guard Reservoir began releases on May 17, and by June 23 only the number two court-decreed appropriation for 17 ft^3/s could be satisfied. Rock Creek and Clear Creek were regulated to 1885 on June 2. North Fork Powder River was regulated to 1885 on June 2, and Dull Knife Reservoir began releases on the next day. Once the streams were regulated, they continued to be regulated throughout the irrigation season.

Mr. Loren Smith added that all the major tributaries to the Bighorn River went into regulation. Shell Creek went into territorial pre-1890 rights after the middle of July. The Nowood River system was regulated to about 1900. This system normally does not get regulated. Tribal reserve rights (1868) could not be satisfied on Owl Creek. Gooseberry Creek went dry at the headwaters gage used to regulate the creek. The Greybull River system was regulated to territorial water rights from the end of June to the end of September.

Ms. Sexton reported that Montana made a call for water to the Wyoming State Engineer under the Yellowstone River Compact on July 28, 2006, regarding the Tongue and Powder Rivers (Attachments B, C, and D—call letter and responses). The situation on the Tongue River was dire and Montana was unable to fill the Tongue River Reservoir this year. Montana's biggest concern was their inability to fulfill all pre-1950 water rights.

Montana also was concerned about flow in the Powder River. The Powder River at Moorhead, Montana (Montana-Wyoming border) essentially went dry on July 25, 2006, and the average flow for that date is 215 ft^3/s.

This was the second time that Montana made a call for water on Wyoming. A previous call was made in 2004.

Mr. Kevin Smith reported that Montana was about 6,000 acre-feet short of filling the Tongue River Reservoir this year. The peak storage was about 73,400 acre-feet. Contract deliveries from the reservoir began in the third week of June and ended the first week of September. Montana purchased water from the Northern Cheyenne Tribe (held in the reservoir) to maintain base flow for aquatic life in the river through September until precipitation occurred.

Mr. Kerbel said that Montana partially satisfied two water rights (Brown L&C Company and T&Y Irrigation District) that go back to 1886 on the Tongue River. If it wasn't for these two users not taking their full right, the reservoir would not have stored as much water, and most users would not have gotten any contract water.

On the Powder River, there was no supply at the State line for most of the summer. There was no flow at the State line from July 28 to September 1. Much of the Powder River irrigation is serviced by high-volume pumps and water supply was limited by the end of June.

Ms. Lowry asked if the water rights for the high-volume pumps were for a set point on the river, or for acres of land that the pumps serve. Mr. Kerbel replied that generally the landowner had one pump that they move from field to field using multiple locations in the river. The water right describes the land to be irrigated in addition to withdrawal points and flow rates.

Ms. Lowry asked if the Powder River has been adjudicated. Mr. Kerbel replied the Powder River has been adjudicated and its status is a temporary final decree.

Mr. Horak asked Ms. Sexton to begin the discussion on Montana's Proposed Resolution on Compact Administration Requirements by providing background information.

Ms. Sexton commented that the many years of drought in the basin has brought about discussion and interpretation of the Compact, particularly regarding the pre-1950 rights. The call that Montana made on Wyoming requested the curtailment of pre-1950 diversions and storage to the extent required by the Compact. The rationale for the call was based on the drought situation in Montana and Montana's interpretation of the Compact. Additionally, Montana is concerned about the disposal of coal-bed methane produced water (within and outside the basin) and the effects of coal-bed methane production on the ground-water system. These two issues have been discussed in the past by the Commissioners. Given the conditions in the basin, Montana would like a clear interpretation of the Compact regarding the pre-1950 rights and full apportionment, and Article 10 and coal-bed methane produced water.

Montana presented a resolution (Attachment E) addressing the two issues. Montana feels that now is the time to try to find some common ground and some clear determination and interpretation of where the two States are with these two issues.

Mr. Tyrrell replied that the call placed on Wyoming by Montana and the corresponding letters harken back differences the two States have had in interpreting pre-1950 rights since 2004, and probably earlier. Mr. Tyrrell became aware of the resolution about a week prior to the meeting. The resolution is a product of Montana, not a product of negotiations between the two Commissioners or the two States. Mr. Tyrrell expressed concern that the resolution intends to interpret or amend the Compact. He stated that the resolution brings ground water into the Compact. Wyoming's position is that the Compact clearly does not include ground water. He also stated that Wyoming clearly disagrees with Montana's interpretation of the pre-1950 water-right issue in the Compact.

Wyoming feels it is not appropriate for the Commission, as an institution, to engage in what would be an interpretation of the Compact by accepting this resolution. Thus, Wyoming is not interested in dealing with the resolution at the meeting.

Ms. Bond asked for Wyoming's position on ground water within the Compact. Mr. Tyrrell replied that Wyoming is not ready to state a position. There is a discussion of ground water in Montana's resolution and Wyoming feels that a discussion of ground water is outside the scope of the Yellowstone River Compact. Wyoming received the resolution only a week ago; Wyoming is not prepared to make any additional statements.

Ms. Bond commented that she did not know if the Commission would be willing to make a statement whether this kind of resolution is appropriate, or that Compact interpretation is appropriate for the Commission to act upon, or whether the Commission has a position with respect to what she understands is Wyoming's position (that it is not appropriate for the Commission to adopt a resolution interpreting the Compact). Ms. Bond asked if she articulated Wyoming's position correctly, such that adopting the resolution would not be appropriate for the Commission.

Mr. Tyrrell replied that Wyoming has been looking at the resolution for about 4 working days. Wyoming feels that a resolution put before the Commission should be developed with some study and work by both States. The appropriateness of the resolution should be determined from meetings prior to the Compact Commission meeting so that when the Commission sits down, there are no questions as to whether the resolution is appropriate for the Commission to consider. No discussion has occurred in this case.

Ms. Sexton replied that she was under the impression that when resolutions are presented, they come through the Chairman to be presented at the meeting. She sent the resolution to the Chairman, expecting it to be distributed with the minutes and agenda well in advance of the Commission meeting. She thought that a resolution was a means to begin discussing difficult issues. The Commission meeting seems to be the appropriate venue to discuss the issues described in the resolution; thus, she sent the resolution to the Chairman thinking the resolution would be distributed with the agenda.

Mr. Horak replied that he did not distribute the resolution with the agenda because he felt that the Wyoming Commissioner would not adopt the resolution without considerable discussion, if in fact, he was ever ready to adopt it. Therefore, because the resolution is not a product of a developmental process within the Commission, particularly between the two State Commissioners, Mr. Horak felt it inappropriate to distribute the resolution as Chairman of the Commission without some extensive explanation of the background and purpose of the resolution. Mr. Horak felt that Montana should offer the background and explanation to accompany the proposed resolution.

Ms. Sexton asked how else an issue should be brought forward for public discussion in a public process.

Mr. Horak replied if the resolution had been the product of a deliberative process among Commissioners, he would not have discomfort in distributing it, without considerable explanation and background, along with the agenda under his identity as the Federal member and the Chairperson. Given that the resolution was presented without that dialogue and developmental process, and because the resolution might well represent the perspective of the Montana Commissioner and likely not the Wyoming Commissioner, it was not appropriate for the Chairman to distribute the resolution. In a circumstance where a proposed resolution isn't characterized by that evident conflict of opinion, he probably would have done as requested and distributed the resolution. However, he deemed this to be quite a different circumstance.

Ms. Sexton asked if the issues that are brought forward to the Commission are issues that are agreed upon beforehand.

Mr. Horak replied that this issue has a long history in this Commission. The position Montana put forth is a position that the Wyoming Commissioner would not embrace. Also, the resolution calls for the signatures of both Commissioners on the first distribution.

Ms. Sexton stated that certainly a resolution can be tabled through a formal process. If there is an issue that we do not agree on, how do we move through a process so there is open and public deliberation, so that we clearly understand our positions? How do we move forward in finding some common ground? It is suggested that common ground be found before it is brought to the Commission, because the Commission does not particularly want to discuss something upon which all parties might not agree. This creates a rather awkward situation, where issues with no common agreement cannot be brought forward to the Commission for discussion. How does the Commission discuss the more difficult issues in a deliberative and clearly public and open process?

Mr. Horak asked for Mr. Tyrrell's thoughts on Ms. Sexton's comments.

Mr. Tyrrell replied that the Commission may be missing the role of this Commission in administering the Compact, versus the rights of the various signatories in this case—Montana and Wyoming—to disagree upon parts of the Compact, and interpreting parts of the Compact. Certainly the Commissioners can talk independently as parties over areas with which we disagree. Perhaps these discussions could be brought either to the Technical Committee meeting or to the Commissioners meeting.

Wyoming's point of view is that the proposed resolution is not an instrument of discussion. The resolution is a commitment to positions that we have disagreed upon relatively strenuously for 2 years.

Mr. Horak asked for comments from Ms. Sexton.

Ms. Sexton stated that she appreciated the explanation of procedures that were used in the past. She asked that Commissioners discuss how they move forward on difficult issues. The two Commissioners can call each other, but those discussions are not public. Because there is an open-meeting law in Montana, the discussion should take place in a public forum. Ms. Sexton requested that a future agenda item be a discussion of processes and procedures to discuss difficult issues in public.

Mr. Horak stated that the resolution issue was on the agenda.

Ms. Sexton replied that she was aware of that.

Mr. Horak asked for Mr. Tyrrell's thoughts on Ms. Sexton's comments.

Mr. Tyrrell replied that he wanted to draw the distinction between State-to-State discussions over difficult issues versus the role of the Commission. Commissioners in the past have had discussions independent from the Commission, and that should continue. The discussions between the States should be about the appropriateness of the content of the proposed resolution, not that we adopt the resolution. The Commission is designed to administer under the Compact, not to interpret it differently or to make a decision that could be construed as amending the Compact. If we have issues among the States and we want to get together and change the language, we could consider changes to the Compact. Then we will come back and hand it to Mr. Chairman and say, "here is the book under which we operate." But to do that as a Commission is troublesome.

Mr. Horak asked for further discussion from Ms. Sexton.

Ms. Sexton made a motion to move forward Montana's resolution as proposed for the December 6th meeting, and that the Northern Cheyenne Tribe be given an opportunity to comment on their position regarding this resolution.

Mr. Horak asked for a second on the motion. There was no second.

Ms. Sexton asked if there would be an opportunity to discuss the motion.

Mr. Horak replied that the Compact says that the Federal member (U.S. Geological Survey) only votes under circumstances of disagreements between the two State Commissioners, and the U.S. Geological Survey made a determination (codified in 1996) that they not vote. Rather, they developed a procedure for resolving conflict. In this circumstance, the vote will be one to one, causing the motion to fail for lack of a second and the two Commissioners would enter a dispute-resolution process.

Ms. Sexton replied that her understanding is because Mr. Horak cannot vote, the next option would be to pursue a formal dispute-resolution process.

Mr. Horak responded that Ms. Sexton was correct and that the Commission would invoke the rules for resolution of dispute, and that would begin with unfacilitated communication between the two Commissioners.

Mr. Tyrrell responded that he would reserve his position on dispute resolution because dispute-resolution procedures apply to administrating the Compact rather than interpreting the Compact. Nothing precludes Wyoming and Montana from continuing to discuss what may be something suitable to bring back to the Commission.

Ms. Sexton agreed that it might not be appropriate to use dispute-resolution procedures to resolve Compact interpretation matters.

Ms. Bond replied that Montana agrees that a legal interpretation issue would be inappropriate for the dispute-resolution rules, which provide for a facilitated mediator to make a decision to resolve impasse. It is beyond the scope and authority of the Signatory parties to allow a third party to step in and decide what the Compact means because that is the province of the legislatures of each State. Thus, Montana agrees with Wyoming's position that a legal interpretation would not be appropriate to send to dispute resolution.

Mr. Tyrrell agreed that congressional or other involvement is necessary to change the Compact.

Mr. Horak asked Mr. Tyrrell to brief the Commission on the Joint Water-Use study in Wyoming. Mr. Tyrrell stated that Wyoming received funding for a joint water-use study and they hoped that Montana will also find funding.

Ms. Sexton reported that Montana is presenting a proposal in the upcoming legislative session for funding a study in the Tongue and Powder River basins. Montana will have more news about this topic at the April meeting, as the legislative session will be over.

Ms. Pring updated the Commission about a weather modification project in Wyoming. The Wyoming Water Development Commission received $8.8 million from the legislature to do a 5-year project on weather modification (cloud seeding). The project will focus on the Sierra Madre/Medicine Bow Range and the Wind River Range. They have received a categorical exclusion during the National Environmental Policy Act (NEPA) process to install 12 ground-based generators in the Sierra Madre/Medicine Bow Range and are seeking approval to install generators in the Wind River Range. Also, they intend to use aircraft if the conditions are right. Weather modification will only occur during the winter. Ms. Lowry added that in addition to hoping to get additional moisture, Wyoming intends to scientifically determine if cloud seeding works.

Mr. Dalby asked if there is a ground-based snow-pack and precipitation-monitoring network and control and comparison area planned for the project. Ms. Pring said that she thought there would be some type of control. The project is science based; thus, there must be some way to monitor and verify the effects of cloud seeding.

Mr. Horak asked the States to summarize the coal-bed methane discussion that occurred yesterday (December 5, 2006) during the Yellowstone River Technical Committee meeting.

Mr. Tyrrell summarized coal-bed methane development in Wyoming. He reported that in the Tongue, Little Powder, and Powder drainages, a total of 2,993 storage-reservoir permits have been issued, which represent about 40,800 acre-feet of storage. This indicates the average capacity of the storage reservoirs is between 10 to 15 acre-feet. These permits are for both new reservoirs and old reservoirs that have been improved or were not previously permitted. Also, there are 567 temporary filings (that have been received but not yet approved) that represent about 11,100 acre-feet of storage, with most of the filings for the Powder River basin. Wyoming hired a reservoir inspector who is looking at reservoirs to determine if the reservoir has been permitted correctly and if they have been constructed in compliance with their permit.

Wyoming has received 35,915 ground-water coal-bed methane well applications from 1997 through October 2006. Many of the permitted wells have not been drilled. Most of the well permits are for northeastern Wyoming (Powder River basin) and the remaining permits are for other areas of Wyoming.

Ms. Bond asked Mr. Tyrrell for an update on Wyoming's Coal-Bed Methane Task Force and the proposed pipeline for diverting coal-bed methane water out of the Yellowstone River basin.

Mr. Tyrrell reported that two actions were taken by the 2006 Wyoming legislature. One was the creation of a task force to examine a variety of management options for coal-bed methane produced water. The task force discussed a pipeline from the Yellowstone River basin to the Platte River basin as an option. The second action was to fund the Wyoming Water Development Commission to study the pipeline option. Mr. Tyrrell did not believe the study had gone far because industry had not committed to a volume and duration of water.

Ms. Bond replied that she had seen a memo from Mr. Mike Besson on Wyoming's Coal-Bed Methane Task Force Web site indicating that the task force was hoping to present a pipeline proposal to the 2007 legislature because there was a need for water in the Platte River. The Web page stated that the governors signed an agreement regarding the Endangered Species Act recovery and the amended Platte River decree, and the pipeline is viewed as a means to provide a short-term water supply to the Platte River until other water supplies can be developed.

Mr. Tyrrell replied that he was not aware of a pipeline project that Mr. Besson was proposing to the 2007 legislature.

Ms. Bond replied that the description in Mr. Besson's memo generally covered the idea of piping some coal-bed methane produced water from the Powder River basin to the Platte River basin. She assumed that it was in accordance with the plans that were suggested as an alternative in the February 2006 ALL/DOE Wyoming – Phase II feasibility study of water management alternatives for coal-bed methane water (*http://governor.wy.gov/policies/documents/FinalPhaseIIReport.pdf*).

Mr. Tyrrell responded that the Wyoming Water Development Commission usually has an omnibus bill in the legislature that funds projects and he is not aware of initial funding for a pipeline study, beyond what he previously mentioned.

Mr. Tyrrell reported that the Wyoming State Engineer's Office has received some money to work with the Wyoming Geological Survey on coal-bed methane water-level modeling. The intent is to develop a contemporaneous water-level-surface map in the coal-bed methane area in northeastern Wyoming. Wyoming hopes for a GIS product that will help them track the potentiometric surface in the coal area as a result of natural-gas production.

Mr. Compton summarized coal-bed methane development in Montana. There are two operators in Montana (Pinnacle Gas and Fidelity Exploration and Production) operating under three permits. One of the permitted operations uses a variety of treatment strategies and the other two use an ion-exchange treatment system. There are 697 producing wells in Montana and an additional 134 permitted wells.

Three Wyoming producers and the State of Wyoming have asked for judicial review in Federal court in Wyoming of EPA's approval of the Montana Board of Environmental Review's 2003 rulemaking regarding the adoption of the water-quality numeric standards. A slightly different set of Wyoming producers has sued Montana for the Board's 2006 rulemaking that

adopted a numeric non-degradation threshold for certain waters in the Powder River basin. The Northern Cheyenne Tribe has challenged the last two Montana permits; one is a Fidelity expansion and the other is a Pinnacle Gas treatment system. Montana and Wyoming continue EPA-facilitated discussions (at Wyoming's request) to resolve water-quality issues near the border.

Mr. Tubbs reported on a conversation he had with Mr. John Wheaton, from the Montana Bureau of Mines and Geology, regarding a ground-water well network in the coal-bed methane area of Montana. In the environmental impact statement (EIS), early findings from the monitoring network indicate that ground-water declines are smaller than anticipated. Also, flow from the coal-bed methane production wells has been less than anticipated. Mr. Wheaton felt that although the drawdown effects were significant, it looks like the EIS appeared so far to provide a good conservative review of drawdown effects in the coal-bed methane area. The monitoring project is funded by a 2-year grant and additional funding is needed to continue the monitoring into the future.

Ms. Sexton reported that Montana is continuing with the expedited statewide adjudication program. Mr. Kerbel added that there are about 5,000 water-right claims for the lower Tongue River (downstream from Hanging Woman Creek), and about 2,000 for the upper Tongue River. Currently, Montana is examining and verifying the claims on the lower Tongue River. They have not started on the upper Tongue River.

Mr. Tyrrell asked if there was any duty water assigned by the State of Montana, or does the State address each claim? Mr. Kerbel replied that they look at acreage and flow rates. If the flow rate exceeds 17 gallons per minute per acre, they ask the user to provide some historical information to justify using that much water. This is part of the rules from the Montana Water Courts and the Montana Supreme Court.

Ms. Sexton added that, previously, if there was an issue noted by DNRC on a claim, the claim might go through the Water Court and the issue not be addressed if no one objected. After the last legislative session, the Water Courts are required to address issue remarks. An issue remark occurs when DNRC can not reach a resolution with the user; then DNRC presents an issue remark for that particular filing. The user has an opportunity to state their case in front of the Water Court.

Ms. Bond added for clarification that the attachments to the call letter Montana sent to Wyoming referenced a decree on the Tongue River. The decree is commonly called the Miles City Decree. That's a final adjudication and decree as to those individual water users. This is valid under Montana law until the new adjudication process is completed. So, for purposes of the Tongue River, it is also adjudicated for purposes of administration. The Water Commissioners get this charge from the judge to administer pursuant to those decrees. In addition, the Powder River decree is final.

Ms. Sexton updated the Commission on the Crow Compact. She said that Federal legislation has been drafted to ratify the Compact that has passed the Montana 1999 legislature. Federal legislation would ratify the Crow Compact and provide for Federal authority. Hopefully, this will be introduced to the 2007 congress. Montana has set aside $15 million in escrow, and it remains to be seen what the Federal Government will contribute.

