

**University of South Dakota School of Law**

---

**From the Selected Works of John Davidson**

---

2014

## Missouri River Reservoirs in a Century of Climate Change: National or Local Resource?

John Davidson, *University of South Dakota School of Law*



Available at: [https://works.bepress.com/john\\_davidson/15/](https://works.bepress.com/john_davidson/15/)

# **Missouri River Reservoirs in a Century of Climate Change: National or Local Resource?**

John H. Davidson<sup>\*©</sup>

---

<sup>\*</sup> Professor of Law *Emeritus*, School of Law, University of South Dakota.  
Copyright the author.

# MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE CHANGE: NATIONAL OR LOCAL RESOURCE?

## TABLE OF CONTENTS

I. Introduction .....	3
II. The Missouri River .....	5
III. Federal Marketing Authority of Missouri River Reservoir Waters     9	
IV. Demand for Marketing of Reservoir Waters - Implementation of Section 6 Authority .....	13
V. Compact: The Alternative for the Basin States and Tribes ...	16
A. Introduction. ....	16
B. The Compact. ....	17
C. Application of the Model to the Missouri Basin States.....	19
VI. The Alternative – Missouri River Waters as National Public Resources. 20	
VII. Conclusion.....	21

*“As economic demand for water increases, as available water supplies in areas of shortage shrink, as technological capability improves, and as national income grows, the feasibility of interbasin transfers increases and the scale of proposals grow larger.”*

- National Water Commission, 1973<sup>1</sup>

## I. INTRODUCTION

A future influenced by a warming and more variable climate demands the attention of water managers everywhere. Until recently, planning for future uses has relied upon historical precipitation and water flow data, which provided a baseline against which to measure periods of abundance and scarcity.<sup>2</sup> Reliance upon baselines —average flow and precipitation —has been built into the design of water infrastructure as well as water law.<sup>3</sup> Planners are now learning, however, that the baseline may no longer be relied upon, and that a new forecast is for increased variability in the distribution and availability of moisture.<sup>4</sup> Complicating matters further, most scientists agree that the coming changes cannot be forecast on a local scale.<sup>5</sup> These changes are of immediacy in the United States, which has

---

<sup>1</sup> *Water Policies for the Future*, Final Report of The National Water Commission 329-30 (1973). The Report of the National Water Commission is “still a benchmark.” See *Water in the West: Challenge for the Next Century*, Report of the Western Water Policy Review Advisory Comm’n 4-23 (1998).

<sup>2</sup> Robert W. Adler, *Climate Change and the Hegemony of State Water Law*, 29 STAN. ENVTL. L.J. 1, 8-10 (2010).

<sup>3</sup> *Id.*

<sup>4</sup> *Id.* at 9.; See also Camilo Mora et al., *The Projected Timing of Climate Departure from Recent Variability*, 502 NATURE 183 (2013), available at <http://www.nationaljournal.com/energy/salazar-western-u-s-facing-future-water-shortages-20111005>.

<sup>5</sup> Mora, *supra* note 4.

## MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE CHANGE: NATIONAL OR LOCAL RESOURCE?

established important portions of its economy, infrastructure, and population in regions where water is in short supply.

The American West, in particular, is already in shortage.<sup>6</sup> In the past, large portions of Western precipitation fell in the form of winter snow, which, as snowpack, served as a large storage and regulating reservoir. When, as is predicted, this precipitation falls in the form of rain<sup>7</sup> it is not stored for future use, nor is it released gradually. The models agree that the Colorado River Basin's overall runoff will decline eight to eleven percent,<sup>8</sup> which when combined with reduced snowpack will create the most pressing regional shortage. Other regions, such as the High Plains, will also confront varying versions of the same problem—a potential of a future of less water and greater variability in precipitation.

Water short regions will first resort to conservation, but eventually will be compelled to either increase supply or impose limits on growth.<sup>9</sup> In the United States, there is considerable precedent for interbasin diversions as one item on a very limited menu of options for enhancing supply.

Areas with surplus water will naturally oppose the idea of water export, arguing the priority of their local and regional

---

<sup>6</sup> Coral Davenport, *Salazar: Western U.S. Facing Future Water Shortages*, NATIONAL JOURNAL (Oct. 5, 2011), available at <http://www.nationaljournal.com/energy/salazar-western-u-s-facing-future-water-shortages-20111005>.

("The 10 Western States that depend on the Colorado River and Rio Grande basins will see acute water shortages in the coming years due to the combination of reduced precipitation as a result of climate change and increased demand.") See generally, AMERICA'S CLIMATE CHOICES: FINAL REPORT, COMMISSION ON AMERICA'S CLIMATE CHOICES (2013).

<sup>7</sup> Adler, *supra* note 2, at 14.

<sup>8</sup> Adler, *supra* note 2, at 14. See also U.S. DEP'T OF INTERIOR, COLORADO RIVER BASIN WATER SUPPLY AND DEMAND STUDY (2012) (Projecting water supply imbalance of at least 3.2 million acre feet by 2060).

