Governor William E. Sweet,
Denver, Colo.

Sir: In Re: South Platte River Compact,

I have the honor to report that a compact was signed by Commissioners for the States of Colorado and Nebraska at Lincoln, Nebraska April 27, 1923, providing for the permanent equitable distribution of the waters of the South Platte River. The compact was executed by me as Commissioner for the State of Colorado under authority of Chapter 243, Session Laws 1921 and Chapter 190, Session Laws of 1923, and by Hon. Robert M. Willis, Commissioner for the State of Nebraska, acting by appointment of the Governor. It was executed in duplicate originals, one of which has been deposited with the Secretary of State of each of the signatory states, and the compact will become operative when approved by the Legislature of each of the signatory States and by the Congress of the United States.

The compact generally provides as follows:

For purposes of administration, the South Platte River in Colorado is divided into two sections. The "Upper Section" includes that part of the South Platte river in Colorado above the intersection of the river with the west boundary of Washington County (east boundary of Morgan County). The "Lower Section" corresponds with Water District No. 64 and is that part of the South Platte River in Colorado between the west boundary of Washington County and the intersection of the
river with the west boundary of Washington County (east boundary of Morgan County).

An interstate stream gauging station shall be located on the South Platte near Julesburg (at the joint expense and under the joint supervision of the two states) for the purpose of ascertaining and recording the amount of water flowing into Nebraska.

Present and future diversions and uses of waters of the South Platte are grouped as follows: (1) Those to occur between April 15th and October 15th of each year and (2) Those to occur between October 15th of each year and April 1st of the next succeeding year.

Article IV provides as follows: (1)

Colorado shall have the full and uninterrupted use and benefit of the waters of the South Platte at all times between October 15th of each year and April 1st of the next succeeding year, except for diversions by the proposed Perkins County Canal as specifically permitted, limited and defined by Article VI.

Colorado shall have the full and uninterrupted use and benefit of the waters of the South Platte between April 1st and October 15th of each year, subject to the following limitations:

During said period of each year Colorado shall not permit diversions from the Lower Section of the river to supply Colorado appropriations having adjudicated dates of priority subsequent to June 14, 1897, to an extent that will diminish the flow of the river at the Interstate Station, on any day, below a mean flow of 120 cubic feet of water per second of time, provided, however, that Nebraska shall not be entitled to receive
and Colorado shall not be required to deliver any part of such flow not immediately necessary for beneficial use by those entitled to divert water from the South Platte within Nebraska and the flow of the river at the Interstate Station shall be used by Nebraska to supply the needs of rights to the use of water, from the South Platte river in Nebraska, perfected prior to the date of the compact before permitting diversions from the South Platte by other claimants;

In deliveries of water by Colorado to Nebraska, at the Interstate Station, minor and compensating irregularities and discrepancies in flow shall be expected and permitted, but where any deficiency in the mean daily flow may have been occasioned by neglect, error or failure in the performance of duty by the Colorado water officials having charge of the administration of diversions from the Lower Section of the river in Colorado, any such differences shall be made up by the delivery of compensating quantities of water, within 72 hours; and

As a matter of intrastate protection of Colorado appropriations from the South Platte and the local control of deliveries of water by the officials, Paragraph 6 of Article IV provides that, whenever in the performance of Paragraph 2 of Article IV, senior appropriators in the Lower Section are deprived of water, such appropriators may call upon junior appropriators in the Upper Section for equivalent amounts according to the laws of Colorado.
Article VI permits Nebraska to construct a new "Perkins County Canal" to divert water from the South Platte River in Colorado for the irrigation of arid lands in Nebraska, upon the conditions, limitations and reservations specifically set forth in the article, inter alia:

Nebraska is permitted to divert not to exceed 500 cubic feet of water per second of time, but only between October 15 of any year and April 1 of the next succeeding year (as of priority of date December 17, 1921), from the net flow of water in the Lower Section which may remain after supplying all present and future appropriations in the Upper Section and all present appropriations in the Lower Section and, also, after supplying additional future appropriations in the Lower Section for the benefit of which a superior, preferred and dominant right of use of 35,000 acre feet annually is specifically reserved to Colorado by sub-paragraph (a) of Paragraph 2 of said article. The reservation of 35,000 acre feet of water, to be annually diverted and stored in the future for the use and benefit of future development in the Lower Section of Colorado, shall apply without regard to the time or manner of making such future use. Diversions by the Nebraska canal shall in no manner impair or interfere with the exercise by Colorado of the
right of future use to the extent of such reservation. The
construction and operation of the canal and the use of water
thereby shall not vest in Nebraska any right or claim to a
prior, preferred or superior servitude upon or claim or right
to the use of any water of the South Platte river in Colorado
from April 1 to October 15 and Nebraska specifically waives any
such claims and agrees that the same will never be made nor
asserted. The canal may intercept any surplus waters which
would otherwise flow into Nebraska and not necessary for use
in either state, but such diversion shall not give rise to a
claim of prior appropriation as against any present or future
Colorado user and shall not diminish the supply necessary to
pass the Interstate Station to satisfy superior claims of users
of water from the river in Nebraska. No appropriations of
water from the South Platte river perfected by use through any
other canal within Colorado shall be transferred to said canal
or be claimed or asserted for diversion or carriage for use on
lands in Nebraska. While Nebraska shall have the right to
regulate diversions of water by said canal for the purpose of
protecting other diversions from the South Platte River within
Nebraska, Colorado reserves the right at all times to regulate
and control the diversions by said canal to the extent neces-
sary for the protection of all appropriations and diversions
within Colorado or necessary to maintain the flow at the Inter-
state Station as required by Article IV.
Article III deals with the waters of Lodgepole Creek, a tributary of the South Platte flowing through Nebraska and entering the river within Colorado. This stream is treated separately. A point of division of the waters of the stream is fixed at two miles north of the interstate boundary. Nebraska shall have the use of all waters flowing in the creek above and Colorado the use of all waters flowing at or below that point. Nebraska is permitted to use the channel of the creek, below the point of division and the channel of the South Platte between the mouth of Lodgepole Creek and the Interstate Station, for the carriage of waters stored from the creek in Nebraska and to be used by ditches diverting from the South Platte in Nebraska, under certain definite provisions respecting quantity and periods of flow.

By Article V, Colorado is granted the right to maintain, operate and extend, within Nebraska, the Peterson and other canals of the Julesburg Irrigation District now or hereafter used for the carriage of water from the South Platte for irrigation of lands in both states, Colorado to continue to exercise control and jurisdiction over said canals and the carriage and delivery of water thereby. Nebraska users shall be given the same recognition and protection as are afforded the interests of similar landowners served by said canals within Colorado, but Colorado reserves the right for those in control of said canals to enforce the collection of charges and assessments.
against Nebraska users, by withholding delivery of water until payment of such charges or assessments. Nebraska grants to Colorado the right to acquire rights of way and other properties necessary to the construction, operation and protection of said canals, by purchase, prescription or the exercise of eminent domain.

By Article VII, Nebraska agrees that compliance with the provisions of the compact and delivery of water in accordance with its terms shall relieve Colorado from any other, further or additional demand or claim by Nebraska upon the waters of the South Platte River within Colorado.

By Article VIII it is made the duty of the Colorado water officials, and their successors in authority, to deliver water at the Interstate Station in compliance with the compact, without the necessity of enactment of special statutes for such purposes.

By Article IX it is specifically provided that the physical and other conditions peculiar to the South Platte river and the territory drained and served thereby constitute the basis for the compact and neither of the signatory states concedes the establishment of any general principle or precedent with respect to other interstate streams.