Mr. Duberstein briefed the Commission on recreational use in Bighorn Lake. The Bureau of Reclamation sent a letter to the governors of the State of Montana and the State of Wyoming seeking representatives for their States to participate in a group to evaluate options and resources and provide recommendations for the Bureau of Reclamation to consider regarding recreational use on Bighorn Lake. The letter was mailed in November 2006. The Bureau of Reclamation is hoping to start the group in January 2007.

Mr. Darling added that discussions regarding management of Bighorn Lake began between the Lovell area Chamber of Commerce and Montana. The primary concern from Lovell (and Wyoming) is that they felt promises had not been realized from the formation of Bighorn Canyon National Recreation Area. Bighorn Lake inundated 73 farms and some of the economic benefits from the new reservoir have not been realized. Lovell's concern is that water levels be high enough to allow for marina operations. They suggested that, to accommodate the needs of the Horseshoe Bend Marina, flow from the dam be reduced to maintain reservoir elevations. Montana is concerned with that proposal because it would harm the nationally renowned Bighorn River fishery. Mr. Darling said that it is good to hear that the Bureau of Reclamation has joined the discussions.

Mr. Horak stated the topics of the agenda have been covered and asked for additional comments or items to be discussed.

Mr. Clubfoot stated that the Northern Cheyenne Tribe had water rights in the Bighorn and Tongue River drainages and they were concerned about receiving their 1881 water right on the Tongue River.

Mr. Fox, Northern Cheyenne Tribal Councilman, said that the Northern Cheyenne Tribe supports the resolution presented by Montana.

Ms. Lowry updated the Commission on several water-development projects in Wyoming. A watershed study in the Middle Fork Powder River basin has received Level I funding. Level I funding essentially supports a reconnaissance study. If a project looks feasible then Level II funding is generally appropriated in the next year. Level III then looks at construction, such as a new dam or rehabilitation on an existing dam. The Water Development Commission will soon set up a meeting with interested landowners regarding the study.

Additionally, a regional municipal-water supply in the Thermopolis to Greybull area is being discussed. Water projects on Ray Lake and Washakie Lake in the Wind River Indian Reservation also are being discussed.

Mr. Fix said that he became aware that a congressional earmark to fund monitoring on the Tongue River, the Powder River, and Rosebud Creek may be in jeopardy. He drafted a letter for the Northern Plains Resource Council that will be signed by water users and T&Y Irrigation District urging Montana's congressional delegation to continue funding the project. Mr. Davis added that the project Mr. Fix brought up is a surface-water-quality monitoring network in the Tongue River watershed. Most of the network is funded by the earmark. The remaining part of the network is funded by Federal cooperators and joint funding programs between the USGS and Wyoming and Montana through the USGS Cooperative Water Program. There are a total of 12 stations in the network, and seven of the stations are on the main stem of the Tongue River.

Mr. Dalby said that many of the streamflow gages in the network are important to both States for flow administration and water-quality monitoring. Only one gage is funded through the Compact. In the future, the other gages may be important in administering the Compact. It would be a shame to lose those gages. He requested that people or organizations write a letter in support of the network.

Mr. Davis said that funding for the monitoring project was added in the Senate appropriations bills for 2004, 2005, and 2006, and was added in the Senate committee version of the bill for 2007. Currently, the USGS is operating under a continuing resolution bill and it is uncertain if the earmark will remain in the Department of the Interior budget. Funding for the project in future years is currently uncertain.

Mr. Tyrrell said that it is appropriate for the Commission to support the monitoring project because it may lead to helpful understanding of administrative issues under the Compact. He made a motion that the Commission write a letter of support for funding the project (Attachment F). Ms. Sexton seconded the motion and the motion carried.

Mr. Horak said that now would be a good time to discuss the methods used to produce the record of the Commission (minutes). Previously, there was an exchange among the Commissioners and the Chairman through phone conversations and e-mails that got them to the method now used. He asked Mr. Berkas to describe the current method.

Mr. Berkas stated that the Commissioners agreed that the USGS would contract with a person to come to the Yellowstone River Compact Commission meeting and record the discussions at the meeting. The contracted person would provide a written transcript (an electronic text file) to the USGS (Mr. Berkas). The USGS would use the transcript to prepare the minutes of the meeting.

Mr. Horak asked Mr. Berkas to describe the full procedure that will be employed today through the date when the minutes are delivered to the Commissioners.

Mr. Berkas replied that Soteria Scoping (Ms. Patterson) has been hired to record the meeting and provide an electronic document transcript of the meeting. He would paraphrase the statements made at the meeting, using the transcript, to cover the main topics discussed at the meeting. Within 45 days from the meeting, a draft copy of the minutes will be distributed to the two Commissioners and they will have an opportunity to make editorial changes to better clarify their points and statements. Changes are to be returned to Mr. Berkas within 30 days. After both Commissioners are satisfied with the minutes, the minutes are approved. After the minutes from this meeting are approved, they will be incorporated into the annual report. The report will be mailed to the State Governors (Montana, North Dakota, and Wyoming) and the President's Office, and displayed on the Yellowstone River Compact Commission Web page.

Mr. Horak stated that the Compact says that the Commission will produce an annual report that will be delivered to governors of the Signatory States by the end of the calendar year (December 31). The Commission recognized that in the meeting structure for the last few years, including the annual meeting in early December, that it is not feasible for the Commission to meet

the December 31 deadline. The Commission has declared that if the Commission accomplishes the distribution of the final report between February and mid-March, then the Commission will have discharged their obligations for formal reporting of Commission proceedings.

Ms. Sexton thanked Mr. Horak for the discussion of producing the minutes because the method was not clear to her. She asked about the availability of the tape recording of the meeting. Minutes reflect what is said and generally are a summary reporting of the meeting. Montana was not aware if they had the ability to request a copy of the tape, and that is why they hired their own transcriber to attend the meeting. Mr. Moy commented that as he understands, tapes are not kept. The USGS was provided with an electronic version of what was transcribed from the tape. Ms. Sexton commented that tapes are not available to use to check minutes to make sure the minutes are accurate. If our memory fails, we have no means to try and correct the minutes. Montana would like to have either tape or transcript available to them.

Mr. Tyrrell replied that governing documents of the Commission do not say how we get our minutes. The Commission is free to choose among a number of methods. In the other Commissions of which he is a member, generally the meetings are not taped. Mr. Tyrrell is comfortable with the method currently employed. The tape is essentially a draft set of minutes and is not a formal product. The final minutes are the formal product. A real question is whether you want the tape to be available to the Commission and to the public. How do we want our draft minutes to be treated? What is the product of the Commission? Are draft products also considered products of the Commission?

Mr. Horak replied that a copy of the tape and the transcription could be provided to the Commissioners when they received the draft minutes to review. Regarding permanently archiving the tape, there may be some issues with the continued and eventual quality of that archived tape. Ms. Sexton replied that a copy of the tape and transcript would meet Montana's request. Mr. Tyrrell commented that Wyoming would like the tape and transcript and would treat both as a draft, not a final product of the Commission. Ms. Sexton commented that the tape and transcript would only be used as an editing tool to make sure the discussions they had at the meeting were included in the final minutes.

Mr. Horak commented that the tapes would not need to be archived.

Mr. Dalby suggested that the tape is not necessary because the transcript will be easier to compare to the abridged minutes than listening to four hours of tapes.

Mr. Horak commented that the Commission, through Mr. Berkas, has contracted for a verbatim transcript. He recommended that Mr. Berkas provide the transcript and the minutes to the Commissioners. At the April meeting we can review the post-mortem of how all of that works and make a decision as to how the Commission will use those various tools in making the formal record of our December meeting a year from now.

Ms. Sexton commented that she was concerned that this procedure would increase cost.

Mr. Tyrrell also was concerned with increasing cost.

Mr. Horak asked the recording Secretary (Mr. Berkas) if he could produce the minutes in the usual fashion. If the contract services provide a verbatim transcript, could he send the verbatim transcript and the tapes to the two State Commissioners? The formal record (abridged minutes) that the Commission adopts will be done in a manner such that the content will be consistent with the way the minutes were prepared in the past. Also, could he do this with no additional cost?

Mr. Berkas replied that he could send the transcript and tapes to the two Commissioners at no additional cost.

Ms. Sexton replied that before we invite a motion she wanted to comment that it was Montana's understanding there would not be a transcript. They thought it was to be taped, and the minutes would be made from the tape. They did not understand, until now, that a transcript would be made by the contractor (Soteria Scoping). This is why Montana brought along and paid for a court reporter. She wanted this as a point of clarification. Montana was not aware until this time that a transcript would be produced.

Mr. Horak asked for a motion.

Ms. Sexton moved that the minutes for this meeting with the transcript and tapes be distributed to the Commissioners and Chairman. At the April meeting they will revisit the issue and decide how to proceed in the future. Mr. Tyrrell seconded the motion and the motion carried.

Mr. Horak said that he appreciated how Ms. Sexton stated her motion, which was that the Commission will revisit this issue again. It was difficult to find somebody to provide these kinds of services for the meeting in Thermopolis. If the Commission had to bring somebody from Casper, the cost would be substantial. If the Commission feels it is necessary to have a verbatim record, then it needs to be aware that the funding currently budgeted may not be sufficient.

Ms. Sexton replied that Montana is most interested in a tape recording of the meeting.

Mr. Horak announced that the official Yellowstone River Compact Commission Web site is now accessible. Please provide him with suggestions for content on the Web site. The Web site is at *http://cr.water.usgs.gov/YRCC/index.html.*

After considerable discussion, the Commission decided to hold the next Yellowstone River Compact Commission meeting in Sheridan, Wyoming. The Technical Committee will meet in the afternoon of April 24 (Tuesday) and the Commission will meet in the morning of the April 25 (Wednesday), 2007.

Mr. Horak adjourned the meeting.

0428

Patrick T. Tyrrell

Commissioner for Wyoming

Mary Sexton

Commissioner (Acting) for Montana

William F. Horak, Jr.

Chairman and Federal Representative

MT v. WY/M.T.D. App. 580 (WY)

Attachments

Attachment A—Letter from the Governor of Montana Appointing Mary Sexton as the Acting Yellowstone River Compact Commissioner.

Attachment B—Letter from Jack Stults, Commissioner for Montana (Montana's Call for Water).

Attachment C—Letter from Patrick Tyrrell, Commissioner for Wyoming (Wyoming's Response).

Attachment D—Letter from Mary Sexton, Acting Commissioner for Montana (Montana's Reply to Wyoming).

Attachment E—Yellowstone River Compact Commission Resolution (Resolution Proposed by Montana).

Attachment F—Letter from Montana and Wyoming Commissioners to Senator Max Baucus (Montana) in Support of USGS Tongue River Monitoring Network.

MT v. WY/M.T.D. App. 561 (WY)

0429

Attachment A—Letter from the Governor of Montana Appointing Mary Sexton as the Acting Yellowstone River Compact Commissioner.

OFFICE OF THE GOVERNOR
STATE OF MONTANA

File

BRIAN SCHWEITZER
GOVERNOR

JOHN BOHLINGER
LT. GOVERNOR

RECEIVED
NOV 29 2006
ATTORNEY GENERALS OFFICE
HELENA, MONTANA

September 28, 2006

Honorable David Freudenthal
Governor of the State of Wyoming
Cheyenne, Wyoming 82002

Honorable John Hoeven
Governor of the State of North Dakota
Bismarck, North Dakota 58501

Mr. Patrick Tyrrell,
Wyoming State Engineer,
Yellowstone Compact Commission

Mr. William Horak, U.S. Geological Survey,
Chairman and Federal Representative
Commissioner for Wyoming

Dear Sirs:

Please be advised that pursuant to Article III of the Yellowstone River Compact, I have appointed Mary Sexton, Director of the Montana Department of Natural Resources and Conservation to be Acting Commissioner for the state of Montana. This appointment is effective as of October 1, 2006 given the resignation from State employment of Jack Stults, prior Commissioner. This temporary appointment will remain effective for all purposes until such time as I appoint a permanent Commissioner for the State of Montana.

Please be assured that Montana holds the Commission in the highest esteem. I assure you that Montana will continue to take all means reasonable and necessary to ensure a smooth transition to a permanent commissioner in the near future.

Thank you in advance for your cooperation. Here is the contact information for the Acting Commissioner:

Mary Sexton, Director
Department of Natural Resources and Conservation
1625 Eleventh Avenue
PO Box 201601
Helena, MT 59601-1601
msexton@mt.gov
(406) 444-2074

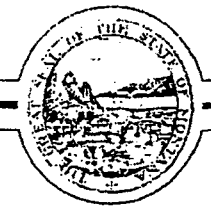
Sincerely,

BRIAN SCHWEITZER
Governor

STATE CAPITOL • P.O. BOX 200801 • HELENA, MONTANA 59620-0801
TELEPHONE: 406-444-3111 • FAX: 406-444-5529 • WEBSITE: WWW.MT.GOV

Attachment B—Letter from Jack Stults, Commissioner for Montana (Montana's Call for Water).

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION



BRIAN SCHWEITZER
GOVERNOR

DIRECTOR'S OFFICE (406) 444-2074
TELEFAX NUMBER (406) 444-2684

STATE OF MONTANA

WATER RESOURCES DIVISION (406) 444-6601
TELEFAX NUMBERS (406) 444-0533 / (406) 444-5918
http://www.dnrc.mt.gov

1424 9TH AVENUE
PO BOX 201601
HELENA, MONTANA 59620-1601

July 28, 2006

Patrick T. Tyrrell
Wyoming State Engineer
WY State Engineer's Office
Herschler Building, 4 East
Cheyenne, Wyoming 82002

RE: Call for Water under Yellowstone River Compact

Dear Pat:

I am writing today to request that Wyoming administer the waters of the Tongue and Powder Rivers by curtailing post-1950 diversions or storage to the extent required by the Yellowstone River Compact ("Compact") under current conditions. I was unable to contact you by telephone on Friday to let you know this was coming, but I will try again on Monday morning.

The Tongue River. As you know, the situation in the Tongue is quite dire, as noted in the accompanying affidavits of the President of the Tongue River Water Users Association and the Montana Water Commissioner for the upper part of the Tongue River. The river flow is now about one-fourth of the previously recorded low, and is supporting only the first right on the river. We were unable to fill the reservoir this year, in part, we believe, because, during the normal filling period Wyoming was in a "free river" situation and had no regulation of its post-1950 water uses. Article V. A of the Yellowstone River Compact provides that each State is entitled to satisfy its pre-1950 water rights before either state may supply its supplemental or post-1950 uses. As a practical matter, that means that the upstream state, Wyoming, cannot allow its post-1950 users to take their water if pre-1950 users in Montana are not being satisfied. Our 1938 Reservoir contract holders are not able to use the full amount of their contracts and the decreed pre-1950 users of direct flow in Montana are being seriously shorted on rights they would normally receive to finish the irrigation season. The status of the river as of July 21, 2006 is indicated in the enclosed affidavits. Flows since then have been as low as 10 cfs at the state line gage, while the Dayton Gage was at 67 cfs and the Monarch gage at 13 cfs. This is consistent with Wyoming's statement at the Compact Commission meeting in April that Wyoming does not regulate any uses on the mainstem.

As the water commissioner indicates, only the first right on the Tongue has been receiving any water. See Kepper Affidavit, ¶ 6. No other valid rights are currently being met out of the 1914 decree. I have attached a copy of the "Decree of the Waters of the Tongue River," entered on May 20, 1914, for your reference. Water rights in the 1914 decree combine to

STATE WATER PROJECTS BUREAU (406) 444-6646 | WATER MANAGEMENT BUREAU (406) 444-6637 | WATER OPERATIONS BUREAU (406) 444-0860 | WATER RIGHTS BUREAU (406) 444-6610

a total flow rate of 431.64 cubic feet per second during the irrigation season. Current flow at the state line is at about 15 cubic feet per second, while the mean for this day is 234 cfs. Because the Reservoir did not fill this year, both the contract holders and the Northern Cheyenne Tribe are experiencing a shortage of storage water. The Northern Cheyenne Tribe also holds direct flow reserved water rights on the Tongue and contract water from the State of Montana that are being shorted. We have notified them of our intention to call upon Wyoming to administer the Compact waters and will apprise them of further activities between the States.

Wyoming is required by the Compact to regulate its post-1950 uses on the Tongue, including uses on the mainstem, until Montana's pre-1950 uses are satisfied. From the information provided at the April meeting, we understand that there is stored water in the headwaters of the Tongue that is post-1950 and was stored while Montana's pre-1950 uses were being shorted. If so, this water should be made available immediately to our users. See attached Wyoming Reservoirs Capacity Report.

The Powder River. As of Tuesday the 25th, there was essentially no water in the Powder River at the Moorhead gage. The gage reading is 1.1 cfs, while the mean for this day is 432 cfs. Most irrigators on the Powder have valid water rights to cover their irrigated lands two or three times each season, which would have allowed one more irrigation yet this season. Obviously, they are all shut down now until the river comes up considerably. Importantly, flows are extremely low and the water is very salty for this time of year. Degradation of water quality due to low flows results in water not fit for irrigation of some soils. Flows north of Powderville, Montana are inconsistent to nonexistent, and salt concentrations are extremely high. This is the worst some folks have seen at this time of year on the Powder in Montana.

We request an immediate meeting of the technical committee to supervise the release and delivery of this water. Additionally, the technical committee should develop a process for continued delivery of water to satisfy senior users throughout the summer. As we discussed, unless we all get an unprecedented amount of rain throughout the summer, this is a particularly bad year for water supply. It is essential that we work quickly and appropriately to administer our interstate waters to satisfy our users in a way that is least disruptive to water users in both States. Furthermore, the water administration should take into account that while many of those water rights users are irrigators, some are municipal water users in our cities and towns along the rivers, including the community of Miles City, Montana.

The continuation of the extreme drought seriously affects us all. The States can best serve the water needs of their citizens by developing a mutually workable process for timely delivery of waters necessary to meet calls on valid pre-1950 rights in addition to providing for the Compact apportionment of all waters developed after 1950. However, failing the cooperative approach, Montana is prepared to undertake whatever action we believe is in the best interests of our citizens to protect our rights that are secured in the Compact. Our first goal, as recognized and affirmed in the Compact, is to protect valid pre-1950 rights in both States, through cooperation between the States on behalf of the citizens of each State.

Although this letter in not required by the Compact, as Compact Commissioner for Montana, and as directed by Governor Schweitzer, this letter constitutes Montana's call and demand, under the terms of the Compact, for water to satisfy our valid and protected pre-1950 water rights on the Tongue and Powder Rivers.

Attached is documentation to support the call. Due to the dire need, we must request that you confirm that water will be administered as requested or otherwise respond within a week. Thank you in advance for your cooperation on this difficult matter.

Sincerely,

Jack Stults
Division Administrator
Water Resources Division
Commissioner for Montana

cc. Montana Governor Schweitzer
Wyoming Governor Freudenthal
Bill Horak, Chair, Yellowstone River Compact Commission
Jeannie Whiting, Northern Cheyenne Tribe

Enc. Affidavit of President of the Tongue River Water Users Association
1914 Decree Table

RECEIVED
JUL 2 4 2006
ATTORNEY GENERALS OFFIC
HELENA, MONTANA

IN THE MATTER OF THE YELLOWSTONE RIVER COMPACT

AFFIDAVIT OF ART HAYES JR.

STATE OF MONTANA)
: ss.
County of Rosebud)

I, Art Hayes Jr, being duly sworn, do hereby affirm and state as follows:

1. I am a competent adult citizen of Montana. I reside at Birney Montana. I have resided at that location since 1962. My address and telephone numbers are: 208 Hanging Woman Creek Road, phone (406) 984-6260.