<sup>9</sup> See Adler, *supra* note 2, at 42.

interest.<sup>10</sup> However, a national interest must be balanced against this, which will become more weighty as economic and social disruption in water short regions is threatened.

This essay addresses one potential source of re-supply for water short regions — Missouri River reservoirs. Although the absolute quantity in these reservoirs is in no way comparable to the usual example — the Great Lakes — it is fortuitously located. Leaders in the Missouri basin and elsewhere have for decades been aware of, and have avoided, the question of whether this resource, which was developed at great expense to the national Treasury, should serve a local or a national interest. In the absence of demand, and with a surplus on hand, there was no need to strike the balance on one side or the other; that period of repose may, however, be closing.

## II. THE MISSOURI RIVER

The Missouri River is some 2,540 miles long and drains a basin of 530,000 square miles — about one-fifth of the continental United States.<sup>11</sup> In its natural condition it is a muddy, meandering body, subject to extremes of flood and drought, occasionally navigable, and always supporting a rich and diverse series of contrasting ecosystems.<sup>12</sup> Its main channel and

---

<sup>10</sup> A.D. TARLOCK, J.N. CORBRIDGE, JR. & D.H. GETCHES, *WATER RESOURCE MANAGEMENT: A CASEBOOK IN LAW AND PUBLIC POLICY* 379 (5th ed., 2002) (“In the prior appropriation system, unlike the riparian system, there is no prohibition against moving water out of the watershed where it originates. Water rights are tied neither to the land nor to the watershed . . . Yet residents often resist removal of water from their region for use elsewhere.”). See also Nat’l Research Council, Nat’l Academy of Sciences, *Water Transfer in the West: Efficiency, Equity and the Environment* (1992).

<sup>11</sup> JOHN E. THORSON, *RIVER OF PROMISE, RIVER OF PERIL: THE POLITICS OF MANAGING THE MISSOURI RIVER* 8 (1994).

<sup>12</sup> *Id.* at 177.

MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE  
CHANGE: NATIONAL OR LOCAL RESOURCE?

drainage encompasses all or parts of ten states, twenty-five Indian reservations and small parts of two Canadian provinces.<sup>13</sup>

In 1944 and 1945, the United States Congress enacted legislation, which authorized the development of the Missouri River throughout its basin.<sup>14</sup> The laws —referred to alternatively as the Flood Control Act of 1944 or the “Pick-Sloan Plan,”<sup>15</sup> represent a classic “multiple-purpose” undertaking, meaning that the goal is to “harness completely the water resources of the basin for all useful purposes.”<sup>16</sup> Some of the original project purposes may be described as serving a national interest, including flood control, employment for soldiers returning from World War II, navigation and economic development, particularly agriculture. Other purposes envisioned are benefits more specifically for the basin itself, including irrigation,

---

<sup>13</sup> *Id.* See also, Nat’l Research Council, *The Missouri River Ecosystem: Exploring the Prospects for Recovery* (2002).

<sup>14</sup> *The Flood Control Act of 1944*, Act of Dec. 22, 1944, Pub. L. No. 78-534, ch. 665, 58 Stat. 887, *codified at* 16 U.S.C. §§ 460d, 825s; 33 U.S.C. §§ 701-1, 701b-1, 708, 709; 43 U.S.C. § 390; and notes at U.S.C.A. §§ 701c, f & j.

<sup>15</sup> *Pick Plan*. House Doc. No. 475, 78th Cong., 2d Sess., March 2, 1944, “Missouri River Basin: Letter from the Secretary of War.” *Sloan Plan*. Senate Doc. No. 191, 78th Cong., 2d Sess., April 12, 1944, “Missouri River Basin: Conservation, Control and Use of Water Resources.” *Pick-Sloan Plan*. House Doc. No. 247, 78<sup>th</sup> Cong., 2d Sess., Nov. 21, 1944, “Missouri River Basin: Report to Congress on the Conciliation of S. Doc. 191 and H. Doc. 475.” Section 9 of the FCA 1944 reads in part: “The general comprehensive plans set forth in House Document 475 and Senate Document 191, Seventy-eighth Congress, second session, as revised and coordinated by Senate Document 247, Seventy-eighth Congress, second session, are hereby authorized and shall be prosecuted by the War Department and the Department of the Interior as speedily as may be consistent with budgetary requirements.” 58 Stat. 891.

