

UTTON TRANSBOUNDARY RESOURCES CENTER MODEL INTERSTATE WATER COMPACT

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Dedication

The Utton Transboundary Resources Center's Model Interstate Water Compact is dedicated to the memory of Professor Albert E. Utton, whose practice of preventive diplomacy and authorship of "Transboundary Groundwaters: The Bellagio Draft Treaty" brought to reality his values of inclusivity and mutual respect in the sustainable management of transboundary natural resources.

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INTRODUCTION[†]

Disputes among states sharing interstate waters have increased significantly over the past two decades. These disputes, which involve the states' respective quantitative shares of such waters, water quality concerns, and the effects of a variety of federal environmental laws enacted since the early 1970s, have been of increasing concern to the members of the Committee on Energy and Natural Resources of the U.S. Senate, chaired by Senator Pete V. Domenici of New Mexico. Consequently, in 2000, as a result of Senator Domenici's efforts, the University of New Mexico School of Law received funding for the Utton Transboundary Resources Center to consider and promote ways for states to resolve interstate water disputes short of protracted, costly, and often bitter litigation.

The U.S. Supreme Court has made its position abundantly clear: States should resolve their conflicts pursuant to the compact clause of the U.S. Constitution. Such disputes are "more likely to be wisely solved by cooperative study and by conference and mutual concession on the part of representatives of the states so vitally interested in it than by proceedings in any court however constituted."^{††}

The states have entered into 26 interstate water allocation compacts, primarily in the western United States, most of them over 50 years ago. As interstate water conflicts have increased, so has the realization that most of the existing compacts appear to be inadequate to resolve these conflicts. Consequently, in 2002 the Utton Center initiated a comprehensive project to develop a Model Interstate Water Compact. A national conference, titled "Interstate Waters: Crossing Boundaries for Sustainable Solutions, a Multidisciplinary Approach," was held to address the approaches of a variety of disciplines that are key in managing interstate water resources. Seventy lawyers and scientists from across the United States with extensive expertise in interstate water issues gathered to share what they believed to be the strengths and the limitations of their particular disciplines when it came to addressing complex water issues. The purpose of the conference was to identify ways that they could better work together to support the management goals of stakeholders. In 2004, a second national conference, "Transboundary Waters: Crossing Cultural Boundaries for Sustainable Solutions," brought together a variety of experts who had been successful in crafting Indian water rights settlements. Acequia water rights and values

[†] This Introduction is taken from a paper originally published by the Rocky Mountain Mineral Law Foundation in the *Proceedings of the 52nd Annual Rocky Mountain Mineral Law Institute* (2006).

^{††} *New York v. New Jersey*, 256 U.S. 296, 313 (1921).

were also discussed. Perspectives on the values related to water were shared by representatives of major water user groups.^{†††}

The Utton Center began drafting the Model Compact in 2004. The methodology for carrying out the project was as follows:

- A thorough literature review was undertaken to identify and evaluate the asserted strengths and weaknesses of the use of compacts to resolve interstate water conflicts.
- A review was conducted of the language of all existing interstate water allocation compacts and required congressional consent legislation to identify how critical issues have been addressed historically. This research was supplemented with a questionnaire sent to each of the interstate water compact commissions on the practical administration of those compacts.
- An Advisory Committee was selected comprised of more than two dozen individuals representing a wide range of professional areas of expertise and stakeholder interests.
- Additional research included an analysis of the impact of federal environmental legislation affecting existing interstate water compacts and a review of compact litigation in the Supreme Court.
- The unsuccessful efforts to resolve conflicts regarding the Apalachicola-Chattahoochee-Flint and the Alabama-Coosa-Tallapoosa River Basins through the use of interstate compacts were addressed. Recent initiatives regarding the Great Lakes were reviewed.
- In March 2005 the Advisory Committee assembled at Bishop's Lodge near Santa Fe, New Mexico, where the first interstate water allocation compact, the Colorado River Compact, was negotiated in 1922. The purpose of this three-day workshop was to evaluate and supplement the principal issues identified by the project study and to receive recommendations regarding specific approaches, methodologies, and topics to be addressed in the Model Compact. Following that meeting, a summary of its principal conclusions and recommendations was prepared for review and comment by the Committee.

††† Chris Nunn Garcia and Michele Minnis assisted significantly in drafting both conference proceedings. The Utton Center particularly wants to recognize Chris Nunn Garcia's role in the planning, facilitating, photographing, and writing about the recent conference. Chris's death on July 23, 2006 was a great loss to all who support water management collaboration.

- A working draft of a Model Compact was then prepared and sent to the Advisory Committee for review and comment. The committee responded with a number of excellent comments, most of which were incorporated in the draft Model Compact.
- The compact was presented to the American Bar Association Section of Environment, Energy, and Resources 24th Annual Water Law Conference, February 24, 2006, and at the 52nd Annual Rocky Mountain Mineral Law Institute in July 2006, where it underwent additional scrutiny by water lawyers familiar with interstate water compact issues.
- A commentary section for each Compact article was prepared to explain why particular approaches were taken, along with suggestions for alternative approaches to critical issues. The commentaries illustrate how the Model Compact, which is not intended as a “one size fits all” proposal, can be adapted to different situations in various river basins.

The primary goal of the Model Compact is to provide a mechanism by which interstate water conflicts may be resolved in an amicable, efficient, and equitable manner. The Model Compact empowers states to take interstate water management into their hands to avoid the uncertainties and costs of litigation and the vagaries of congressional legislation. It is hoped that this compact will assist states (and countries sharing international rivers) in the sustainable management of shared water resources.

The Utton Center is deeply grateful to the following funders of the Model Compact project: United States Department of Energy; Thaw Charitable Trust; McCune Charitable Foundation; Healy Foundation; New Mexico Highlands University; Rocky Mountain Mineral Law Foundation; General Service Foundation; Sandia National Laboratories; Sheehan, Sheehan, & Stelzner, P.A.; New Mexico State Bar, Section on Natural Resources, Energy and Environment; Hill, Edwards, Edwards & Kinney, L.L.C.; John Shomaker & Associates; Modrall Sperling Law Firm; Weatherford and Taaffe, L.L.P.; and Public Service Company of New Mexico.

PREAMBLE

Asserting that, inasmuch as the states that include the surface and hydrologically connected subsurface waters of the Utton River Basin are most directly affected by the management and quality of such waters, such states should exercise principal authority over them, subject to certain federal obligations; and

Recognizing that the water resources of the Utton River Basin are or may become valuable for a variety of beneficial purposes including, but not limited to, agricultural irrigation, municipal and domestic uses, power generation, navigation, recreation, fish and wildlife habitat maintenance, aesthetic enjoyment, livestock watering and forage maintenance, industrial use, and spiritual and religious uses; and

Sharing the congressional goal in the Clean Water Act “to restore and maintain the chemical, physical, and biological integrity” of the Basin’s waters; and

Having experienced that the optimum use and protection of the Basin’s water related values may be constrained or precluded because of the limits imposed on the jurisdiction of the Basin states by virtue of their political boundaries; and

Persuaded by the United States Supreme Court’s repeated recommendation that the states attempt to forestall and resolve interstate water disputes through agreements pursuant to the compact clause of the United States Constitution; and

Convinced that the equitable sharing and sustainable management of the Basin’s water resources can best be accomplished and equitably adjusted when necessary by the Basin states jointly by agreement rather than by litigation or federal legislation or administrative action; and

Understanding the need for integrated, adaptive water resource management, specifically the need for management decisions affecting the watershed to be made at the watershed level, as being of critical importance to the sustainable management of the water resources of the Utton River Basin; and

Believing that operations of federally constructed, permitted, licensed, or funded water development projects and implementation of federal environmental protection or other water management programs should be consistent with regional water resource management programs developed in cooperation with federal agencies if such programs are not in direct conflict with such agencies’ non-discretionary statutory obligations;

Now, therefore, the signatory parties to this Compact commit themselves to this joint effort to establish an effective, efficient, and equitable regional institutional framework and program for the cooperative management of the Utton River Basin’s water resources as a supplement to

their individual programs and agree (1) to exercise their Compact rights and responsibilities in good faith and not frustrate the Compact purposes through action or inaction, and (2) to make reasonable beneficial use of their water apportionments under the Compact with due regard to the interests of the signatory parties in the common resource.

PREAMBLE COMMENTARY

The Utton Center's Advisory Committee urged that the Model Compact have a strong preamble stating its political, legal, philosophical, and practical underpinnings. The preamble begins with the premise that, inasmuch as the management and quality of interstate water resources impact most directly the states in an interstate watershed, such states should exercise principal management authority over interstate water resources in cooperation with federal water resource management and regulatory agencies in the region. Because the territorial limitations imposed on the individual states preclude other than joint action to address regional problems, the preamble acknowledges the Supreme Court's repeated admonishments to utilize the interstate compact approach authorized in the United States Constitution rather than litigation or federal legislation. Building on these principles, the Model Compact commits the signatory parties to carry out the agreement in good faith and to make reasonable beneficial use of their apportionments with due regard for the interests of all signatory parties in the common resource.

ARTICLE I
COMPACT PURPOSES, WATER SUBJECT TO COMPACT,
AND SIGNATORY PARTIES

This Compact effects an equitable apportionment of and establishes an interstate water project development coordination program and a water quality protection and improvement program for the surface water flows and hydrologically connected subsurface waters of the Utton River and its tributary water bodies within the states of A, B, and C. Signatory parties are the states of A, B, and C; the Indian tribes within those states listed below; and the United States of America.

State A

1. The _____ Nation
2. The _____ Indian Tribe
3. The _____ Pueblo

State B

1. The _____ Indian Tribe

ARTICLE I COMMENTARY**COMPACT PURPOSES, WATER SUBJECT TO COMPACT,
AND SIGNATORY PARTIES**

The principal purpose of the Model Compact is to respond to the Supreme Court's repeated admonition to contesting states that the negotiation of their respective "equitable shares" of interstate regional water resources and resolution of other disputes regarding such resources is a far better approach than a judicially imposed "equitable apportionment" or other judicial decree.¹ Because the Supreme Court's equitable apportionment decisions provide a useful catalog of desirable components of a negotiated equitable apportionment, much of the Model Compact draws on that background in trying to frame an agreement mirroring how the Supreme Court most likely would address particular issues. Companion purposes are to establish a regional institution to assist in the oversight of the coordinated joint use of those equitable shares of the Basin's water resources and maintenance of their quality in the broad regional interest because of the territorial limitations on the exercise of an individual state's powers. Of course, a compact could only address more limited, though highly important, purposes such as water quality protection, flood control, or regional planning.

1. An interstate water conflict is "more likely to be wisely solved by cooperative study and by conference and mutual concession on the part of . . . the States . . . than by proceedings in any court." *New York v. New Jersey*, 256 U.S. 296, 313 (1921) (No. 2, Orig.) (remarking upon "the grave problem of sewage disposal"). This position has been reaffirmed consistently.

Time and again we have counseled States engaged in litigation with one another before this Court that their dispute "is one more likely to be wisely solved by co-operative study and by conference and mutual concession on the part of representatives of the States so vitally interested in it than by proceedings in any court however constituted."

Texas v. New Mexico, 462 U.S. 554, 575 (1983) (No. 5, Orig.) (quoting *New York v. New Jersey*, 256 U.S. at 313). The Court has "often expressed [a] preference that, where possible, States settle their controversies by 'mutual accommodation and agreement' . . ." *Oklahoma v. New Mexico*, 501 U.S. 221, 241 (1991) (No. 109, Orig.) (quoting *Arizona v. California*, 373 U.S. 546, 564 (1963) (No. 8, Orig.) (quoting *Nebraska v. Wyoming*, 325 U.S. 589, 616 (1945) (No. 6, Orig.) and *Colorado v. Kansas*, 320 U.S. 383, 392 (1943) (No. 5, Orig.)).

With regard to the proposed initiation of an original action, the Court concluded in *Vermont v. New York* that "[t]he parties have available other and perhaps more appropriate means of reaching the results desired under the Proposed Court Decree. An interstate compact under Art. I, § 10, cl. 3, is a possible solution of the conflict here." 417 U.S. 270, 277 (1974) (No. 50, Orig.).

There appears to be substantial agreement on the national² and international levels³ that a river basin is the optimal geographic area for planning and implementing water resource development and management programs. In recognition that the use of a basin's water may have far reaching impacts outside its watershed, such as California's and Denver's use of Colorado River water, it has been suggested that water planning and management institutions should be designed to address issues in this broader "water commons."⁴ However, the authors believe that compacts are best limited to discrete interstate watersheds and broader regional issues should be left to agreements among compact commissions or other states in the adjacent watersheds.

There is a strong consensus on the Advisory Committee and among commenters that hydrologically connected subsurface water should be expressly included in any compact allocations of surface flows. Even if it is not expressly included for some reason, the Supreme Court is highly likely to imply its inclusion unless it is expressly excluded with precise language.⁵ Non-tributary subsurface waters in isolated interstate aquifers are not addressed in the Model Compact, but the authors believe that many of the principles and concepts embodied in it are equally applicable for such water bodies.

If certain geographic portions of the Basin waters or non-native imported waters or "developed" waters are not to be subject to the compact for any reason, they should be clearly identified and accompanied by a succinct statement of the reason for the exclusion. Imported or developed waters should be excluded for use by the importing or developing state or states unless they are commingled with Basin waters and dedicated to a Commission sponsored or funded project.

2. See, e.g., S. Select Comm. on Nat'l Water Resources, S. Rep. No. 87-29, at 17-18 (1961); NAT'L WATER COMM'N, WATER POLICIES FOR THE FUTURE: FINAL REPORT TO THE PRESIDENT AND TO THE CONGRESS OF THE UNITED STATES, chs. 10-11 (1973); W. WATER POL'Y REV. ADVISORY COMM'N, WATER IN THE WEST: CHALLENGE FOR THE NEXT CENTURY, 6-5 to 6-9 (1998), available at <https://repository.unm.edu/dspace/handle/1928/2788>.

3. See, e.g., Charles B. Bourne, *The Development of International Water Resources: The "Drainage Basin Approach,"* in INTERNATIONAL WATER LAW: SELECTED WRITINGS OF PROFESSOR CHARLES B. BOURNE 3 (Patricia Wouters ed., 1997).

4. Gary D. Weatherford, From Basin to "Hydrocommons": Integrated Water Management Without Regional Governance 1, 19-20 (Univ. of Colo. School of Law, Nat. Resources L. Ctr., W. Water Pol'y Project, Discussion Series Paper No. 5, 1990), available at <http://www.h2olawfirm.com/h.jsp>.

5. See, e.g., *Kansas v. Nebraska*, 530 U.S. 1272 (2000) (No. 126, Orig.) and commentary on Article V, *infra*.

ARTICLE II
EFFECTIVE DATE AND DURATION OF COMPACT

- A. *Effective Date*
This Compact, after legislative ratification by each of the signatory states, shall become operative upon the effective date of the congressional legislation granting consent to this Compact (unless that consent legislation provides otherwise), which contains language waiving the sovereign immunity of the United States from suit to permit the enforcement of the obligations of its agencies under this Compact and to determine the legal effect of federal legislation on the water apportionments and other programs authorized by this Compact and the powers of the Utton River Basin Commission (the Commission).
- B. *Duration*
- (1) The initial term of the Compact shall be twenty-five (25) years from its effective date. No later than one (1) year prior to the expiration of the initial or any renewal term, the Compact signatory parties shall notify the President and Congress whether they propose (a) an additional twenty-five-year (25) or other length term without any change in the Compact's provisions; (b) an additional twenty-five-year (25) or other length term with certain amendments to the Compact, which shall have been approved by the signatory states and shall accompany the notification; or (c) termination of the Compact, accompanied by the proposed terms of such termination, which shall include, at a minimum, proposals to satisfy the requirements of Article II.B(2). Whichever option is exercised shall require congressional approval.
 - (2) Termination of the Compact shall be subject to the following conditions, at a minimum:
 - (a) Satisfaction of all outstanding financial obligations of the Commission;
 - (b) Preservation of all valid existing rights derived from federal, state, or tribal law or this Compact in the waters covered by the Compact; and
 - (c) Preservation of all environmental protection obligations assumed by the signatory parties or the Commission.
- C. *Modification or Amendment*
This Compact may be modified or amended by action of the governing bodies of all of the signatory parties in accordance with applicable federal, state, or tribal law and with the consent of Congress.

- D. *Individual Party Withdrawal*
Any signatory party may withdraw from this Compact upon two (2) years' notice to the other signatory parties, the President, and Congress, subject to the conditions set forth in Article II.B(2).

ARTICLE II COMMENTARY
EFFECTIVE DATE AND DURATION OF COMPACT

A. Waiver of the United States' Sovereign Immunity

The Model Compact would not become effective unless the constitutionally required congressional consent legislation waives the sovereign immunity of the United States so that (1) if the United States is a signatory party its compact obligations can be enforced, and (2) the legal effect of federal legislation on compact apportionments or programs can be ascertained so that the states can decide whether they wish to terminate the compact.

There is a significant risk that if the United States does not become a signatory party to a compact it may nevertheless (1) be deemed to be an indispensable party to litigation by compact parties to enforce the compact, and (2) assert sovereign immunity against efforts to join it. Where the United States' claims in a compact state are derived from state law, for example, federal reclamation project water rights, it is not an indispensable party.⁶ But it has been held to be an indispensable party where it exercises significant exclusive *federal* water allocation authority.⁷ Similarly, it was held to be an indispensable party in *Texas v. New Mexico*⁸ because it was trustee for Indian and Pueblo water rights in New Mexico that allegedly would have been impaired by the relief Texas was seeking under the Rio Grande Compact. If that decision is still good law, it might be difficult to sustain a compact enforcement suit in any interstate river basin containing Indian reservations unless the United States intervenes. In its most recent decision on the indispensability issue in an interstate context, *Idaho v. Oregon & Washington*,⁹ the Court held, however, that the United States' ownership and operation of eight Bureau of Reclamation and Corps of Engineers dams on the Columbia River system did not make it indispensable where Idaho's suit for equitable apportionment of interstate fish resources did not complain of such operation.¹⁰ But would a compact state's complaint about such operations or the United States' administration of comprehensive *regulatory* programs significantly affecting water rights

6. *Nebraska v. Wyoming*, 325 U.S. 589, 629 (1945) (No. 6, Orig.).