2. I am a farmer/rancher and irrigate out of the Tongue River in Montana. My family has done so for 122 years. I do so under authority of water rights in name of The Brown Cattle Company, claim numbers 42C 145052-00 with a priority date of April 1, 1902,diverted at SW SW SW § Sec of Sec 6 Twp 6S Rge 43E Rosebud; Claim number 42B 145051-00 with a priority date of September 22, 1899,diverted at SW NE NE § Sec of Sec 13 Twp 6S Rge 42E Rosebud; claim number 42C 145047-00 with a priority date of June 1, 197, 1diverted at SE NE SW Qtr Sec of Sec 25 Twp 5S Rge 42E Rosebud; and water purchase contracts from the Tongue River Reservoir.

3. The state water purchase contract referred to above is a 1650 acre-feet contract from the Tongue River Reservoir, a Montana State owned Reservoir with a priority date of 1937.

4. I have resided in the rural area of the Tongue River, in the vicinity of Birney Montana for 44 years. My livelihood requires a reliable water supply for irrigation, stock, and domestic use. My work and way of life depend heavily on water of a quality sufficient

to meet the needs of irrigation, domestic, and stock use. For all or most of the years in which I have lived in the vicinity, I have personally and regularly observed the river conditions throughout the irrigation season and I have more generally observed the river conditions throughout the year.

5. In addition to being a water user myself, I am the President for the Tongue River Water Users Association, (TRWUA) a nonprofit water users association comprised of members with water purchase contracts for the delivery of water from the Tongue River Project. I have served in this capacity since 1991.

6. In my capacity as President for the TRWUA, I administer the water purchase contract deliveries of water by measuring actual stored water, observing snowpack, monitoring all available state and federal water data, including, United States Geologic Survey and National Resource Conservation Service, and Montana Department of Natural Resources and Conservation data for the basin, measuring inflow and outflow, and adjusting the Tongue River Dam outlet in response to calls for water purchase contracts. I also honor calls for senior water rights holders.

7. As Montana is a prior appropriation state, whenever a call for water from a water right holder senior to the state project calls for water, I must honor that call, even if that means the state water rights and other junior appropriators' needs will go unfulfilled. To perform these functions I maintain close contact with the water users all up and down the Tongue River, all the way to Miles City, so that I have a good understanding of when the shortages my occur and what the needs are, especially relative to what normal river levels

are. In this way I can anticipate shortages and attempt to satisfy the most senior rights while minimizing harm to the junior users whose water rights I cannot honor.

8. Based on my knowledge of the River and its users, and based on the training I received from the previous President, Herb Mobley, who performed these functions for twenty years, I try to run the dam so that there is 50 cfs of water at Miles City. The waters of the Tongue River are included in the 1914 Miles City decree, which I use to administer the water rights.

9. On January 18, 2006 the Tongue River Advisory Committee (an advisory group in the Northern Cheyenne compact) met in Billings, at that meeting the group looked at snowpack and projected inflows. The group concluded that because of low flows, diminishing snowpack, and expected continuation of low flows, the Reservoir would be managed to maximize storage between January and March 1, 2006. The Tongue River below the dam was staged down to its minimum 75cfs, but due to falling inflows I was not able to meet the set goal of 3000 acre-feet of storage. Between March and June, our normal period of storing, we left the outflow at its minimum to store the maximum amount of water coming down the river.

11. It is my understanding that Wyoming does not regulate its users during "free river" conditions, typically occurring during the period of year that we have a right to store water. This year, Montana was unable to fulfill its right to store its 1937 water right. Montana was short approximately 6,381 acre-feet of water. At this time, that shortage is shared between the Tongue River Reservoir contract holders and the Northern Cheyenne Tribe, although the state and the tribe do not necessarily agree on the proper method of

sharing the shortages. I do not speak for the Northern Cheyenne Tribe, but only on the basis of my personal observations and experiences in regulating the dam.

12. From my experience in administering the water rights from the Tongue River dam for over 16 years, and from my training from the previous dam manager who ran the project for over twenty years, it is my opinion and observation that there has been insufficient water this year to meet the 1937 storage right of the state project and the Federal Reserved Water right of the Northern Cheyenne Tribe.

13. June 17, 2006 is the last date that the river contained sufficient water to satisfy the 1914 Montana decreed rights in the Tongue River. By July 15, 2006 the river had dropped to a flow sufficient to satisfy only the first water right on the Tongue River.

14. To my knowledge, Montana water rights with perfected prior appropriative dates before 1950 are not being satisfied at this time in the Tongue River Drainage. The 1937 right in the project is not being satisfied at this time, nor are other valid senior water rights of the 1914 Miles City Decree and the Northern Cheyenne Tribe. Without significant additional inflows into the drainage, the project contracts and Tribe will only receive partial service and all but the very most senior water rights will receive no further water at all this irrigation season. The need for irrigation water is serious and immediate.

15. Water quality sufficient to meet the appropriative right purposes requires that the water delivered to the project meet Montana's water quality standards for B-1 Rivers under the Montana Water Quality Act.

FURTHER AFFIANT SAYETH NOT

DATED this 21 day of July, 2006.

Art Hayes Jr.
ART HAYES Jr.

On, 21st day of July 2006, the aforementioned affiant appeared before me and swore or affirmed that the above facts were within his or her personal knowledge and that they believed them to be true.

SUBSCRIBED AND SWORN to before me this 21st day of July, 2006, 2006.

Lori Blaede
PRINTED NAME
Lori Blaede
Notary Public for the State of Montana
Residing at Ashland MT
My Commission Expires August 18, 2007

0438

IN THE MATTER OF THE YELLOWSTONE RIVER COMPACT

RECEIVED
JUL 2 4 2006
ATTORNEY GENERALS OFFICE
HELENA, MONTANA

AFFIDAVIT OF CHARLES KEPPER

STATE OF MONTANA)
: ss.
County of Rosebud)

I, Chuck Kepper, being duly sworn, do hereby affirm and state as follows:

1. I am a competent adult citizen of Montana. I reside at Birney Montana. I have resided at that location since 1993. My address and telephone numbers are: East Fork Hanging Woman Creek Road, phone (406) 984-6284. I have resided there since 2000.

2. I am a retired maintenance foreman for Shell Oil. I have no irrigations rights in Montana. For most of the years since 2000, including this year, I have been appointed a water commissioner on the Tongue River by the Honorable Judge Hegel, Montana District Court in and for the Sixteenth Judicial District in Forsyth Montana. I have attended the water commissioner training given by the Department of Natural Resources and Conservation.

3. In my capacity as water commissioner for the Tongue River, I admeasure and administer the water rights established in what is commonly referred to as the 1914 Miles City Decree, as well as the water released from the Tongue River Dam for water purchase contract holders. In some years I have performed this function for the entire stretch of the mainstem of the Tongue River from the dam to the T and Y Ditch Company at Miles City. For this year and the last three years, the Honorable Judge Hegel has appointed another commissioner to administer the Decree for the rights below the Brandenburg Bridge. That Commissioner this year is Charlie Gephardt. Charlie admeasures and administers the river

below the Brandenburg Bridge. In my capacity as Commissioner for the Upper Tongue, I work closely with Charlie to assure that only the most senior rights are satisfied in order of priority, and that our records of water deliveries are accurate.

4. In my capacity as water commissioner, I am required personally and regularly to observe the river conditions throughout the irrigation season. I have more generally observed the river conditions throughout the year since I have lived in Montana.

5. Between May 2006 when I was first appointed, and June 17, 2006, I gradually began cutting off decreed water rights of the 1914 Decree as required to satisfy any senior water right holders calling for their water. The Tongue River flow dropped below the amount of decreed water being called for on June 17, 2006, and so I began to enforce the priorities on the River on that day. On June 21, 2006, the flow at the state line was 233 cfs. That is enough to satisfy only the first six water rights of the twenty-two in the 1914 Decree.

6. On July 19, 2006, there is only 15 cfs coming into the Reservoir. That is only enough to satisfy the first right of the twenty-two in the Decree. The first right is for Nance Cattle Company, priority date July 6, 1886 for 10.49 cfs. I deliver that amount to the Nance Cattle Company headgate, and allow the remainder, less than 5 cfs, to travel downstream for the second right in the decree, T&Y Ditch Company. T& Y Ditch has an August 9, 1886 right for 187.5 cfs. Due to conveyance losses, T&Y is now receiving essentially no water at all from the Decree.

7. In our capacities as water commissioners, it is Charlie and my responsibility to assure that none of the other decreed right holders receive any more of their prior rights unless and until the River flows exceed those two first rights. If and when the River comes

up, we can allow additional users to get water in accordance with their priority date in the Decree. Until then, other than the Nance right, the only water being delivered is the water purchase contract water.

8. At this time we are delivering only a percentage of stored water to the water purchase contract holders. Because the Reservoir did not fill this year, the water purchase contract holders are sharing the shortages, so each will be delivered only a percentage of their contract rights. Those contract rights have a priority date of 1937. If there were no stored water in the system the River would be dry long before it reached Ashland, as the less than 5 cfs left after the first right is satisfied would be lost to seepage.

FURTHER AFFIANT SAYETH NOT

DATED this 21 day of July, 2006.

Charles Kepper
CHARLES KEPPER

On 21st day of July, 2006, the aforementioned affiant appeared before me and swore or affirmed that the above facts were within his or her personal knowledge and that they believed them to be true.

SUBSCRIBED AND SWORN to before me this 21st day of July, 2006.

Nanalee Gundlach
PRINTED NAME
Nanalee Gundlach
Notary Public for the State of Montana
Residing at Billings
My Commission Expires March 1, 2008

AFFIDAVIT OF CHARLES KEPPER
Page 3

0441

DECREE OF THE WATERS OF TONGUE RIVER, Docket No. 2809, and MODIFIED AND SUPPLEMENTAL JUDGEMENT AND DECREE ENTERED ON THE 20th DAY OF MAY, 1914 – Custer County Montana.

Number	Name	Date	No. of Miners Inches	cfs
1	Jos. T. Brown L & C Company	7-6-1886	419.55	10.49
2	Miles City C & I Co. T&Y	8-9-1886	7500.00	187.50
3	Brewster Est. W. Ditch	4-19-1890	159.90	4.00
4	Jos. T. Brown L & C Company #4	7-14-1891	359.40	8.99
5	Jos. T. Brown L & C Company #2	6-1-1894	257.30	6.43
6	Fred Barringer, et al.	6-1-1895	941.30	23.53
7	R.F. Colbert	6-15-1895	133.84	3.35
8-A	Jos. T. Brown L & C Company #3	10-27-1896	59.15	1.48
8-B	Tobias Salverson	10-27-1896	75.15	1.88
8-C	George Hilbertson	10-27-1896	26.50	0.66
8-D	Peter Salverson	10-27-1896	25.50	0.64
9-A	Ball Ranch, E. Ditch	1-27-1897	1163.75	29.09
9-B	John L. Flowers	1-27-1897	49.70	1.24
10	C.M. Taintor #1	10-1-1897	83.69	2.09
11	B.F. Shreve	7-1-1898	182.35	4.56
12	Raseus O. Lee	10-1-1898	45.65	1.14
13A	Thomas Salverson	5-1-1899	24.50	0.61
13B	C.A. Randall	5-1-1899	78.86	1.97
14A	Jos. T. Brown L & C Company #5	9-22-1899	533.85	13.35
14B	Brewster Est., E. Ditch	9-22-1899	187.50	4.69
14C	Grace S. Brewster	9-22-1899	15.30	0.38
14D	P.L. Peterson	9-22-1899	26.85	0.67
15	C.M. Taintor #2	6-1-1900	81.13	2.03
16	Tongue River Est. Co. (now S-H)	12-29-1900	1781.00	44.53
17	Hunt Heirs	1-29-1901	113.20	2.83
18	Jos. T. Brown L & C Company #6	4-1-1902	276.30	6.91
19A	S.A. Hotchkiss	12-10-1902	157.10	3.93
19B	William Wolff	12-10-1902	395.00	9.88
20	Ball Ranch Co. W. Ditch	12-17-1908	314.45	7.86
21	Indian Service	3-24-1909	1200.00	30.00
22	G.B. Pope	11-22-1910	597.90	14.95
		Total	17265.67	431.64

This table does not reflect any current name changes.

Attachment C—Letter from Patrick Tyrrell, Commissioner for Wyoming (Wyoming's Response).

State Engineer's Office

HERSCHLER BUILDING, 4-E CHEYENNE, WYOMING 82002
(307) 777-7354 FAX (307) 777-5451
seolog@seo.wwn.gov

DAVE FREUDENTHAL
GOVERNOR

PATRICK T. TYRRELL
STATE ENGINEER

August 9, 2006

Mr. Rich Moy
Acting Division Administrator
Water Resources Division
Department of Natural Resources and Conservation
P. O. Box 201601
Helena, Montana 59620-1601

Dear Rich:

I am providing Wyoming's initia response to the issues Jack Stults raised in his letter of July 28, 2006. As we discussed when Montana sent a similar letter in 2004, this multi-year drought has caused unprecedented low stream flow in many areas of both of our states. The lack of water is taking its toll on our water users as well, and we are experiencing similar conditions to those outlined in your letter. We too are regulating water rights back to the 1880's in the Tongue and Powder River basins, and have numerous pre-1950 rights going unfulfilled. Although no formal call for regulation within Wyoming has been received on the mainstem Tongue River, that in no way implies that our pre-Compact rights are being met to any significant degree.

For your information, several tributaries in the Tongue and Powder River basins in Wyoming have been in regulation this entire irrigation season; Big and Little Goose Creeks for instance never had a right junior to 1883 on at all. In the upper Powder River drainage, regulation is to the Sathara Ditch priority and in the Crazy Woman decree area, only one right is getting water. Piney Creek and Lower Clear Creek have been regulated to pre-1900 rights since mid-June and are now regulated back to 1884. Both Sheridan and Buffalo are on municipal rationing to their water customers. And we have entirely emptied several of our smaller mountain reservoirs and several more will be fully drained in the next few weeks.

Your letter purports the Compact to say things that are clearly only Montana's recent interpretation. Montana's interpretation of Article V, as described in the second paragraph of your letter, is quite different from how the Commission, including Montana, has operated in the past. As the administration of the Compact was being analyzed by the two states in the 1980's, it was understood that the only water being apportioned was the post-1950 "unused and unappropriated waters of the interstate tributaries...." Montana's more recent stance that the pre-1950 rights in Montana must be met by ~~contemporaneous regulation of post-1950 rights in Wyoming is unsubstantiated by the~~

Compact itself. As this position is of your own making, Wyoming feels no obligation to change its long held position regarding the administration of the water rights in place as of the date of the Compact. Montana continues to assert as fact an interpretation of the Compact we have taken great exception to for over two years now. An interstate delivery schedule for pre-1950 rights is not now, and never was, a provision of this Compact.

You suggest in your letter that the Technical Committee should be convened to take action related to water storage in the basin. I must admit that I see some irony in Montana's suggestion of the use of the Technical Committee since it has been difficult in the past to get extensive participation by your staff in the operations of that committee. Wyoming has taken the lead in agenda building, taking notes, distribution of information and other logistics associated with the Committee. After your "call" letter in 2004, Wyoming stood ready to host the Technical Committee and share additional information regarding water operations in the Tongue and Powder River basins in Wyoming. We wanted to show you around and see how we truly operate. Montana twice cancelled these meetings after accepting the invitation and having firm dates selected. If you are seeking cooperation from Wyoming, it has been there.

As the Compact makes no provision for the "call" your letter suggests, it appears in our mutual interest to devise an administration system, much like our states worked on in the 1980's, to address the allocation methods described in Article V.C. We sought to get Montana engaged in this process in 2004, to no avail. Had we succeeded, the work product may now be valuable given the situation we find in 2006

I find your claimed inability to fill Tongue River Reservoir confusing, as records show Montana released excess amounts from the reservoir during the winter months that would have easily provided the necessary water to fill it. Your own website records show that Tongue River Reservoir was filled to 97 percent of capacity as recently as July 9, 2006. The additional 2,000 (+/-) acre feet of water needed to completely fill would have been there had Montana judiciously managed the reservoir. Wyoming cannot manage the water once it crosses the state line; only Montana can. And, as long as there is water passing the compact points at the mouth of the Tongue (at Miles City) and Powder (at Locate) Rivers, there is evidence of water for allocation under the Compact for both our states. Remember, Montana has over three times the storage in the Tongue River basin for less than half the pre-compact acres, as compared to Wyoming. So, the ability to husband Tongue River flows is far greater in Montana than in Wyoming.

I agree that we can do a better job of collecting, analyzing and sharing information among our two states. That's why Wyoming took the initiative to get an appropriation from our Legislature to gather and analyze more information, contingent upon a similar commitment by Montana. This good-faith offer for in-kind sharing of these resources was discussed at our Commission meeting in April, and was intended to further our objective understanding of the uses on these rivers. It was also intended to keep these

Compact discussions science-based among our professional staffs to forestall unnecessarily elevating any compact issues out of sheer lack of understanding. I now question whether Montana is committed to this objective approach.

In sum, Wyoming will not release stored water for the benefit of Montana, as Wyoming believes it has properly stored that water in accordance with Compact provisions. I will also not agree to the convening of a meeting of the Technical Committee until Montana's Compact Commissioner and I can agree on exactly what it is we want them to do. As the States' Commissioners, we have an obligation to give clear direction to the Technical Committee in order for progress to be made on these difficult, complex issues. If your new Commissioner wishes to meet to discuss what can be done under the Compact, as written, I'll be there.

Jack's pending retirement leaves me concerned about the continuity of representation from Montana. Working through these difficult interstate issues takes a significant commitment of time and effort on the part of all concerned. I am hopeful that Montana will soon name its replacement to the Yellowstone River Compact Commission so that we can return to constructive dialog. I am confident that such a dialog will move us forward in resolving these difficult matters. Please tell Jack that I do wish him the best after his departure from state government in Montana.

Sincerely,

Patrick T. Tyrrell
State Engineer

Cc: Bill Horak, Chairman, Yellowstone River Compact Commission

Attachment D—Letter from Mary Sexton, Acting Commissioner for Montana (Montana's Reply to Wyoming).

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

BRIAN SCHWEITZER, GOVERNOR
1625 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE (406) 444-2074
TELEFAX NUMBER (406) 444-2684
PO BOX 201601
HELENA, MONTANA 59620-1601

October 3, 2006

Patrick T. Tyrrell
Wyoming State Engineer
WY State Engineer's Office
Herschler Building, Four East
Cheyenne, Wyoming 82002

Re: Montana's Call for Water Under Yellowstone River Compact

Dear Mr. Tyrrell

Thank you for your letter of August 9, 2006 to Rich Moy as an initial response to our letter to you of July 28, 2006. I am responding to you in the capacity of Montana's Acting Commissioner to the Yellowstone River Compact.

I understand from your letter that certain pre-1950 water rights in the Tongue and Powder River Basins in Wyoming were not being satisfied at the time of your letter. You did not state the extent to which post-1949 direct flow and storage rights were being satisfied in Wyoming. Would you please provide us the water administration records for this year in the Tongue and Powder River Basins in Wyoming?