<sup>16</sup> Marian E. Ridgeway, *The Missouri Basin’s Pick-Sloan Plan: A Case Study in CONGRESSIONAL POLICY DETERMINATION 77-79* (1955). See also W.A. Hillhouse II, *The Federal Law of Water Resources Development* in *FEDERAL ENVIRONMENTAL LAW* 846-850 (Env’tl Law Inst. 1974).

municipal and industrial water, hydropower, recreation, and wildlife.<sup>17</sup>

The principal engineering features that resulted are six dams on the main channel with hydropower plants, a free-flowing navigation channel downstream from the dams to the mouth at the Mississippi River, and some small irrigation projects in Nebraska and Montana. But these accomplishments are astonishing for their combined scale. As described in the official history of the dams:

These giant mounds of compacted earth form a series of reservoirs with a storage capacity of more than 74 million acre-feet and a surface area of over one million acres. This is the largest system of reservoirs in the United States. The ratio of reservoir storage to annual runoff in this drainage area is 3.1 acre-feet of storage for each acre-foot of natural runoff. It is this magnitude, combined with the techniques of operating the six main stem dams as an entity, which provides the flexibility and sustained delivery of service characteristic of this system.<sup>18</sup>

The original legislation authorized irrigation across large swaths of eastern South and North Dakota. These projects proved to be infeasible,<sup>19</sup> but the scale of the projects as planned for in the original reservoir design was enormous, and would have consumed a significant portion of the annual storage in the

---

<sup>17</sup> Sandra Zellmer, *Missouri River Basin* in 4 WATERS AND WATER RIGHTS (Amy Kelley, ed., 2009). See also J.R. Seeronen, *Judicial Challenges to Missouri River Mainstem Regulation*, 16 MO. ENVT'L L. & POL'Y REV. 60 (2003) and John E. Thorson, *Water Quality and the Missouri River's Pick-Sloan Plan* (paper prepared for the Missouri River Implementation Comm., Jan. 15, 2012).

<sup>18</sup> JOHN R. FERRELL, *BIG DAM ERA: A LEGISLATIVE AND INSTITUTIONAL HISTORY OF THE PICK-SLOAN MISSOURI BASIN PROGRAM* xii (1993).

<sup>19</sup> Zellmer, *supra* note 17.



## MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE CHANGE: NATIONAL OR LOCAL RESOURCE?

Garrison and Oahe reservoirs, the two largest in the system.<sup>20</sup> As a result of the demise of irrigation in the upper basin, the reservoirs now hold in reserve this large supply of unallocated water.

In a world of growing water shortages, such a supply of developed water has the potential to meet many needs in many places. The states and tribes in the Missouri basin naturally view their position as that of an "area of origin," which should entitle them to the full benefit of the available supply. This position of entitlement is usually based on an argument that the unallocated supply was originally intended to benefit the upper basin states in the form of subsidized irrigation, and should continue to serve local or basin interests. The basin states, however, have proved consistently incapable of joint action to assert such a position, and a legal foundation for their position is, therefore, not established. In contrast, there is clear statutory authority for the U.S. Army Corps of Engineers to market reservoir waters, both within and without the basin. An inevitable tension thus exists between basin states, which desire to use reservoir waters solely

---

<sup>20</sup> The Initial Stage of the Oahe Irrigation Project alone would have resulted in the diversion of 444,000 acre feet of water from Oahe Dam, and irrigated 190,000 acres of land. Allowing for return flows and water from downstream tributaries, the average annual depletion at Sioux City, Iowa would have been 303,200 acre feet, representing 1.3 percent of the average annual flow there. House Document No. 163, Oahe Unit, Missouri River Basin Project, South Dakota, P. 23, 90th Cong. 1st Sess. (Aug. 31, 1967). The complete Oahe irrigation plan provided for increasing the irrigable area to 495,000 acres providing M&I water to 23 towns and cities, as well as fish and wildlife developments at 29 locations. H.D. 163 at p. 3. This doubling of irrigation, combined with the vastly larger proposed irrigation project in North Dakota (Garrison) would presumably have made an impact on downstream flows at some point, especially in dry years, and would have consumed the larger share of water in the reservoirs during the irrigation season. The Garrison Irrigation Project in North Dakota would, if developed, have irrigated up to 1,000,000 acres. *Garrison Diversion Project: Problems and Concerns*, Subc. of the House Comm. on Gov. 4 Operations, 94th Cong., 1st Sess., 3 (1975).

for their interest, and water short regions of the nation which will, in the foreseeable future, look to the reservoirs for relief, reservoirs which they perceive as available to serve the national interest.

### III. FEDERAL MARKETING AUTHORITY OF MISSOURI RIVER RESERVOIR WATERS

The language of the Flood Control Act of 1944 dictates the fate of the now unused irrigation water. Section 6 reads:

The Secretary of War is authorized to make contracts with States, municipalities, private concerns, or individuals, at such prices and on such terms as he may deem reasonable, for domestic and industrial uses for surplus water that may be available at any reservoir under the control of the War Department: *Provided*, That no contracts for such water shall adversely affect then existing lawful uses of such water. All moneys received from such contracts shall be deposited in the Treasury of the United States as miscellaneous receipts.<sup>21</sup>

The legislative history clearly designates municipal and industrial water delivery as one of the authorized project purposes. The portion of the legislative reports known as the Sloan Plan contains the more explicit discussion, stating:

To the extent that the several functions of water control and utilization are conflicting, preference should be given to those which make the greatest contribution to the well-being of the people and to the areas of greatest need. To the extent that the uses are competitive, the use of

---

<sup>21</sup> 66 Stat. 93; 33 U.S.C. § 708 (2006).

MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE  
CHANGE: NATIONAL OR LOCAL RESOURCE?

water for domestic agricultural purposes should have preference.<sup>22</sup>

The report further states: “[I]n the future there will also be greater requirements for industrial water supplies.”<sup>23</sup>

The portion of the legislative history known as the Pick Plan identifies water marketing as a project purpose. It also reflects with some emphasis that the multi-purpose objectives will evolve with the public interest:

[The project] contemplates that the uses of presently authorized and existing multiple-purpose reservoirs will be progressively broadened and reapportioned as additional water is stored by the dams. . . . When completed the basin plan will be operated for maximum multiple-purpose use. Thus preference can be given to the functions which contribute most significantly to the welfare and livelihood of the people of the various parts of the basin, and at the same time adequate steps may be taken to meet new economic situations that may arise in the future.<sup>24</sup>

The water marketing authority in Section 6 has been interpreted by the United States Supreme Court in a factually distinguishable case, *ETSI Pipeline Project v. Missouri*,<sup>25</sup> but one resulting in a relevant and instructive opinion. Because the original legislative plan was for the U.S. Army Corps of Engineers (“Corps”) to operate the dams and navigation features,

---

<sup>22</sup>Missouri River Basin: Conservation, Control and Use of Water Resources, S. Doc. No. 191 (1944)

<sup>23</sup>*Id.*

<sup>24</sup>Missouri River Basin: Letter from the Secretary of War, H.R. Doc. No. 475 (1944).

<sup>25</sup>*See ETSI Pipeline Project v. Missouri*, 484 U.S. 495, 498 (1988).

and for the U. S. Department of Interior, operating through the Bureau of Reclamation ("Bureau"), to develop the irrigation features, the dividing point between the authority of the two agencies came into contention when the State of South Dakota issued a state water permit to withdraw water from the Oahe reservoir for diversion to states in the southeastern United States, relying on the permitting authority of the Bureau rather than the Corps. States located in the lower Missouri basin sought to block the diversion, asserting that it is the Corps, and only the Corps, which has authority to permit diversions from the developed reservoirs. The Court concluded that the Bureau lacked legislative authority to authorize diversions, resulting in a singular victory for the downstream states.

The *ETSI* decision held the Corps has the sole authority to market water from main stem reservoirs.<sup>26</sup> Therefore, the Corps may market water that it determines to be "surplus," that is, not utilized to fulfill a project purpose. The Court found the language of Section 6 "plain in every respect."<sup>27</sup> Although the Court was careful to avoid the issue of "the relative interests of the United States and South Dakota in Lake Oahe water,"<sup>28</sup> it appears clear that the Corps can assert, for example, that water held for irrigation is now dedicated to other "project purposes" such as hydropower, or it can declare water "surplus," and available for marketing pursuant to Section 6.

The statutory authority of the Corps to market surplus water is strengthened by the navigation power itself. In the landmark case of *Arizona v. California*,<sup>29</sup> the United States Supreme Court recognized the power of Congress to apportion river waters, presumably based in the navigation power.<sup>30</sup>

---

<sup>26</sup> *Id.* at 506.

<sup>27</sup> *Id.* at 505.

<sup>28</sup> *Id.* at 498, n.2.

<sup>29</sup> *Arizona v. California*, 376 U.S. 340 (1964).

<sup>30</sup> *See, generally*, W.A. Hillhouse II, *supra* note 16, at 853-56.

MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE  
CHANGE: NATIONAL OR LOCAL RESOURCE?

Further, as Professor Trelease observed, the court-appointed Special Master in *Arizona* hinted at another source of congressional power to allocate water that the Court did not mention — the government's control over water it has stored in federal reservoirs.<sup>31</sup> Trelease describes the power:

Impounded water, not appropriated by any person, could be similarly regarded as the property of the United States, and this theory could be used to justify the distribution of water by sale to those who would enter into contractual relations with the United States. . . .<sup>32</sup>

. . . . If, upon the exercise of any of these powers, Congress can sell and distribute the stored waters, it probably follows that it can choose the state in which the waters are to be used and the persons who are to use the waters. Perhaps this has already been done to a limited extent. The 1944 Flood Control Act authorized the Secretary of the Army, who builds and controls flood control and navigation dams, to make contracts with municipalities, private concerns, or individuals for domestic and industrial uses of surplus water available at any reservoir under his control.<sup>33</sup>

Does the Corp's authority under Section 6 include the authority to market water for use out of the basin? It clearly does. This power extends to all water not needed immediately for specified project purposes. But, the case of the Missouri River reservoirs is unique because the available supply of water

---

<sup>31</sup> Frank J. Trelease, *Arizona v. California: Allocation of Water Resources to People, States, and Nation*, 1963 SUP. CT. REV. 158 (1963).