7. *Arizona v. California*, 298 U.S. 558, 571 (1936) (the Secretary of the Interior has exclusive water allocation authority on the Lower Colorado River under the Boulder Canyon Project Act).

8. 352 U.S. 991 (1957) (No. 9, Orig.).

9. 444 U.S. 380 (1980) (No. 67, Orig.).

10. *Id.* at 390-91.

in a compact state, such as the Clean Water Act or the Endangered Species Act, make it indispensable?¹¹

The customary practice in an interstate water dispute has been for the Government not to intervene but to file an *amicus curiae* brief, simply informing and advising the Court of its views without getting into the fray. But since the United States has the responsibility to see that federal water development and environmental laws, as well as its trust responsibilities to Indian tribes, are implemented throughout an interstate basin, the authors strongly believe that the compact party states should have the opportunity to demonstrate that those statutes and trust obligations have a significant bearing on their congressionally approved compact apportionments and programs, particularly since the array of environmental statutes enacted by Congress over the past 35 years appears to have rendered the reliability of Supreme Court decreed rights and congressionally approved compact allocations questionable.

Given the dominant role of the United States in almost all interstate river basins, ideally Congress should repeal subsection (c) of the McCarran Amendment, which provides that the Act's sovereign immunity waiver for comprehensive intrastate river system water adjudications does not apply to "any suit or controversy in the Supreme Court of the United States involving the rights of States to the use of the water of any interstate stream."¹² Can the King really do no wrong on an interstate stream? Plainly not so, as Congress has recognized for 50 years in the Colorado River Basin where the Colorado River Storage Project Act of 1956 authorizes any Basin State to bring an action in the Supreme Court against the Secretary of the Interior for failure to comply with the Colorado River Compact and other aspects of the so-called Law of the River.¹³ There is no reason why a similar waiver should not be included in congressional consent legislation for *all* interstate compacts, and the Model Compact appropriately requires such a waiver.

11. See *Maryland v. Louisiana*, 451 U.S. 725, 745 n.21 (1981) (No. 83, Orig.) ("United States' interests in the operation of the [Outer Continental Shelf Lands Act] and the [Federal Energy Regulatory Commission's] interests in the operation of the Natural Gas Act are sufficiently important to warrant their intervention as party plaintiffs....We have often permitted the United States to intervene in appropriate cases where distinctively federal interests, best presented by the United States itself, are at stake.").

12. 43 U.S.C. § 666(c) (2000).

13. 43 U.S.C. § 620m (2000).

B. *Sunset Limitation on Compact Duration*

The first interstate water allocation compact, the Colorado River Compact of 1922,¹⁴ made its interbasin apportionments in perpetuity. During the compact negotiations, Colorado River Commission Chairman Herbert Hoover (then Secretary of Commerce) warned the negotiators that “nothing lasts forever.” However, the Upper Basin states, knowing that they would develop much more slowly than the Lower Basin states, wanted their right to develop their apportionment *permanently* protected.

Almost all subsequent compacts have similarly been of indeterminate duration, although the Delaware and Susquehanna compacts have 100-year terms, subject to renewal. Although compacting states have not provided for shorter compact terms or specific opportunities for review and amendment, Congress has often expressly reserved the right to revoke or amend its consent legislation when later circumstances so dictate,¹⁵ although an express reservation of such power appears unnecessary.¹⁶

The Supreme Court has characterized the Constitution’s congressional consent requirement¹⁷ as designed to guard against “the formation of any combination tending to the increase of potential power in the states, which may encroach upon or interfere with the just supremacy of the United States.”¹⁸ The classic treatment of the “compact clause” by Harvard Law Professor (later Supreme Court Justice) Felix Frankfurter and

14. Colorado Compact, *available at* U.S. Dep’t of the Interior, Bureau of Reclamation, Lower Colorado Region, The Law of The River, <http://www.usbr.gov/lc/region/g1000/lawofrvr.html> (follow “The Colorado River Compact of 1922” hyperlink).

15. Consent legislation frequently contains language reserving to Congress the right to “alter, amend or repeal” the legislation. *See, e.g.*, Alabama-Coosa-Tallapoosa River Basin Compact, Pub. L. No. 105-105, § 3, 111 Stat. 2233, 2244 (1997); Apalachicola-Chattahoochee-Flint River Basin Compact, Pub. L. No. 105-104, § 3, 111 Stat. 2219, 2231 (1997); Arkansas River Basin Compact, Pub. L. No. 89-789, § 107(b), 80 Stat. 1409, 1415 (1966); Arkansas River Basin Compact of 1970, Pub. L. No. 93-152, § 3, 87 Stat. 569, 576 (1973); Canadian River Compact, ch. 306, § 2, 66 Stat. 74, 78 (1952); Compact Between Missouri and Illinois Creating the Bi-State Development Agency and the Bi-State Metropolitan District, ch. 829, 64 Stat. 568, 571 (1950); Delaware River Basin Compact, Pub. L. No. 87-328, pt. II, art. 15.1(q), 75 Stat. 688, 715 (1961); Jennings Randolph Lake Project Compact, West Virginia and Maryland, Pub. L. No. 104-176, § 2, 110 Stat. 1557, 1562 (1996); Susquehanna River Basin Compact, Pub. L. No. 91-575, § 2(p), 84 Stat. 1509, 1539 (1970); Vermont-New Hampshire Interstate Public Water Supply Compact, Pub. L. No. 104-126, § 2, 110 Stat. 884, 886 (1996).

16. *Louisville Bridge Co. v. United States*, 242 U.S. 409, 418 (1917) (“The absence of an express reservation of the right to alter or amend is not conclusive.”).

17. U.S. CONST. art. I, § 10, cl. 3.

18. *Virginia v. Tennessee*, 148 U.S. 503, 517-19 (1893) (No. 3, Orig.) (quoted in *New Hampshire v. Maine*, 426 U.S. 363, 369 (1976) (No. 64, Orig.)).

Harvard Law School Dean James Landis in 1925 described the “practical objectives” of the consent clause as follows:¹⁹

[A]greements may affect the interests of States other than those parties to the agreement: the national, and not merely a regional, interest may be involved. Therefore, Congress must exercise national supervision through its power to grant or withhold consent, or to grant it under appropriate conditions. The framers thus astutely created a mechanism of legal control over affairs that are projected beyond State lines and yet may not call for, nor be capable of, national treatment. They allowed interstate adjustments but duly safeguarded the national interest.

It seems obvious that what may have been viewed as in the national or regional interest decades ago might not be so viewed today. But almost all of the existing compacts and federal consent statutes are for indeterminate periods with no provision for mandatory periodic review by either the compact states or Congress to evaluate how well the compacts are working and whether changes may be necessary in the regional or national interest.

But just as a compact may at some point become no longer in the national interest and require amendment by Congress of its consent legislation, so also may changed circumstances convince one or more of the signatory states that their pact no longer serves their mutual interests. Hence, there was general agreement among the Advisory Committee members on the desirability, indeed necessity, for a sunset provision. Article II gives the states several reasonably flexible options after the proposed initial 25-year term and their failure to exercise any of them would result in automatic termination of their agreement. Some commenters considered this period too short and suggested that it might frustrate recoupment of the costs of large scale projects, but any amendment or termination of a compact at any time would necessarily have to protect existing rights and honor outstanding obligations.

C. Individual Party Withdrawal

Even with a sunset provision, dispute resolution procedures, and the possible opportunity for a signatory state to block certain major Commission actions depending on whether the Commission decides that some categories of Commission decisions or actions may require unanimous approval, some states, tribes, or the United States may nevertheless be reluctant to become signatory parties to a compact, perhaps

19. Felix Frankfurter & James M. Landis, *The Compact Clause of the Constitution—A Study in Interstate Adjustments*, 34 YALE L.J. 685, 695 (1925).

fearing the possible loss of some degree of sovereignty or “turf” such participation might entail or that a majority of parties might take action adverse to their interest. Although the authors believe that such fears are outweighed by the benefits that would flow from the ability to take collective action on regional problems and the realization that although certain action by the Commission might be distasteful to some parties, the only alternative to non-participation would be to face the same consequences in interstate litigation or federal enforcement of certain compact objectives. Nevertheless, some parties may disagree and would prefer to discontinue their participation in the compact approach. If so, they should have the opportunity to do so upon reasonable notice to their partners (the authors suggest two years) and subject to any obligations they may have assumed under the compact. If a state should give notice of its intention to withdraw, it is reasonable to assume that discussions and action by the other parties might be initiated to address the cause of the proposed withdrawal and for the discontented party to reconsider the benefits and detriments of such withdrawal and perhaps abandon that course of action. If one of the factors prompting withdrawal is something that might have adverse impacts on the other compact parties, the cost and risk of having to later litigate that issue would have to be carefully considered.

Similar language is found in a number of existing interstate agreements.²⁰ To the best of the authors’ knowledge, no state has withdrawn from those compacts nor has the United States withdrawn from the Delaware and Susquehanna compacts. In any event, the authors believe that withdrawal by a state would be rare because “going it alone” in a basin seems likely to be far less beneficial to a state’s interest for a variety of reasons than continuing to work cooperatively within the compact framework, as Arizona concluded after 15 years of refusing to ratify the Colorado River Compact.²¹

One commenter considered the withdrawal option a bad idea given the time, effort, and expense of putting a compact together, but those same considerations also might well dictate a decision by a disgruntled party not to withdraw. More important, moreover, is that if the withdrawal option is

20. Article V of the Chesapeake Bay Commission Agreement, for example, allows a state to withdraw from the agreement by act of its legislature. Va. Code Ann. § 30-253 (2004). Similar language is found in other compacts. Great Lakes Basin Compact, art. VIII, 82 Stat. 414, 418 (1968); Jennings Randolph Lake Project Compact, art. V.5.7, 110 Stat. 1557, 1561 (1996); Potomac River Basin Interstate Compact, art. VII, 84 Stat. 856, 860 (1970); Tennessee River Basin Water Pollution Control Compact, art. XIII, 72 Stat. 823, 827 (1958); Wabash Valley Compact, art. VII, 73 Stat. 694, 698 (1959). In addition, the Delaware River Compact, art. 1, § 1.4, 75 Stat. 688, 691 (1961), and the Susquehanna River Compact, art. 1, § 1.4, 84 Stat. 1509, 1512 (1970), allow Congress “to withdraw the federal government as a party to this compact....”

21. See *Arizona v. California*, 373 U.S. 546, 558, n.24 (1963) (No. 8, Orig.).

what it takes to persuade a reluctant party to participate in the first place, it should be available. An intriguing argument has been made as to how a state might in any event “escape an unsatisfactory compact allocation and obtain a more favorable one.”²²

22. See Douglas L. Grant, *Interstate Water Allocation Compacts: When the Virtue of Permanence Becomes the Vice of Inflexibility*, 74 U. COLO. L. REV. 105, 109 (2003).

ARTICLE III DEFINITIONS

As used in this Compact or in any order, rule, regulation, or guideline issued pursuant to this Compact, the following definitions shall apply.

- A. *Advisory Committee*: The multi-interest, multi-disciplinary committee the Commission is required to establish comprised of representatives of the general public with recognized interests in the water resources of the Utton River Basin for beneficial purposes, regional representatives of federal water resources agencies with programs in the Basin, and academicians or private consultants with recognized expertise in specific water resource related disciplines.
- B. *Base Apportionments*: The interstate allocations of Utton River Basin flows made by the Compact to each signatory state for (1) the maintenance of adequate stream flows for environmental purposes and (2) satisfaction of all state, federal, and tribal water rights perfected under applicable law as of the effective date of the Compact.
- C. *Chargeability*: Flow usage subjecting a state's base and supplemental apportionments to debiting as a result of its dedication to flow maintenance or reasonable beneficial consumptive use.
- D. *Commission*: The administrative entity with final authority to administer this Compact, comprised of the governors of each signatory state, a Tribal representative, and a federal representative.
- E. *Conjunctive Use*: The coordinated use of surface and subsurface waters of the Basin and its natural and artificial reservoirs to make optimum use of such waters and facilities.
- F. *Council*: The Commission's basic policymaking unit, comprised of state, federal, and Tribal representatives.
- G. *Dispute Resolution*: The procedures and guidelines for facilitating resolution of disputes among the signatory parties, either by (1) agreement or (2) administrative determination, as to the meaning of the Compact or the legal effect of actions taken under it.
- H. *Division of Scientific Analysis*: The unit of the Commission with responsibility for the development and evaluation of scientific and technical data needed or useful in administering the Compact.
- I. *Perfected Water Right*: A water right (1) acquired in accordance with state law that has been exercised by the actual diversion and/or beneficial use of a specific quantity of water in accordance with state law, or (2) created by a reservation under federal law of an

- amount of uncommitted water reasonably necessary to serve the primary purposes of specific federal establishments or programs.
- J. *Reasonable Beneficial Use*: The application of water to a beneficial use in an amount reasonably necessary to satisfy such use under state, federal, or tribal law.
- K. *Safe Annual Yield*: The amount of water that can be withdrawn annually from a surface or sub-surface water resource without serious water quality, net storage, environmental, or social consequences.
- L. *Species and Habitat Protection*: The maintenance of stream flows adequate to maintain a productive habitat for the preservation of the normal evolutionary development of identifiable species and their habitat.
- M. *Subsurface Water*: All waters below the surface of the ground whether or not hydrologically connected to surface waters.
- N. *Supplemental Apportionments*: Apportionments made by the Commission to one or more signatory states from waters determined by the Commission to be surplus to the base apportionments made by the Compact.
- O. *Water Quality Protection Program*: The allocation and implementation of authority between the signatory states and the Commission to meet the requirements of the Clean Water Act on the Basin's intrastate tributaries and the interstate main stem of the Utton River Basin, respectively.
- P. *Water Resources Management Program*: The Commission's coordination and assistance to the signatory parties' development of water supplies adequate to meet the Basin's long- and short-term water requirements.

ARTICLE III COMMENTARY DEFINITIONS

Sections containing definitions are common features of interstate water compacts. These sections reflect one of two approaches to the need to provide applicable definitions. One approach is to include a long list of compact terms and the definitions of those terms. The alternative approach is to include relatively few definitions and to authorize whatever administrative entity is created by the compact to define additional terms as needed. In either case, accurate and clearly stated definitions are important to the success of an interstate water compact.

The Model Compact reflects the second approach. Of the terms used in the Model Compact, only sixteen are defined. Under Article IV.B(3)(a), the Commission has the authority to define additional terms if the Commission determines that such definitions are necessary. It is the opinion of the authors that this approach is preferable to the alternative mentioned above. Given that interstate compacts once ratified become both state and federal law, any change to the provisions of a compact would require the compact to be amended. This in turn would require both state and federal approval, a time-consuming process that has been used relatively infrequently. If a large number of terms are defined in the compact, however, a revision to the definition of any of the terms would require the compact to be amended.

An ongoing theme identified both by the Advisory Committee and in the literature is the need for compact administrative entities to have sufficient discretion, authority, and flexibility to respond to changing conditions.²³ Having a large number of terms defined in the compact could have the effect of restricting the flexibility needed by the administrative entity.

The terms that are defined in the Model Compact fall into two general categories. The first category includes terms that relate to the structure and function of the Commission. This category includes definitions for the Advisory Committee (Article III.A), the Commission (Article III.D), the Council (Article III.F), dispute resolution (Article III.G), the Division of Scientific Analysis (Article III.H), the Water Quality

23. See, e.g., Kyle E. Schilling, *The Future for Water Resources Planning and Decision Making Models*, WATER RESOURCES UPDATE, No. 111, Spring 1998, at 62; Douglas Kenney, *Institutional Options for the Colorado River*, 31 WATER RESOURCES BULL. 837 (1995) [hereinafter Kenney, *Institutional Options*]. See also Lawrence J. MacDonnell et al., *The Law of the Colorado River: Coping with Severe Sustained Drought*, 31 WATER RESOURCES BULL. 825 (1995).

Protection Program (Article III.O), and the Water Resources Management Program (Article III.P).

The second category includes terms relevant to the apportionment and management of interstate water resources. Included within this category are definitions for base apportionments (Article III.B), chargeability (Article III.C), conjunctive use (Article III.E), perfected water right (Article III.I), reasonable beneficial use (Article III.J), safe annual yield (Article III.K), species and habitat protection (Article III.L), subsurface water (Article III.M), and supplemental apportionments (Article III.N).

ARTICLE IV THE UTTON RIVER BASIN COMMISSION

A. *Establishment and Structure*

The rights and obligations established by this Compact and the programs authorized by it shall be implemented, supervised, and enforced by an interstate administrative entity entitled the Uton River Basin Commission (the Commission). The Commission shall be supported internally by a Council and a Division of Scientific Analysis (the Division) to which certain Commission authorities and responsibilities are delegated herein.

B. *The Commission*

(1) *Members of the Commission*

The members of the Commission shall be (a) the governors of the signatory states, (b) a single Tribal representative of all Indian tribes holding adjudicated water rights to Basin waters or who are parties to water rights settlement agreements, to be selected by such tribes, and (c) a federal representative with recognized expertise in water resources management appointed by the President after consultation with the federal departments and independent agencies carrying out programs in the Basin. The federal representative shall actively participate in the Commission's deliberations and shall coordinate the views of all federal agencies in the Basin with water related development, management, or regulatory responsibilities and present a single, coordinated federal position, including non-binding suggestions, comments, and recommendations, in the Commission's deliberations on matters before it. Each member of the Commission shall designate an alternate to serve in his/her place when necessary, selected in accordance with applicable law.

(2) *Chair of the Commission*

The Commission shall have a rotating chair, selected from the membership of the Commission at its organizational meeting, for such term and with such responsibilities and provisions for succession as the Commission may provide.

(3) *General Powers of the Commission*

With regard to the waters subject to this Compact, the Commission shall have the power, under the laws of the signatory parties or this Article, whichever is broader, to:

- (a) Adopt rules, regulations, and bylaws as needed to implement this Compact and to govern the conduct of the Commission.