The States continue to have a disagreement over whether water applied to beneficial use under pre-1950 water rights in the two States was apportioned in the Compact. Your position is very clear. Wyoming continues to assert that pre-1950 water was not apportioned by the Compact. It is hard to credit such a position, however, when the Compact itself states that the three States entered into the Yellowstone Compact "desiring to provide for an equitable division and apportionment of [the waters of the Yellowstone River and its tributaries]." One exception is specified, namely, for "waters within or waters which contribute to the flow ofstreams within Yellowstone National Park." There are no other exceptions. One point on which we apparently do agree is that the final word is, as you say, the "Compact itself."

You also state "An interstate delivery schedule for pre1950 rights is not now, and never was, a provision of this Compact." You are correct to the extent that an interstate delivery schedule for pre-1950 rights is not quantified and set out verbatim in the Compact, but Montana understands the Compact to provide the general principles from which delivery obligations can be determined. In fact, the delivery obligation is relatively simple: whenever there are unsatisfied pre-1950 rights in Montana, there is no water available in Wyoming for post1950 uses.

Your assertion that Montana has changed its interpretation of the Compactis incorrect. It ignores that the States have been at loggerheads for years over Wyoming's assertion that it has no obligation to provide water to Montana to satisfy pre1950 water rights. Ultimately, as I think we agree, it is the Compact itself that controls.

Your suggestion that the States devise an administration system to allocate water under Article V.C of the Compact is perhaps a good one. First, however, I believe we need to come to terms on the status of pre-1950 water rights. Also, the States' attempt in the 1980's to devise an administrative system for the pst-1950 water was unsuccessful. The reasons for that failure and ways to avoid a repetition of it need to be understood before engaging in such a process again. We would be wasting our effort attempting to establish an administrative mechanism for the unused and unappropriated water when we are not even receiving our pre1950 water. Thus, while our focus has recently shifted to the earlier water, our position that the Compact is an equitable apportionment and allocation of the entire river is not new.

You also criticize Montana for its administration of water within Montana. As you are aware both in Wyoming and Montana there are priority administration considerations that affect instate management of water even in the winter. In any event, you need not concern yourself with Montana's administration of the water to which it is entitled under the Yellowstone River Compact.

You allege that Montana has not firmly committed to cooperating with Wyoming on information sharing. This is not true. In the final analysis though, all the information sharing in the world has not and will not change Wyoming's position on its obligation to honor Montana's pre-1950 water rights as required by the Compact.

As the foregoing attests, the States are not in agreement on some important issues with respect to the Yellowstone River Compact. Nevertheless, I fully support your thought that the States need to rely on science-based staff discussions between the States to ensure that, to the maximum extent possible, our differences are resolved on the basis of objective engineering and science. In that vein, I am seeking an appropriation to allow the State of Montana to join with Wyoming in gathering and analyzing the hydrologic and engineering information needed to maximize the States' ability to resolve their differences on an objective basis.

Sincerely,

MARY SEXTON, DNRC Director
Acting Montana Commissioner, YRCC

cc: Bill Horak, Chair, Yellowstone River Compact Commission
Jeannie Whiting, Northern Cheyenne Tribe

Attachment E—Yellowstone River Compact Commission Resolution (Resolution Proposed by Montana).

Yellowstone River Compact Commission
Resolution
Proposed by the State of Montana
December 6, 2006

WHEREAS, Article III of the Yellowstone River Compact (Compact) established this Commission to administer the provisions of the Compact as between the States of Wyoming and Montana, to make recommendations to the States upon matters connected with the administration of the Compact, and to perform any act which the Commission may find necessary to carry out the provisions of the Compact;

WHEREAS, the Compact provides in its first paragraph as follows:

> "The State of Montana, the State of North Dakota, and the State of Wyoming, being moved by consideration of interstate comity, and desiring to remove all causes of present and future controversy between said States and between persons in one and persons in another with respect to the waters of the Yellowstone and its tributaries other than waters within or waters which contribute to the flow of streams within the Yellowstone National Park, and desiring to provide for an equitable division and apportionment of such waters . . . have resolved to conclude a Compact . . . for the attainment of these purposes";

WHEREAS, Article V.A of the Compact states, "Appropriative rights to the beneficial uses of the water of the Yellowstone River system existing in each signatory State as of January 1, 1950, shall continue to be enjoyed in accordance with the laws governing the acquisition and use of water under the doctrine of appropriation";

WHEREAS, Article X of the Compact states, "No water shall be diverted from the Yellowstone River Basin without the unanimous consent of all the signatory States"; and

WHEREAS, the Commission desires to clarify the scope of the allocation and apportionment of the Compact to facilitate future management and administration and avoid further controversy;

NOW, THEREFORE, the Commission hereby adopts the following resolution:

The Commission hereby recognizes, and recommends to the States that they adhere to, the following principles with respect to the administration of the Compact:

1. The Compact was intended to effect and did effect a full equitable division and apportionment of all the waters of the Yellowstone River System as defined in Article II of the Compact;

2. Article V.A of the Compact apportions among the compacting States the waters of the Yellowstone River System that were in use in each State on January 1, 1950 and for which appropriative water rights existed in each State as of that time;

3. Article V.A of the Compact requires Wyoming to curtail consumption of the water of the Yellowstone River System in excess of Wyoming's pre-January 1, 1950 consumption of such water whenever the amount of water necessary to satisfy Montana's pre-January 1, 1950 uses of such water is not passing the stateline;

4. Article V of the Compact restricts Wyoming's pumping of groundwater within the Yellowstone River System to the extent that such pumping depletes waters apportioned under the Compact; and

5. Article X of the Compact prohibits any export outside the Yellowstone River Basin of native surface water or groundwater, including water produced in connection with the production of coalbed methane (coalbed natural gas), without the unanimous consent of all the signatory States.

Mary Sexton
Acting Montana Commissioner

Patrick T. Tyrrell
Wyoming Commissioner

Attachment F—Letter from Montana and Wyoming Commissioners to Senator Max Baucus (Montana) in Support of USGS Tongue River Monitoring Network.

December 8, 2006

Senator Max Baucus
511 Hart Senate Office Building
Washington, DC, 20510

Re: FY 2007 Appropriations Request – USGS Tongue River Streamflow and Water Quality Monitoring Network

Dear Senator Baucus:

We are contacting you to voice our strong support for continued funding of the U.S. Geological Survey's Tongue River Streamflow and Water Quality Monitoring Network. Past funding for the network was secured through earmark funding obtained largely through the Montana delegations cooperative efforts. We ask that the earmark be continued for FY 2007 at an amount of $900,000.

The Tongue River Streamflow and Water Quality Monitoring Network provides valuable information used by government, industry, and landowners to guide coal-bed methane development, schedule irrigation water use, and protect and maintain water quality for fish and wildlife. In addition, the Yellowstone River Compact Commission, who oversees the Yellowstone Compact between Montana, Wyoming and North Dakota, uses the information in support of transboundary water management. Continuing drought makes water data collected on the Tongue River necessary for responsible development of coal-bed methane resources in Montana and Wyoming, maintenance of water quality for irrigation, and for efficient use of limited water supplies. Without continued provision of the streamflow and water-quality data, potential for water-use conflicts will increase significantly.

Please contact us if you have questions concerning our use of the Tongue River data or our support for the project.

Sincerely,

Mary Sexton
Montana Commissioner
Yellowstone River Compact Commission
and Director, Montana Department of
Natural Resources and Conservation

Patrick T.Tyrrell
Wyoming Commissioner
Yellowstone River Compact
Commission and Wyoming State
Engineer

cc. Senator Burns, Representative Rehberg

Appended Minutes, Technical Committee — April 12, 2006:

Yellowstone River Compact Commission, Technical Committee Discussions, Sheridan County Courthouse, 2nd Floor, Sheridan, Wyo.

1. Introductions

The meeting began at 1:45 p.m. Introductions were made and a signup sheet was sent around. Attendees are listed at end of minutes. No additions were made to the agenda. Ms. Lowry gave an overview of what tasks are before the Technical Committee and why the Commission established the Technical Committee. Mr. Tyrrell welcomed the group to Thermopolis.

2. Hydrological information from various sources

U.S. Geological Survey

Mr. Miller had a handout of long-term gages in the Wyoming portions of the basins tributary to the Yellowstone River to give a historical context of the March 2006 streamflows. A request was made to provide box charts next year to help with the problem of the average numbers in Little Powder River basin where a couple of high-flow events can skew the average. Mr. Miller also had information on deviation from mean for the period of record for several Wyoming gage sites.

Mr. Berkas provided a handout of information on Montana key gages with bar graphs of the period of record and flows for this water year so far.

Natural Resources Conservation Service

Mr. Kaiser had handouts summarizing the snow accumulations in the basin.

National Weather Service

Ms. Springer presented a powerpoint of the precipitation received thus far in the water year. Discussion was held on the long-term forecasts and the variables that are used by the NWS in making these 30-60 day plus forecasts for precipitation and temperature.

Bureau of Reclamation

Mr. Guenthner reported that Bull and Bighorn Lakes and Boysen and Buffalo Bill Reservoirs storage amounts are above last year. All are forecast to fill except Bighorn. Bighorn should fill to about 70 percent of capacity, but the instream flow release from the reservoir will be higher this year than during the drought years.

3. Forecasts and runoff estimates

Mr. Kaiser handed out a summary of the forecasts based on April 1 conditions.

4. Reservoir operations and storage information in both states

Mr. Knapp noted that the private reservoirs on the east side of the Bighorns are coming into this year with more carryover than in 2004. The rains last spring enabled these facilities to fill, and he is hopeful that the reservoirs will fill this year during runoff. Mr. Stults noted that the Committee is now getting more sophisticated with the water-supply piece of the water budget. We don't have an equal amount of information on the demand side yet. Perhaps the joint state study, if funded, would provide the resources to gather more of the demand data.

Mr. Tyrrell noted that some of these data are available for the larger diversion facilities in Wyoming through their Water Planning Program.

Mr. Kerbel suggested that the Powder River basin irrigators are changing their traditional irrigation regime to include more fall irrigation. If Wyoming were to give an overview presentation of the diversion data and descriptions available in the Water

Plans to the Technical Committee, Mr. Kerbel would be interested in Wyoming focusing on the main stem Tongue River. Montana would also be interested in the operation of Lake DeSmet.

5. Request from Commission to review bar charts in annual report and adjust period of record for each gage

Mr. Berkas directed the Technical Committee to the bar graphs that have been shown in the annual report for a number of years. The Committee agreed that the monthly bar chart portion should show: this year, last year, and the 30-year average. A separate period of record, annual bar chart should be added below the monthly bar chart and include a line showing the average flow.

6. Coal-bed natural gas discussion

Montana Bureau of Mines and Geology information

Mr. Kerbel handed out a draft report of the State line drawdown monitoring wells review. The Bureau of Mines and Geology sponsors an annual conference that will be held June 4 and focus on this report at that conference. Most of the wells have been drilled in the last 5 years. Spacing of wells is about 1 per township. Mr. Whiteman mentioned that the Northern Cheyenne also has eight monitoring wells on their reservation. These wells were drilled in the last 3 years.

Development numbers since last Commission meeting

Ms. Lowry handed out a summary table of reservoir applications and permits by basin in the Tongue, Powder, and Little Powder River basins. A separate bar chart shows the ground-water wells that have been permitted for CBM.

Mr. Tyrrell also described that enforcement action has been taken against an operator in the Powder River basin who did not have reservoirs in compliance with SEO permits. Wyoming is continuing with their inspection program to visit wells and reservoirs to assure their compliance with their reservoir or ground-water permits.

Ms. Lowry mentioned that the Wyoming DEQ will be completing their response to the questions that Mr. Stults raised after review of the past Commission meeting.

CBNG Task Force created by Wyoming 2006 Legislature

Ms. Lowry handed out copies of the bill that established the Task Force to look at produced water over the next 2 years. The Governor of Wyoming has not yet named all of the at-large members named in the legislation. The Task Force will likely hold their initial meeting in early May 2006.

Platte River pipeline study

At Governor Freundenthal's request, a $500,000 allocation was made to review the feasibility of a pipeline to transport produced water from the Powder River CBM development to the Platte River basin. The Wyoming Water Development Commission will be taking the lead on this study. The feasibility study should take a look at any Compact effects. Montana noted that they do not agree that the Compact only deals with surface water and that surface water and ground water need to be managed as a unified resource.

Montana Environmental Review Board actions

Mr. Compton described the recent nondegradation actions that the Montana Board of Environmental Review has taken. The change included moving from a narrative standard to a numeric one for sodium-adsorption ratio (SAR) and electrical conductivity (EC). Region 8 EPA now has the standards under review. Wyoming has requested EPA not approve.

7. Wyoming's budget request and approval for joint study

Mr. Stults suggested that now is the time to start scoping out what can really be accomplished with a $200,000 study to look at water uses in the basins. Hopefully, the two States can agree upon the objective and types of data required. There also are

the institutional, political realities that need to be recognized and thought through as to how they will be addressed in the study. Mr. Stults named Mr. Dalby as Montana's representative to scope out the plan of work for the joint study.

8. Potential abandoned mine lands project—coal-seam fire

Ms. Lowry alerted the rest of the Commission that a proposal is being discussed through Wyoming's Abandoned Mine Land Program for dousing a coal-seam fire that has been burning in the Sheridan area for a number of years. The magnitude of water may be such that it could only be done during an above-average snowpack year. A consulting firm in Laramie is working on a more detailed proposal.

9. Report of meeting highlights and recommendations to Commission meeting April 13, 2006

The report should be concise and touch on all of the topics that have been discussed today that are on the full Commission agenda. As several items are now to be discussed in more detail during the Technical Committee meeting, the next Commission meeting agenda may be less detailed.

10. Set next meeting

The two States will be meeting and getting the scope for the joint study fleshed out, so the Technical Committee may want to meet the day before the Fall 2006 Commission meeting to review that scope and discuss CBM activities. Alternatively, the more detailed CBM update could only occur at the spring Commission meeting when a full Technical Committee will be held. Mr. Horak will check to see if the powerpoints and handouts from the Technical Committee meeting can be hosted on the Yellowstone Commission's Web site. All presenters were asked to send the files of their presentations to Ms. Lowry by mid-April.

The meeting adjourned at 6:10 p.m.

Submitted by Ms. Lowry, June 22, 2006.

List of attendees:

NAME	REPRESENTING	E-MAIL
Ms. Sue Lowry	Wyoming State Engineer's Office	slowry@seo.wyo.gov
Mr. Loren Smith	Wyoming State Engineer's Office	lsmith@seo.wyo.gov
Mr. Patrick Tyrrell	Wyoming Commissioner	ptyrre@seo.wyo.gov
Mr. Bill Knapp	Wyoming State Engineer's Office	bknap@seo.wyo.gov
Mr. David Willms	State of Wyoming, Attorney General's Office	dwillm@state.wy.us
Mr. Chad Hahn	NWS/NOAA Riverton	chad.hahn@noaa.gov
Mr. Tom Friedens	NWS/NOAA Riverton	tom.friders@noaa.gov
Mr. Keith Meier	NWS/NOAA Billings	keith.meier@noaa.gov
Mr. R. Scott Guenthner	Bureau of Reclamation	sguenther@gp.usbr.gov
Mr. Jason Whiteman, Sr.	Northern Cheyenne Tribe	ncnaturalresources@rangeweb.net
Mr. Chuck Dalby	Water Resources Division, Montana DNRC	cdalby@mt.gov
Mr. Roy Kaiser	NRCS/USDA Bozeman	Roy.kaiser@mt.usda.gov
Mr. Kirk Miller	USGS Wyoming Water Science Center	kmiller@usgs.gov
Mr. Wayne Berkas	USGS Montana Water Science Center	wrberkas@usgs.gov
Mr. William Horak	USGS, Chairman and Federal Representative	wfhorak@usgs.gov
Mr. Jack Stults	Montana Commissioner	jstults@mt.gov
Mr. Art Compton	Montana DEQ	acompton@mt.gov
Ms. Sally Springer	NWS/NOAA Billings	sally.springer@noaa.gov
Mr. Myron Brooks	USGS Wyoming Water Science Center	mhbrooks@usgs.gov
Mr. Art Hayes Jr.	Tongue River Water Users	browncattle@rangeweb.net
Ms. Sarah Bond	State of Montana, Attorney General's Office	sbond@mt.gov
Mr. Keith Kerbel	Water Resources Division, Montana DNRC	kkerbel@mt.gov

Appended Minutes, Technical Committee — December 5, 2006:

Yellowstone River Compact Commission, Technical Committee Discussions, Beartooth Room, Campus of MSU-Billings, Billings, Mont.

1. Introductions

The meeting began at 1:30 p.m. Mr. Moy (Montana DNRC) chaired the meeting, made introductions, and circulated a signup sheet. Ms. Sexton (Director of Montana Department of Natural Resources and Conservation and interim Montana Yellowstone Compact Commissioner), and Mr. Tubbs, the new director of the Water Resources Division of the Montana Department of Natural Resources, were introduced. The agenda was discussed and accepted.

2. Update on coal-bed methane (CBM) activities in Wyoming and Montana

Wyoming

Wyoming Compact Commissioner (and State Engineer), Mr. Tyrrell provided a description of CBM activities in the Tongue, Powder, and Little Powder River drainages of Wyoming. Two handouts were provided: one showing the number of pending and permitted reservoirs in the above mentioned drainages and the other showing the total number of CBM applications received by the SEO Ground-Water Division. He said a total of 2,993 reservoir-storage permits had been issued and there were about 2,300 small reservoirs (under 20 acre-feet) that were spread out over an area of about 14,000 square miles. Reservoir-permit inspections are now done by a full-time inspector (Mr. Shroeder) from the SEO and compliance is better than it has been in the past. Permits that are granted under the name of the coal-bed operator only are given a 15-year time limit. These reservoirs must be reclaimed after the CBM activity has ceased. If the land owner and the coal-bed operator are listed on the permit, there is no time limit applied. Any reservoir that was used for CBM production, but will be left post-production, must be reduced to a capacity of 20 acre-feet or less.

As of December 2006, there were about 15,000 to 20,000 permitted CBM wells. Fourteen wells were recently issued cease production orders because they were not permitted. The rate of CBM well drilling depends on gas prices—if the price of gas drops, well drilling will slow down. Use of CBM water for irrigation was discussed.

Mr. Tyrrell indicated that $200,000 had been awarded to the Wyoming State Geological Survey to develop a potentiometric (ground-water level) surface map and ground-water model in the Powder-Tongue basin; the study will take 2 years.

Montana

Mr. Compton (Montana Department of Environmental Quality) provided an update on CBM activities in Montana. In Montana, there are two companies producing CBM: Fidelity Exploration and Production and Pinnacle Gas. Montana has a total of 697 producing wells, with 21 shut-in and an additional 134 permitted.

Mr. Compton said that in 2006, three Wyoming producers sued the Montana Board of Environmental Review over its 2003 rulemaking that adopted numeric nondegradation standards for some streams in the Powder River drainage; the State of Wyoming has also sued Montana over the numeric standards. The Northern Cheyenne Tribe has challenged the last two CBM permits: Fidelity's proposed expansion and the Pinnacle Gas water-treatment system.

3. Water-management activities during 2006 irrigation season

Tongue River in Wyoming

Mr. Tyrrell handed out a summary of the regulation in 2006 for the Tongue and Powder River basins. The Tongue River peaked on May 11th—about 1 month earlier than past years. Mr. Tyrrell said Wyoming has Commissioners in each division to administer water rights in regulation. Water storage occurs mainly on Little Goose and Big Goose Creeks and storage rights were regulated by priority. There is no storage on main stem Tongue River.