By Article X it is provided that the compact may be modified or terminated at any time by mutual consent of the signatories and that if so terminated the statutes of limitation
shall not in favor of Colorado or its citizens with reference to
the claims of the Western Irrigation District in Nebraska from the
16th day of April, 1916, (the date of commencement of the suit of
The Western Irrigation District vs. The Riverside Irrigation
District, et al, U.S. District Court, Denver) or, as to other
present claims in Nebraska, from the date of the approval of the
compact to the date of such termination, and Colorado and any of
its citizens who may be made defendants in any action brought
for such purpose (after termination of the compact) shall not be
permitted to plead the statutes of limitation for such periods of
time.

By Article XI the compact shall become operative when
approved by the Legislature of each of the signatory states and
by Congress of the United States, and provision is made for the
giving of notice of legislative approval to the Governors and to
the President.

By Paragraph 2 of Article I, the provisions of the com-
 pact respecting each signatory state, shall include and bind its
citizens and corporations and all others engaged or interested in
the diversion and use of the waters of the South Platte River in
that state.

Pursuant to the understanding between the Commissioners
for Colorado and Nebraska and the attorneys for the litigants, the
suit entitled "The Western Irrigation District vs. The Riverside
Irrigation District, et al", pending before the Federal District
Court at Denver, and involving the use and disposition of the waters
of the South Platte River by Colorado and its citizens, was dismissed and there is no other pending or threatened litigation on this important river.

MEMORANDUM

The compact concludes negotiations and continuous studies of water supply, engineering and other problems since 1916. It is the successful result of probably the first effort to use the treaty powers of the states in the settlement of interstate controversies respecting the waters of western streams.

The changed river conditions, due to development in Colorado since 1859, make possible the conclusion of a compact between the two states which will protect the water users in Nebraska, without injury to present and future users in Colorado, and will permit practically unlimited expansion and development in Colorado.

A review of the facts and of the history of the stream is essential to an understanding of the compact.

Development in Colorado, fortunately, commenced near the headwaters of the South Platte with resultant "land-storage" of water over an immense acreage long prior to June 14, 1897, the alleged date of commencement of the canal of the Western Irrigation District, the principal claimant in Nebraska. The flow of return and seepage waters coming back to the river from irrigation of Colorado lands, has resulted in a constant supply at the interstate line. This flow is increasing and will soon be sufficient to care for the full demands of Nebraska as determined by
the compact, while great quantities of water annually flow to waste across the interstate line, during the flood season and the winter months, which are available for diversion by the proposed Perkins County Canal without injury to present or future development in Colorado, principally by reason of the fact that most of said waters return to the river below available points of diversion by Colorado constructors. The once "disappearing" flood stream has been converted into one of constant flow making possible the development in both states.

The South Platte River rises wholly within the State of Colorado, with the exception of Lone Tree, Crow and Lodgepole Creeks, tributaries which enter the stream from the north and have their rise in Wyoming. From its sources at the Continental Divide, the stream flows northeasterly through South Park, emerging from the mountains at Platte Canon, and thence flows northerly to the mouth of the Cache la Poudre, receiving contributions from various large tributaries below the canon. It then flows easterly and northeasterly to the boundary line between Colorado and Nebraska, and thence easterly to join the North Platte River at North Platte, Nebraska.

The area drained and served by the South Platte is quite extensive in the upper portion and gradually contracts as the river proceeds easterly. From Julesburg, Colorado, to North Platte, Nebraska, the river flows through a narrow valley
bounded by high plateaus and the irrigable lands are quite limited, except for the possible irrigation of a large tract of lands in Perkins County, Nebraska, at the headwaters of certain tributaries of the Republican River. These lands may be served by the proposed Perkins County Canal described in Article VI of the compact.

In addition to its natural supplies, the river receives limited contributions from the headwaters of the Colorado and of the North Platte, by means of trans-mountain cabals and tunnels across or through the intervening divides. Most of these structures are of long standing. The most recent is the tunnel of The Greeley-Poudre Irrigation District between the headwaters of the Laramie (a tributary of the North Platte) and the Cache la Poudre (a tributary of the South Platte), recently approved by the United States Supreme Court by its decision in the case of Wyoming vs. Colorado.