- (b) Sue and be sued in any court of competent jurisdiction.
- (c) Enter into agreements or contracts, where appropriate, in order to accomplish the purposes of this Compact.
- (d) Appoint an executive director authorized to employ necessary professional, technical, clerical, and other staff and consultants and fix their qualifications, duties, compensation, and status with the goal of maintaining a high level of executive and technical expertise on a continuing basis.
- (e) Create committees, subcommittees, and special advisory groups and delegate responsibilities thereto.
- (f) Financial:
 - (i) Seek and accept funds, services, or other forms of aid from any lawful source.
 - (ii) Borrow money.
 - (iii) Issue negotiable bonds and other evidences of indebtedness in accordance with the laws of any of the signatory parties.
 - (aa) All such bonds and evidences of indebtedness shall be payable solely out of the properties and revenues of the Commission.
 - (bb) The Commission shall have no power to pledge the credit of any signatory party or its political subdivisions.
 - (iv) Levy and collect taxes and special assessments by any one or more of the following methods upon property benefited by any Commission project or program:
 - (aa) By a percentage of the tax value of the property assessed;
 - (bb) In proportion to the benefits that result from the project; or
 - (cc) By the foot front of the property bounding and abutting upon the project.
 - (v) Establish a basin fund into which revenues could be deposited at the discretion of the Commission.
 - (vi) Expend funds for any lawful purpose.
- (g) Develop and implement the Water Quality Protection Program and the Water Resources Management Program provided for in Articles VI and VII, respectively.
- (h) Monitor compliance with the interstate water apportionments and enforce apportionment ceilings and reasonable beneficial use limitations.

- (i) Monitor water quality in accordance with applicable Clean Water Act requirements.
- (j) Monitor land use activities affecting water quality.
- (k) Facilitate and exercise approval authority with respect to voluntary interstate and interbasin water transfers, water marketing, and water banking.
- (l) Acquire (including through the use of its independent eminent domain authority), construct, operate, and maintain projects, facilities, properties, licenses, activities, and services determined by the Commission to be necessary, convenient, or useful for the purposes of this Compact, and charge user fees for the use of same; *provided* that the Commission shall not construct or undertake any project that has been included in the Water Resources Management Program that one or more signatory parties are willing to construct or undertake in accordance with that program.
- (m) Establish recommended standards of planning, design, and operation of projects and facilities in the Basin that substantially affect interstate water resources, including, without limitation, water diversion and storage facilities, desalination facilities, water and waste treatment plants, trunk mains for water distribution, flood protection, watershed management programs, and subsurface water recharging operations.
- (n) Conduct and sponsor research on relevant aspects of present and future water resources use, conservation, management, development, control, and protection.
- (o) Compile and coordinate systematic stream stage and subsurface water level forecasting data (including gauging where appropriate) and publicize such information as needed for water uses, flood warning, quality maintenance, or other purposes.
- (p) Participate with other governmental and non-governmental entities in carrying out the purposes of this Compact.
- (q) Participate in any federal, state, or tribal executive, legislative, or judicial proceeding, the result of which may have an effect on the purposes of this Compact.
- (r) Interpret ambiguous Compact provisions.
- (s) Take action on matters not expressly addressed by the Compact or the federal consent legislation and exercise authority as necessary, appropriate, and relevant to carry out the basic Compact purposes that does not

conflict with such purposes, any express Compact provision, or other federal law.

- (t) Exercise such additional powers and duties as may hereafter be delegated to or conferred upon it by the legislatures of the signatory states and Congress.

In exercising the foregoing powers, the Commission is directed to utilize, to the fullest extent it finds feasible and advantageous, such existing governmental agencies as are willing and able, in the Commission's judgment, to be so utilized.

(4) Principal Duties of the Commission

The Commission shall exercise final authority and responsibility for (a) the equitable, efficient, and sustainable use of the water apportionments; (b) the management of the water quality programs under this Compact; and (c) the management of the water resources programs under this Compact. It shall instruct, advise, and assist, as appropriate, the Council and Division in carrying out their delegated responsibilities.

C. *The Council*

- (1) The Council shall be comprised of the two highest ranking state officials from each signatory state overseeing water allocation and management and water quality regulation, two Tribal representatives with expertise in water allocation and water quality regulation selected by the Basin tribes, and two federal representatives selected by the Commission's federal representative from federal agencies with significant programs in the Compact's jurisdiction. It shall be chaired by a Secretary appointed by the Commission.
- (2) The Council's duties shall include:
 - (a) Preparation and implementation of the Water Quality Protection Program and the Water Resources Management Program provided for in Articles VI and VII, respectively.
 - (b) Determination of water available for supplemental apportionment under Article V.D and the terms, conditions, and price for such apportionments.
 - (c) Review for approval proposed water diversion, storage, or treatment projects with significant interstate effects, interstate and interbasin water transfers, water marketing, or water banking.
 - (d) Enforcement of Commission programs and orders.
 - (e) Coordination of Commission action with state and federal agencies.

- (f) Addressing disputes referred to it by the Commission.
 - (g) Recommending possible adjustments to existing and proposed apportionments.
 - (h) Any other duties assigned to it by the Commission.
- D. *The Division of Scientific Analysis*
- (1) Division membership shall be composed of an equal number of members from each signatory party. Members must have recognized expertise in surface and subsurface water hydrology and modeling, operation of water storage and diversion projects, water resource economics, water quality, and fish and wildlife.
 - (2) The Division's primary duties shall be to provide multi-disciplinary scientific and technical support to the Commission and the Council, including the following:
 - (a) Monitoring compliance with the Compact apportionments provided for in Article V, the Water Quality Protection Program and the Water Resources Management Program provided for in Articles VI and VII, respectively, and recommend possible adjustments thereto based on new economic, demographic, hydrologic, and environmental data.
 - (b) Review of proposed water storage and diversion projects for economic benefits and costs, environmental impacts, and consistency with Commission programs.
 - (c) Development of a basinwide species and habitat protection and recovery program designed, to the maximum extent practicable, to preclude the need to list a species as threatened or endangered under the Endangered Species Act or similar state or tribal laws.
 - (d) Coordination with appropriate state, tribal, and federal agencies of the operation of projects covered by the Commission's Water Resources Management Program with respect to storage and releases of project water for water supply, flow maintenance, power generation, and flood control purposes.
 - (e) Establishment of a data bank of essential and reliable technical and scientific data for use in the administration of the Compact and utilization of such data in appropriate numeric models.
 - (i) The Division may (1) request the signatory parties to develop such data on a uniform basis, (2) utilize data developed by federal agencies or academic institutions, (3) develop it independently, or (4) rely on combinations thereof.

- (ii) Upon request of a Division member, any of the data that the Division proposes to utilize to carry out its duties shall be referred to one or more technical or scientific experts for peer review.
 - (iii) The Division's generation, acceptance, review, and utilization of any data in the Commission's programs shall create a rebuttable presumption of validity in Commission dispute resolution proceedings or administrative or judicial litigation.
 - (f) Any other duties assigned to it by the Commission.
- E. *Commission, Council, and Division Decisions*
 - (1) A Commission decision on any matter shall constitute final agency action on that matter.
 - (2) A decision by either the Council or the Division on matters within their jurisdiction shall constitute final action of the Commission 60 days thereafter unless (a) either unit refers it to the Commission for approval within 30 days, or (b) the Commission requests within 60 days that the matter be referred to it for review. Any signatory party may petition the Commission to review a Council or Division decision within 30 days of the decision.
- F. *Meetings and Voting*
 - (1) The Commission shall establish rules for the frequency, notification, and conduct of all meetings of the Commission, Council, Division, and Advisory Committee. Except as provided in Article XI.B(3), all meetings with the Advisory Committee or for the purpose of obtaining other views or information and for such other purposes as the Commission may provide shall be open to the public, subject to any exceptions under state, tribal, or federal law.
 - (2) The attendance of a majority of the members of the Commission, Council, or Division, including the tribal and federal representatives, at a meeting of such entity shall constitute a quorum.
 - (3) The Commission shall establish by unanimous decision the categories of Commission decisions requiring either unanimous or lesser votes. Tie votes on the Commission shall be referred for dispute resolution pursuant to Article VIII.
 - (4) Decisions by the Council shall be by majority vote of eligible voting representatives. Tie votes on the Council shall be resolved by vote of the Council Secretary.
 - (5) Decisions by the Division shall be by majority vote of eligible voting representatives. Tie votes on the Division shall be referred to the Council for resolution.

ARTICLE IV COMMENTARY THE UTTON RIVER BASIN COMMISSION

A. *Establishment and Structure*

Article IV.A of the Model Compact provides for the establishment and structure of the Commission. Though not every interstate water compact will necessarily require the establishment of a commission,²⁴ experience suggests that some type of administrative entity will be required for implementation of most compacts. The Commission can be downsized or reconfigured to the needs of a smaller basin with fewer or more modest programs.

The approach embodied in the Model Compact, particularly with regard to program and decisional responsibilities, is modeled loosely on the Murray-Darling River Basin Agreement of 1992 among four Australian states (New South Wales, Queensland, South Australia, and Victoria), the Australian Capital Territory, and the Commonwealth of Australia.²⁵ Analogous to the authority of the Utton River Basin Commission, policies applicable in the Murray-Darling Basin (MDB) are established by the MDB Ministerial Council. Each of the aforementioned governmental entities is

24. See, e.g., La Plata River Compact, 43 Stat. 796 (1925). See also Kenneth W. Knox, *The La Plata River Compact: Administration of an Ephemeral River in the Arid Southwest*, 5 U. DENV. WATER L. REV. 104 (2001) [hereinafter Knox, *La Plata River Compact*].

25. The Murray-Darling Basin (MDB) covers over one million square kilometers or 14 percent of Australia. It is an arid region where both rainfall and river flows are highly variable. The Commonwealth of Australia (the national government) does not manage either intrastate or interstate water uses or regulate water quality. Authority vests with the state governments, which have sovereign powers over land, water, and natural resources. The water rights system has been both established and maintained by the states. In addition, environmental protection (including water quality) also falls within the sovereign powers of the states. For a detailed discussion of the Murray-Darling River Basin Agreement, see DARLA HATTON MACDONALD & MIKE YOUNG, *A CASE STUDY OF THE MURRAY-DARLING BASIN: FINAL REPORT FOR THE INTERNATIONAL WATER MANAGEMENT INSTITUTE* 28-30 (rev. Feb. 2001), <http://www.clw.csiro.au/publications/consultancy/2001/MDB-IWMI.pdf>; William A. Blomquist et al., *Institutional and Policy Analysis of River Basin Management: The Murray Darling River Basin, Australia* 9-11 (World Bank Pol'y Res. Working Paper 3527, 2005), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=673519; Jonathan L. Chenoweth & Hector M. Malano, *Decision Making in Multi-Jurisdictional River Basins — A Case Study of the Murray-Darling Basin*, 26 WATER INT'L 301 (2001); John Quiggin, *Risk and Water Management in the Murray-Darling Basin* 14-15 (Univ. of Queensland Schools of Econ. & Pol. Sci., Murray Darling Program Working Paper M05#4, 2005), http://www.uq.edu.au/economics/rsmg/WP/WPM05_4.pdf; John J. Pigram & Warren F. Musgrave, *Sharing the Waters of the Murray-Darling Basin: Cooperative Federalism Under Test in Australia*, in CONFLICT AND COOPERATION ON TRANS-BOUNDARY WATER RESOURCES 131 (Richard E. Just & Sinaia Netanyahu eds., 1998) [hereinafter CONFLICT AND COOPERATION].

represented on the Ministerial Council. Unanimous consent is required for the establishment of policies by the Ministerial Council.

The prime functions of the Ministerial Council are

- (a) generally to consider and determine major policy issues of common interest to the Contracting Governments concerning effective planning and management for the equitable efficient and sustainable use of the water, land and other environmental resources of the Murray-Darling Basin; (b) to develop, consider and, where appropriate, to authorise measures for the equitable, efficient and sustainable use of such water, land and other environmental resources; (c) to authorise works as provided for in [this Act]; (d) to agree upon amendments to this Agreement including amendments to or addition of Schedules to this Agreement as the Ministerial Council considers desirable from time to time; (e) to exercise such other functions as may be conferred on the Council by this Agreement or any amendment or any Act approving the same.²⁶

The Ministerial Council acts through the MDB Commission, which is also comprised of representatives of the different governments, as is the counterpart Model Compact Council. Implementation of Ministerial Council policies, however, is generally the responsibility of the states, as is the case under the Model Compact. The Commission is an autonomous organization equally responsible to the governments represented on the Ministerial Council as well as to the Council itself. It has several key functions, which include (1) advising the Ministerial Council in relation to the planning, development, and management of the Basin's natural resources; (2) assisting the Council in developing measures for the equitable, efficient, and sustainable use of the Basin's natural resources; (3) coordinating the implementation of or, where directed by Council, implementing those measures; and (4) giving effect to any policy or decision of the Ministerial Council.

The Model Compact is designed to vest ultimate authority in the governors and other representatives of the signatory parties serving on the Commission. However, rather than employing a common practice of having the state administrators with water management responsibilities serve as the governors' alternates on the administrative entity, the state administrators serve a principal policymaking role in their own right on the Council (Article IV.D). The Division (Article IV.E) elevates the role of

26. Murray-Darling Basin Agreement, 1992, pt. III, cl. 9, *included in* Murray-Darling Basin Act, 1993, Schedule (Austl.), *available at* <http://scaleplus.law.gov.au> (search for "Murray-Darling Basin Act 1993").

science in the compact structure from a largely staff responsibility to a higher level of authority co-equal in its realm to the policy making role of the Council. In essence, the Council and the Division make Commission policy and decisions within their respective areas of responsibility and the Commission only acts directly when it assumes jurisdiction over important policy issues or such issues are brought before it via appeals from Council or Division actions. This approach is similar to the federal judicial system in which federal decisional law is made by the United States Courts of Appeals unless the Supreme Court exercises its superior decisional authority on a discretionary basis.

B. Commission Members

The Commission is comprised of the governors of the signatory states (Article IV.B(1)(a)), a single Tribal representative if there are tribes in the basin with adjudicated water rights (Article IV.B(1)(b)), and a federal representative (Article IV.B(1)(c)). Indian tribes enjoy a special, judicially recognized sovereign status and hold or claim substantial water rights throughout the West. Consequently, it is both equitable and essential that they collectively be represented in any compact governance institution in a voting capacity by a representative of their choice.²⁷ The Tribal representative would be selected by the tribe or tribes holding adjudicated water rights or who are parties to water rights settlement agreements in the basin covered by the Model Compact.²⁸

The federal representative, who would be appointed by the President after consultation with federal departments and independent agencies having programmatic responsibilities in the Basin, should be a person with recognized expertise in the allocation and management of water resources. The role of the federal representative, which would include coordination and representation of the views and interests of the aforementioned federal departments and independent agencies, could be further defined in terms of the needs of specific basins. With regard to voting, for example, the federal representative could have no vote, full voting status, limited voting status (i.e., only on matters directly affecting a federal interest in the Basin waters), or a tie-breaker status.²⁹

27. The Advisory Committee and the authors were advised by a Tribal member of the Committee that such an arrangement has worked effectively in the Columbia River Basin.

28. An alternative, should the tribes be unable to agree on a single representative, could be for the Secretary of the Interior to appoint the representative.

29. The federal representative is authorized to vote in several compacts. Delaware River Basin Compact, art. 2, 75 Stat. 688, 691 (1961); Susquehanna River Basin Compact, art. 2, 84 Stat. 1509, 1512-13 (1970); Upper Colorado River Basin Compact, art. VIII, 63 Stat. 31 (1949). Other compacts provide a third-party tie-breaking procedure when there is not agreement between

C. General Powers of the Commission

During preparation of the Model Compact, in response to the criticism that existing compacts typically do not grant sufficient authority to a compact commission,³⁰ the Advisory Committee made it clear that the Commission needed powers broad enough to accomplish the purposes of the Compact.

Another dominant theme identified in the literature is the need for interstate administrative entities like the Commission to have sufficient discretion, authority, and flexibility to respond to changing conditions.³¹ This is particularly true with regard to both drought and the impacts of global climate change.³² The proposed powers contained in Article IV.B(3)

the two state parties to those compacts. Yellowstone River Compact, art. III, 65 Stat. 663, 665–66 (1951); Klamath River Basin Compact, art. IX.A.10, 71 Stat. 497, 504 (1957); Snake River Compact, art. VI, 64 Stat. 29, 31–32 (1950); Sabine River Compact, art. VII(j), 68 Stat. 690, 696 (1954), *as amended*, 76 Stat. 34 (1962), 106 Stat. 4600, 4662 (1992).

The political dimensions of alternative voting provisions are addressed in Zachary L. McCormick, *Interstate Water Allocation Compacts in the Western United States — Some Suggestions*, 30 WATER RESOURCES BULL. 385, 390 (1994) [hereinafter McCormick, *Interstate Water Allocation*].

30. With regard to the authority of compact commissions, for example, Professor Davis has noted that “compacts typically do not grant broad enough authority.” Ray Jay Davis, *Guidelines for Interstate Water Compacts* [hereinafter Davis, *Guidelines*] in INTEGRATED WATER RESOURCES PLANNING FOR THE 21ST CENTURY: PROCEEDINGS OF THE 22ND ANNUAL CONFERENCE 189, 190 (Michael F. Domenica ed., 1995) [hereinafter INTEGRATED WATER RESOURCES PLANNING] (citing Jerome C. Muys, *Allocation and Management of Interstate Water Resources: The Emergence of the Federal-Interstate Compact*, 6 DENV. J. INT’L L. & POL’Y 307 (1976)). Professor Davis also notes that “[d]ispute resolution, enforcement powers, and sanctions also are not now well articulated in many compacts.” *Id.* at 190–91 (citing Richard A. Simms et al., *Interstate Compacts and Equitable Apportionment*, 34 ROCKY MT. MIN. L. INST. 23-1 (1988)).

31. A summary of the literature regarding the need for flexibility in order to be able to respond to changing conditions is contained in James Perry Hill, *Managing the Nation’s Waters Without Washington: The Interstate Compact Experience 68–70* (unpublished Ph.D. dissertation, Michigan State University, 1992).