Powder River in Wyoming

Mr. Tyrrell said there was about 18,000 acre-feet of drawdown on Lake DeSmet (about 3.5 to 4 feet) and that about 150 acre-feet per day was released to meet irrigation demands. Priorities were regulated back to 1884 on Piney Creek. He mentioned that Mid-America Energy had acquired water rights for 67,000 acre-feet out of Lake DeSmet/Healey Reservoir for CBM development.

In response to a question regarding purchase of water from Lake DeSmet for use in Montana, Mr. Tyrrell stated that no more than 1,000 acre-feet can leave the State without an export study and approval by the legislature.

Tongue River in Montana

Mr. Smith (Montana DNRC, State Water Projects Manager) provided a graph showing inflows and outflows from the Tongue River Reservoir in Montana. The reservoir did not fill this year and was about one foot below full pool. Tongue River flows also peaked in May, and the Tongue River Reservoir delivered about 90 percent of its contract water. Inflows at the State line approached zero flow in mid-July. The Tongue River was administered by water Commissioners and to supplement contract water, the Water Users Association purchased 500 acre-feet to keep the stream alive.

Powder River in Montana

Mr. Smith reported that the Powder River near State line went dry for 5-6 days in mid-July, and that 1932 was the last time that happened. In addition, the river was nearly dry for a much longer period continuing through August. Mr. Kerbel said that Powder River irrigators shared shortages as best they could.

Bighorn River in Montana

Mr. Fraser (Montana Fish, Wildlife and Parks) said that water levels on the Bighorn River, downstream from Yellowtail Dam, are maintained to try and sustain trout habitat in the main stem and side channels. Water levels were established in the 1980s and that 2,300 ft^3/s is necessary for good connectivity with side channels; below 2,000 ft^3/s (an allowable threshold for dry years), significant habitat losses begin to occur and at about 1,500 ft^3/s, over 50 percent of the fish habitat is lost. Starting in 2001, in three of the years, flows have dropped below 1,500 ft^3/s, but have been maintained at near that (1,300 ft^3/s) this past year.

Mr. Fraser also reported that the Bighorn Lake fishery declined as well. However, Bighorn Lake bass populations have been maintained throughout the drought.

Ms. Sexton said that it was anticipated there would be a compact with the Crow Tribe introduced to Congress in 2007. The State has committed $15 million to the Crow Compact (escrow fund), but the Federal contribution was small.

Bighorn River in Wyoming

Mr. Tyrrell indicated that Wyoming recreational users were experiencing problems with low lake levels and he was concerned about the lake-level management plan under the new Compact with the Crow Tribe. He asked if he could obtain a copy of the current plan, and Mr. Kerbel agreed to provide one (plan was provided to Mr. Tyrrell and Ms. Sexton at the Commission meeting the next day).

Ms. Bond (Montana Attorney General's Office) asked about Wyoming storage upstream from Bighorn Lake. Mr. Tyrrell responded that the State had about 189,000 acre-feet in Buffalo Bill Reservoir due to the 1980 enlargement, and that about 3 percent of that was under contract. Ms. Bond asked if some of that could be released to improve lake levels in Bighorn Lake, and Mr. Tyrrell responded that it could not because it would amount to meeting Montana's instream flows.

Mr. Tyrrell also said that Buffalo Bill Reservoir was increased 24 feet in 1980 and the State's share of the enlargement is 190,000 acre-feet. This storage space has not been fully contracted and is generally maintained as a buffer against continuing years of drought. Boysen Reservoir has a capacity of 751,000 acre-feet and presently is at 350,000 acre-feet.

4. New water projects in Yellowstone basin

Wyoming

Ms. Pring (Wyoming State Engineer's Office) noted that the Middle Fork Powder River Project study had been changed by the 2006 legislature to a watershed-level study; this includes a revised scope that looks at the whole watershed and not just the dam project. In addition, there is a regional pipeline water-supply study, Bighorn Regional Supply, to look at the use of ground water from some Madison wells in the Thermopolis to Greybull area.

Montana

Mr. Smith reported that there were no new projects at this time.

5. Status of joint water study

Mr. Tyrrell said that Wyoming had recently received from Montana a brief outline for a study of water uses. Wyoming had received funding from their legislature for a study, and it may be best to wait and see if Montana received funding before pursuing this further. Ms. Sexton agreed and indicated Montana had applied for funding and should know the outcome by April 2007.

6. Water-supply outlook

Mr. Moy provided a handout that showed precipitation and snowpack across Montana and revealed the general water shortages in southeastern Montana compared to the rest of the state. However, he pointed out that it was too early in the snow accumulation season to make any reliable forecasts, and that was only appropriate at the spring Technical Committee meeting.

Mr. Berkas and Mr. Miller (U.S. Geological Survey) led a discussion of how best to portray hydrologic conditions at selected streamflow stations throughout the Yellowstone basin. Several options were considered and the Technical Committee agreed to the use of box plots with a logarithmic scale and the use of departure from average plots. These two formats are to be presented in the annual report. For the April meeting, Mr. Berkas and Mr. Miller will look at 30-year averages for 1971-2000 and 1977-2006 to see if they can capture the impact of the drought of the 2000s.

The meeting was adjourned at 5:00p.m.

List of attendees:

NAME	REPRESENTING	EMAIL
Ms. Mary Sexton	Montana Acting Commissioner	msexton@mt.gov
Mr. John Tubbs	Water Resources Division, Montana DNRC	jtubbs@mt.gov
Mr. Keith Kerbel	Water Resources Division, Montana DNRC	kkerbel@mt.gov
Mr. Rich Moy	Water Resources Division, Montana DNRC	rmoy@mt.gov
Mr. Chuck Dalby	Water Resources Division, Montana DNRC	cdalby@mt.gov
Mr. Jim Robinson	Water Resources Division, Montana DNRC	jrobinson@mt.gov
Mr. Kevin Smith	Water Resources Division, Montana DNRC	ksmith@mt.gov
Ms. Sarah Bond	State of Montana, Dept. of Justice, Attorney General's Office	sbond@mt.gov
Mr. Art Compton	Montana DEQ	acompton@mt.gov
Mr. Ken Fraser	Montana DFWP	kfraser@mt.gov
Mr. Andy Brummond	Montana DFWP	abrummond@mt.gov
Mr. Pat Tyrrell	Wyoming Commissioner	ptyrre@seo.wyo.gov
Ms. Sue Lowry	Wyoming State Engineer's Office	slowry@seo.wyo.gov
Ms. Jodee Pring	Wyoming State Engineer's Office	jpring@seo.wyo.gov
Ms. Carmine LoGuidice	Wyoming State Engineer's Office	clogui@seo.wyo.gov
Mr. Loren Smith	Wyoming State Engineer's Office	lsmith@seo.wyo.gov
Mr. David Willms	State of Wyoming, Attorney General's Office	dwillm@seo.wyo.gov
Mr. Bill Knapp	Wyoming State Engineer's Office	bknap@seo.wyo.gov
Mr. William Horak	USGS, Chairman and Federal Representative	wfhorak@usgs.gov
Mr. Robert Davis	USGS Montana Water Science Center	rdavis@usgs.gov
Mr. Wayne Berkas	USGS Montana Water Science Center	wrberkas@usgs.gov
Mr. Kirk Miller	USGS Wyoming Water Science Center	kmiller@usgs.gov
Mr. Myron Brooks	USGS Wyoming Water Science Center	mhbrooks@usgs.gov
Mr. Art Hayes Jr.	Tongue River Water Users	browncattle@rangeweb.net
Mr. John Murdoch		

General Report

Cost of Operation and Budget

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. Salaries and necessary expenses of the State's and U.S. Geological Survey representatives to the Commission and the cost to other agencies of collecting hydrologic data are not considered as expenses of the Commission.

The expenses of the Commission during fiscal year 2006 were $76,000, in accordance with the budget adopted for the year.

Estimated budgets for Federal fiscal years 2007, 2008, 2009, and 2010, based on an approximate 5-percent increase per year, were tentatively adopted subject to the availability of appropriations. The budgets for the four fiscal years are summarized as follows:

October 1, 2006, to September 30, 2007 (fiscal year 2007):
Estimate for continuation of existing streamflow-gaging programs $80,000

October 1, 2007, to September 30, 2008 (fiscal year 2008):
Estimate for continuation of existing streamflow-gaging programs $84,000

October 1, 2008, to September 30, 2009 (fiscal year 2009):
Estimate for continuation of existing streamflow-gaging programs $88,200

October 1, 2009, to September 30, 2010 (fiscal year 2010):
Estimate for continuation of existing streamflow-gaging programs $92,600

Streamflow-Gaging Station Operation

Operation of streamflow-gaging stations at the measuring sites specified in the Yellowstone River Compact continued in water year 2006 and satisfactory records were collected at each station. Locations of streamflow-gaging stations, along with reservoir-content stations, are shown on a map of the Yellowstone River basin at the end of this report.

For measurement sites, horizontal coordinate information (latitude and longitude) is referenced to the North American Datum of 1927 (NAD 27). The gage datums and elevations listed in this report are referenced to the National Geodetic Vertical Datum of 1929 (NGVD 29).

During water year 2006, annual streamflow was below normal[2] at all streamflow-gaging stations. The rank of the annual streamflow, with the lowest annual streamflow having a rank of 1, is displayed in the following table:

Station number	Streamflow-gaging station	Percent of average streamflow for water year 2006[1]	Rank of annual streamflow		Year of lowest annual streamflow (rank equals 1)	Number of years of annual record
			2006 water year	2005 water year		
06208500	Clarks Fork Yellowstone River at Edgar, Mont., minus diversions to White Horse Canal	79	11	12	2001	68
06294500	Bighorn River above Tullock Creek, near Bighorn, Mont., minus Little Bighorn River near Hardin, Mont., adjusted for change in contents in Bighorn Lake	55	10	9	2003	40
06308500	Tongue River at Miles City, Mont.	37	5	25	1961	63
06326500	Powder River near Locate, Mont.	47	9	24	2004	68

[1]Average is based on period of record at station.

[2]The "normal" range defined in this report is 80 to 120 percent of average.

MT v. WY/M.T.D. App.
592 (WY)

0460

Tabulation of streamflow records for water year 2006 and graphical comparisons of statistical distribution of monthly and annual streamflow, and annual departures from mean annual streamflow are provided in the section "Summary of discharge for Yellowstone River Compact streamflow-gaging stations." The tabulated streamflow records do not account for depletions for irrigation and other uses unless otherwise noted.

Diversions

No diversions were regulated by the Commission during water year 2006.

Reservoir Contents

Reservoirs Completed after January 1, 1950

Month-end and year-end usable contents and a description of these reservoirs are given in the section "Month-end contents for Yellowstone River Compact reservoirs completed after January 1, 1950." Boysen Reservoir, located on the Wind River and operated by the Bureau of Reclamation, began the water year with 591,900 acre-feet in usable storage and ended the water year with 407,700 acre-feet. Anchor Reservoir began the water year with 269 acre-feet in usable storage and ended the water year with 233 acre-feet. Bighorn Lake, a Bureau of Reclamation storage project on the Bighorn River that is the largest in the Yellowstone River basin, contained 984,500 acre-feet of usable storage at the beginning of the water year and 745,800 acre-feet at the end of the water year. Daily usable contents of Bighorn Lake ranged from 720,000 acre-feet on September 2, 2006, to 1,009,000 acre-feet on October 16, 2005.

Reservoirs Existing on January 1, 1950

As a matter of record and general information, month-end usable contents data are given later in the report for four reservoirs in existence on January 1, 1950, upstream from the points of measurement. The reservoirs are Bull Lake, Pilot Butte Reservoir, Buffalo Bill Reservoir, and Tongue River Reservoir. These data are pertinent to allocation under Article V, Section C, Item 3 of the Compact. Month-end and year-end usable contents of these reservoirs are given in the section "Month-end contents for Yellowstone River Compact reservoirs existing on January 1, 1950."

The storage capacity of Buffalo Bill Reservoir was increased in 1992 from 456,600 acre-feet to 644,540 acre-feet (listed as 646,565 acre-feet by Bureau of Reclamation). The storage capacity of Tongue River Reservoir was increased in 1999 from 68,000 acre-feet to 79,070 acre-feet.

Annual Contents of Reservoirs

Information on reservoir contents at the end of the current and previous water years for the 7 reservoirs listed above plus 23 additional reservoirs was compiled at the request of the Commission. The information is provided in the section "Water-year-end contents for Yellowstone River Compact reservoirs or lakes."

0461

MT v. WY/M.T.D. App.
593 (WY)

Summary of Discharge for Yellowstone River Compact Streamflow-Gaging Stations

06208500 Clarks Fork Yellowstone River at Edgar, Mont.

LOCATION.--Lat 45°27'58", long 108°50'35" referenced to North American Datum of 1927, in SE ¼ SE ¼ SE ¼ 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.--2,022 mi².

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

REVISED RECORDS.---Water Supply Paper (WSP) 1509: 1924; 1932, maximum discharge (M). WSP 1729: Drainage area. Water Data Report (WDR) MT-04-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,460 ft, referenced to the National Geodetic Vertical Datum of 1929 (NGVD 29). Prior to Aug. 31, 1953, nonrecording gage located at the same site and elevation.

REMARKS.--Records are good except those for the estimated daily discharges, which are poor. Diversions for irrigation include about 41,500 acres, of which about 840 acres lie 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. U.S. Geological Survey satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year. **Discharge values given herein have the diversions to White Horse Canal subtracted.**

Table 1. Daily mean discharge for Clarks Fork Yellowstone River at Edgar, Mont., minus diversions to Whitehorse Canal, October 2005 to September 2006.

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: –, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	448	505	e420	e460	388	415	314	839	1,780	1,540	179	81
2	446	494	e390	e450	372	395	305	863	1,790	1,620	159	96
3	479	501	e390	467	377	357	294	900	2,320	1,620	155	95
4	566	499	e390	434	371	348	294	810	3,080	1,510	145	98
5	684	515	e390	428	374	345	298	833	3,800	1,380	132	91
6	739	514	e380	415	375	339	325	748	4,470	1,500	113	90
7	718	518	e370	431	361	339	359	889	4,490	1,820	113	93
8	688	569	e400	427	362	333	412	1,000	4,650	1,760	96	89
9	659	608	e440	428	391	338	401	1,060	5,090	1,430	94	88
10	636	583	e460	409	365	324	387	932	5,150	1,160	94	88
11	640	569	e470	392	297	298	398	744	4,820	1,060	86	85
12	626	634	e480	434	e330	298	390	611	3,970	893	90	90
13	605	639	e470	413	e350	297	371	602	3,740	805	87	90
14	602	590	e460	394	e350	315	365	972	4,120	785	90	88
15	591	574	e450	427	e340	320	431	1,570	3,960	702	94	115
16	579	529	e440	409	e240	327	476	2,170	3,200	646	88	319
17	565	484	e430	403	e170	311	529	2,830	2,540	588	88	525
18	565	578	e400	340	e240	312	596	3,490	2,310	530	84	460
19	559	552	e400	422	e300	334	549	4,380	2,270	438	82	426
20	565	551	e410	394	e370	317	483	5,030	2,230	415	81	391

0462

Table 1. Daily mean discharge for Clarks Fork Yellowstone River at Edgar, Mont., minus diversions to Whitehorse Canal, October 2005 to September 2006.—Continued

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
21	560	527	e430	380	e370	312	452	5,230	2,130	379	85	434
22	557	524	e450	387	e380	303	445	5,390	2,000	353	79	467
23	552	524	e470	407	e380	301	509	4,860	1,780	330	79	636
24	543	517	e460	391	e390	307	725	4,340	1,640	295	87	594
25	538	505	e450	404	e380	306	633	4,120	1,630	314	78	505
26	536	509	e450	394	e390	306	527	4,350	1,640	311	66	489
27	522	521	e450	395	e420	311	467	4,540	1,640	297	74	480
28	510	500	e460	387	418	308	472	4,380	1,640	263	79	465
29	514	480	e450	367	--	306	512	3,600	1,610	227	70	467
30	519	447	e440	374	--	316	588	2,740	1,520	211	69	461
31	507	--	e470	377	--	321	--	2,130	--	212	70	--
Total	17,818	16,060	13,420	12,640	9,851	10,059	13,307	76,953	87,010	25,394	2,986	8,496
Mean	575	535	433	408	352	324	444	2,482	2,900	819	96.3	283
Max	739	639	480	467	420	415	725	5,390	5,150	1,820	179	636
Min	446	447	370	340	170	297	294	602	1,520	211	66	81
Acre-ft	35,340	31,860	26,620	25,070	19,540	19,950	26,390	152,600	172,600	50,370	5,920	16,850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921–2006, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	533	502	409	352	350	364	555	2,101	4,017	1,988	595	469
Max	1,010	777	593	512	584	554	1,398	5,578	7,256	4,771	1,541	1,395
(WY)	(1942)	(1928)	(1996)	(1997)	(1963)	(1943)	(1943)	(1928)	(1996)	(1943)	(1951)	(1941)
Min	298	310	217	200	180	220	123	757	1,768	290	49.5	156
(WY)	(1956)	(1936)	(1937)	(1922)	(1922)	(1924)	(1961)	(1968)	(1987)	(1988)	(1988)	(1988)

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1921–2006*	
Annual total	298,937		293,994			
Annual mean	819		805		1,021	
Highest annual mean					1,623	1997
Lowest annual mean					644	2001
Highest daily mean	5,700	May 22	5,390	May 22	10,600	Jun 02, 1936
Lowest daily mean	115	Sep 11	66	Aug 26	37	May 11, 1961
Annual seven-day minimum	124	Sep 7	72	Aug 25	43	Apr 18, 1961
Maximum peak flow			5,790	May 22	11,100	Jun 12, 1997
Maximum peak stage			6.88	May 22	9.30	Jun 12, 1997
Instantaneous low flow					36	Apr 22, 1961
Annual runoff (acre-ft)	592,900		583,100		739,400	
10 percent exceeds	2,200		1,890		2,810	
50 percent exceeds	430		446		466	
90 percent exceeds	234		96		270	

*During period of operation (water years 1921–69, 1987–2006).