The South Platte irrigates about 1,500,000 acres in Colorado, and furnishes the domestic, municipal and industrial supplies for Denver and the other cities, towns and villages in northeastern Colorado. The extensive irrigation development in the South Platte drainage has been made without Government aid. The irrigation works are owned and operated by the water users through mutual ditch corporations and, to a limited degree, through irrigation districts.
More than half of our people are dependent upon the waters of this stream system. More than half the present taxable wealth of the state is located in the South Platte drainage. The use of the waters of this river is the basis of the agricultural, manufacturing and all other activities in the entire northeastern portion of the state.

Irrigation, municipal, industrial and other uses of the waters of this stream have been in the process of development since 1859, by means of numerous canals, conduits, reservoirs and other structures. The development has reached an advanced stage. Water is extremely valuable. The duty of water is high. Great economy is practiced and the demands upon the stream are constantly increasing. The whole supply of the river must ultimately be put to use and any interference with complete control constitutes a menace to the future prosperity and general welfare of the state. Future development cannot proceed until there is a definite determination of the interstate rights to the use of the waters of this stream between Colorado and Nebraska. Colorado appropriators and users cannot finance the construction necessary to a more complete use of the waters in the face of adverse claims by Nebraska and her citizens. Nebraska cannot reclaim the arid lands in Perkins County without obtaining the privilege of constructing and operating the Perkins County Canal, with its diversion and a considerable portion of its canal line in the State of Colorado.

The South Platte development is an outstanding proof of the fundamental principle of economic development of
any river system, viz., that of commencing at the headwaters and proceeding gradually down-stream, thereby to prevent waste and to permit the use and repeated reuse of the return and seepage waters which reenter the stream after serving the upper lands and cities.

Of nature, the flow of the stream was similar to that of the Arkansas and many other rivers of arid regions. It had its source in the high mountains and in the region of heavy precipitation. It then flowed out across arid plains to disappear into the sands during the heat of summer. The flow was excessive in May and June and disappeared entirely during the summer. The river frequently became dry for months of each year to points as far west as the present city of Fort Morgan. At such times freighters and travelers were compelled to dig into the sands of the river to obtain water for their animals.

Irrigation development commenced near the foothills and progressed gradually eastward. The dependable flow was overappropriated before 1880. Thereafter numerous reservoirs were constructed for the conservation of winter flows and a great portion of the flood waters of the early summer. The application of water to the lands and in municipal and industrial uses, in conjunction with the artificial storage provided by reservoirs, has so conserved and regulated the flow of the stream that it has been changed from intermittent to perennial and the area served...
is many times greater than would have been served if the waters had first been applied along the lower reaches of the stream.

The flow of the river at the interstate line was intermittent until about the year 1909. Sincehither-to it has been perennial with increasing quantities passing over the interstate line, notwithstanding extensive new development along the lower reaches of the stream in Colorado.

This flow is permanent. It will improve with time. Each new structure in Colorado will tend to further equalize the flow of the stream at the interstate line. The extensive development between Greeley and Julesburg, completed since 1909, has resulted in great benefit to the flow in Nebraska and there is every assurance of a gradual and cumulative increase as the full effect of increased irrigation becomes manifest in the form of ever-increasing return flows from the lands served.

Nebraska claims that on June 14, 1897, the Western Irrigation District commenced the construction of a canal for the irrigation of about 15,000 acres of land lying south of and parallel with the river in the vicinity of Big Springs, Brule and Ogallala. A canal with upwards of 180 cubic feet of water per second capacity was constructed and thereafter used for irrigation. The head of the canal are located on the south bank of the river just below the interstate line and are so situated that all of the water flowing into Nebraska may be
first diverted by the canal (to the extent of its capacity) and thereby applied to the lands of the district. These lands are immediately adjacent to the stream with heavy return flows and replenishment of the river supply. These sources furnish a constant flow available for diversion by several smaller canals located between the interstate line and North Platte. At the time of the construction of the canal there was no visible flow of water in the river except for a brief period during the late spring and early summer and during the winter months. The river was dry during the times of greatest need. Practically all of the extensive canal development in Colorado, for direct application of waters without storage, occurred prior to June 14, 1897, including the canals in the vicinity of Sterling and Julesburg. The annual irrigation of the lands under these canals resulted in an equalization of the stream flow which caused an improvement in the water supply at the interstate line.