32. Both the Advisory Committee and numerous recognized experts have argued that any type of “basin authority” responding to severe sustained drought must be authorized to study water supply and demand issues, to develop basinwide water plans, and to facilitate water transfers, including water marketing, and that all stakeholders need to be represented when the “basin authority” exercises these powers. *See, e.g.*, Lawrence J. MacDonnell et al., *The Law of the Colorado River: Coping with Severe Sustained Drought*, 31 WATER RESOURCES BULL. 825 (1995). Likewise, it has been noted that institutional entities in such situations need broad, flexible powers, especially with regard to water conservation, water use efficiency, reallocation of existing supplies, and the use of market mechanisms. To achieve this, Kenney describes six key characteristics of such institutional entities: (1) recognition of a wide variety of values and interests with opportunities for stakeholder participation, (2) promotion of ecological integrity, (3) consideration of a wide range of management options and strategies, (4) provision of timely and accurate information, (5) implementation of decisionmaking mechanisms that facilitate

fulfill these requirements as well as providing a comprehensive menu that may be tailored to fit a compact's purposes.

A number of the enumerated powers are of particular note. For example, Article IV.B(3)(k) authorizes the Commission to "[f]acilitate and exercise approval authority with respect to voluntary interstate and interbasin water transfers, water marketing and water banking." The use of such mechanisms is an important means of more efficiently managing available water supplies at the basin level that are not expressly available under existing compacts.

Several commenters have observed that the ability to obtain expert assistance is critical to the allocation and management of interstate water resources. With regard to the Costilla Creek Compact, for example, one of the members of the Advisory Committee has observed that the ability to employ engineering assistance was necessary to properly administer the Compact.³³ Article IV.B(3)(d) authorizes the Commission to retain "professional, technical, clerical and other staff and consultants" as needed.

Article IV.B(3)(f)(iv) authorizes the Commission to "[l]evy and collect taxes and special assessments."³⁴ Given that a principal purpose of the Compact is to empower a regional entity to exercise or supplement some of the powers traditionally exercised by basin states or the federal government, there is no persuasive reason why regional beneficiaries should not be subject to an equitable level of direct taxation to fund the regional entity's operations. Similar language, however, does not appear to be contained in any of the existing interstate water compacts.

The provisions of Article IV.B(3)(g) and (i) provide the authority that the Commission would need to address the problem of interstate water pollution. Article IV.B(3)(g) authorizes the Commission to develop and implement the Water Quality Protection Program authorized under Article

public participation and provide clear outcomes, and (6) recognition of the regional character of water resources. Kenney, *Institutional Options*, *supra* note 23, at 839. With regard to system operations, the need for flexibility during periods of drought is illustrated in Julie E. Kiang & Erik R. Hagen, *Preparing for Extreme Droughts: Moving Beyond the Historical Planning Event, Potomac Basin*, in CRITICAL TRANSITIONS IN WATER AND ENVIRONMENTAL RESOURCES MANAGEMENT: PROCEEDINGS OF THE WORLD WATER AND ENVIRONMENTAL RESOURCES CONGRESS (Gerald Sehlke et al. eds., 2004) [hereinafter CRITICAL TRANSITIONS]. *Accord* Schilling, *supra* note 23, at 66.

33. See Kenneth W. Knox, *The Costilla Creek Compact*, 6 U. DENV. WATER L. REV. 453, 470 (2003) [hereinafter Knox, *Costilla Creek Compact*]. *Accord* Charles T. DuMars, *Interjurisdictional Compacts as Tools for Watershed Management* (paper presented at the A.B.A. Section of Env't, Energy & Resources 19th Ann. Water L. Conf., San Diego, Cal., 2001).

34. The language included in the Model Compact is adapted from the Ohio Revised Code. OHIO REV. CODE ANN. §§ 6119.06(1), 6119.42 (LexisNexis 2003) (authority of regional water and sewer districts).

VI. Furthermore, Article IV.B(3)(i) authorizes the Commission to monitor water quality pursuant to applicable Clean Water Act requirements.

Also of note are the provisions of Article IV.B(3)(l) regarding the acquisition of property and the charging of fees for the use of such property. The language contained in the Model Compact reflects the recommendations of the Advisory Committee that the administrative entity rely primarily on existing state powers but also have broader or alternative powers to accomplish jointly what states cannot do individually. The latter recommendation is also reflected in Article IV.B(3)(p) regarding Commission participation with other governmental and non-governmental entities.

There is general agreement that the first critical steps in the allocation and management of any interstate water resource are the development of both a “common set of data” and appropriate models of the resource.³⁵

[H]ydrology of the water resource is a place to start consideration of sharing. Analysis of the water resource includes the annual and seasonal flow in various reaches of the stream and its tributaries, variation (flood and drought potential), ground water availability, water contributions from each jurisdiction, dependency of each entity on the water resource, and availability of water from other sources. In addition to the water resource, decision makers should consider land resources (geographic conditions in each jurisdiction), atmospheric resources, (weather and climate in the river basin), and human resources – population, economic needs and abilities, including capacity to develop the water and alternative sources and to compensate for use, and sociological considerations.³⁶

The Commission would have ample authority to accomplish these tasks under Article IV.B(3). One of the recommendations of the Advisory Committee, that the Commission “needs to be oriented toward the future, to have the capability of foresight,” is reflected in Article IV.B(3)(o). Another recommendation is followed in Article IV.B(3)(n), which provides authority for the Commission to conduct and sponsor research.

35. See, e.g., DuMars, *supra* note 33, at 329. The “shared vision planning process” (including use of the HEC-PRM optimization model and the STELLA simulation model) is discussed in Hal Cardwell et al., *Collaborative Models for Planning in the Mississippi Headwaters*, in *CRITICAL TRANSITIONS*, *supra* note 32. The “shared vision planning process” and other models are discussed in Schilling, *supra* note 23, at 66–67.

36. Ray Jay Davis, *Principles for Shared Use of Transboundary Water Resources*, in *INTEGRATED WATER RESOURCES PLANNING*, *supra* note 30 (citing LEONARD RICE & MICHAEL D. WHITE, *ENGINEERING ASPECTS OF WATER LAW* ch. 5 (1987)).

D. *The Council*

The Council is authorized to prepare and implement the Water Quality Protection Program and Water Resources Management Program of the Commission (Article IV.C(2)(a)) to determine the amount of water available for supplemental apportionment as well as the terms, conditions, and price for such apportionments (Article IV.C(2)(b)); to review proposed water diversion, storage, or treatment projects (including water transfers, marketing and banking) having significant interstate impacts (Article IV.C(2)(c)); to enforce Commission programs and orders (Article IV.C(2)(d)); to coordinate Commission actions with state and federal agencies (Article IV.C(2)(e)); to address disputes referred to it by the Commission (Article IV.C(2)(f)); and to recommend possible adjustments to existing and proposed apportionments (Article IV.C(2)(g)). The Council is also authorized to undertake any other duties assigned to it by the Commission (Article IV.C(2)(h)).

E. *The Division of Scientific Analysis*

There was strong consensus on the Advisory Committee regarding the importance of having a mechanism for developing and employing generally accepted scientific data and analyses to balance the traditional predominantly political focus of existing compacts. The composition of the Division as well as the duties assigned the Division are intended to address this requirement.³⁷

Article IV.E establishes specific timelines for decisions by the Commission, the Council, and the Division. This section was included because of the oft-expressed frustration with the length of time needed for governmental entities to make decisions. Article IV.E(1) also provides that Commission decisions are final agency actions for the purposes of judicial review.

Except as provided otherwise in the Compact, voting requirements are to be determined by the Commission. Article IV.F(3) provides that “[t]he Commission shall establish by unanimous decision the categories of

37. With regard to the general acceptance of scientific data and analyses, one mechanism that the Division may wish to consider would be to apply the criteria enunciated by the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 592-94 (1993): (1) Has the theory or technique been tested? Can it be tested? (2) Has the theory or technique been subject to peer review? (3) Does the theory or technique have an actual or potential high error rate? (4) Are there standards controlling the operations of the technique? (5) Is the theory or technique generally accepted within the relevant scientific community? *See also* *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149-50 (1999).

Commission decisions requiring unanimous or lesser votes.” Decisions of the Council and Division (including enforcement decisions under Article VIII) are to be by “majority vote of eligible voting representatives” (Article IV.F(4)-(5)).

F. *The Federal-Interstate Compact Option*

As noted above, the primary role of the federal representative on the Commission is to coordinate and represent the views and interests of federal departments and independent agencies having programmatic responsibilities in the basin. Such a role is of significant importance given the number of federal statutes and regulations that affect interstate water resources.³⁸ In fact, a former Executive Director of the Delaware River Basin Commission and member of the Advisory Committee, has concluded:

The lack of direct federal participation in interstate compacts limits their usefulness....Over the past thirty years, federal laws have given the federal government large, new responsibilities with substantial sums of money for many activities, including pollution control, resource recovery, clean-up of hazardous-waste sites, and protecting endangered species. These new responsibilities and monies often make it the controlling force in the success or failure of cooperative state efforts to deal with interstate water problems through interstate compacts. According to many experts, *any plan for an interstate river basin should not be considered comprehensive without encompassing federal water planning as an integral part of the effort.*³⁹

38. One of the tasks undertaken as the Model Compact was being prepared was a case study of the ongoing conflict between Alabama, Florida, and Georgia over the waters of the Alabama-Coosa-Tallapoosa and the Apalachicola-Chattahoochee-Flint River basins. One of the major issues inhibiting the ability of the states to resolve their conflicts has been the requirements of multiple federal statutes affecting interstate water resources. This case study is summarized in George William Sherk, *The Management of Interstate Water Conflicts in the Twenty-First Century: Is It Time to Call Uncle?*, 12 N.Y.U. ENVTL. L.J. 764, 769-813 (2005). See also Joseph W. Dellapenna, *Interstate Struggles over Rivers: The Southeastern States and the Struggle over the 'Hooch*, 12 N.Y.U. ENVTL. L.J. 828, 830, 864-80 (2005).

39. Jeffrey P. Featherstone, *Existing Interstate Compacts: The Law and the Lessons*, 4 TOL. J. GREAT LAKES' L., SCI. & POL'Y 271, 274 (2001) [hereinafter Featherstone, *Existing Interstate Compacts*] (emphasis added) (citing Jerome C. Muys, *Approaches and Considerations for Allocation of Interstate Waters*, in WATER LAW: TRENDS, POLICIES AND PRACTICE 311, 311 (Kathleen Marion Carr & James D. Crammond eds., 1995) and George William Sherk, *Resolving Interstate Water Conflicts in the Eastern United States: The Re-Emergence of the Federal-Interstate Compact*, 30 WATER RESOURCES BULL. 397 (1994)). See also Richard A. Cairo, *Dealing with Interstate Compact Issues: The Federal-Interstate Compact Experience*, in CONFLICT AND COOPERATION, *supra* note 25, at 120, 122; McCormick, *Interstate Water Allocation*, *supra* note 29, at 393 (failure “to account for these

To address this Gordian Knot, the Model Compact would permit adaptation to reflect the views of the National Water Commission, contained in *Water Policies for the Future*, recommending the federal-interstate compact as the preferred institutional arrangement for water resources planning and management in multistate regions.⁴⁰ The Model Compact could be relatively easily converted into a federal-interstate water compact if (a) the United States is made a signatory party; (b) the federal representative is made a voting member of the Commission; and (c) the federal representative has both the authority and the duty to bind federal agencies, to the extent of their discretionary authority, to decisions of the Commission. The four most recent compacts have included such provisions, which, if successful, could have provided “the long-sought linkage between federal and state planning and program implementation.”⁴¹ The effectiveness of any approach utilizing a single federal representative has been questioned⁴² but, unlike the Delaware River Basin Compact, the Model Compact does not obligate a

federal claims in negotiating the allocation of water could result in a state being unable to use its share of compact water”); Jeffrey P. Featherstone, *Interstate Organizations for Water Resources Management* (paper presented at the 2001 Ann. Meeting of the Am. Pol. Sci. Ass’n, San Francisco, Cal.) [hereinafter Featherstone, *Interstate Organizations*].

40. NAT’L WATER COMM’N, *WATER POLICIES FOR THE FUTURE* 424 (1973) (Recommendation No. 11-18). The Commission recommendation was based on an extensive study of interstate water compacts. See JEROME C. MUYS, *INTERSTATE WATER COMPACTS* 388 (Legal Study 14 for the Nat’l Water Comm’n, U.S. Dep’t of Commerce, Nat’l Technical Info. Serv. Rep. NWC-L-71-011, 1971) [hereinafter MUYS, *INTERSTATE WATER COMPACTS*]. For an excellent analysis of the 40-year track record of the federal-interstate compact model, see Jeffrey P. Featherstone, *An Evaluation of Federal-Interstate Compacts as an Institutional Model for Inter-Governance Coordination and Management of Water Resources for Interstate River Basins in the United States* (Aug. 1999) (unpublished Ph.D. Dissertation, Temple University).

41. Jeffrey P. Featherstone, *Water Resources Coordination and Planning at the Federal Level: The Need for Integration*, *WATER RESOURCES UPDATE*, No. 104, Summer 1996, at 52, 54 (1996).

42. The founders of the DRBC [Delaware River Basin Commission] attached considerable importance to the single federal agent as the coordinator of federal action in the basin. This role did not materialize. The federal representative has not been able to speak authoritatively for the federal government. As noted by Derthick (1974) who performed research on the DRBC and other interstate organizations in the early 1970s, the federal member role evolved into more of an ambassador, reporting the various, often conflicting positions of federal agencies without resolving them. Derthick pointed out that the federal government has been a reluctant partner in the compact commissions: “The dominant aim of the federal agencies has been to avoid making commitments through the DRBC. The federal member has been in an anomalous position. He is supposed to represent the interests of the federal government that has never been convinced its interests are being served by his being there.”

Featherstone, *Existing Interstate Compacts*, *supra* note 39, at 281 (citing MARTHA DERTHICK & GARY BOMBARDIER, *BETWEEN STATE AND NATION: REGIONAL ORGANIZATIONS OF THE UNITED STATES* (1974)). *Accord* Featherstone, *Interstate Organizations*, *supra* note 39.

single individual to represent the multiplicity of federal interests. The approach embodied in the Model Compact provides for representation and participation in Council and Division activities by a number of federal agencies having water allocation and management responsibilities. It is the authors' hope that this approach, when combined with a single federal representative on the Commission, will be an effective means of facilitating intergovernmental cooperation and agreement.

The federal-interstate compact approach was opposed by one member of the Advisory Committee representing the Federal Energy Regulatory Commission. This representative was firmly of the opinion that Congress should in no way limit the discretionary authority of federal agencies because any such limitation would "upset" both the expectations of parties dealing with the agency (e.g., existing licensees and permittees) and an asserted "balance" of authority over interstate water resources.

Article 11.1 of the Delaware River Basin Compact provides that

(a) The planning of all projects related to powers delegated to the [Delaware River Basin] Commission by this compact shall be undertaken in consultation with the Commission; (b) No expenditure or commitment shall be made for or on account of the construction, acquisition or operation of any project or facility nor shall it be deemed authorized, unless it shall have first been included by the Commission in the comprehensive plan; (c) Each federal agency otherwise authorized by law to plan, design, construct, operate or maintain any project or facility in or for the basin shall continue to have, exercise and discharge such authority except as specifically provided by this section.⁴³

Similar language is contained in Article 12 of the Susquehanna River Basin Compact.⁴⁴

The language of Article 11.1 of the Delaware River Basin Compact was clearly designed to require federal, state, and local water agencies to conform their projects to the Commission's comprehensive plan. Since the content of the comprehensive plan is determined by a majority vote of the Delaware River Basin Commission, this meant that a state or the Federal Government could be required to shape its projects to a plan with which it was not in agreement. The federal agencies strongly objected to this and persuaded Congress to add reservation(s) to the consent legislation, providing in pertinent part that

43. Delaware River Basin Compact, Pub. L. No. 87-328, pt. I, art. 11.1, 75 Stat. 688, 700-01 (1961).

44. Susquehanna River Basin Compact, Pub. L. No. 91-575, art. 12.1, 84 Stat. 1509, 1524-25 (1970).

whenever a comprehensive plan, or any part or revision thereof, has been adopted with the concurrence of the member appointed by the President, the exercise of any powers conferred by law on any officer, agency or instrumentality of the United States with regard to water and related land resources in the Delaware River Basin shall not substantially conflict with any such portion of such comprehensive plan and the provisions of Section 3.8 and Article 11 of the Compact shall be applicable to the extent necessary to avoid such substantial conflict.⁴⁵

Reservation(s) further provide(s) that the President may “suspend, modify or delete” any provision of the comprehensive plan affecting federal interests when he “shall find...that the national interest so requires.”⁴⁶

A number of federal public land management and environmental protection statutes contain similar “consistency” provisions.⁴⁷ Many of these statutory provisions, however, lack both certainty and predictability and

45. Delaware River Basin Compact, pt. II, art. 15.1(s)(1), 75 Stat. 688, 716 (one of a set of reservations specified by article 15.1). Similar language was contained in the Alabama-Coosa-Tallapoosa River Basin Compact, art. VII, 111 Stat. 2233, 2239-40 (1997), and the Apalachicola-Chattahoochee-Flint River Basin Compact, art. X, 111 Stat. 2219, 2225 (1997).

Delaware River Basin Compact reservations also provide that “concurrence by the member appointed by the President shall be presumed unless within 60 days after notice to him of adoption of the comprehensive plan, or any part or revision thereof, he shall file with the Commission notice of his nonconcurrence.” Delaware River Basin Compact, pt. II, art. 15.1(s)(2), 75 Stat. at 716. Similar language is contained in the Alabama-Coosa-Tallapoosa River Basin Compact, art. VII(a), 111 Stat. at 2237, and the Apalachicola-Chattahoochee-Flint River Basin Compact, art. VII(a), 111 Stat. at 2223.

46. Delaware River Basin Compact, art. 15.1(s)(1), 75 Stat. at 716.

47. See, e.g., Coastal Zone Management Act of 1972, Pub. L. No. 92-583, § 307, 86 Stat. 1280, 1285 (codified as amended at 16 U.S.C. § 1456(c)(1) (2000)) (federal activities to be consistent with state coastal zone management programs “to the maximum extent practicable”); Federal Land Policy and Management Act of 1976, Pub. L. No. 94-579, § 202, 90 Stat. 2743, 2748 (codified as amended at 43 U.S.C. § 1712(c)(9) (requiring coordination of federal land use and management by the Secretary of the Interior with state and local governments “to the extent consistent with the laws governing the administration of the public lands”). On the other hand, the Safe Drinking Water Act is direct and leaves little room for unilateral federal agency judgment:

Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government having jurisdiction over any potential source of contaminants identified by a State program...shall be subject to and comply with all requirements of the State program...applicable to such potential source of contaminants...in the same manner, and to the same extent, as any other person is subject to such requirements, including payment of reasonable charges and fees.