MT v. WY/M.T.D. App. 595 (WY)

0463

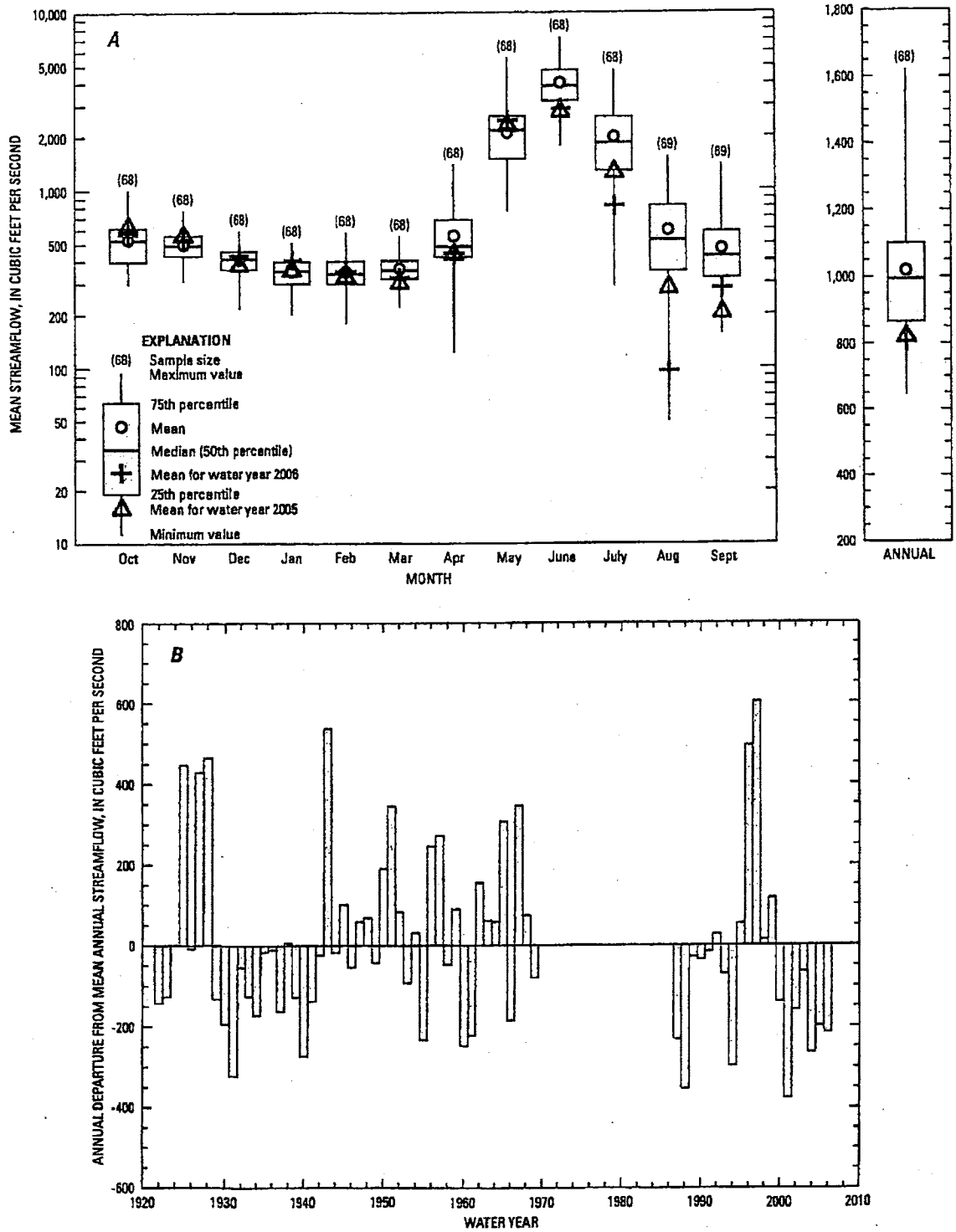


Figure 1. Streamflow data for the Clarks Fork Yellowstone River at Edgar, Mont. (06208500), minus diversions to Whitehorse Canal, water years 1922–2006: *A*, Statistical distribution of monthly and annual streamflow; *B*, Annual departure from the mean annual streamflow.

MT v. WY/M.T.D. App.
596 (WY)

0464

06294000 Little Bighorn River near Hardin, Mont.

LOCATION.--Lat 45°44'09", long 107°33'24" referenced to North American Datum of 1927, in SE ¼ NE ¼ NE ¼ sec. 19, T.1 S., R.34 E., Big Horn County, Hydrologic Unit 10080016, on left bank 50 ft downstream from bridge on Sarpy Road, 0.2 mi upstream from terminal wasteway of Agency Canal, 0.6 mi upstream from mouth, and 2.3 mi east of Hardin.

DRAINAGE AREA.--1,294 mi².

PERIOD OF RECORD.--June 1953 to current year.

REVISED RECORDS.--WDR MT-86-1: 1978.

GAGE.--Water-stage recorder. Elevation of gage is 2,882.29 ft (NGVD 29) (levels by U.S. Army Corps of Engineers). Prior to Oct. 7, 1953, nonrecording gage located at site 0.4 mi downstream. Oct. 7, 1953 to May 6, 1963, water-stage recorder located at site 0.3 mi downstream. May 6, 1963 to Nov. 6, 1963, nonrecording gage located at site 0.4 mi downstream. All locations had different elevations. Nov. 7, 1963 to Aug. 15, 1976, water-stage recorder located at site 35 ft downstream at present elevation. Aug. 15, 1976 to Sept. 30, 1979, water-stage recorders were located on each bank downstream from Sarpy Road bridge and were used depending on control conditions.

REMARKS.--Records are good except those for estimated daily discharges, which are poor. Flow partly regulated by Willow Creek Reservoir (capacity 23,000 acre-ft). Diversions for irrigation of 20,980 acres occur upstream from station. **Discharge values given herein include flow of terminal wasteway of Agency Canal.** U.S. Geological Survey satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

Table 2. Daily mean discharge for Little Bighorn River near Hardin, Mont., October 2005 to September 2006.

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	90	109	e100	e110	e110	e120	231	151	352	47	3.3	5.3
2	89	108	e100	e110	e110	e120	240	155	296	35	5.3	7.0
3	99	108	e100	e110	e110	e120	208	159	252	36	6.6	23
4	109	110	e100	e110	e110	e120	184	164	232	35	5.9	29
5	147	109	e90	e110	e110	e120	168	165	220	32	4.6	31
6	162	109	e90	e110	e100	e120	164	164	200	52	6.5	26
7	170	108	e80	e110	e100	e120	163	160	186	37	7.2	22
8	168	107	e90	e110	e95	119	153	167	124	30	6.0	24
9	176	110	e100	e110	e90	112	151	180	137	48	5.9	28
10	170	113	e100	e110	e80	108	144	195	139	53	4.0	27
11	162	110	e100	e110	e90	105	140	195	153	32	1.2	27
12	151	116	e100	e110	e95	e100	136	190	161	26	2.0	26
13	140	122	e100	e110	e95	97	135	179	166	22	2.5	25
14	129	123	e100	e110	e95	98	133	173	158	16	2.1	25
15	122	117	e100	e110	e95	99	131	175	172	15	1.7	26
16	115	118	e100	e110	e90	100	133	184	143	19	1.6	40
17	112	113	e100	e110	e80	104	138	217	128	20	1.7	56
18	110	113	e90	e110	e80	100	155	258	136	32	2.3	93
19	111	125	e90	e110	e90	105	165	320	135	18	1.7	113
20	109	123	e90	e110	e110	108	178	402	91	12	1.4	100
21	108	126	e100	e110	e110	108	169	463	76	15	1.2	85
22	108	122	e100	e110	e110	105	169	513	78	17	1.1	87

MT v. WY/M.T.D. App.
597 (WY)

0465

Table 2. Daily mean discharge for Little Bighorn River near Hardin, Mont., October 2005 to September 2006.—Continued

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
23	108	118	e100	e110	e110	101	163	545	72	15	1.1	105
24	109	116	e100	e110	e110	100	173	550	72	16	2.1	127
25	109	114	e100	e110	e110	101	182	759	79	15	2.7	148
26	109	115	e110	e110	e130	106	170	720	78	8.9	5.3	122
27	109	e110	e110	e110	e130	112	165	663	72	6.5	4.8	98
28	109	e110	e110	e110	e130	115	165	631	65	3.7	4.5	88
29	110	e100	e110	e110	--	119	159	576	64	4.1	1.3	93
30	111	e100	e110	e110	--	151	152	497	64	3.3	2.1	93
31	108	--	e110	e110	--	171	--	416	--	2.6	3.1	--
Total	3,839	3,402	3,080	3,410	2,875	3,484	4,917	10,286	4,301	724.1	102.8	1,799.3
Mean	124	113	99.4	110	103	112	164	332	143	23.4	3.32	60.0
Max	176	126	110	110	130	171	240	759	352	53	7.2	148
Min	89	100	80	110	80	97	131	151	64	2.6	1.1	5.3
Acre-ft	7,610	6,750	6,110	6,760	5,700	6,910	9,750	20,400	8,530	1,440	204	3,570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954–2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	151	150	133	137	195	301	303	593	786	253	113	124
Max	276	248	223	366	610	987	748	2,852	1,981	1,333	382	267
(WY)	(1979)	(1979)	(1979)	(1975)	(1971)	(1972)	(1965)	(1978)	(1968)	(1975)	(1975)	(1978)
Min	60.7	82.6	65.6	50.5	68.5	71.1	54.8	71.9	117	8.5	2.5	19.1
(WY)	(2002)	(2002)	(2002)	(2005)	(2005)	(2002)	(1961)	(1961)	(1961)	(1961)	(1961)	(1960)

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1954–2006	
Annual total	50,760		42,220.2			
Annual mean	139		116		270	
Highest annual mean					676	1975
Lowest annual mean					70.4	1961
Highest daily mean	1,060	May 13	759	May 25	15,800	May 20, 1978
Lowest daily mean	23	Jul 24	1.1	Aug 22	.30	Aug 5, 1961
Annual seven-day minimum	31	Aug 5	1.5	Aug 17	.40	Aug 3, 1961
Maximum peak flow			831	May 25	[a]22,600	May 19, 1978
Maximum peak stage			3.94	May 25	[b]11.78	Mar 20, 1960
Instantaneous low flow					[c].20	Aug 7, 1961
Annual runoff (acre-ft)	100,700		83,740		195,400	
10 percent exceeds	344		174		581	
50 percent exceeds	90		110		160	
90 percent exceeds	39		6.8		70	

[a] Gage height, 11.20 feet.

[b] Site and datum then in use.

[c] Result of discharge measurement.

06294500 Bighorn River above Tullock Creek, near Bighorn, Mont.

LOCATION.--Lat 46°07'29", long 107°28'06" referenced to North American Datum of 1927, in SE ¼ SE ¼ NE ¼ sec. 3, T.4 N., R.34 E., Treasure County, Hydrologic Unit 10080015, on right bank 1.9 mi upstream from Tullock Creek, 3.6 mi southwest of Bighorn, 4.5 mi southeast of Custer, and at river mile 3.0.

DRAINAGE AREA.--22,414 mi². Area at site used Oct. 7, 1955, to Sept. 30, 1981, 22,885 mi².

PERIOD OF RECORD.--October 1981 to current year. Previously published as "06294700 Bighorn River at Bighorn, MT" from 1956-81, and as "06294700 Bighorn River near Custer" from 1945-55. Flows are equivalent at all sites.

GAGE.--Water-stage recorder. Elevation of gage is 2,700 ft (NGVD 29). May 11, 1945 to Dec. 6, 1945, nonrecording gage, and Dec. 7, 1945 to Oct. 6, 1955, water-stage recorder located 1.7 mi upstream at different elevation. Oct. 7, 1955 to Sept. 30, 1981, located at site 2.3 mi downstream at different elevation.

REMARKS.--Water-discharge records are good except those for estimated daily discharges, which are poor. Flow is regulated by Bighorn Lake beginning November 1965 (usable capacity, 1,312,000 acre-ft). Major regulation occurred prior to November 1965 by 14 reservoirs in Wyoming and 1 in Montana with combined usable capacity of about 1,400,000 acre-ft. Diversion for irrigation of about 445,200 acres occurs upstream from station. U.S. Army Corps of Engineers satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

Table 3. Daily mean discharge for Bighorn River above Tullock Creek, near Bighorn, Mont., October 2005 to September 2006.

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,390	2,680	2,990	2,660	2,590	2,330	3,570	2,580	2,430	2,190	e1,550	1,310
2	2,330	2,710	2,530	2,620	2,580	2,310	3,010	2,460	2,390	2,130	1,560	1,290
3	2,410	2,740	2,520	2,610	2,610	2,330	2,820	2,530	2,360	2,200	1,560	1,280
4	2,450	2,880	2,550	2,600	2,570	2,350	2,640	2,520	2,370	2,220	1,570	1,290
5	2,710	3,130	e2,600	2,600	2,630	2,320	2,570	2,500	2,370	2,270	1,580	1,270
6	2,610	3,180	e2,600	2,600	2,610	2,310	2,680	2,440	2,340	2,220	1,580	1,270
7	2,620	3,260	e2,600	2,610	2,600	2,280	2,800	2,440	2,300	2,190	1,610	1,250
8	2,550	3,310	e2,600	2,630	2,570	2,260	2,720	2,450	2,260	2,180	1,560	1,260
9	2,660	3,100	e2,600	2,610	2,580	2,280	2,700	2,450	2,270	2,070	1,550	1,200
10	2,600	2,540	2,650	2,610	2,560	2,340	2,680	2,500	2,380	2,040	1,540	1,190
11	2,520	2,560	2,640	2,630	2,470	2,340	2,660	2,510	2,380	1,990	1,510	1,160
12	2,520	2,640	2,650	2,630	2,530	2,330	2,650	2,600	2,360	1,860	1,530	1,140
13	2,480	2,700	2,690	2,610	2,540	2,330	2,650	2,630	2,330	1,770	1,570	1,340
14	2,480	2,700	2,740	2,640	2,590	2,320	2,650	2,540	2,310	1,650	1,580	1,560
15	2,460	2,770	2,720	2,640	2,560	2,330	2,630	2,530	2,360	1,570	1,510	1,750
16	2,470	2,790	2,360	2,630	2,470	2,340	2,650	2,490	2,310	1,570	1,470	1,870
17	2,450	2,850	2,370	2,620	e2,400	2,320	2,690	2,420	2,330	1,530	1,500	1,960
18	2,460	2,780	e2,400	2,630	e2,400	2,320	2,810	2,390	2,330	1,500	1,630	1,900
19	2,470	2,600	e2,400	2,620	e2,400	2,350	2,770	2,430	2,350	1,520	1,560	1,940
20	2,490	2,600	e2,400	2,610	e2,400	2,360	2,800	2,600	2,320	1,540	1,530	1,940
21	2,500	2,650	2,380	2,600	2,340	2,330	2,810	2,780	2,290	1,600	1,500	1,780
22	2,510	2,680	2,390	2,570	2,270	2,330	2,740	2,830	2,250	1,530	1,390	1,760
23	2,540	2,740	2,460	2,600	2,280	2,310	2,740	2,900	2,260	1,510	1,360	1,830

Table 3. Daily mean discharge for Bighorn River above Tullock Creek, near Bighorn, Mont., October 2005 to September 2006. —Continued

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
24	2,560	2,770	2,540	2,610	2,280	2,310	2,770	2,980	2,250	1,520	1,350	1,830
25	2,580	2,820	2,620	2,590	2,280	2,310	2,750	3,110	2,310	1,500	1,320	1,840
26	2,620	2,880	2,610	2,620	2,280	2,350	2,720	3,250	2,330	1,500	1,360	1,730
27	2,600	2,980	2,620	2,620	2,300	2,360	2,680	2,880	2,320	1,470	1,360	1,670
28	2,510	2,990	2,610	2,620	2,310	2,360	2,650	2,820	2,350	1,480	1,360	1,680
29	2,530	2,970	2,640	2,610	--	2,390	2,630	2,720	2,370	1,510	1,320	1,620
30	2,590	2,980	2,650	2,580	--	2,690	2,610	2,610	2,330	1,530	1,300	1,590
31	2,630	--	2,630	2,620	--	2,990	--	2,490	--	e1,540	1,290	--
Total	78,300	84,980	79,760	81,050	69,000	73,180	82,250	81,380	69,910	54,900	45,960	46,500
Mean	2,526	2,833	2,573	2,615	2,464	2,361	2,742	2,625	2,330	1,771	1,483	1,550
Max	2,710	3,310	2,990	2,660	2,630	2,990	3,570	3,250	2,430	2,270	1,630	1,960
Min	2,330	2,540	2,360	2,570	2,270	2,260	2,570	2,390	2,250	1,470	1,290	1,140
Acre-ft	155,300	168,600	158,200	160,800	136,900	145,200	163,100	161,400	138,700	108,900	91,160	92,230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	3,141	3,217	3,077	2,967	3,122	3,590	3,453	4,248	6,716	5,158	2,783	2,776
Max	5,546	5,599	4,907	5,478	5,314	6,580	7,881	9,102	15,180	19,090	6,972	4,952
(WY)	(1972)	(1974)	(1968)	(1968)	(1971)	(1972)	(1997)	(1947)	(1948)	(1967)	(1997)	(1973)
Min	1,103	1,223	1,280	1,382	1,544	908	1,063	1,304	1,050	707	868	1,009
(WY)	(2003)	(1978)	(1961)	(1961)	(2003)	(1966)	(1966)	(1966)	(1966)	(1960)	(1961)	(1966)

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1945 - 2006	
Annual total	911,790		847,170			
Annual mean	2,498		2,321		3,670	
Highest annual mean					5,594	1997
Lowest annual mean					1,474	2003
Highest daily mean	7,970	Jun 29	3,570	Apr 1	50,000	May 20, 1978
Lowest daily mean	1,320	May 3	1,140	Sep 12	400	Apr 4, 1967
Annual seven-day minimum	1,390	May 2	1,210	Sep 6	528	May 6, 1961
Maximum peak flow			[a]3,750	Apr 1	[a]59,200	May 20, 1978
Maximum peak stage			[b]2.95	Dec 9	[b]14.21	Apr 2, 1965
Instantaneous low flow					[a]275	Nov 15, 1959
Annual runoff (acre-ft)	1,809,000		1,680,000		2,659,000	
10 percent exceeds	3,320		2,760		6,180	
50 percent exceeds	2,150		2,460		3,090	
90 percent exceeds	1,570		1,520		1,600	

MT v. WY/M.T.D. App.
600 (WY)

0468

Table 3. Daily mean discharge for Bighorn River above Tullock Creek, near Bighorn, Mont., October 2005 to September 2006.—Continued

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

SUMMARY STATISTICS				
	Water Years 1946–1961*		Water Years 1967–2006**	
Annual mean	3,358		3,672	
Highest annual mean	5,501	1947	5,594	1997
Lowest annual mean	1,623	1961	1,474	2003
Highest daily mean	25,700	Jun 23, 1947	50,000	May 20, 1978
Lowest daily mean	462	May 12, 1962	400	Apr 4, 1967
Annual seven-day minimum	528	May 6, 1961	843	Nov 18, 1977
Maximum peak flow	[f]26,200	Jun 24, 1947	59,200	May 20, 1978
Maximum peak stage	10.65	May 24, 1947	14.15	May 20, 1978
Instantaneous low flow	[e]275	Nov 15, 1959		
Annual runoff (acre-ft)	2,578,000		2,661,000	

* Prior to construction of Yellowtail Dam.

** After completion of Yellowtail Dam.

[a] Gage height, 2.59 feet.

[b] Backwater from ice.

[c] Gage height, 14.15 feet, at different site and datum.

[d] Result of ice jam, at different site and datum.

[e] Prior to construction of Yellowtail Dam.

[f] Gage height, 8.79 feet, at different site and datum.