<sup>32</sup> *Id.* at 177.

<sup>33</sup> *Id.* at 181-82.

is enlarged by the unused irrigation water and by the probability that navigation on the River will gradually decline, making yet more water surplus. Viewed in this way, it is possible to envision a day when the Missouri River reservoirs are primarily sources for sale and diversion.

#### IV. DEMAND FOR MARKETING OF RESERVOIR WATERS - IMPLEMENTATION OF SECTION 6 AUTHORITY

Events are now unfolding which raise the question of whether the great Missouri River reservoirs are to be enlisted to serve broader national interests by making water available for transit to water short regions, such as the High Plains and the Colorado basin, or are to be reserved for use exclusively by and within the basin states.

Demand by water short areas for new supplies is emerging, most immediately from oil and gas producers, and generally as a result of the simple fact that over the last decades people have migrated to jobs and lifestyles, and not to water.<sup>34</sup> Interbasin water diversions are not a new idea; they have occurred in both ancient and modern times and in many places around the world. They exist in the United States in both riparian and appropriation jurisdictions.<sup>35</sup> What has changed, in addition to the emergence of demand, is technological capacity, which magnifies scale while collapsing time and distance.

Finally, demand and capability appear ready to combine with a new factor — an open market for Missouri River reservoir water. Markets, operating reliably, are thought to result in more economically efficient allocation of natural resources, including

---

<sup>34</sup> E.g., see William Raley, *Shifting Water from Agricultural to Municipal and Industrial Use*, in NEW SOURCES OF WATER FOR ENERGY DEVELOPMENT AND GROWTH: INTERBASIN TRANSFERS, Natural Resources Law Center, School of Law, Univ. of Colorado (1982).

<sup>35</sup> Ralph W. Johnson, *A Century and a Half of Interbasin Diversions, Or, 100 Years Since Coffin v. Left Hand Witch Co.* in NEW SOURCES, *supra* note 34.

MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE  
CHANGE: NATIONAL OR LOCAL RESOURCE?

water. That need for efficient allocation reinforces arguments favoring interbasin water diversions from areas of surplus to areas of demand.<sup>36</sup> The National Water Commission understood this in 1973 when it wrote that interbasin diversions “will make the optimum contribution to the Nation’s economic well-being; water will be employed in the most productive uses and the cause of economic efficiency will be served.”<sup>37</sup>

Although the legal authority for the Corps to market reservoir water is clear, it has been rarely used due to a lack of demand. However, the Corps is now implementing, for the first time, a formal administrative marketing program.<sup>38</sup> The prodding came from oil and gas producers in North Dakota who requested water from Lake Sakakawea, behind Garrison Dam.<sup>39</sup> The Corps responded by designating 100,000 acres available to meet oil field needs, and, more importantly to this case, it also issued so-called “Surplus Water Reports”<sup>40</sup> for each of the six main-stem reservoirs, allocating quantities in each as available for marketing.<sup>41</sup> In a final step in its proposed water marketing procedures, the Corps proposed notice and comment rulemaking in order to develop a method of pricing water that is sold from the reservoirs.<sup>42</sup>

The development of an administrative marketing procedure assumes considerable substance when viewed in the

---

<sup>36</sup> E.g., see Mark Squillace, *Water Marketing and the Law*, in MOVING THE WEST’S WATER TO NEW USES: WINNERS AND LOSERS, Natural Resources Law Center, School of Law, Univ. of Colorado (1990).

<sup>37</sup> Nat’l Water Comm’n, *supra* note 1, at 330.

<sup>38</sup> U.S. ARMY CORPS OF ENGINEERS OMAHA DIST., DRAFT OAHE DAM/LAKE OAHE PROJECT SOUTH DAKOTA & NORTH DAKOTA SURPLUS WATER REPORT 4-1 (Vol. 1 2012).

<sup>39</sup> *Id.* at 3-42.

<sup>40</sup> *Id.* at 3-63, 4-7. Similar reports were issued for each of the other five system reservoirs.

<sup>41</sup> *Id.* at 2-4.

<sup>42</sup> *Id.* at ii.

context of the Corp's existing regulations. Rather than simply restating the language of Section 6, the regulations define surplus water to include water "that would be more beneficially used as municipal and industrial water for the authorized purpose and which, when withdrawn, would not significantly affect authorized purposes over some specified time period."<sup>43</sup> Reaching further, the regulation states that the agency has the authority to:

[M]ake reasonable reallocations between different project purposes. Thus, water stored for purposes no longer necessary can be considered surplus. In addition, the Secretary may use his broad discretionary authority to reduce project outputs, envisioned at the time of authorization and construction, if it is believed that the municipal and industrial use of the water is a higher and more beneficial use. . . ."<sup>44</sup>

Thus, the Corp's proposed marketing program is proceeding under an assertion of broad regulatory authority, perhaps as broad as the constitutional authority of the Flood Control Act of 1944 itself. "Reducing project outputs" and making "reasonable reallocations" so that it is more beneficially used for municipal and industrial purposes is indeed a broad authority.