Safe Drinking Water Act Amendments of 1986, Pub. L. No. 99-339, § 205, § 1428(h), 100 Stat. 642, 662 (codified as amended at 42 U.S.C. § 300h-7(h) (2000)).

might easily be avoided unless the appropriate federal official is required to issue a formal decision detailing any alleged impracticability, inconsistency, or adverse effect of a proposed action on the national interest.⁴⁸

48. Regarding acceptance or rejection of state recommendations, see the Outer Continental Shelf Lands Act:

The Secretary shall accept recommendations of the Governor and may accept recommendations of the executive of any affected local government if he determines, after having provided the opportunity for consultation, that they provide for a reasonable balance between the national interest and the well-being of the citizens of the affected State. For purposes of this subsection, a determination of the national interest shall be based on the desirability of obtaining oil and gas supplies in a balanced manner and on the findings, purposes, and policies of this subchapter. The Secretary shall communicate to the Governor, in writing, the reasons for his determination to accept or reject such Governor's recommendations, or to implement any alternative means identified in consultation with the Governor to provide for a reasonable balance between the national interest and the well-being of the citizens of the affected State.

Outer Continental Shelf Lands Act Amendments of 1978, Pub. L. No. 95-372, § 19(c), 92 Stat. 629, 653 (codified at 43 U.S.C. § 1345(c) (2000)).

**ARTICLE V
INTERSTATE WATER APPORTIONMENTS**

A. *Interstate Base and Supplemental Apportionments*

This Compact makes a present annual apportionment of quantities of water to each signatory state from Basin waters within that state considered adequate to (1) first maintain stream flows to fulfill the requirements of applicable federal, state, and tribal laws and to maintain a healthy and productive Basinwide ecosystem in designated reaches of the system, in such amounts, and for such seasons or duration as shown in Appendix _____ and (2) provide additional flows to satisfy the use requirements of all perfected water rights derived from federal, state, or tribal law (base apportionment). As depicted in the table below, the requirements to satisfy these uses and certain non-consumptive uses, such as hydroelectric power generation, have been converted to a percentage of flows of the waters of the Utton River Basin. This Compact further provides for future supplemental apportionment by the Commission of reasonably predictable supplies in excess of the base apportionment to each state on a percentage basis at a reasonable price to be determined by the Commission, based primarily on comparable transactions in the Basin.

Base Flow Apportionments

River X	State	<i>Base</i>	<i>Percentage of Flows</i>
	A	___ AF	_____ percent
	B	___ AF	_____ percent
	C	___ AF	_____ percent
River Y			
	A	___ AF	_____ percent
	B	___ AF	_____ percent
	C	___ AF	_____ percent

The Basin's estimated safe annual yield of _____ acre feet (AF) to satisfy the base apportionments is based on an analysis of the average annual and seasonal flows for the entire period of record, the driest 10-year period of record, and the wettest 10-year period

of record, taking into account existing surface and underground storage facilities.

Entire period of record	___ AF
Driest ten-year period	___ AF
Wettest ten-year period	___ AF

Consequently, the base apportionment of ____ AF of flows is determined to be reasonably secure, as is the availability of excess water for further supplemental apportionments. If future availability deviates substantially from these water supply estimates so that the base or supplemental apportionments cannot be satisfied, the Commission is authorized to make appropriate equitable reductions of the perfected use rights portions of the apportionments. The Commission shall also develop criteria for the allocation of such shortages among the signatory states and specific triggers for the implementation of such use curtailments. If unanticipated impacts of federal environmental programs should substantially, disproportionately, and adversely affect a state's apportionment, the Commission shall allocate that burden pro rata among all of the Basin states based on their respective shares of the total Basin apportionments unless the states agree on another formula.

B. *Intrastate Allocations*

Allocations of each state's apportionment to users or dedication to maintenance of adequate flows shall be determined by each state in accordance with applicable law. The Commission shall have no permitting authority with respect to such allocations, but shall provide assistance and advice if requested.

C. *Adjustment to Base Apportionments*

For a period of three (3) years from the effective date of this Compact, or such longer period as the Commission may provide, any signatory state may petition the Commission for an upward adjustment of its base period apportionment to account for perfected rights that were inadvertently not recognized for any reason. The Commission shall not impose any charge for additional water that may be added to a state's base apportionment.

D. *Supplemental Apportionments*

(1) No later than three (3) years after the effective date of this Compact, the Commission shall determine the amount of Basin water reasonably likely to be available above base apportionments for supplemental apportionment on a sustainable basis for the following five (5) years and shall

make annual adjustments to the initial determination as new hydrologic data and use levels may dictate.

- (2) At the time of its initial determination, the Commission shall announce the terms and conditions, including price, for acquisition of supplemental apportionments and invite applications from each state for a portion or all of its percentage entitlement to such water. Water for claimed rights that were being diligently developed but were not perfected on the effective date of this Compact may be afforded a priority when the Commission considers applications for supplemental apportionments.
- (3) The terms and conditions announced by the Commission shall include as a condition to the receipt of any supplemental apportionment the extent to which any party applying for such an apportionment has been successful in conserving the water resources of the Utton River Basin or is implementing initiatives to achieve such conservation.
- (4) Each supplemental state apportionment shall be for an initial five (5) year period, subject to renewal for the same period (a) on terms and conditions required by law at that time, (b) at a price to be determined by the Commission based primarily on transactions between willing sellers and buyers in the region, and (c) at the same, reduced, or increased levels as the estimates of available water supply, the states' records of reasonable beneficial use, and the wishes of the states may dictate. The Commission shall not charge for water for (a) perfected rights that were inadvertently omitted from base apportionments, (b) claimed rights that were not fully perfected at the time of compact negotiation, and (c) maintenance of adequate stream flows above levels in the base apportionments.

E. *Transfers of Apportionments*

Signatory states may make such portion of their unused base apportionments or any supplemental apportionments available to other states or to the Commission for such periods, upon such terms and conditions, and for such consideration, if any, as the parties may negotiate unless the Commission after notice and hearing disapproves the transfer after determining that it would cause substantial injury to another signatory party.

F. *Monitoring of Apportionment Usage*

The Commission shall monitor water usage throughout the Basin and enforce the Compact apportionments, giving credit for the use of imported or developed water. It shall provide de minimis exemptions for various kinds of uses, recognize a reasonable

margin of error in measurement methodology, employ a system of debits and credits for under- and over-uses or deliveries with provision for a quantity limitation on such debits and requiring overuse payback over a reasonable period, and establish similar reasonable rules and procedures to monitor the apportionments in an equitable and efficient fashion.

G. *Measurement and Apportionment Chargeability of Subsurface Water Usage*

Within three (3) years of the effective date of this Compact, or such longer period as the Commission may provide, each state shall implement reasonably uniform systems for the estimation or actual measurement of the extraction and consumptive use of subsurface waters hydrologically connected to the Basin surface flows. After that date, the consumptive use of such waters shall be charged to each state's base or supplemental apportionment in amounts and for appropriate time periods based upon Commission-approved numeric models.

H. *Apportionments Limited By Reasonable Beneficial Use*

- (1) Within three (3) years of the effective date of this Compact, the Commission shall complete an investigation of standards and procedures applied by the signatory parties for determining "reasonable beneficial use" for various uses throughout the Basin. Within two (2) years thereafter, the Commission shall recommend standards and procedures for determining reasonable beneficial use for such uses, taking into account different climatic and soil conditions, cropping patterns, efficiency of conveyance facilities, adequacy of measurement devices, per capita usage of comparable domestic users, cultural requirements, and other relevant considerations.
- (2) To the maximum extent practicable, each state shall make reasonable beneficial use of its apportionment pursuant to the Commission recommendations and shall have primary responsibility for enforcing such recommendations. Based upon allegations by another signatory party that failure of a state to make reasonable beneficial use of its apportionment has caused substantial injury to the complaining party, the Commission shall be authorized, after notice and hearing, to
 - (a) make an appropriate phased reduction in the state's base and/or supplemental apportionment in an amount that the Commission determines could have been conserved had the recommended standards and procedures been implemented and
 - (b) make such water available for supplemental

apportionment to the complaining and other signatory parties.

- (3) The disposition of waters conserved by a signatory party or users subject to its jurisdiction shall be controlled by applicable law. The signatory state may provide that such water may be transferred to other intrastate or interstate users upon such terms and conditions, and for such consideration, if any, as the parties may negotiate and the signatory party approves. Interstate transfers or banking shall require Commission approval. Within two (2) years of the effective date of this Compact, the Commission shall promulgate regulations governing the determination of the chargeability of such transfers to the Compact apportionments of the signatory states.
- (4) If the signatory party acquires such conserved water, it may transfer its interest to the Commission for such purposes, and upon such terms and conditions, and for such consideration as the parties may negotiate, including but not limited to supplemental apportionment to other states, maintenance of adequate flows or other environmental values throughout the Basin, or banking of such conserved water for future use by the conserving state.

**ARTICLE V COMMENTARY
INTERSTATE WATER APPORTIONMENTS**

A. The Apportionment Scheme

Article V rests on several basic premises. First is that adequate stream flows should be maintained in each state in the Basin to provide a healthy ecosystem, without which any long-term allocation and management agreement could be doomed to recurrent conflict or failure. Second is that all existing rights in each state at the time of compact execution should be protected to the extent they have been perfected under state or federal law. These environmental stream flow and perfected rights requirements would be established during compact negotiations from water use records for administratively permitted or judicially adjudicated water rights and other information to establish a “base apportionment” of enough water to satisfy them. Water that the Commission later reasonably estimates would be available in excess of the amount of the base apportionments would be allotted periodically to the states as “supplemental apportionments.”

(1) Apportionments Based on Estimated Safe Annual Yield

The water supply premise of the Model Compact is that the “safe annual yield” of the Basin is more than adequate to satisfy the two components of the base apportionment. The definition of “safe annual yield” contained in Article III.K was developed by the authors based on a review of a number of sources and definitions.⁴⁹

The basis for the safe annual yield estimate would be set out in the Compact with the further provision that if and when future availability deviates “substantially” (perhaps defined in the compact or subsequent regulation) from these water supply estimates so that the base apportionments cannot be satisfied, the Commission is authorized to make appropriate equitable reductions of the perfected use rights of the base apportionments, most likely on a pro rata basis unless the Compact has provided another formula. The reason for such specification of the original water supply predictions is based on the experience under the Colorado River Compact, which established apportionments and obligations based on projections extrapolated from the best hydrologic data at the time, which unfortunately have not materialized. Although there is little disagreement

49. See, e.g., UTAH DIV. OF WATER RESOURCES, UTAH’S WATER RESOURCES: PLANNING FOR THE FUTURE 67 (2001), http://www.water.utah.gov/planning/SWP/SWP2001/SWP_pff.pdf (defining “safe yield”).

as to the data the Compact negotiators relied on, it must be extracted from the minutes of the negotiations and reports of the negotiators to their states and Congress. Consequently, it seems desirable to perpetuate expressly in any compact the actual data and projections that the negotiators relied on so that there can be no disagreement if and when their expectations are not realized and adjustments are deemed necessary.

(2) *The Apportionment Methodology*

The compact negotiators, having determined that enough water to maintain adequate environmental flows and satisfaction of all perfected rights in the Basin should be included in the base apportionments, have a number of options for defining the base apportionments to each state. Existing compacts reflect a number of different allocation approaches. One review has found six general allocation methodologies: (1) the prior appropriation doctrine, (2) specific quantities of water measured in terms of beneficial consumptive use, (3) specific diversion rights measured in fixed percentages of available flow, (4) the amount of actual storage permitted in existing or future reservoirs, (5) outflow as a proportion of actual inflow, and (6) combinations of the above.⁵⁰ Obviously, the unique or special circumstances of a particular basin will dictate the appropriate methodology. However, based on studies of various apportionment methodologies and the recommendations of Advisory Committee members and other knowledgeable commenters, the Model Compact quantifies the base apportionments as percentages of flow volumes, primarily because of the relative ease of measurement for monitoring purposes and the fact that this approach appears to most equitably and effectively allocate the risk of shortages between upstream and downstream states and minimize incentives for non-compliance.⁵¹

With respect to supplemental apportionment of any water that the Commission determines is available after satisfaction of the base apportionments, again several methodologies are available for defining each state's share. One approach would be for each state to receive a percentage share of such surplus water based on its percentage share of the

50. Simms et al., *supra* note 30, at 23-8. See also Zachary L. McCormick, *The Use of Interstate Compacts to Resolve Transboundary Water Allocation Issues* 471-78 (1984) (unpublished Ph.D dissertation, Oklahoma State University); Douglas Kenney, *Resolving Interstate Water Allocation Conflicts: Tools, Strategies, and Administrative Options* (paper presented at the Ann. Conf. of the S. Reg. Info. Exchange Group, Nat. Resources Econ. Comm., May 18, 1995).

51. See Lynne Lewis Bennett, *The Economics of Interstate River Compacts: Efficiency, Compliance, and Climate Change* (1994) (unpublished Ph.D. dissertation, Univ. of Colo.); Lynne Lewis Bennett & Charles W. Howe, *The Interstate River Compact: Incentives for Non Compliance*, 34 WATER RESOURCES RES. 485, 485-95 (1998).

total base apportionments. Another might be to award each state an equal percentage share on a principle of sovereign parity. A third could be to authorize the Commission to make an administrative “equitable apportionment” based on specific factors used by the Supreme Court or on other reasonable factors set out in the compact, *e.g.*, land areas in the basin, water contribution to the total Basin resource, population, conservation efforts, etc. Whatever method is chosen by the negotiators, the Model Compact assumes that the states will negotiate their appropriate percentage shares and include them in the compact. Each state’s right to the resulting percentage of entitlements would be subject to two principal conditions: (1) implementation of a water conservation program and (2) payment for certain classes of supplemental water at prices established by the Commission based primarily on transactions between willing sellers and buyers in the Basin.

B. *Intrastate Allocations*

The Model Compact makes it clear that the Commission shall have no authority to issue individual permits or other entitlements to the waters included within the base and supplemental apportionments to each state. Such intrastate allocations to users or dedications to maintenance of adequate flows shall be made or adjudicated by each state in accordance with applicable law.

C. *Base Apportionments*

As to the first basic objective of the base apportionments, there is little, if any, disagreement that a principal shortcoming of most state water allocation systems, at least in the West under the prior appropriation system until relatively recently, was the failure to provide for maintenance of an adequate level of instream flows that would not be subject to diversion and consumptive use for traditional beneficial purposes.⁵² Article V would make such flows the first priority in the establishment of the base apportionments under the Model Compact.

Protection and satisfaction of all existing perfected water rights is the second priority and is designed to actually implement statements found in almost all existing compacts declaring that all valid existing rights at the time of its execution were to be satisfied, honored, or otherwise remain unimpaired. It is not only designed to avoid having agreement on interstate

52. See, *e.g.*, Stephen J. Shupe, *Keeping the Waters Flowing: Stream Flow Protection Programs, Strategies and Issues in the West*, in *INSTREAM FLOW PROTECTION IN THE WEST* ch. 1 (Lawrence J. MacDonnell et al. eds., 1989).

apportionments result in an unintended taking of existing rights, as in *Hinderlider v. La Plata & Cherry Creek Ditch Co.*,⁵³ but should serve as an inducement to water rights holders to support their state's participation in the compact program. Moreover, the Supreme Court has stated that in applying the array of equitable factors to be considered in effecting an "equitable apportionment," "so far as possible...established uses should be protected."⁵⁴ Defining "perfected" rights will be a critical challenge to the compact negotiators. The definition in the Model Compact is based on the Supreme Court's decision in *Arizona v. California*,⁵⁵ but some argued in that case that it meant more than actual maximum use under a claimed right and should be measured by the capacity of constructed works.

A number of commenters suggested that the assumption that the estimated "safe annual yield" will be adequate to take care of all perfected rights in most basins may be too rosy and asked how base apportionments will be made in basins that may already be overappropriated. The authors believe that the compact negotiators should nevertheless proceed with gathering the necessary information regarding perfected rights. If they exceed the safe annual yield, a percentage share of the latter could be apportioned to each state based upon its percentage share of the total perfected rights, just as the Commission is authorized to do in times of significant shortages in the safe annual yield upon which all base apportionments are established. The Commission would also play an important role in (1) establishing and enforcing reasonable beneficial use standards throughout the Basin to make more water available through conservation (Article V.H), (2) facilitating interstate water marketing to move the available supply around more efficiently among willing sellers and buyers (Article IV.B(3)(k)), and (3) promoting conjunctive use of available storage reservoirs (Article VIII.C). Whatever approach is taken in the overappropriated basins, it is essential to remember that the only alternative would probably be interstate litigation in the Supreme Court, which would be time-consuming, expensive, and unlikely to produce a better result for all parties than the compact approach suggested above, or surrendering their fate to the uncharted waters of congressional intervention.⁵⁶

53. 304 U.S. 92, 95-97 (1938).

54. *Nebraska v. Wyoming*, 325 U.S. 589, 618 (1945) (No. 6, Orig.).

55. 373 U.S. 546, 566, 622 (1963) (No. 8, Orig.).