MT v. WY/M.T.D. App.
601 (WY)

0469

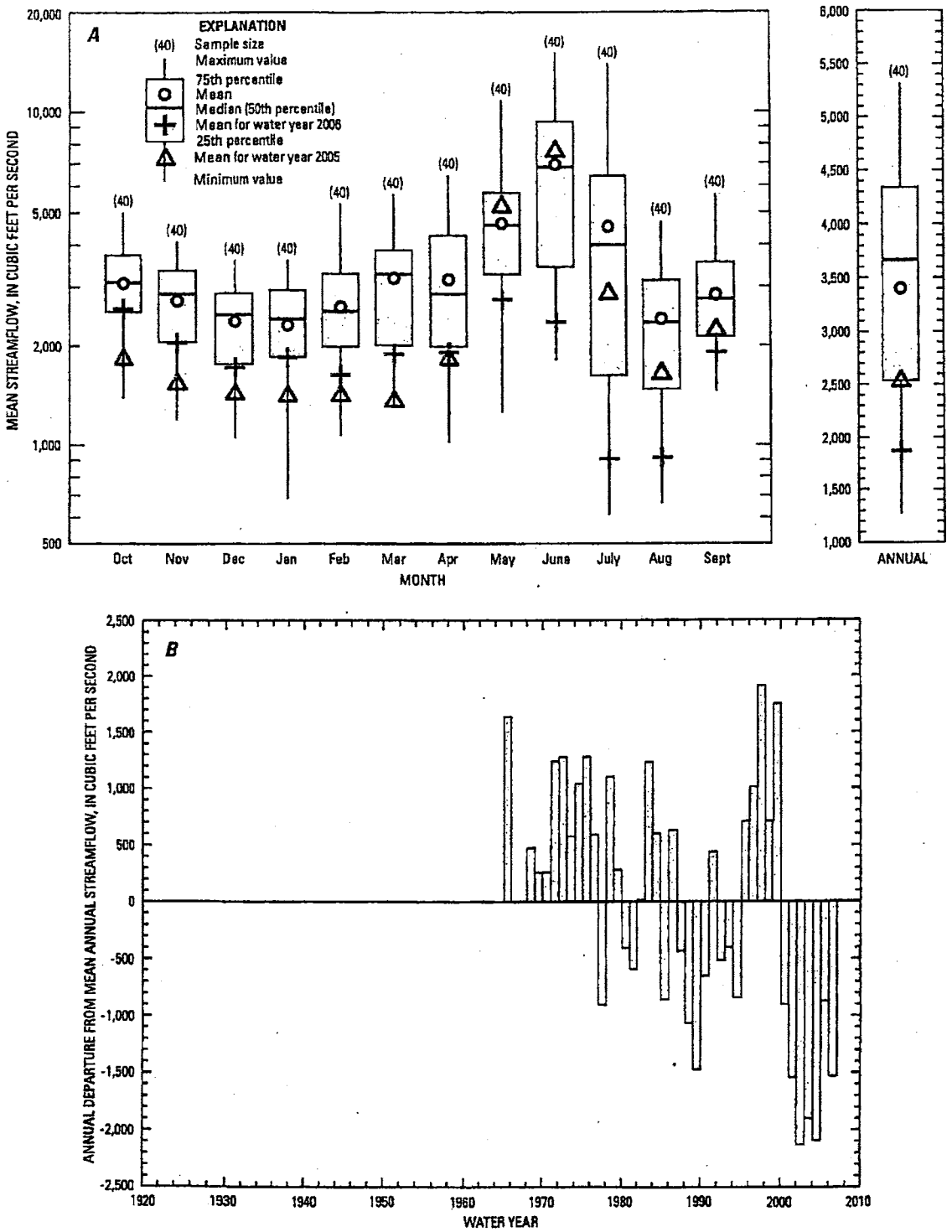


Figure 2. Streamflow data for Bighorn River above Tullock Creek, near Bighorn, Mont. (06294500), minus Little Bighorn River near Hardin, Mont. (0694000); adjusted for change in contents in Bighorn Lake, water years 1965–2006: *A*, Statistical distribution of monthly and annual streamflow; *B*, Annual departure from the mean annual streamflow.

MT v. WY/M.T.D. App.
802 (WY)

0470

06308500 Tongue River at Miles City, Mont.

LOCATION.--Lat 46°23'05", long 105°50'41" referenced to North American Datum of 1927, in SE ¼ SE ¼ SE ¼ sec. 4, T.7 N., R.47 E., Custer County, Hydrologic Unit 10090102, on right bank 1.5 mi south of Miles City and at river mile 2.3.

DRAINAGE AREA.--5,397 mi². Area at site used prior to Oct. 4, 1995, 5,379 mi².

PERIOD OF RECORD.--April 1938 to April 1942, April 1946 to current year. Published as "near Miles City" April 1938 to April 1942. Not equivalent to records published as "near Miles City" May 1929 to October 1932. April 1946 to Oct. 4, 1995, located at site 2.5 mi upstream from present site. Flows at present site are equivalent with flows at site operated from 1946. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.-- WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,360 ft (NGVD 29). April 1938 to April 1942, nonrecording gage located at site 8 mi upstream from present site at different elevation. April 1946 to Sept. 30, 1963, located at elevation 1.00 ft higher than present site. Oct. 4, 1995, gage was moved 2.5 mi downstream.

REMARKS.--Water-discharge records are good except those for estimated daily discharges, which are poor. Flow is regulated by Tongue River Reservoir (station 06307000) with capacity of 79,070 acre-ft, and many small reservoirs in Wyoming with combined capacity about 15,000 acre-ft. Diversions for irrigation include about 100,800 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter is located at the station.

Table 4. Daily mean discharge for Tongue River at Miles City, Mont., October 2005 to September 2006.

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	79	219	e110	e230	e200	e150	261	122	28	7.9	16	7.5
2	92	218	e130	e230	e200	e160	234	119	28	11	16	8.2
3	113	219	e140	e230	e190	e160	342	115	20	17	17	7.4
4	156	220	e170	e230	e180	e160	289	114	21	26	15	7.1
5	e330	242	e160	e230	e180	e160	185	114	19	24	17	7.2
6	440	243	e150	e230	e170	e160	161	113	14	25	12	8.1
7	482	245	e140	e230	e160	e160	e600	112	13	25	12	7.1
8	466	247	e160	e240	e150	e160	e300	123	e80	19	12	6.9
9	470	246	e180	e250	e140	e150	e200	99	e1,300	18	14	7.2
10	874	245	e230	e270	e140	e150	e160	27	e500	20	14	7.0
11	447	246	e230	e270	e130	e140	e150	32	e300	19	13	8.0
12	320	248	e230	e270	e130	e140	e140	134	e190	21	11	13
13	256	231	e230	e270	e130	e140	140	63	133	19	13	13
14	241	226	e230	e280	e140	e130	132	62	97	14	15	11
15	236	224	e210	e250	e140	138	127	62	67	13	18	8.9
16	232	e220	e200	e240	e120	139	125	44	44	16	16	8.4
17	232	e220	e180	e240	e90	141	e130	32	24	14	15	12
18	231	224	e160	e240	e100	138	e200	24	14	14	15	17
19	233	220	e180	e240	e110	137	651	17	23	15	16	22
20	234	218	e220	e240	e120	134	1,360	15	34	16	14	28
21	236	217	e230	e240	e140	125	616	14	21	18	11	17
22	245	216	e240	e240	e150	127	312	13	17	12	10	29
23	222	214	e240	e230	e150	129	219	14	15	11	11	152

0471

MT v. WY/M.T.D. App.
603 (WY)

Table 4. Daily mean discharge for Tongue River at Miles City, Mont., October 2005 to September 2006.—Continued

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
24	218	214	e240	e230	e150	126	170	1,030	14	12	11	130
25	218	213	e240	e230	e140	122	146	711	15	13	11	51
26	218	214	e240	e220	e150	122	134	131	16	18	11	32
27	218	e200	e240	e220	e150	128	128	55	16	16	9.5	26
28	218	e170	e240	e210	e150	128	123	41	12	15	9.3	59
29	218	e150	e240	e210	--	124	121	39	9.4	14	8.9	61
30	218	e130	e230	e210	--	140	119	28	10	10	8.6	50
31	218	--	e230	e200	--	158	--	28	--	12	7.5	--
Total	8,611	6,559	6,250	7,350	4,100	4,376	7,975	3,647	3,094.4	504.9	399.8	822.0
Mean	278	219	202	237	146	141	266	118	103	16.3	12.9	27.4
Max	874	248	240	280	200	160	1,360	1,030	1,300	26	18	152
Min	79	130	110	200	90	122	119	13	9.4	7.9	7.5	6.9
Acre-ft	17,080	13,010	12,400	14,580	8,130	8,680	15,820	7,230	6,140	1,000	793	1,630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938–2006, BY WATER YEAR (WY)*

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	239	248	187	191	270	515	425	674	1,232	449	175	193
Max	694	585	423	529	1,794	1,783	1,693	2,983	3,825	2,207	700	599
(WY)	(1972)	(1942)	(1950)	(1999)	(1971)	(1971)	(1965)	(1978)	(1978)	(1975)	(1975)	(1968)
Min	10.3	60.9	68.0	65.3	74.5	74.5	12.5	29.2	41.9	12.6	6.08	2.40
(WY)	(1961)	(1989)	(1990)	(2005)	(2003)	(2002)	(1961)	(1961)	(2002)	(1960)	(1949)	(1938)

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1938–2006*	
Annual total	132,808		53,689.1			
Annual mean	364		147		396	
Highest annual mean					986	1978
Lowest annual mean					57.2	1961
Highest daily mean	2,880	Jun 9	1,360	Apr 20	9,290	Jun 15, 1962
Lowest daily mean	12	May 5	6.9	Sep 8	0.00	Jul 9, 1940
Annual seven-day minimum	49	Jan 10	7.2	Sep 4	0.00	Jul 9, 1940
Maximum peak flow			2,630	May 24	[a]13,300	Jun 15, 1962
Maximum peak stage			6.39	May 24	[b]13.27	Mar 19, 1960
Instantaneous low flow					0.00	Jul 9, 1940
Annual runoff (acre-ft)	263,400		106,500		287,200	
10 percent exceeds	1,270		245		900	
50 percent exceeds	166		138		218	
90 percent exceeds	78		12		63	

* During period of record (April 1938 to April 1942, April 1946 to 2006).

[a] Gage height, 11.33 feet, at previous site and datum.

[b] Ice jam, at previous site and datum used from 1963–95.

MT v. WY/M.T.D. App.
604 (WY)

0472

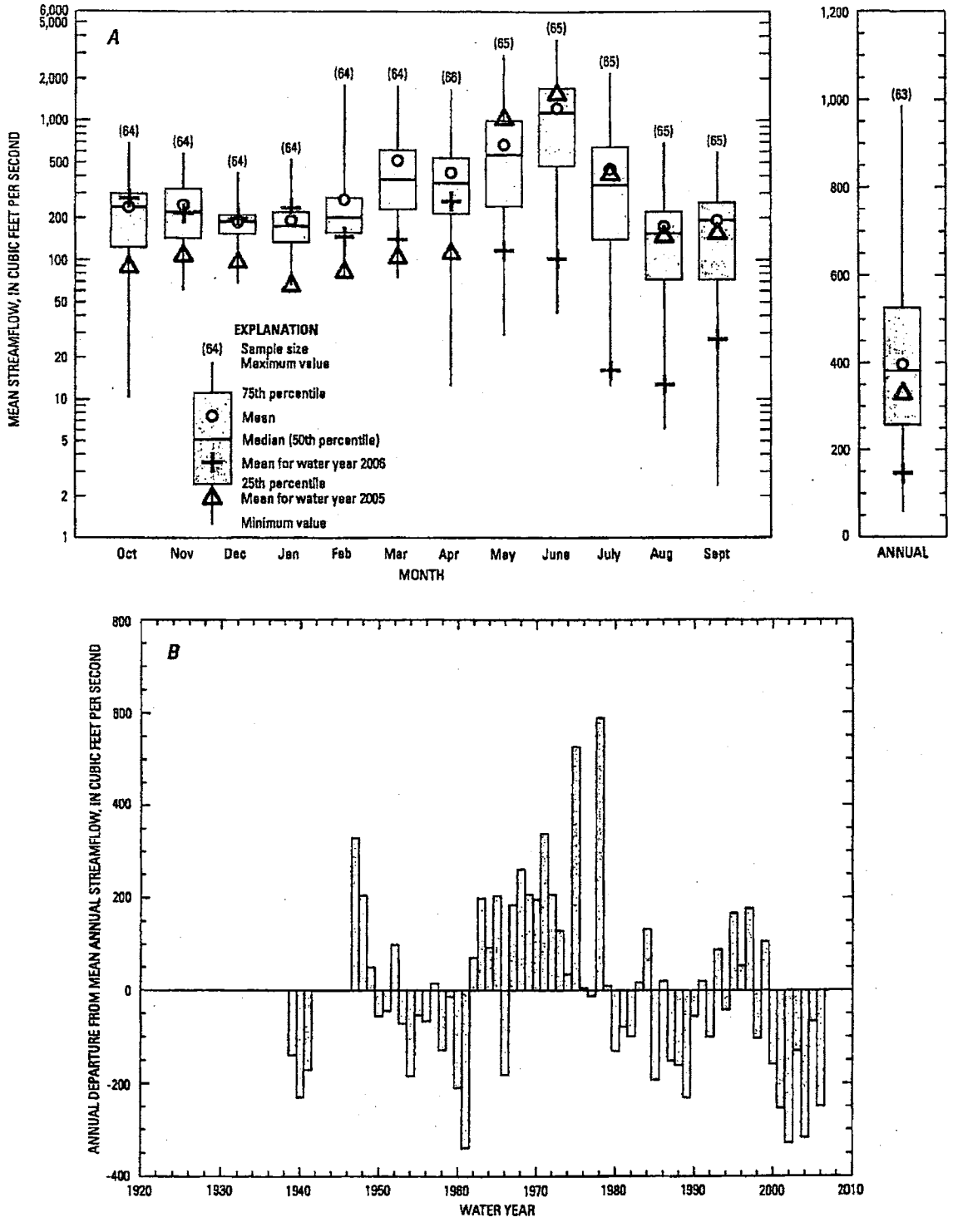


Figure 3. Streamflow data for the Tongue River at Miles City, Mont. (06308500), water years 1939–2006: *A*, Statistical distribution of monthly and annual streamflow; *B*, Annual departure from the mean annual streamflow.

MT v. WY/M.T.D. App.
605 (WY)

0473

06326500 Powder River near Locate, Mont.

LOCATION.--Lat 46°25'48", long 105°18'34" referenced to North American Datum of 1927, in SW ¼ SW ¼ SE ¼ sec. 23, T.8 N., R.51 E., Custer County, Hydrologic Unit 10090209, on left bank at downstream side of bridge on U.S. Highway 12, 0.1 mi west of Locate, and 25 mi east of Miles City, and at river mile 29.4.

DRAINAGE AREA.--13,068 mi².

PERIOD OF RECORD.--March 1938 to current year.

REVISED RECORDS.-- WSP 926: 1939. WSP 1309: 1938-39 (M). WSP 1729: Drainage area. WDR MT-04-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,384.79 ft (NGVD 29) (levels by U.S. Army Corps of Engineers). Prior to July 11, 1947, nonrecording gage located at bridge 1.5 mi upstream, and July 11, 1947 to Sept. 30, 1965, water-stage recorder located at site near upstream bridge at different elevation. Oct. 1, 1965 to Oct. 4, 1966, nonrecording gage, and Oct. 5, 1966 to Mar. 21, 1978, water-stage recorder located at present site and elevation. Mar. 22, 1978 to Apr. 23, 1981, water-stage recorder located 1.5 mi upstream at different elevation, Apr. 24 to Aug. 20, 1981, water-stage recorder located at present site and elevation, and Aug. 21, 1981 to Sept. 30, 1981, water-stage recorder located 1.5 mi upstream at different elevation. Oct. 1, 1981 to Apr. 5, 1995 water-stage recorder at site located 1.5 mi downstream at different elevation. Apr. 7, 1995 to present, water-stage recorders located on each bank and used depending on control conditions.

REMARKS.--Water-discharge records are fair except those for estimated daily discharges, which are poor. Some regulation occurs by three reservoirs in Wyoming with combined usable capacity of 36,800 acre-ft. Diversions for irrigation of about 101,800 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter is located at the station.

Table 5. Daily mean discharge for Powder River near Locate, Mont., October 2005 to September 2006.

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	36	180	e70	e210	e180	e190	324	581	493	34	2.3	e0.00
2	36	185	e60	e210	e180	e500	332	552	443	33	3.5	e.00
3	42	181	e70	e210	e180	e1,000	345	510	401	28	3.4	e.00
4	53	179	e90	e210	e180	e1,000	421	486	326	30	3.0	e.05
5	152	182	e90	e190	e180	1,040	405	486	292	29	2.5	e.20
6	178	184	e90	e190	e180	1,440	595	389	239	24	1.8	e.05
7	293	187	e80	e190	e170	1,020	957	329	194	21	1.3	e.00
8	424	193	e90	e190	e180	880	865	319	190	18	1.7	e.00
9	657	188	e110	e200	e180	792	1,060	358	241	16	5.9	e.00
10	857	185	e120	e200	e180	702	712	474	171	15	2.0	e.00
11	560	189	e120	e200	e170	640	579	493	151	13	1.3	.44
12	358	211	e120	e200	e160	553	499	391	170	12	2.4	.96
13	268	209	e110	e200	e180	472	476	387	130	11	2.9	.28
14	234	210	e120	e200	e160	470	488	366	186	9.9	2.3	.00
15	260	188	e120	e200	e160	433	426	323	223	9.8	2.2	.00
16	254	193	e110	e210	e150	395	420	308	230	8.4	2.4	.36
17	242	206	e100	e210	e140	382	430	280	156	6.8	2.5	17
18	237	232	e80	e210	e150	377	951	284	120	6.2	5.3	50
19	247	259	e90	e210	e160	342	2,510	240	102	5.4	6.8	74
20	242	225	e100	e210	e170	313	3,120	208	90	5.1	3.4	50
21	220	202	e120	e210	e170	292	2,610	191	81	5.4	2.4	36
22	197	220	e130	e210	e170	303	2,250	177	77	5.1	2.1	82

MT v. WY/M.T.D. App.
606 (WY)

0474

Table 5. Daily mean discharge for Powder River near Locate, Mont., October 2005 to September 2006.—Continued

[Discharge is in cubic feet per second. Abbreviations: e, estimated; Max, maximum; Min, minimum; Acre-ft; acre-feet; WY, water year. Symbol: --, no data]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
23	179	230	e130	e200	e170	325	1,900	510	74	4.7	1.7	240
24	177	230	e130	e180	e170	341	1,430	2,280	68	4.4	1.0	119
25	176	230	e130	e180	e160	325	1,130	1,110	61	4.0	0.48	80
26	183	e210	e140	e180	e170	311	866	671	48	3.7	0.54	52
27	185	e200	e170	e180	e170	293	747	545	48	3.4	0.39	37
28	176	e150	e210	e190	e170	302	704	435	43	3.0	0.22	37
29	172	e80	e210	e180	--	301	657	669	39	2.6	0.04	44
30	177	e70	e210	e180	--	315	614	712	34	2.6	0.02	38
31	179	--	e210	e180	--	318	--	588	--	2.2	0.17	--
Total	7,651	5,788	3,730	6,120	4,740	16,367	28,823	15,652	5,121	376.7	67.96	958.34
Mean	247	193	120	197	169	528	961	505	171	12.2	2.19	31.9
Max	857	259	210	210	180	1,440	3,120	2,280	493	34	6.8	240
Min	36	70	60	180	140	190	324	177	34	2.2	0.02	0.00
Acre-ft	15,180	11,480	7,400	12,140	9,400	32,460	57,170	31,050	10,160	747	135	1,900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939–2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	246	216	148	143	418	1,191	728	1,123	1,556	546	205	163
Max	921	790	417	476	3,850	4,627	3,062	5,970	8,045	2,015	1,096	898
(WY)	(1941)	(1999)	(1942)	(1981)	(1943)	(1972)	(1965)	(1978)	(1944)	(1993)	(1941)	(1941)
Min	1.77	12.5	12.5	4.53	2.82	80.2	109	51.2	25.9	9.34	1.30	0.19
(WY)	(1961)	(1961)	(1961)	(1950)	(1950)	(1950)	(1961)	(2004)	(2004)	(2004)	(1988)	(1960)

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1939–2006	
Annual total	149,843		95,395.0			
Annual mean	411		261		557	
Highest annual mean					1,622	1944
Lowest annual mean					79.1	2004
Highest daily mean	3,390	Jun 28	3,120	Apr 20	26,000	Feb 19, 1943
Lowest daily mean	29	Aug 12	0	Sep 1	0	Jan 16, 1950
Annual seven-day minimum	36	Sep 22	.04	Aug 29	0	Jan 16, 1950
Maximum peak flow			4,240	Apr 19	[b]31,000	Feb 19, 1943
Maximum peak stage (ft)			5.29	Apr 19	[c]12.20	Mar 16, 1978
Instantaneous low flow			[a].00	Many days	[a].00	Many days
Annual runoff (acre-ft)	297,200		189,200		403,200	
10 percent exceeds	1,240		580		1,300	
50 percent exceeds	196		180		228	
90 percent exceeds	53		2.4		38	

[a] On many days in 1950, 1960-61, 1998, and 2006.