The Flood Control Act of 1944 clearly requires the Corps to do precisely what it is doing. Until now, demand has been absent. By emphasizing its authority to reallocate as more valuable (beneficial) uses arise in the marketing process, the Corps is also recognizing that new and more enduring alternative uses are likely to emerge.

---

<sup>43</sup> U.S. Army Corps of Eng'rs, Engineer Regulation (ER) 1105-2-100, ¶ E-57b(2)(a)(2), E-214 (2000).

<sup>44</sup> *Id.* at ¶ E-57b(2)(b), E-214.



MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE  
CHANGE: NATIONAL OR LOCAL RESOURCE?

V. COMPACT: THE ALTERNATIVE FOR THE BASIN STATES AND  
TRIBES

*A. Introduction.*

For decades, the states and tribes in the Missouri River basin have been urged to follow the example of the Great Lakes states and negotiate a compact governing the waters and flows of the Missouri River. In a 1987 essay for the National Conference of State Legislatures, Larry Morandi began with this example:

In his paper, 'Portraits on the Missouri: Past, Present, and Future,' John Thorson suggested that the Missouri River Basin states examine the negotiation process undertaken by the Great Lakes states and provinces in reaching an accord -- the Great Lakes Charter -- on water management principles. The same point was made at the [National Conference of State Legislature's] legislative workshop "The Missouri River Basin: Water Allocation and Conflict Resolution," in Denver, Colorado, May 28-29, 1987. The rationale for assessing the relevancy of the Great Lakes Charter to the water allocation issues in the Missouri Basin is the concern that unless the Missouri Basin states agree on a process for managing the resource collectively, the courts or an out-of-basin user might intervene.<sup>45</sup>

In 1994, Thorson returned to this theme in his benchmark book, *River of Promise, River of Peril*,<sup>46</sup> arguing that inertia and internal divisions cause decision-makers in the basin to ignore fundamental issues of allocation and management, including

---

<sup>45</sup> LARRY MORANDI, THE GREAT LAKES CHARTER: A GUIDE FOR MANAGING THE MISSOURI, (Nat'l Conference of State Legislatures 1987).

<sup>46</sup> THORSON, *supra* note 11, at 184-86.

specifically, how the basin states will respond when confronted with proposals for large-scale interbasin diversions of reservoir waters.<sup>47</sup> Acknowledging fully the many factors favoring further divisiveness among basin states,<sup>48</sup> Thorson forecast that with the passage of time, factors will emerge that force the argument for joint and cooperative action by the combined basin states and tribes.<sup>49</sup>

The success of the Great Lakes states in negotiating and gaining Congressional approval of the Great Lakes-St. Lawrence River Basin Compact<sup>50</sup> offers a unique model and firm legal precedent that the Missouri River basin states can follow as a response to the changes now occurring in the basin. The Great Lakes Compact required nearly a quarter-century of careful steps prior to final enactment, beginning with informal consultations, “hand-shake” agreements and information sharing until mutual confidence was achieved, public support was generated, and specific terms were placed on paper.<sup>51</sup> But the experience there offers a contemporary path by which states can retain regional control over water resources, should they develop the will to do so.

### *B. The Compact.*

*The Waters of the Basin are precious public natural resources shared and held in trust by the States.*<sup>52</sup>

*The Waters of the Basin are interconnected and part of a single hydrologic system.*<sup>53</sup>

---

<sup>47</sup> THORSON, *supra* note 11, at 184-86.

<sup>48</sup> THORSON, *supra* note 11, at 184-86.

<sup>49</sup> THORSON, *supra* note 11, at 186-88.

<sup>50</sup> S.J. Res. 45, 110th Cong. 2d Sess. (2008).

<sup>51</sup> Mark Squillace, *Rethinking the Great Lakes Compact*, 2006 MICH. ST. L.J. 1347, 1348-50.

<sup>52</sup> Mich. Comp. Laws § 324.34201(1.3)(1)(a) (2008).

## MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE CHANGE: NATIONAL OR LOCAL RESOURCE?

### -Great Lakes-St. Lawrence River Basin Compact

The process, which resulted in the Great Lakes Compact, can be traced back more than a quarter-century, when leaders in the regions recognized that the lake waters were their richest natural resource. Simultaneously, they were confronted with a series of specific events which focused their attention. First, was a decision by the United States Supreme Court holding that water is an item of commerce.<sup>54</sup> Next was a sharp increase in demand within the basin, leading to a situation where individual states and provinces were issuing diversion permits without regard to the system as a whole. There was also a perceived threat of interbasin diversions southward to the High Plains.<sup>55</sup> This led to a general perception that there was a need for both management and protection. The result was a “hand shake” agreement that came to be known as the Great Lakes Charter.<sup>56</sup>

The premise of the Great Lakes Charter was that the states and provinces should cooperate in managing the waters of the basin as a *single hydrologic system*.<sup>57</sup> It contained a provision that no state or province should allow major new diversions or consumptive uses without seeking the consent of the affected states and provinces. Although the Charter lacked binding legal force, it caused the Great Lakes states to enact legislation in furtherance of the Charter’s principals, and to initiate cooperative work on such things as data collection, information sharing, and ecosystem and environmental protection.<sup>58</sup>

---

<sup>53</sup> *Id.* at § 1.3b.

<sup>54</sup> *Sporhase v. Nebraska*, ex rel. Douglas, 458 U.S. 941 (1982).

<sup>55</sup> *Peter v. MacAvoy*, *The Great Lakes Charter: Toward a Basinwide Strategy for Managing the Great Lakes*, 18 CASE W. RES. J. INT’L L. 49 (1986).

<sup>56</sup> *Id.* at 57.

<sup>57</sup> *See* Council of Great Lakes Governors, *The Great Lakes Charter: Principles for the Management of Great Lake Water Resources* (1985), abstract available at <http://digitalcommons.unl.edu/lawwater/1/>.

<sup>58</sup> *Id.*

The United States Congress endorsed the Great Lakes process in 1986<sup>59</sup> when it prohibited all diversions from the Great Lakes or any U.S. tributary for use outside the basin.<sup>60</sup>

Thus encouraged, the governors and premiers began a process which took them beyond voluntary cooperation, signing an Annex by which they agreed to work toward a binding agreement.<sup>61</sup> From this emerged the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement, in which the states and provinces agreed to cooperate in basin-wide water management. Simultaneously, the governors agreed on the Great Lakes-St. Lawrence River Basin Water Resources Compact to become operative upon approval by the respective state legislatures and the consent of Congress. The Compact created a river basin water resources council with power to oversee river basin management.

### *C. Application of the Model to the Missouri Basin States.*

The Great Lakes Compact provides a model for the Missouri Basin states and tribes to follow, should they prefer an alternative to management of the River by the Corps and the Congress. Certainly, many of the factors that spurred the Great Lakes states and provinces into action are now present on the Missouri. There is increased demand within the basin.<sup>62</sup> Under the current system, each state issues water rights according to its independent laws and processes, all without consulting the others. This creates a possibility that, to quote Thorson, the states may “simply divide up the waters, take their share, and turn their

---

<sup>59</sup> 42 U.S.C. §§ 1962d-20(d).

<sup>60</sup> A. DAN TARLOCK, LAW OF WATER, WATER RIGHTS AND RESOURCES, § 3:100 (2012).

<sup>61</sup> See D.L. Grant, *Introduction to Interstate Allocation Problems*, in WATER & WATER RIGHTS, Ch. 43, 43-45 (A. Kelley, ed. 2012) (describing more fully the Charter and the Annex).

<sup>62</sup> Robert W. Adler, *Climate Change and the Hegemony of State Water Law*, 29 STAN. ENVTL. L.J. 1, 13-14 (2010).

## MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE CHANGE: NATIONAL OR LOCAL RESOURCE?

backs on their neighbors.”<sup>63</sup> At the same time, the Corps, pursuant to Section 6 of the Flood Control Act of 1944, is making independent decisions in which it allocates the waters of the river to various project purposes without mandatory consultation with the states and tribes. In either case, there is an absence of a strong sense that the waters of the basin “are interconnected and part of a single hydrologic system.”<sup>64</sup> Also lacking is commitment to the idea that the waters of the basin “are precious natural resources shared and held in trust by the states.”<sup>65</sup> By neglecting to cooperate and treat the river as a single hydrologic system, the states are also deciding to forego serious consideration of ecosystem values and environmental protection.

As in the case of the Great Lakes, there exists an even stronger reason to be concerned with the threat of interbasin diversions. The legal regime in place, whether in the hands of individual states and tribes, the Corps, or Congress, places no limits on such diversions. There is, therefore, no present policy to deter water planners in the West or High Plains from considering the Missouri River reservoirs as a source.

### VI. THE ALTERNATIVE – MISSOURI RIVER WATERS AS NATIONAL PUBLIC RESOURCES.

Prior to enactment of the Great Lakes Charter, the waters of the lakes were subject to few restrictions on place of use. Internally, each state and province was free to issue water diversion permits as it saw fit, limited only by their individual state or provincial laws. Externally, lake waters were, as the result of an artificial outlet in Chicago, available for release for use downstream — anywhere in or out of the Mississippi drainage. In those circumstances, it was predictable that water short regions would look to the lakes as a source of supply

---

<sup>63</sup> THORSON, *supra* note 11, at 97.