56. The words of Professor Charles Meyers may be prophetic:

Water resource development will increasingly involve river basin management, and operations will transgress state lines and require large federal expenditures. Such basin development plans must necessarily come before Congress, and it is a highly appropriate time when they do so to settle interstate conflicts over water allocation. Without such a settlement

There was a relative paucity of data on existing rights and uses when most of the existing water allocation compacts were negotiated. For example, when the Colorado River Compact was negotiated in 1922 the initial efforts to establish individual apportionments for the seven Basin states based on estimates of irrigated and irrigable acreage were abandoned after several months of negotiations because the states generally exaggerated the essentially unknown extent of their existing and potential development. Instead, based loosely on a concept of sovereign parity (a 50/50 split), the negotiators made an interbasin apportionment of beneficial consumptive use of 7.5 million acre-feet (MAF) to the Upper Basin and 8.5 MAF to the Lower Basin on the assumption (which has turned out to be in error) that there was enough water in the Basin to satisfy those uses and still have a surplus of 4 or 5 MAF for later apportionment in 1963.⁵⁷

Today there are much more reliable data on the extent of existing rights and uses, as well as extensive hydrologic data. As to the former, there have been much piecemeal water rights litigation and even more extensive comprehensive stream adjudications since enactment of the McCarran Amendment in 1952, primarily in the West.⁵⁸ But even in the mid-western and eastern states, the advent of regulated riparianism has provided administrative mechanisms to get a better handle on the present and potential extent of riparian uses.⁵⁹ Similarly, sophisticated aerial and satellite photography has provided a means to ascertain the extent of past, present, and potential irrigation, while the development of urban water districts has provided substantial information on municipal and domestic uses. Estimates of the current consumptive use requirements of all perfected water rights throughout the basin and/or their associated diversion requirements, including rights and uses by federal and Indian reservations (not addressed in existing compacts), would be provided by the states, the United States, and Indian tribes during compact negotiations and would be

development cannot go forward.

Charles Meyers, *The Colorado River*, 19 STAN. L. REV. 1, 48 (1966). See also David H. Getches, *The Metamorphosis of Western Water Policy: Have Federal Laws and Local Decisions Eclipsed the States' Role?*, 20 STAN. ENVTL. L.J. 3, 24 (2001) (noting that state influence over water policy has declined to the point that the states "risk obsolescence" at the same time that both federal and local influences over water policy have increased in importance).

57. See DANIEL TYLER, *SILVER FOX OF THE ROCKIES: DELPHUS E. CARPENTER AND WESTERN WATER COMPACTS* ch. 5 (2003).

58. See generally John E. Thorson et al., *Dividing Western Waters: A Century of Adjudicating Rivers and Streams, Part II*, 9 U. DENV. WATER L. REV. 299 (2006).

59. See A. DANIEL TARLOCK, *LAW OF WATER RIGHTS AND RESOURCES*, §§ 3:93-3:99 (2006). See also George William Sherk, *East Meets West: The Tale of Two Water Doctrines*, 5 WATER RESOURCES IMPACT No. 2, Mar. 2003, at 5, 5-8; Joseph W. Dellapenna, *Issues Arising Under Riparian Rights: Replacing Common-Law Riparian Rights with Regulated Riparianism*, in WATER RIGHTS OF THE EASTERN UNITED STATES 5 (Kenneth R. Wright ed., 1998).

based on adjudicated rights, claimed rights in pending adjudications, or, where no adjudication is completed or pending, the best estimates of present uses by appropriate officials based primarily on, but not limited to, permitted appropriative or riparian uses, urban water use records, aerial photos of irrigated agricultural lands, and records of subsurface water pumping.

Quantifying unadjudicated Indian reserved water rights claims for their reservations, which are generally quite large, will present a special challenge to the Compact negotiators. If the full amount of such claims is included in a state's base apportionment and a final adjudication or settlement of those claims is lower, which seems likely, the state's base apportionment will have been substantially overstated for some period of time. If none of the claim is included until final adjudication or settlement, the tribe might be deprived unfairly of *any* uses for an extended period. A reasonable compromise might be to include in a state's base apportionment an amount equal to the maximum amount of water historically put to use by the tribe at the time of the compact's execution and the remainder of the claim, when finally adjudicated or settled, included in a supplemental apportionment by the Commission under Article V.D. The Model Compact assumes that such a procedure will be adopted.

In a like vein, almost none of the negotiations of the existing compacts assembled data on the flow requirements needed to maintain healthy ecosystems and in most cases, apparently, the negotiators expressed little, if any, concern about that issue. For example, the minutes of the negotiations of the Colorado River Compact do not even mention the subject, reflecting the water development culture of the time. Currently, on the other hand, there are exhaustive data and many interested and capable scientists eager to address the critical issue of the total amount of water that should be dedicated to maintaining adequate stream flows throughout the entire basin, recognizing that the timing and magnitude of required flows will vary depending on both intra- and inter-seasonal variability and on their purposes and location. Experience with the ACT-ACF (Alabama-Coosa-Tallapoosa and Apalachicola-Chattahoochee-Flint) negotiations and the releases from Glen Canyon Dam to meet the requirements of the Colorado River Compact and the Colorado River Storage Project Act suggest that this may not be an easy issue to address, so that a negotiated rough approximation may be necessary. Consequently, the Model Compact does not propose any particular methodology but simply stresses the importance of using reliable data to determine adequate flows, the need for monitoring such flows and providing authority to make necessary changes when appropriate.

D. *Supplemental Apportionments*

The second leg of the interstate apportionment system is the Commission's post-compact supplemental interstate apportionment of water determined to be surplus to the amount required to satisfy the base apportionments. The principal differences between the base apportionments and the supplemental apportionments is that the former are designed to provide enough water to satisfy *all* existing perfected rights and environmental flow requirements in each state at the time of Compact negotiation, whatever they may be, whereas the latter would be negotiated percentages establishing each state's share of predicted surplus flows to be made available on a short-term, renewable basis subject to specific conditions and at reasonable prices established by the Commission.

The authority proposed for the Commission to establish reasonable prices for supplemental apportionments will undoubtedly be controversial, but the authors believe that recognizing the economic value of water as a market commodity, as long advocated by many economists, is a concept whose time has finally arrived, just as has water marketing among users. The Commission would only charge a state for previously uncommitted water and not for water to satisfy (1) rights that may have inadvertently been omitted from a state's claimed perfected rights at the time of compact negotiation, (2) rights that were in the process of being perfected at that time, and (3) water to be dedicated to the maintenance of adequate flows for environmental purposes. It seems likely that most of the water coming with a price tag would be for future domestic, municipal, and industrial needs, including power generation. Presumably a state would pass those costs on to such users as part of its water allocation procedures.

E. *Transfers of Apportionments*

The authors assume that if a state had no need for its full supplemental apportionment entitlement it might nevertheless purchase the apportionment and sell a percentage of it to a sister state that did need an increase, at a modest markup. The agreement between Nevada and Arizona where Nevada purchased some of Arizona's unused annual Secretarial apportionment from Lake Mead for storage underground in Arizona until such time as Nevada needs it may be a useful model.⁶⁰

For the last dozen years or so, arguments have been exchanged by Upper and Lower Basin lawyers in the Colorado River Basin as to whether

60. The evolution and components of the agreement between Nevada and Arizona are detailed in James H. Davenport, *Colorado River Interstate Water Banking*, WATER REP. July 15, 2005, at 11.

the Colorado River Compact, which is silent on interbasin transfers, nevertheless impliedly prohibits them. The Model Compact is designed to facilitate the mushrooming practice of water marketing by encouraging and expressly permitting the states or their citizens (with their state's approval) to enter into interstate marketing agreements for some of their base or supplemental apportionments, subject to Commission review of such proposals' impact on the other signatory parties and Commission programs. A 2004 study of recent drought damages in the Rio Grande Basin concluded that such damages could be substantially reduced in the future through short-term interstate water marketing.⁶¹

F. *Subsurface Water Use and Chargeability*

Most existing compact allocations do not clearly address, if at all, the relationship between uses of surface water and hydrologically connected subsurface water. This failure may subject the states to chargeability of such subsurface uses to their surface water allocations (and thereby possibly injure pumpers who may have relied on the state's assurance that their pumping was lawful). In *Kansas v. Colorado*,⁶² the Supreme Court held that the provision of the 1949 Arkansas River Compact providing that "the waters of the Arkansas River [reaching Kansas at that time]...shall not be materially depleted in usable quantity or availability"

61. James F. Booker et al., *Economic Impact of Alternative Policy Responses to Prolonged and Severe Drought in the Rio Grande Basin*, 41 WATER RESOURCES RES., W02026 (Feb. 2005).

Using an integrated hydrologic, economic and institutional model to examine a range of alternative policy responses, we find some reductions in drought damages result from policies such as intracompact market water transfers. Larger reductions in drought damages are produced by interstate market policies that reallocate scarce supplies to the highest-valued uses. However, that kind of policy requires additional institutional flexibility to allow water exchanges across state lines. There are rarely public policy changes that do not involve costs, and any introduction of water marketing across state lines will be subject to considerable debate and scrutiny.

* * *

Overall, compared to existing water allocation institutions, we find that future drought damages could be reduced by 20% to 33% per year under the most serious drought through intracompact and interstate water markets, respectively, that would extend across current water management jurisdictions.

For an overview of the "promise and prospects of water markets" and citations to some of the best sources on the subject, see Robert Glennon, *Water Scarcity, Marketing, and Privatization*, 83 TEX. L. REV. 1873 (2005).

62. 514 U.S. 673 (1995) (No. 105, Orig.).

was violated by post-compact increased pumping by Colorado from pre-compact wells.⁶³

Similarly, in *Kansas v. Nebraska*,⁶⁴ a dispute over the chargeability of certain subsurface uses to Nebraska's allocation under the Republican River Compact, Nebraska moved to dismiss Kansas's complaint on the grounds that

(1) the Compact, by its plain and unambiguous terms, does not apportion or allocate consumption of ground water; (2) [the Supreme] Court and the Compact states have previously interpreted the Compact as an agreement regarding rights to surface water as distinguished from groundwater; and (3) the parties did not intend to apportion groundwater under the Compact.⁶⁵

The Special Master rejected that argument and concluded that the Compact's allocation of the "virgin water supply within the Republican River Basin" included both the surface flows and the hydrologically connected ground water and "restricts [Nebraska's] groundwater consumption to whatever extent it depletes stream flow in the Republican River Basin."⁶⁶ In denying Nebraska's motion to dismiss, the Supreme Court agreed.⁶⁷ The parties subsequently settled the case and promptly adopted a sophisticated groundwater model to determine the amount, location, and timing of streamflow depletions to the Republican River caused by well pumping and to determine streamflow accretions from recharge of water imported from the Platte River Basin.⁶⁸ A similar issue has been raised by both Texas and New Mexico with respect to the chargeability of pumping of subsurface waters by each state under the Rio Grande Compact.

The Advisory Committee strongly advocated including use of subsurface water hydrologically connected to surface water in compact

63. *Id.* at 690.

64. 538 U.S. 720 (2003) (No. 126, Orig.) (Decree).

65. Second Report of the Special Master at 20–21, *Kansas v. Nebraska*, 538 U.S. 720 (Apr. 15, 2003). See *Kansas v. Nebraska*, 538 U.S. 720 (approving Final Settlement Stipulation accompanying Second Report). See also Republican River Compact, ch. 104, 57 Stat 86 (1943).

66. First Report of the Special Master at 1–3, *Kansas v. Nebraska*, 528 U.S. 1151 (Feb. 28, 2000) (No. 126, Orig.).

67. *Kansas v. Nebraska*, 530 U.S. 1272 (2000) (No. 126, Orig.).

68. *Kansas v. Nebraska*, 538 U.S. 720. The model is set forth in the Final Report of the Special Master, *Kansas v. Nebraska*, 540 U.S. 964 (Oct. 20, 2003) (No. 126, Orig.). For a discussion of the legal and technical issues involved in the Republican River Compact controversy, see Kenneth W. Knox, *The Allocation of Interstate Ground Water: Evaluation of the Republican River Compact as a Case Study* (2004) (unpublished Ph.D. dissertation, Colorado State University).

apportionments. Consequently, the Model Compact provides a three-year period for the states to adopt reasonably uniform systems to measure such subsequent uses, perhaps modeled after that used in the Republican River Compact litigation, after which they would be charged against a state's apportionments. Some commenters suggested that three years might not be a long enough lead time.

G. Reasonable Beneficial Use

Section 8 of the Reclamation Act of 1902 provides that “beneficial use shall be the basis, measure and limit” of any water rights acquired under that Act.⁶⁹ Most western states have similar language in their constitutions or statutes, as well as statutory prohibitions against the “waste” of water, i.e., the amount of water applied to particular beneficial uses must be “reasonable.” These two concepts have merged into “reasonable beneficial use” as the dominant guiding principle of western water use, i.e., water rights attach to only the amount of water reasonably applied to a beneficial use, either consumptive or non-consumptive. Although beneficial uses generally span a broad consensus-based spectrum, application of the reasonableness standard of water application to such uses is neither relatively uniform nor aggressively enforced. One of the Advisory Committee members said bluntly that “no state has had the courage to set meaningful standards for reasonable beneficial use.” Whether that is true or not, the authors are convinced that the principal long-term source of “new” water for expanding populations and environmental values will come from increased conservation efforts. A major component of this effort must necessarily be more aggressive enforcement of a clearly defined reasonable beneficial use standard.

The Supreme Court has already applied this concept in its interstate equitable apportionment decisions. In *Wyoming v. Colorado*,⁷⁰ the Court applied “reasonable use” as an important criterion, stating that “the doctrine [of prior appropriation applied in each state and used as the basis for the Court’s decision] lays on each of these states a duty to exercise her right [in the Laramie River] *reasonably and in a manner calculated to conserve the common supply.*”⁷¹ The expansive list of equitable considerations later set forth in *Nebraska v. Wyoming*⁷² included “the practical effect of wasteful uses on downstream areas.”⁷³ “Wasteful uses” were later given careful attention

69. Reclamation (National Irrigation or Newlands) Act, ch. 1093, § 8, 32 Stat. 388, 390 (1902) (codified at 43 U.S.C. § 372 (2000)).

70. 259 U.S. 419 (1922) (No. 3, Orig.).

71. *Id.* at 484 (emphasis added).

72. 325 U.S. 589 (1945) (No. 6, Orig.).

73. *Id.* at 618.

in *Colorado v. New Mexico*.⁷⁴ In the first round of the Vermejo River dispute, the Court relied on *Wyoming v. Colorado*⁷⁵ in making it clear that the availability of “reasonable conservation measures” to reduce both Colorado’s proposed upstream diversion and New Mexico’s existing uses was an important consideration and that the states had “an affirmative duty to take reasonable steps to conserve and augment the water supply of an interstate stream.”⁷⁶ The Court remanded the case to the Special Master for more specific findings on the conservation issues, but on review of those findings the Court later concluded that Colorado had not established by the requisite “clear and convincing evidence” that its proposed diversion should be permitted.⁷⁷

Contemporaneously with its *Vermejo* decisions, the Court held in *Idaho v. Oregon & Washington*⁷⁸ that the doctrine of equitable apportionment applied in its interstate water cases was equally applicable to a dispute among the three states over their respective shares of the anadromous fish in the Columbia-Snake River system. The basic principle it applied was that “states have an affirmative duty under the doctrine of equitable apportionment to take reasonable steps to conserve and even to augment the natural resources within their borders for the benefit of other states.”⁷⁹ This awesome pronouncement of state responsibilities in using shared regional resources was not further refined because the Court concluded that Idaho had not proved a present injury and dismissed its complaint.

Considering that the “reasonable beneficial use” principle is applicable intrastate under both state and federal law and has been used repeatedly by the Supreme Court as an important factor of federal common law in its interstate equitable apportionment decisions, it seems entirely appropriate, if not mandatory, for an interstate compact commission implementing a negotiated equitable apportionment to clarify and strengthen application of the concept on a regional basis.

The approach proposed in the Model Compact is for the Commission to first review the application of the principle in the signatory states and then *recommend* (not impose) standards and procedures for determining reasonable beneficial use through the region. It is not intended to be a “one-size fits all” standard. Rather, the Commission is directed to recognize differences in the accepted components of the standard throughout the Basin where appropriate. The states would continue to have

74. 459 U.S. 176 (*Vermejo I*) (1982) (No. 80, Orig.); 467 U.S. 310 (*Vermejo II*) (1984) (No. 80, Orig.).

75. *Wyoming v. Colorado*, 259 U.S. 419 (1922) (No. 3, Orig.).

76. *Vermejo I*, 459 U.S. at 185, 187.

77. *Vermejo II*, 467 U.S. at 316–20.

78. 462 U.S. 1017 (1983) (No. 67, Orig.).

79. *Id.* at 1025 (emphasis added).

primary responsibility to enforce the recommended standards. However, upon complaint of another signatory party that failure of a Basin state to enforce the standard was causing it substantial injury by depriving it of water, the Commission, after notice and hearing, would be authorized to gradually reduce the wasting state's apportionment by the amount of water that could reasonably have been conserved by enforcement of the recommended guidelines and reapportion it to the complaining party and other states or parties.

This proposal will undoubtedly be controversial. Some state spokespersons have already complained, and others undoubtedly will, about this "intrusion" by the Commission into a highly sensitive area. However, the proposal is only for *recommended* guidelines and continuation of state enforcement of them until such time as a neighboring state complains and demonstrates, by clear and convincing evidence as required in *Vermejo*, that lack of enforcement is causing it substantial injury. The alternative, absent the compact, would be for the complaining state or states to bring an equitable apportionment action in the Supreme Court, based on the precedents cited above, alleging wasteful water use practices by the non-enforcing state or states that are causing it injury and seeking enforcement of the reasonable beneficial use standard. In short, it boils down to a choice by a non-enforcing state as to whether it wants to comply with the standards and enforcement authority of a commission comprised of the principal water management officials of its sister Basin states (all subject to the same standard) or the predilections and limited knowledge in this field of nine Supreme Court justices in Washington, D.C. and all that would cost. The choice seems clear to the authors, who hope it will be equally clear to the states in interstate river basins.