The extensive reservoir development for the diversion, storage and use of the waters of the South Platte in Colorado, below the mouth of the Cache la Poudre, occurred subsequent to 1897. By these projects large areas of new lands were brought under irrigation. While the return flows from these areas have been gradually increasing, during and shortly prior to the year 1916, the water users under the Western Canal in Nebraska complained that the increased diversions in Colorado had worked great detriment to the supply of the river available for the Nebraska users. The condition became acute and in 1916 a suit was brought by the Attorney General of Nebraska, in the
name of the Western Irrigation District, against a large number of
canal and reservoir companies in Colorado, together with the State
Engineer and other water officials. In this suit, filed in the
United States District Court, it was sought to establish a prior
and preferred claim to 180 cubic feet of water per second of time
of priority date June 14, 1897, and to enforce the delivery of
that amount at the headgate of the Nebraska canal at the expense
of Colorado water users. It was a test case not brought for the
sole benefit of the complainant irrigation district. A number of
large enterprises, which divert water from the Platte River below
North Platte, and a number of small enterprises diverting from the
South Platte between Julesburg and North Platte would have profited
by a favorable decision. The suit was financed by appropriations
made by Nebraska Legislature and, while brought in the name of
a private appropriator, in effect, it was a suit by the State of
Nebraska against the State of Colorado.

The irrigation enterprises in Colorado formed an
association for defensive purposes. Funds were raised by assess-
ments upon the members of the association. These were combined
with state funds made available through appropriations by the
Colorado Legislature. Intensive studies of the legal, engineering
and other problems involved were undertaken and continued until
the conclusion of the compact in 1923.

Early in the proceedings the attorney for the Colorado
water users suggested to the Nebraska officials that the suit
should be settled by interstate compact and that the compact
should constitute a complete settlement of all the problems which might arise between the states and their citizens respecting the use of the waters of the river. Nebraska officials viewed the proposal with favor and, throughout the investigations, the problems to be determined by compact between the States were unofficially discussed and analyzed.

In 1921 the General Assembly of the State of Colorado passed an Act authorizing the appointment of a Commissioner for the purpose of negotiating and concluding a compact between the States of Colorado and Nebraska respecting the use and disposition of the waters of the South Platte and tributaries. A Commissioner was appointed pursuant to the Act. The Governor of Nebraska thereafter appointed Robert H. Willis to be the Commissioner for that state, without prior legislative authority. The results of the engineering investigations from 1916 to 1921, ably conducted by R.G. Hoesa, engineering and water supply expert for Colorado, and his assistants, were made available to the Commission. This data, together with the information obtained throughout the general investigation since the commencement of the suit, facilitated the labors of the commission and became the basis of a joint investigation of the river problems.

It became evident that, with the more complete reclamation of the lands served by the large irrigation works along the South Platte in Colorado, the flow at the interstate line would soon become adequate to take care of all demands upon the South Platte in Nebraska and that the large quantities of water now available
(during winter months) for diversion by the proposed canal of the Perkins County enterprise will be increased. It was also found that the enormous quantities of water returning from the irrigation of lands along the North Platte River in Nebraska are adequate to supply all legitimate senior claims from the main river below North Platte and also sufficient to furnish ample supply for extensive new development along the main river.