<sup>64</sup> Mich. Comp. Laws § 324.34201(1.3)(1)(a) (2008).

<sup>65</sup> Mich. Comp. Laws § 324.34201(1.3)(1)(b) (2008).

augmentation. The situation confronted by the Great Lakes states decades ago is the one now before the Missouri River Basin states.

An argument exists that the Missouri River, which has been the subject of enormous development investment by the federal Treasury, should be in service not only to the basin of origin, but to the public interest of the nation as a whole. Based on firm constitutional foundations the United States has constructed navigation and flood control works; hydroelectric generation and transmission facilities; regulated and restricted the use of navigation by others; and carried out the majority of river basin planning, management and research. It has met the existing needs of water users and rights claimants in the basin, with ample amounts to spare. Having done so, the assertion stands — the remaining unallocated waters were intended by Congress to be made available to serve pressing national needs. When faced with some future critical shortage in another region, the national interest will have a fair call on the River.

## VII. CONCLUSION

In 1973, the National Water Commission concluded that, assuming the right economic circumstances, interbasin transfers “will make an optimum contribution to the Nation’s economic well-being; water will be employed in the most productive uses and the cause of economic efficiency will be served.”<sup>66</sup> The Commission’s concern with economic efficiency is answered by the current proposal of the Corps to establish a market for Missouri River water, including an open pricing mechanism. The fundamental rationale for markets is that they can lead to a more efficient allocation of resources,<sup>67</sup> and that need for efficiency builds the case for interbasin transfers.

---

<sup>66</sup> Nat’l Water Comm’n, *supra* note 1, at 330.

<sup>67</sup> Charles W. Howe, *Innovative Approaches to Water Allocation: The Potential for Water Markets* in WESTERN WATERS: EXPANDING USES/FINITE

## MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE CHANGE: NATIONAL OR LOCAL RESOURCE?

Additionally, there is no shortage of precedent for interbasin transfers; they exist throughout the United States. As stated by William Raley in 1982:

Western water has left its natural course many times to follow canals championed by water-deficient areas and charted by advancing technology. The law has adjusted the claims and defined the rights of the area of origin and delivery created by these water diversions.<sup>68</sup>

At about the time of the proposed ETSI slurry pipeline, there were numerous suggestions for other diversions from the Missouri River, including to the Colorado and Utah oil shale fields, and to slurry coal to Minnesota, Wisconsin and the West Coast.<sup>69</sup> Today, the list of proposals grows steadily.

The concept of interbasin diversions is an essential component of a natural resources economy governed by equitable principles and based upon the free movement of essential goods in commerce; a true water shortage in one region will be impossible to ignore. In 1925, Frankfurter and Landis wrote that in the use and conservation of natural resources "lurked the seeds of inevitable contest between the new Union and its constituent members."<sup>70</sup> They concluded that water, like electricity, could not be a matter of mere local and state authority. Instead, "an adequate water supply for one teeming city population presents one of the most exigent problems of conservation."<sup>71</sup>

---

SUPPLIES, Natural Resources Law Center, School of Law, Univ. Colorado (1986).

<sup>68</sup> Gary D. Weatherford, *Legal Protection for the Exporting Region* in NEW SOURCES, *supra* note 34.

<sup>69</sup> THORSON, *supra* note 11, at 88.

<sup>70</sup> Felix Frankfurter & James M. Landis, *The Compact Clause of the Constitution: A Study in Interstate Adjustments*, 34 YALE L. J. 685 (1925).

<sup>71</sup> *Id.* at 702.

To a dramatic extent [water] is an ever-present concern in the daily lives of the people in one region, while it hardly touches the imagination, let alone the lives of millions of people in other parts of the country. Wherever the pressure is felt one answer is clear: no one state can control the power to feed or starve, possessed by a river flowing through several States. A great number of our streams have that potency. Moreover, there can not be a definitive settlement. Population, engineering, irrigation conditions constantly change; they cannot be cast into a stable mould by adjudication or isolated acts of administration.<sup>72</sup>

Against the apparent long-term compulsion for the transfer of water across basin boundaries stand states in water-abundant regions, which will oppose transfers as threats to local economies, societies, and ecosystems. The Great Lakes states have anticipated the issue successfully, taking advantage of the Compact Clause and federal law to bar (or at least postpone) the threat of water export. The compact process provided the Great Lakes states with a flexible process by which they resolved internal issues to a degree sufficient to generate Congressional approval. In doing so, they also provided the states in the Missouri Basin with a workable model.

---

<sup>72</sup> *Id.* at 700-01.



MISSOURI RIVER RESERVOIRS IN A CENTURY OF CLIMATE  
CHANGE: NATIONAL OR LOCAL RESOURCE?