**ARTICLE VI
WATER QUALITY PROTECTION PROGRAM**

A. *Policy and Standards*

- (1) The Commission may (a) establish and enforce water quality standards and wasteload allocations and (b) enforce National Pollution Discharge Elimination System (NPDES) permits under the Clean Water Act for the interstate components of the Utton River Basin. The signatory states and Indian tribes shall exercise corresponding authority on the intrastate tributaries to such interstate streams.
- (2) The Commission may assume jurisdiction to abate existing pollution in the interstate waters of the Basin and control or prevent future pollution whenever it determines, after investigation, notice and hearing, and consultation with the Environmental Protection Agency (EPA), that pollution by sewage or industrial or other waste or excessive salinity originating within or flowing through or along a signatory state or Indian reservation threatens to injuriously affect interstate waters of the Basin. Upon such determination, the Commission may classify the interstate waters of the Basin and establish (a) reasonable chemical, physical, and biological guidelines for water quality for various uses and (b) standards of treatment of sewage, industrial, or other waste for such classes, including allowance for the variable factors of surface and subsurface waters, such as size of the stream or aquifer flow, movement, location, character, self-purification, and usage of the waters affected, and may adopt rules, regulations, and standards to abate existing pollution and prevent or control such future pollution, and to require such treatment of sewage, industrial, or other waste or alteration of certain land use practices within a reasonable time.
- (3) The Commission may establish a mechanism for the transfer of pollution allowances, including NPDES permits, consistent with the requirements of the Clean Water Act.
- (4) With respect to alleged violations of the Clean Water Act, the Commission may, after prompt investigation, notice, and hearing, order any person or public or private corporation or other entity to cease the discharge of sewage, industrial, or other waste into waters of the Basin or alter such irrigation or other land use practices that it determines to be in violation of its rules and regulations applicable to the Basin's interstate waters. Any such order may prescribe a reasonable date for

the construction of any necessary works or undertaking or discontinuance of any practice, on or before which such discharge or practice shall be wholly or partially discontinued, modified, or otherwise conformed to the requirements of such rules and regulations. Such an order shall be reviewable in any court of competent jurisdiction. The Commission may (a) invoke as complainant the power and jurisdiction of water quality control agencies or courts of the signatory parties or (b) bring an action in its own right in any court of competent jurisdiction to compel compliance with any provision of this article, or any rule, regulation, or order issued pursuant thereto; *provided* that the Commission shall first refer the matter to the appropriate state environmental protection agency or the EPA Regional Director, as appropriate, and request that enforcement action be taken. Failure of the state environmental protection agency or the EPA to initiate enforcement action within 30 days shall authorize the Commission to take appropriate enforcement action.

B. *Tributary Waters*

- (1) The Commission may recommend to the signatory parties reasonable chemical, physical, and biological guidelines for water quality satisfactory for various uses of tributary waters consistent with the requirements of the Clean Water Act. Each signatory party shall classify or reclassify the intrastate tributary waters and submit the classification or reclassification to the Commission for its review and recommendation. The Commission may propose such changes in its recommended classifications and standards as may be required by changed conditions, the desirability of uniformity, or to meet the primary purposes of this Compact and the Clean Water Act.
- (2) Consistent with the requirements of the Clean Water Act, each of the signatory parties shall prohibit or control pollution of the intrastate tributary waters of the Basin to the extent necessary to maintain the quality of such waters to a degree at least equal to the requirements of the interstate stream immediately above the confluence of such streams.
- (3) Nothing in this Compact is intended or shall be construed to repeal, modify, or qualify the authority of any signatory party to enact any legislation or issue administrative rules or enforce any additional conditions and restrictions to reduce or prevent the pollution of intrastate tributary waters within its jurisdiction.

ARTICLE VI COMMENTARY WATER QUALITY PROTECTION PROGRAM

The Advisory Committee and many commenters have recognized that “water quality requirements also raise transboundary issues, and a truly comprehensive compact would address those issues as well.”⁸⁰ Prior to enactment of the Clean Water Act,⁸¹ “federal courts resolved interstate pollution conflicts under the federal common law of nuisance, which generally allowed the courts to balance competing interests and fashion a fair and equitable solution to the interstate conflict.”⁸² Following enactment of the Clean Water Act, however, little room remained for common law remedies.⁸³ In *City of Milwaukee v. Illinois*,⁸⁴ the Supreme Court concluded that the Clean Water Act preempted the common law remedies that had been applicable to interstate water pollution conflicts.⁸⁵

80. McCormick, *Interstate Water Allocation*, *supra* note 29, at 392. Professor Davis reached a similar conclusion: “Not only compacts motivated by quality concerns, but also those in which allocation affects quality should address water quality.” Davis, *Guidelines*, *supra* note 30 (citing C. Williams, *Interstate Water Compact for the Potomac River Basin* (1994) (unpublished student thesis, on file with the J. Reuben Clark Law Library, Provo, Utah).

81. Federal Water Pollution Control (Clean Water) Act, ch. 758, 62 Stat. 1155 (1948) (codified as amended at 33 U.S.C. §§ 1251–1387 (2000)).

82. Mary A. Stilts, Note, *The Ever-Changing Balance of Power in Interstate Water Pollution: Do Affected States Have Anything to Say After Arkansas v. Oklahoma?*, 50 WASH. & LEE L. REV. 1341, 1342 (1993) (citations omitted). See also Thomas W. Merrill, *Golden Rules for Transboundary Pollution*, 46 DUKE L.J. 931, 940–54 (1997); Alan M. Fisch, Note, *Arkansas v. Oklahoma: Formalizing EPA Authority to Mandate Compliance with an Affected State’s Water Quality Standards*, 6 TUL. ENVTL. L.J. 439, 443–44 (1993); William J. Holmes, Note, *The Impact of Arkansas v. Oklahoma on the NPDES Process Under the Clean Water Act*, 23 ENVTL. L. 273, 275–81 (1993).

83. *Middlesex County Sewerage Auth. v. Nat’l Sea Clammers Ass’n*, 453 U.S. 1, 13–18 (1981) (holding that Congress had not created an implied right of action for damages under the Clean Water Act).

84. 451 U.S. 304, 317 (1981).

85. *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 492 (1987) (the Clean Water Act preempted actions brought under the common law of nuisance). Professor Percival notes that the majority decision in *International Paper* concedes

that the Clean Water Act does not directly address the question of preemption of state common law. After reviewing the goals and policies of the Clean Water Act, [Justice] Powell [writing for the majority] concluded that allowing affected states to impose their own separate discharge standards on source states inevitably would create a serious interference with achievement of the full purposes of Congress. Holding a discharger in another state liable for violating more stringent requirements of state nuisance law in the receiving state would compel the *source* to adopt different control standards than those approved by the EPA and its home state. The inevitable result would be to allow states to “do indirectly what they could not do directly — regulate the conduct of out-of-state sources.” This would

The Federal Water Pollution Control Act Amendments⁸⁶ (later to become known as the Clean Water Act) were enacted in 1972 after all of the water pollution control compacts and all but two of the 26 existing water allocation compacts had been negotiated by the states and consented to by Congress. The Clean Water Act was designed to facilitate the restoration and maintenance of the chemical, physical, and biological integrity of the waters of the United States. One of the mechanisms utilized to achieve these goals was the imposition of regulatory requirements. In essence, discharges into the waters of the United States are unlawful unless a National Pollutant Discharge Elimination System (NPDES) permit for such discharges has been issued prior to the discharge. With regard to interstate water pollution, the Supreme Court has concluded that the Environmental Protection Agency is authorized to impose conditions on the issuance of an NPDES permit in an upstream state requiring the discharger to comply with a downstream state's water quality requirements.⁸⁷ The Court's holding that the

undermine the predictability and efficiency of the Clean Water Act's permit scheme and could subject a source to a variety of "vague" and "indeterminate" common law rules adopted by downstream states.

Robert V. Percival, *The Clean Water Act and the Demise of the Federal Common Law of Interstate Nuisance*, 55 ALA. L. REV. 717, 767 (2004) (citations omitted).

86. Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified in scattered sections of 33 U.S.C.).

87. *Arkansas v. Oklahoma*, 503 U.S. 91 (1992). At issue in *Arkansas v. Oklahoma* was EPA authority to impose conditions on a Fayetteville, Arkansas, NPDES permit (upstream) as needed to prevent violation of Oklahoma's water quality standards (downstream):

Even if the Clean Water Act itself does not require the Fayetteville discharge to comply with Oklahoma's water quality standards, the statute clearly does not limit the EPA's authority to mandate such compliance.

Since 1973, EPA regulations have provided that an NPDES permit shall not be issued "[w]hen the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected States." 40 CFR § 122.4(d) (1991); see also 38 Fed. Reg. 13533 (1973); 40 CFR § 122.44(d) (1991). Those regulations — relied upon by the EPA in the issuance of the Fayetteville permit — constitute a reasonable exercise of the Agency's statutory authority.

Congress has vested in the Administrator broad discretion to establish conditions for NPDES permits. Section 402(a)(2) provides that for EPA-issued permits "[t]he Administrator shall prescribe conditions...to assure compliance with the requirements of [§ 402(a)(1)] and *such other requirements as he deems appropriate*." 33 U.S.C. § 1342(a)(2) (emphasis added). Similarly, Congress preserved for the Administrator broad authority to oversee state permit programs:

"No permit shall issue...if the Administrator objects in writing to the issuance of such permit as being outside the guidelines and requirements of this chapter." § 1342(d)(2).

The regulations relied on by the EPA were a perfectly reasonable exercise of the Agency's statutory discretion.

“application of state water quality standards in the interstate context is wholly consistent with the Act’s broad purpose ‘to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters’”⁸⁸ reinforces the authority of Congress reflected in Article VI.A(1) of the Model Compact to authorize the Commission both to adopt water quality standards and to issue NPDES permits for the interstate portion of the river basin. Article VI.A(1) also provides that “signatory states and Indian tribes shall exercise corresponding authority on the intrastate tributaries to such interstate streams.”

Under the Clean Water Act, implementation and enforcement of the Act’s requirements may be delegated by EPA to the states. The language of Article VI regarding the Model Compact’s Water Quality Protection Program is intended to be used in situations where (a) one or more of the signatory parties to the compact either do not have authority to implement and enforce the requirements of the Clean Water Act or have failed to do so adequately or (b) the signatory parties collectively agree to delegate their Clean Water Act authority to the Commission. In such situations, the Commission is authorized under Article VI.A(2) to assume jurisdiction and to classify the interstate waters of the river basin, to establish water quality guidelines and standards, and to promulgate rules and regulations as needed to fulfill the requirements of the Clean Water Act. In essence, the Commission rather than EPA would have the authority to determine whether an upstream state is in compliance with the Clean Water Act. As noted by one commentator:

Contrary to the conclusion of many commentators, the Supreme Court in *Arkansas v. Oklahoma* intended the *Chevron* doctrine to govern only the relationship between the courts and the EPA in interstate water disputes. The ruling was not intended to subordinate the states to the EPA in the same way

503 U.S. at 105 (footnote omitted) (edits in original). Reviewing this decision, Professor Percival concluded:

This decision, which was founded largely on *Chevron* deference to the EPA’s exercise of discretion under the Clean Water Act, provides a potential avenue for downstream states with more stringent environmental standards to mitigate the impact of *Ouellette*’s exclusive focus on the law of source states. *The Court in Arkansas v. Oklahoma interpreted Ouellette not as a bar on consideration of the impacts of transboundary pollution on downstream states, but rather as a limit on the remedies available to downstream states.*

Percival, *supra* note 85, at 72 (citations omitted) (emphasis added). The reference to “*Chevron* deference” is to *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984), which addressed the scope of agency authority to interpret a statute and noted the circumstances under which a reviewing court should defer to the agency interpretation.

88. *Arkansas v. Oklahoma*, 503 U.S. at 106 (quoting 43 U.S.C. § 1251(a) (2000)).

as the preemption analysis of past water pollution decisions did.⁸⁹

Under Article VI.A(3), the Commission is also authorized to “establish a mechanism for the transfer of pollution allowances, including NPDES permits, consistent with the requirements of the Clean Water Act.” This language is based on a mechanism contained in the Murray-Darling Basin Agreement allowing the transfer of salinity credits. Such a mechanism, particularly if it included declining discharge offsets or non-point sources of water pollution that do not require NPDES permits (or both), could facilitate the achievement of Total Maximum Daily Load (TMDL) goals required by section 303(d) of the Clean Water Act.⁹⁰

Article VI.B(1) authorizes the Commission to recommend chemical, physical, and biological guidelines for tributary waters as needed to fulfill the requirements of the Clean Water Act. In response, the signatory parties are required to “classify or reclassify the intrastate tributary waters and submit the classification or reclassification to the Commission for its review and recommendation.” The Commission may then recommend changes to the classifications as needed to achieve the goals of the Clean Water Act.

Article VI.B(2) requires the signatory parties to “prohibit or control pollution of the intrastate tributary waters of the Basin to the extent necessary to maintain the quality of such waters to a degree at least equal to the requirements of the interstate stream immediately above the confluence of such streams.” This language is intended to facilitate the restoration and maintenance of water quality in both intrastate and interstate streams. In essence, the signatory parties would not be able to avoid the maintenance and restoration of an intrastate stream by blending those waters with the waters of an interstate stream. This language does not preclude the signatory parties from enacting more stringent requirements as needed to protect and maintain the signatory parties’ water resources (Article VI.B(3)).

As noted by one member of the Advisory Committee, “virtually every western state has received delegation to administer Clean Water Act programs, including establishing water quality standards and issuing

89. Katheryn Kim Frierson, Comment, *Arkansas v. Oklahoma: Restoring the Notion of Partnership Under the Clean Water Act*, 1997 U. CHI. LEGAL F. 459, 470.

90. 33 U.S.C. § 1313(d) (2000). A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby provides the basis to establish water-quality-based controls. These controls should provide the pollution reduction necessary for a waterbody to meet water quality standards. See U.S. Evtl. Prot. Agency, *Total Maximum Daily Load, Overview of Current Total Maximum Daily Load—TMDL—Program and Regulations*, <http://www.epa.gov/owow/tmdl/overviewfs.html>.

NPDES permits.” The provisions of Article VI are not intended to usurp that authority but rather to coordinate effective implementation of the Clean Water Act among the signatory parties and to provide broad enforcement authority under Article VI.A(4) supplemental to that exercised by the states and the EPA.⁹¹

91. Failure to comply with the requirements of the Clean Water Act may result in both civil and criminal sanctions. 33 U.S.C. § 1319 (2000). Citizen suits to enforce Clean Water Act requirements are also authorized. 33 U.S.C. § 1365 (2000).

ARTICLE VII
WATER RESOURCES MANAGEMENT PROGRAM

A. *Water Supply and Requirements*

- (1) Within two (2) years of the effective date of this Compact, the signatory parties shall submit to the Commission (a) their respective estimated water requirements for specific projects or categories of uses, including adequate stream flows, for the next five (5) years; (b) the assumptions underlying such estimates, including population projections; and (c) the estimated water supply available to meet such needs identified as to the sources of such supply, whether from surface flows, subsurface waters hydrologically connected to surface flows, non-tributary subsurface waters, imported waters, or developed waters.
- (2) Each state shall also provide the Commission with its plans to supplement such supplies, e.g., construction of new storage, diversion, desalination, watershed restoration, recycling/reuse, or wastewater treatment projects; expansion of existing projects; increased conservation; intrastate, interstate, or interbasin transfers; or other actions, along with the timing, location, increased yield, estimated cost, and impact on water quality of each component.
- (3) Based upon such submittals, the Commission shall develop a basinwide water resources management program establishing construction or implementation priorities for the components of the states' proposed programs and possible alternatives to certain components. The Commission shall encourage and support initiatives by local entities, such as informal watershed councils, and shall defer to such initiatives unless such deference would result in significant demonstrable adverse impacts on interstate waters. The Commission shall review the program at least every five (5) years and revise it as appropriate. If the Commission determines that anticipated demand appears reasonably likely to exceed the expected supply in the next five-year (5) cycle, it may direct the signatory parties to suspend authorization of any new uses until the supply and demand estimates are brought into reasonable balance.

B. *Commission Review and Approval of Projects*

Proposed substantial new water resource development projects, major new surface diversions or subsurface water extractions, interstate transfers and related operational guidelines shall be subject to review and approval by the Commission and shall be approved if in conformity with the Commission's water resources management program or with reasonable modifications to establish such conformity.

C. *Conjunctive Use*

(1) The Commission shall study and encourage the conjunctive use of both natural and artificial water storage facilities and subsurface aquifers for the storage and management of Basin waters without regard to the ownership or location of such facilities. It shall develop plans for their most locationally, economically, and environmentally efficient utilization, including interstate water banking and adequate stream flow maintenance, in cooperation with and with the consent of their owners and the states where they are located upon reasonable terms and conditions. The Commission shall develop an accounting methodology to equitably charge the benefits of such conjunctive use to the apportionment of particular states or to the Basin as a whole and not solely to the storing state. Additional reservoir evaporation, stream flow, or aquifer losses attributable to particular arrangements shall be equitably charged to identifiable beneficiary states or the Basin as a whole, as appropriate.

(2) Where proposed conjunctive use of a federal, state, or tribal owned reservoir would conflict significantly with an authorized purpose of such reservoir that cannot be resolved by agreement, the federal, state, or tribal operating agency shall seek legislative modification of such authorization to accommodate, if possible, the conflicting uses.

D. *Flood Control*

(1) *Flood Control Facilities*

The Commission may construct and operate projects and facilities deemed necessary or desirable for flood damage prevention or reduction. It shall store and release waters within the Basin, in such manner, at such times, and under such regulations developed in consultation with the United States Army Corps of Engineers, as it deems appropriate to meet various flood conditions.

(2) Flood Plain Zoning

- (a) The Commission may determine the extent of the flood plains in the Basin and may establish, pursuant to its rulemaking authority under Article IV.B(3)(a), encroachment lines and delineate the areas subject to flood, including a classification of lands with reference to relative risk of flood and the establishment of standards for flood plain use that will safeguard the public health, safety, and property. The Commission may enter into agreements to provide technical and financial aid to any signatory party or its political subdivisions for the administration and enforcement of any ordinances or regulations implementing such standards.
- (b) The Commission may establish standards governing the uses of land in areas subject to flooding by waters in the Basin. Such standards shall not restrict the power of the signatory parties or their political subdivisions to adopt more restrictive standards.
- (c) The Commission may acquire any interest in lands and improvements thereon within an established flood plain for the purpose of restricting the use of such property so as to minimize flood hazards and to implement its flood plain restrictions.

ARTICLE VII COMMENTARY
WATER RESOURCES MANAGEMENT PROGRAM

A. Coordination of Regional Supply and Demand Planning

This aspect of the Commission's authority and responsibility assumes that all party states are engaged in varying degrees in assessing their water requirements over specific periods and the water supply likely to be available to satisfy them. What is not clear is whether and to what extent the programs of the individual states in an interstate river basin are coordinated with those of the other states, Indian tribes, and the federal agencies in the basin. Given the history of regional water resources planning, the authors operated on the realistic assumption that there is little, and not very effective, interstate coordination of development plans. Further, it is reasonable to assume that the lack of such coordination necessarily results in less than optimum siting, timing, scope, and character of various projects and programs for developing and utilizing additional supplies for various purposes throughout the Basin.