[b] Gage height, 11.23 feet, observed.

[c] Backwater from ice.

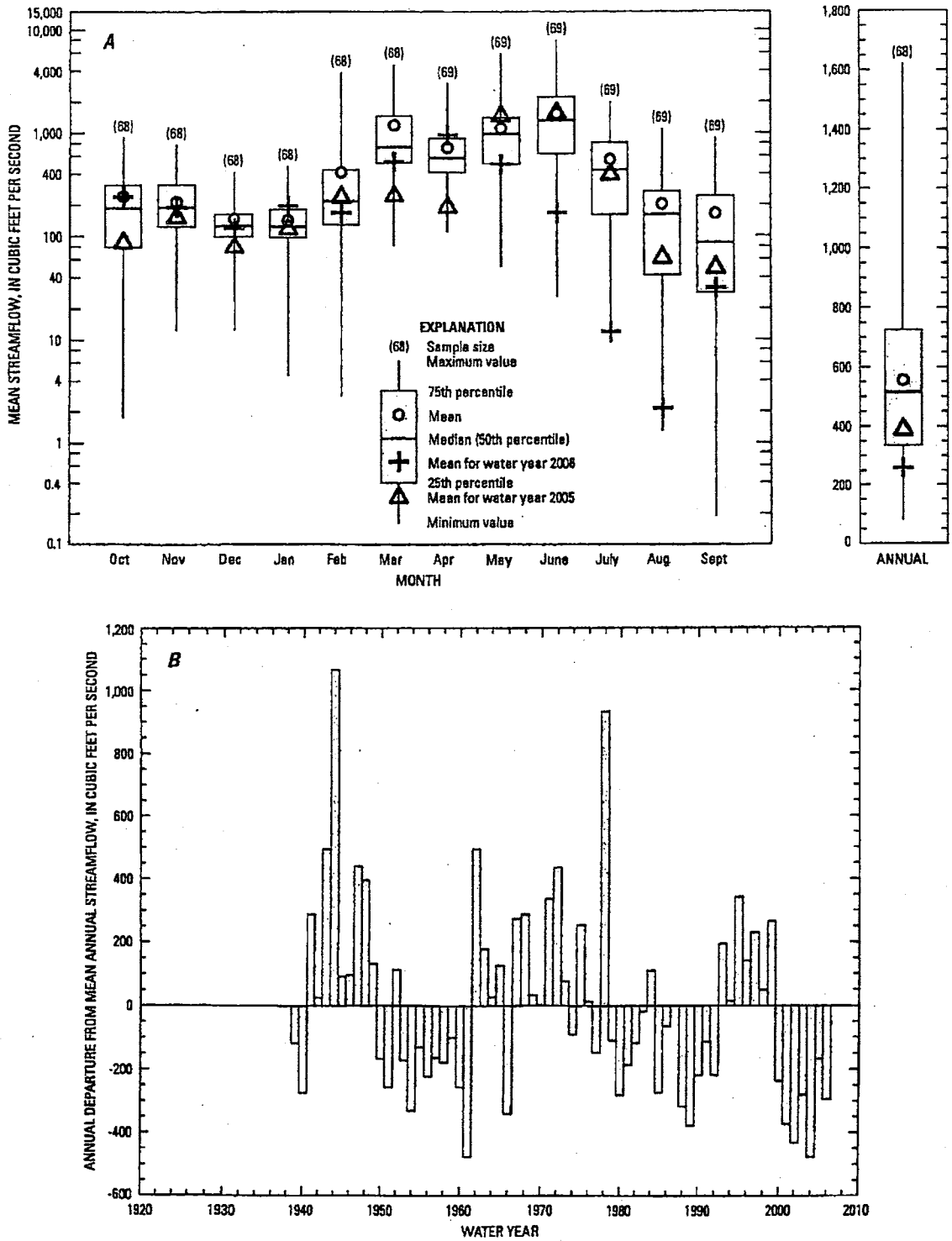


Figure 4. Streamflow data for the Powder River near Locate, Mont. (06326500), water years 1939–2006: *A*, Statistical distribution of monthly and annual streamflow; *B*, Annual departure from the mean annual streamflow.

MT v. WY/M.T.D. App.
608 (WY)

0476

Month-End Contents for Yellowstone River Compact Reservoirs[1] Completed after January 1, 1950

06258900 Boysen Reservoir, Wyo.

LOCATION.--Lat 43°25'00", long 108°10'37" (NAD 27), in NW ¼ NW ¼ sec. 16, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, at dam on Wind River and 13 mi north of Shoshoni, Wyo.

DRAINAGE AREA.--7,700 mi².

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

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1951. Storage began Oct. 11, 1951. Usable capacity is 701,500 acre-ft between elevation 4,657.00 ft, invert of penstock pipe, and 4,725.00 ft, top of spillway gate. Dead storage is 40,080 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. Between January 1966 and October 1996, usable capacity was 742,100 acre-ft and dead storage was 59,880 acre-ft, at same elevations. Crest of dam is at elevation 4,758.00 ft. Water used for irrigation, flood control, and power generation.

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, 591,300 acre-ft, Oct. 6, 7, elevation, 4,719.03 ft; minimum daily contents, 402,500 acre-ft, Sept. 17, elevation, 4,706.22 ft.

Table 6. Month-end contents for Boysen Reservoir, Wyo.

[--, no data]

Date	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 2005	4,719.06	591,900	--
October 31	4,718.80	587,400	-4,500
November 30	4,718.27	578,400	-9,000
December 31	4,716.91	555,800	-22,600
January 31, 2006	4,716.16	543,800	-12,000
February 28	4,715.30	530,200	-13,600
March 31	4,714.42	516,700	-13,500
April 30	4,713.58	504,100	-12,600
May 31	4,713.91	509,000	4,900
June 30	4,713.58	504,100	-4,900
July 31	4,710.53	460,000	-44,100
August 31	4,707.30	416,400	-43,600
September 30, 2006	4,706.63	407,700	-8,700
2006 water year			**-184,200**

[1]Wyoming disagrees with the term "Compact reservoirs" as used throughout this annual report. Wyoming's acceptance of this annual report should not be construed as Wyoming's acceptance of the use of that term.

0477

06260300 Anchor Reservoir, Wyo.

LOCATION.--Lat 43°39'50", long 108°49'27" (NAD 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, Wyo.

DRAINAGE AREA.--131 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (Bureau of Reclamation benchmark).

REMARKS.--Reservoir is formed by concrete arch dam completed in 1960. Usable capacity, 17,410 acre-ft (revised) 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. Water is used for irrigation of land in Owl Creek basin.

COOPERATION.--Elevations and capacity table 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 contents on many days some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 628 acre-ft, May 18, elevation, 6,465.00 ft; minimum daily contents, 212 acre-ft, many days, elevation, 6,353.00 ft.

Table 7. Month-end contents for Anchor Reservoir, Wyo.

[–, no data]

Date	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 2005	6,355.50	269	–
October 31	6,360.50	433	164
November 30	6,357.50	330	-103
December 31	6,356.50	299	-31
January 31, 2006	6,355.00	254	-45
February 28	6,358.00	345	91
March 31	6,358.00	345	0
April 30	6,355.30	263	-82
May 31	6,358.00	345	82
June 30	6,356.50	299	-46
July 31	6,353.00	212	-87
August 31	6,353.00	212	0
September 30, 2006	6,354.00	233	21
2006 water year			-36

0478

MT v. WY/M.T.D. App.
610 (WY)

06286400 Bighorn Lake near St. Xavier, Mont.

LOCATION.--Lat 45°18'27", long 107°57'26" (NAD 27), in SW¼SE¼ sec.18, T.6 S., R.30 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 southwest of St. Xavier, Mont., and at river mile 86.6.

DRAINAGE AREA.--19,626 mi².

PERIOD OF RECORD.--November 1965 to current year (month-end contents only). Prior to October 1969, published as "Yellowtail Reservoir." Records of daily elevations and contents are on file at the USGS Montana Water Science Center office in Helena, Mont.

GAGE.--Water-stage recorder located in powerhouse control room. Datum of gage is 3,296.5 ft (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed from thin concrete-arch dam; construction began in 1961 and was completed in 1967. Storage began Nov. 3, 1965. Usable capacity is 1,312,000 acre-ft, between elevation 3,296.50 ft, river outlet invert, and 3,657.00 ft, top of flood control. Elevation of spillway crest is 3,593.00 ft. Normal maximum operating level is 1,097,000 acre-ft, between elevation, 3,640.00 ft and 3,657.00. Minimum operating level is 483,400 acre-ft, elevation, 3,547.00 ft. Dead storage is 16,010 acre-ft, below elevation 3,296.50 ft. 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 contents, 1,346,000 acre-ft, July 6, 1967, elevation, 3,656.43 ft; minimum contents since first filling, 591,400 acre-ft, Mar. 11, 2003, elevation, 3,572.81 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,009,000 acre-ft, Oct. 16, elevation, 3,636.25 ft; minimum contents, 720,000 acre-ft, Sept. 2, elevation, 3,598.43 ft.

Table 8. Month-end contents for Bighorn Lake, Mont.

[–, no data]

Date	Water-surface elevation, in feet	Usable contents, in acre-feet	Change in usable contents, in acre-feet
September 30, 2005	3,634.03	984,500	–
October 31	3,635.11	996,200	11,700
November 30	3,631.34	956,600	-39,600
December 31	3,626.41	910,400	-46,200
January 31, 2006	3,621.58	870,000	-40,400
February 28	3,616.26	829,700	-40,300
March 31	3,613.08	807,400	-22,300
April 30	3,606.89	768,100	-39,300
May 31	3,611.38	796,100	28,000
June 30	3,612.95	806,500	10,400
July 31	3,604.66	754,900	-51,600
August 31	3,598.50	720,400	-34,500
September 30, 2006	3,603.07	745,800	25,400
2006 water year			**-238,700**

Month-End Contents for Yellowstone River Compact Reservoirs[1] Existing on January 1, 1950

The extent, if any, to which the use of reservoirs in this section may be subject to Compact allocations was not determined. As a matter of hydrologic interest, the month-end 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, 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 and the reservoir-capacity table.

Table 9. Month-end contents for Yellowstone River Compact reservoirs[1] existing on January 1, 1950.

Date	Usable contents, in acre-feet[2]			
	06224500 Bull Lake	Pilot Butte Reservoir	06281500 Buffalo Bill Reservoir	0607000 Tongue River Reservoir
September 30, 2005	66,100	12,300	450,300	43,760
October 31	69,160	25,620	451,300	44,810
November 30	70,430	25,160	466,800	44,020
December 31	71,370	25,170	471,100	40,720
January 31, 2006	72,150	25,010	472,500	40,950
February 28	72,270	24,870	473,000	41,680
March 31	72,320	24,720	475,000	46,430
April 30	72,800	21,690	472,600	51,400
May 31	90,950	17,600	557,500	65,950
June 30	128,000	20,640	636,400	69,180
July 31	114,600	13,900	590,100	52,310
August 31	70,550	8,100	503,400	40,380
September 30, 2006	50,540	1,020	441,100	42,720
Change in contents during water year	**-15,560**	**-11,280**	**-9,200**	**-1,040**

[1]Wyoming disagrees with the term "Compact reservoirs" as used throughout this annual report. Wyoming's acceptance of this annual report should not be construed as Wyoming's acceptance of the use of that term.

[2]Pre-Compact water rights and post-Compact water rights for these reservoirs are presented in the table, "Water-year-end contents for Yellowstone River Compact reservoirs or lakes."

0480

MT v. WY/M.T.D. App.
612 (WY)

Water-Year-End Contents for Yellowstone River Compact Reservoirs[1] or Lakes

Table 10. Water-year-end contents for Yellowstone River Compact reservoirs[1] or lakes.

[Contents are in acre-feet. Reservoirs or lakes are listed in alphabetical order by drainage basin. Symbol: --, no data or not available]

Reservoir or lake name	Pre-compact 1950 water right	Post-compact 1950 water right	Usable capacity	Usable contents on Sept. 30, 2006	Usable contents on Sept. 30, 2005	Change in usable contents
Bighorn River basin						
(Lake) Adelaide Reservoir[2]	1,450	4,760	6,210	450	2,000	-1,550
Anchor Reservoir[2]	17,410	0	17,410	233	269	-36
Bighorn Lake[3]	--	1,116,000	1,312,000	745,800	984,500	-238,700
Boysen Reservoir[3]	701,500	0	701,500	407,700	591,900	-184,200
Buffalo Bill Reservoir[3]	456,600	190,000	646,600	441,100	450,300	-9,200
Bull Lake[3]	152,000	0	152,000	50,540	66,100	-15,560
Greybull Valley Reservoir[2]	0	33,170	33,170	322	8,000	-7,678
Pilot Butte Reservoir[3]	34,600	0	34,600	1,020	12,300	-11,280
Sunshine Reservoir[3]	52,990	0	52,990	5,960	24,000	-18,040
Lower Sunshine Reservoir[2]	42,640	42,300	84,940	720	21,000	-20,280
Powder River basin						
Cloud Peak Reservoir[2]	3,400	172	3,570	0	3,570	-3,570
Dull Knife Reservoir[3]	--	4,320	4,320	63	1,314	-1,251
Healy Reservoir[2]	--	5,140	5,140	1,336	4,652	-3,316
Kearney Reservoir[2]	1,850	4,470	6,320	1,085	2,641	-1,556
Lake DeSmet[2]	37,520	197,500	235,000	187,278	206,672	-19,394
Muddy Guard Reservoir[2]	--	2,340	2,340	500	492	8
Tie Hack Reservoir[2]	1,650	2,440	2,440	1,921	2,440	-519
Willow Park Reservoir[2]	4,460	--	4,460	451	2,896	-2,445
Tongue River basin						
Bighorn Reservoir[2]	2,750	1,880	4,630	584	670	-86
Cross Creek Reservoir[4]	--	798	798	309	474	-165
Dome Reservoir[3,4]	1,840	188	2,030	1,209	1,177	32
Granger Reservoir[2]	146	--	146	0	0	0
Last Chance Reservoir[2]	90	--	90	0	0	0
Martin Reservoir[2]	561	--	561	0	0	0
Park Reservoir[2]	7,350	3,020	10,360	3,088	4,684	-1,596
Sawmill Lakes Reservoir[2]	--	1,280	1,280	746	825	-79
Tongue River Reservoir[5]	79,070	--	79,070	42,720	43,760	-1,040
Twin Lakes Reservoir[2,6]	1,180	2,220	3,400	2,842	3,013	-171
Weston Reservoir[2]	370	--	370	0	0	0
Willits Reservoir[2]	79	--	79	0	0	0

[1]Wyoming disagrees with the term "Compact reservoirs" as used throughout this annual report. Wyoming's acceptance of this annual report should not be construed as Wyoming's acceptance of the use of that term.2 Reservoirs managed by the State of Wyoming.

[2]Reservoirs managed by the State of Wyoming.

[3]Reservoirs managed by Bureau of Reclamation.

[4]Data are combined contents of Dome Lake and Dome Lake Reservoir.

[5]Reservoir managed by State of Montana.

[6]Data are combined contents of Twin Lakes Number 1 and Twin Lakes Number 2.

0481

MT v. WY/M.T.D. App.
613 (WY)

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. Christopulos
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.

0487

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

July 22, 1996
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.

0493

YELLOWSTONE RIVER COMPACT COMMISSION

WYOMING

GORDON W. FASSETT
STATE ENGINEER
HERSCHLER BUILDING
4TH FLOOR EAST
CHEYENNE, WYOMING 82002
(307) 7777354

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 ___¼ ___¼, Section ____, T.___R.____

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

   _____

   _____

0494

(b) Describe water measuring device: _____

_____

_____

(c) If the point of diversion is in Montana:

1. What flow rate has been claimed?

_____ ☐ cubic feet per second

☐ gallons per minute

☐ miner's inches

2. What volume of water has been claimed?

_____ acre-feet

7. Dimensions of ditch at headgate: Width at top (at waterline) _____ feet; width at bottom _____ feet; side slopes (vertical:horizontal) _____:_____; depth of water _____ feet; grade _____ feet per mile.

8. Place of use and acres irrigated: County_____ State ____ Give legal subdivisions of land owned by you on which water is being used (acres claimed): An example field is shown in the first line.

T.	R.	SEC.	NE¼				NW¼				SW¼				SE¼				TOTAL
			NE¼	NW¼	SW¼	SE¼	NE¼	MW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
58N	95W	18			25.1											10.2			35.3

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: _____

_____

_____

16. Describe ordinary annual period of use: _____ to _____
(mo/day) (mo/day)

_____.

17. Attach copies of aerial photographs, U. S. Geological Survey maps or other such documents showing the ditch and lands irrigated that give evidence to this claim and may be useful to the Commission.

* * * * * * * * * *

State of _____)
) SS
State of _____)

I, _____, having been duly sworn, depose and say that I, being of legal age and being the claimant of this claim for a water right, and the person whose name is signed to it as the claimant, know the contents of this claim and the matters and things stated there are correct.

_____

_____

Subscribed and sworn before me, this ____day of _____, 19__.

_____
Notary Public

Residing at: _____

My commission expires: _____

0497

Conversion Table

Multiply	By	To obtain
	Length	
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
	Area	
acre	4,047	square meter (m^2)
acre	0.4047	hectare (ha)[1]
acre	0.4047	square hectometer (hm^2)
acre	0.004047	square kilometer (km^2)
square mile (mi^2)	2.590	square kilometer (km^2)
	Volume	
cubic foot per second-/day (ft^3/s-day)	2,447	cubic meter (m^3)
cubic foot per second-/day (ft^3/s-day)	0.002447	cubic hectometer (hm^3)
cubic foot (ft^3)	0.02832	cubic meter (m^3)
acre-foot (acre-ft)	1,233	cubic meter (m^3)
acre-foot (acre-ft)	0.001233	cubic hectometer (hm^3)
acre-foot (acre-ft)	0.000001233	cubic kilometer (km^3)
	Flow rate	
cubic foot per second (ft^3/s)	28.32	liter per second (L/s)
cubic foot per second (ft^3/s)	28.32	cubic decimeter per second (dm^3/s)
cubic foot per second (ft^3/s)	0.02832	cubic meter per second (m^3/s)
acre-foot per year (acre-ft/yr)	1,233	cubic meter per year (m^3/yr)
acre-foot per year (acre-ft/yr)	0.001233	cubic hectometer per year (hm^3/yr)
acre-foot per year (acre-ft/yr)	0.000001233	cubic kilometer per year (km^3/yr)

[1]The unit hectare is used with the International System of Units (SI) to satisfy the needs of some specialized scientific interests. See: Taylor, B.E., ed., 2001, The International System of Units (SI): U.S. Department of Commerce, NIST Special Publication 330, 68 p., available online at *http://physics/nist/gov/Pubs/pdf.html*