The entire ordinary summer flow of the river and its tributaries in Colorado was many times over-appropriated long prior to the commencement of any canals in Nebraska. This condition generally obtains above Sterling, Colorado, and to a great extent down to Julesburg. This fact justified the exclusion of all that part of the river above the east line of Morgan County from detail administration necessary to carry out any interstate compact. Water District No. 64 of the State of Colorado comprises that part of the South Platte river and its tributaries between the east line of Morgan County (west line of Washington County) and the interstate line and is a complete unit for state administration and control of diversions and uses of water for irrigation and other beneficial purposes.

In view of these conditions the compact agreed upon was limited in its immediate operation to water District 64, which is designated in the compact as the "Lower Section" of
the river, with provision for local readjustments of diversions by the Colorado authorities wherever necessary.

The season of direct irrigation of lands from the South Platte in Colorado and Nebraska commences about April 1 and ends about October 15. During this season all of the waters of the stream are utilized for direct application to the soil, except during flood periods when waters are both applied to the soil and stored in the reservoirs for future use.

From October 15 of each year to April 1 of the next succeeding year, the waters of the river are diverted and stored in the reservoirs, excepting that part of the flow composed of return waters entering the stream below the head of the Harmony Canal, the last reservoir inlet in Colorado. This canal fills the reservoir of the Julesburg Irrigation District and completes the filling by midwinter. During the remainder of the winter there are no diversions for storage in Water District 64 and all the water flows into Nebraska, there to waste.

A thorough investigation was made respecting future irrigation expansion by new reservoir development to divert in Water District 64. Such opportunities were found to be limited by topography and by reason of the fact that the greater part of the available lands located in Water District 64 are served by canals and reservoirs diverting in the Upper Section
of the river. It was ascertained that an additional annual storage and application of 25,000 to 35,000 acre feet of water would be adequate to care for all probable future expansion of irrigation in Water District 64, by diversions made from that portion of the river.

During the months of low flow the Colorado canals are justly entitled to practically all of the water available for diversion in both sections of the stream. During periods of high flow there is water enough for all appropriators in both states. During the interval intervening between the high flow and the extreme low flow some regulation of diversions by canals in Water District 64 will be required to pass 120 second feet of water across the interstate line for use in Nebraska. But this interval is of short duration and the adjustment of diversions by the water officials will have little effect upon diversions in Colorado. The increase of flow at the state line will ultimately remove all necessity for regulation.

The compact was prepared during the winter of 1922-1923. Several drafts were made and submitted for suggestion and criticism by the Attorney General of each State and by the engineers, water-supply experts and attorneys for the canal companies in both states. After final approval, the compact was signed at Lincoln, Nebraska, April 27, 1923, by the Commissioners. It was then submitted to the Nebraska Legislature by special message of Governor Bryan and was approved. It will become effective upon approval by the General Assembly of the State of Colorado and the Congress of the United States.
The compact is satisfactory to water users in both states. It affords a permanent solution. Its provisions are simple and its operation will require no additional employees in either state. In due course of time and with improvement of flow at the interstate line, it will become self-executing. Its ratification will permanently remove opportunity for interstate litigation, similar to that obtaining with respect to the Arkansas River. Under it, new development may proceed with assurance of title to uses of water and with benefit to both states. It assures permanent peace with our neighboring state and directly benefits the majority of our people in the security of their possessions and in their opportunities to use the natural resource most essential to their prosperity and the general welfare of our state.

I take pleasure in calling attention to the valued services of R.G. Moses, irrigation expert for Colorado from 1916 to 1923, who served as my associate and advisor throughout the prolonged negotiations. His studies of the water supply problems of the South Platte river are recognized to be among the most thorough and comprehensive ever conducted upon any river system of like magnitude. His data became the basis of the compact.

I respectfully suggest that the compact be submitted to the General Assembly of the State of Colorado and recommend its approval.

Respectfully submitted.

Denver, Colo.
Jan. 7, 1925.

Delph E. Carpenter
Commissioner for Colorado.
(Note) For brief on the law of interstate river compacts, see memorandum attached to the report of the Commissioner for Colorado, Colorado River Commission, published by order of the Senate January 19, 1923.