With that background, the role proposed for the Commission is a relatively modest one (although it could be expanded if states should choose to). It would review the Basin states' planning programs from a regional perspective, making recommendations for adjustments in these programs to better serve the interests of the entire Basin in its shared resources as efficiently and cost-effectively as possible. It would also exercise a review and approval authority to assure that new projects and programs with significant interstate impacts throughout the Basin are in general conformity with the coordinated state programs (Article VII.B). The Commission is expressly directed to defer to the growing movement toward local, small watershed programs as long as they have no significant interstate impacts.⁹²

This approach is far different from those situations where a river basin commission takes the lead in developing a "comprehensive plan" for the basin that is then binding upon all of the basin states, such as under the Delaware and Susquehanna River basin compacts. Although the circumstances in those two basins 45 years ago may have been unique because of the absence of any significant water planning by the basin states at that time, other than New York, the authors agree with the Advisory

92. See generally DOUGLAS KENNEY, RESOURCE MANAGEMENT AT THE WATERSHED LEVEL (Rep. to the W. Water Pol'y Rev. Advisory Comm'n, 1997) [hereinafter KENNEY, RESOURCE MANAGEMENT], available at <https://repository.unm.edu/dspace/handle/1928/2794>.

Committee that the current status of water planning of most states does not require a “top down” regional planning initiative.

The current situation on the Lower Colorado River with respect to developing plans for meeting anticipated shortage conditions in California, Arizona, and Nevada is illustrative of how the states and the Commission might function under the Model Compact. On the Lower Colorado the Supreme Court held in *Arizona v. California* that under the Boulder Canyon Project Act the Secretary of the Interior has plenary power to allocate the stored water made available by the Hoover Dam for use in those three states.⁹³ However, the Secretary has not unilaterally taken the initiative to exercise that power to develop a “comprehensive federal plan” for meeting the anticipated shortages. Rather, the three Lower Division states of Arizona, California, and Nevada, through a coordinated process of discussions and hydrologic modeling, have been given the opportunity to develop projects and programs in their individual states that they believe will best meet their needs. Their tentative proposals, sent to the Secretary in February of 2006, would, inter alia, defer certain major projects planned by Nevada and substitute others of benefit to all three states for an interim period until the Nevada projects are on line. The Secretary, exercising the authority to review and perhaps modify some of the proposals, much in the manner as proposed for the Model Compact Commission, would hope to find agreement among all seven basin states for final secretarial action, but would be authorized to implement the proposed modifications in any event.

The Model Compact in essence provides a forum for each basin state to review the proposed projects and programs of the other basin states and make recommendations for mutually beneficial adjustments. Where those recommendations make sense to a majority of the Commission members, the Commission would have the authority to make such adjustments and to review new projects and programs with significant interstate impacts for conformity to the regional consensus.

B. *Conjunctive Use*

Conjunctive use of natural and artificial water storage facilities and of such facilities and subsurface aquifers for the storage and management of water has long been practiced in a number of western states with good results and is increasingly being utilized to address shortage issues, as the Western Water Policy Review Advisory Commission noted in its 1998

93. 373 U.S. 546, 565–69, 585–95 (1963) (No. 8, Orig.).

report.⁹⁴ On an interstate basis, the Secretary of the Interior, at the initiative of the seven Colorado River Basin states, is currently studying the conjunctive use of Lakes Mead and Powell on the Colorado River and underground storage by agencies in Arizona and California to minimize the impacts of shortage conditions under the Colorado River Compact and other components of the so-called Law of the River. Consequently, Article VII.C directs the Commission to study, encourage, and develop plans for conjunctive use of such facilities in the Basin.

94. W. WATERPOL'Y REV. ADVISORY COMM'N, *supra* note 2, at 2-6, 3-8, 3-10 to 3-11, 5-6, 5-20 (1998).

**ARTICLE VIII
ENFORCEMENT OF COMPACT OBLIGATIONS AND
RESOLUTION OF OTHER DISPUTES**

- A. *Enforcement of Compact Obligations*
- (1) Alleged Violation and Response
- (a) Upon the basis of Division monitoring or substantial verified factual evidence from a reliable, identified third party that a signatory party is (a) not maintaining required stream flows, (b) impermissibly exceeding its Compact apportionment, or (c) permitting point source discharges or non-point source land use practices or activities that are violating Commission approved interstate water quality standards, the Commission shall request the representative for that party to respond to such allegation in writing within 30 days. Such response shall either (a) concede the accuracy of the facts underlying the allegation, but assert that the situation is attributable to specified actions or force majeure events beyond its control; (b) concede the accuracy of the allegation and propose a schedule for detailed remedial action to be funded solely by such member; or (c) dispute, with specification, the allegation in whole or part and request further consultation with the Division.
- (b) A member's formal concession before the Commission of a Compact violation and implementation of a Commission approved plan for remedial actions shall excuse such member from liability to any Commission member or its agencies for any damages sustained as a result of such violation, provided that nothing herein shall adversely affect the rights of private parties to damages.
- (2) Commission Investigation
- The Commission member's response shall be promptly referred to the Division for review and submittal of a recommended course of action to the Commission within 30 days. With respect to concessions under paragraph A(1)(a), the Division shall recommend that either (a) the alleged violation be excused by the Commission as beyond the member's control, (b) the member's proposed remedial action be approved, or (c) the member's proposed remedial action be modified and approved in whole or part.

- (3) **Dispute Resolution Referral**
With respect to the member's disputation of the allegation, if further discussions do not resolve the dispute within 45 days, the dispute resolution procedures provided for in part B of this Article may be initiated by any Commission member. No compact party shall sue for damages during the pendency of such proceedings before the Commission.
- (4) **Enforcement of Sanctions**
Failure to resolve the dispute through the alternative dispute resolution process shall authorize the Commission to (a) suspend the voting rights of the alleged offending party under the Compact; (b) suspend any ongoing or planned implementation of Commission projects or programs benefiting that party, including supplemental apportionments; or (c) as a last resort, take appropriate judicial action for injunctive relief to remedy the alleged violation and allow the signatory states to seek damages for such violation.

B. *Dispute Resolution*

- (1) **Duty to Seek Dispute Resolution**
Any dispute respecting the interpretation of the Compact or any Commission order, rule, regulation, or action issued or taken thereunder, including reliance on contested scientific data, shall first be presented by a signatory party to the Commission for possible resolution before seeking judicial relief. A party's failure to do so or to pursue such resolution in good faith shall subject it to liability to any defendant parties who are parties to later litigation regarding that dispute for their litigation costs, regardless of the outcome of such litigation.
- (2) **Commission Referral to Council or Division**
A petition for dispute resolution shall be filed with the Commission clearly defining the dispute and the disputants' positions, supported by such written statements of material facts and arguments as the Commission may by rule provide. The Commission shall require the parties to meet and confer and to exchange information regarding the dispute. If the matter is not resolved within 30 days, the Commission shall refer the petition to the Council or Division, depending on the subject matter of the dispute, for initial resolution. The Commission may establish categories of disputes for resolution depending on their importance or urgency and direct the Council and Division to schedule them for resolution accordingly.

- (3) Appeal to the Commission
 - (a) If a dispute cannot be resolved by the Council or Division within an agreed upon schedule, a petitioner party may appeal to the Commission for a decision.
 - (b) If a petitioner party is dissatisfied with the decision of the Council or Division, it may appeal to the Commission within 60 days for a reversal or modification of the decision appealed from. Failure to appeal the decision of the Council or Division shall make such decision the final action of the Commission on the dispute.
- (4) Alternative Dispute Resolution

If the Commission cannot resolve the dispute within an agreed upon schedule, the matter shall be designated for attempted resolution by mediation or arbitration. If the Commission does not specify a method for such alternative dispute resolution, the method and procedures shall be established by a majority vote of the petitioner party and other signatory parties with a substantial interest in the dispute. A party's interest is substantial if resolution of the dispute seems likely to result in significantly decreasing the amount or quality of water available to it; significantly impairing its ability to monitor or administer water use, availability, or quality; or significantly increasing its financial obligations. The method for selecting mediators or arbitrators and their qualifications shall be determined by the petitioner party and other parties with a substantial interest in the dispute by majority vote. If the interested parties cannot reach agreement on any of the methods and procedures, the Commission shall decide the matter.
- (5) Exhaustion of Commission Authority

When the Commission has decided a dispute or it has been the subject of an unsuccessful alternative dispute resolution procedure, the parties to the dispute shall be deemed to have exhausted their administrative remedies under the Compact and may initiate litigation to resolve the dispute in any court of competent jurisdiction free of the sanction imposed by section B(1) of this Article.

**ARTICLE VIII COMMENTARY
ENFORCEMENT OF COMPACT OBLIGATIONS
AND RESOLUTION OF OTHER DISPUTES**

Many western compacts require unanimity of the signatory parties for official action enforcing seemingly clear compact obligations or interpreting ambiguous compact provisions, thus conferring a veto power in a single state that can preclude its compact partners from administrative enforcement of asserted compact rights and obligations or clarification of compact terms. Although some two-state compacts provide a tie-breaking mechanism to avoid this problem,⁹⁵ absent such an express provision, the Supreme Court will not dictate some kind of tie-break procedure.⁹⁶ This situation gives leverage to an upstream state alleged to be in violation of a compact to “stonewall” discussions and negotiations in the commission forum, since by virtue of its geographical advantage (for example, “highority is better than priority”) it may have already stored or used the volumes in dispute. This necessarily forces its compact partners to seek Supreme Court relief, which can be just as expensive and time consuming as equitable apportionment litigation, if not more so. Thus, Kansas and Texas have been driven to seek such relief under four compacts with their upstream neighbors, Colorado, Nebraska, and New Mexico, and the results in two of those cases may alter traditional compact commission behavior for the better. In *Texas v. New Mexico*, the Court held New Mexico liable for damages for breach of its obligations under the Pecos River Compact⁹⁷ and the Texas claim was settled for \$14 million.⁹⁸ On the Arkansas River, the Court held that Colorado’s breach of the Arkansas River Compact subjected it not only to damages but also to a substantial amount of prejudgment interest.⁹⁹ The Court ultimately awarded Kansas \$38 million.¹⁰⁰ Compact litigation plainly now has a substantial new cost factor beyond lawyers and experts. In *Kansas v. Nebraska*, Kansas waived any damage claim as part of the settlement of the case.¹⁰¹

To implement a principal purpose of the Model Compact to avoid interstate litigation in the Supreme Court, the Advisory Committee unanimously stressed the importance of the Commission having adequate

95. See *supra* note 29.

96. *Texas v. New Mexico*, 462 U.S. 554, 564–567 (1983) (No. 65, Orig.).

97. 482 U.S. 124, 129–32 (1987) (No. 65, Orig.).

98. *Texas v. New Mexico*, 494 U.S. 111, 111 (1990) (No. 65, Orig.). See also Pecos River Compact, ch. 184, 63 Stat. 159 (1949).

99. 533 U.S. 1, 11 (2001) (No. 105, Orig.).

100. *Kansas v. Colorado*, 543 U.S. 86 (2004) (No. 105, Orig.).

101. 538 U.S. 720 (2003) (No. 126, Orig.).

authority to enforce the Compact obligations against the signatory parties and to resolve other disputes under the Compact. Article VIII thus provides an administrative procedure for Commission consideration of (1) claims that a signatory party is not in compliance with one or more of its Compact obligations, and (2) disagreement or uncertainty over the interpretation of Compact language or Commission orders, regulations, or guidelines. Inasmuch as the Supreme Court has approved the creation of dispute resolution mechanisms in recent settlements of interstate equitable apportionment and compact litigation in *Nebraska v. Wyoming*¹⁰² and *Kansas v. Nebraska*,¹⁰³ Article VIII builds on the systems approved in those two cases.

A. *Enforcement of Compact Obligations*

(1) Violations

A party alleged to be in violation of any Compact obligation may concede the accuracy of the Complainant's asserted facts and either plead a force majeure defense or concede the violation and propose detailed remedial action. Conceding the claimed violation and implementing a Commission approved plan of remedial action would relieve the party of any liability to any Commission member or its agencies, but not private parties, for any damages resulting from the violation. This provision is designed to encourage candor, cooperation, and compliance. In the alternative, the party may dispute the claimed violation and request further consultation with the Division. The party's response shall be referred to the Division for discussion and a recommended course of action. If the matter is not resolved before the Division within 45 days, any Commission member may invoke the dispute resolution procedures of subpart B herein. Legal action for injunctive relief or damages would be prohibited for the duration of the pending proceedings.

(2) Sanctions

Failure to resolve the dispute shall authorize the Commission to suspend the party's voting rights and the benefits of any projects or programs under the Compact, including supplemental apportionments, and, as a last resort, to seek injunctive relief against the party and authorize the other party states to seek damages.

102. 534 U.S. 40 (2001) (No. 108, Orig.) (Decree).

103. 538 U.S. 720.

B. *Resolution of Other Disputes*

Article VIII.B(1) imposes a mandatory duty on a compact party to first seek resolution of any dispute under the Compact pursuant to the procedures provided in Article VIII before initiating litigation. Failure to do so subjects such party to the obligation to pay all of the litigation costs of the parties who may later become involved in any litigation on the subject in dispute, which recent experience has shown can be substantial. The goal is to keep the parties involved in good faith discussions regarding such issues until an administrative resolution by the Commission or a negotiated agreement among the parties is achieved.

A petition for dispute resolution would first be filed with the Commission, which would direct the parties to meet, confer, and exchange data about the dispute. If the dispute is not resolved, the Commission shall refer it to either the Council or Division, depending on the subject matter of the dispute, for an initial decision. If the dispute cannot be resolved within an agreed upon timeframe or upon the issuance of a timely decision by the Council or Division, the matter may be appealed to the Commission. Failure to do so shall make the Council or Division decision the final action of the Commission.¹⁰⁴

Article VIII.B(4) provides that, if the Commission cannot decide an appealed matter within an agreed upon timeframe, it would be designated for attempted resolution by mediation or arbitration, either binding or non-binding, as a majority of the affected parties shall agree upon. Which method to employ and the details of such procedure are left to the affected parties rather than prescribing a particular procedure, to the end that the affected parties may adapt them to the nature of the dispute and continue discussing possible resolution as long as possible. Some commenters suggested it would be better to provide certainty as to the process to be followed by mandating it in the compact. However, the authors believe that the discussions involved in choosing a particular procedure and a mediator or arbitrator may well be conducive to settlement of the dispute.

Following a Commission decision or exhaustion of the alternative dispute resolution process, any party may initiate litigation free of the compact sanction of paying the other parties' litigation costs.¹⁰⁵

104. Articles VIII.B(2) and (3).

105. Article VIII.B(5).

ARTICLE IX**INTERAGENCY COORDINATION AND PUBLIC PARTICIPATION**A. *Interagency Coordination*

The Commission, Council, and Division representatives shall be responsible for maintaining liaison with and reporting Commission activities or requests to their respective constituencies. When a vote is to be taken on a matter and there are conflicting views within the state, tribal, or federal constituent agencies, the representative shall make a good faith effort to achieve a consensus position. Where such a consensus cannot be achieved, the representative shall nevertheless vote a single position, noting any significant dissenting views.

B. *Advisory Committee*

- (1) The Commission shall appoint a multi-interest, multi-disciplinary Advisory Committee whose membership shall include, for such terms as the Commission deems appropriate, representatives of (a) the general public with recognized interests in the use of water resources of the Basin for beneficial purposes, including, as applicable, irrigation, municipal and domestic use, power generation, navigation, recreation, fish and wildlife habitat maintenance, aesthetic enjoyment, livestock forage maintenance, industrial use, and spiritual or religious uses; (b) selected subbasins of regional significance; (c) regional federal representatives of the Bureau of Reclamation, U.S. Geological Survey, Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, Federal Energy Regulatory Commission, Corps of Engineers, and the National Oceanic and Atmospheric Administration, if conducting programs in the Basin; and (d) academicians or private sector consultants with recognized expertise in surface and subsurface water hydrology, fish and wildlife, water resource economics, water quality, biology, and numeric modeling. A member with several qualifications may be considered to fulfill the requirements for each of those specialty areas.
- (2) The Committee shall meet at least twice a year, once with the Council and once with the Commission, and at the further call of either body. The Committee's responsibilities shall be

(1) to identify present and future problems or initiatives related to the Compact with respect to the uses of the Basin's waters and to recommend necessary and appropriate means to address those matters, either by action of the Commission or state or federal legislation or administrative action, and (2) to provide its views on any matters presented to it by the Commission. The Commission shall provide a reasonable per diem expense allowance for Committee attendees requesting such reimbursement.

C. *Reports*

The Commission shall keep the public informed of its ongoing activities through an electronic website or such other methods as the Commission determines appropriate. It shall also prepare an annual report in electronic and printed formats that shall contain budgetary and financial information and relevant statistics, data, and interpretative commentary respecting the use and condition of the Basin's waters as well as a summary of meetings with the Advisory Committee and significant Commission program activities. The annual report shall be distributed to the legislative and executive branches of the signatory parties and their administrative agencies conducting programs in the Basin and be available for purchase by the general public.

ARTICLE IX COMMENTARY INTERAGENCY COORDINATION AND PUBLIC PARTICIPATION

During preparation of the Model Compact the Advisory Committee stressed the importance of federal, state, tribal, and local interagency coordination in the allocation and management of interstate water resources.¹⁰⁶

A. *Communication and Consensus*

Article IX.A provides that the Commission, Council, and Division representatives are responsible “for maintaining liaison with and reporting Commission activities or requests to their respective constituencies.” This provision was included specifically both to mandate and to facilitate interagency coordination. Of perhaps greater significance is the language contained in Article IX.A regarding the responsibility of Council and Division representatives to “make a good faith effort to achieve a consensus position” when there are “conflicting views within the state, tribal or federal constituent agencies....”

106. In fact, one prominent commentator on natural resources and environmental issues has noted that the need for interagency coordination goes beyond simply the allocation and management of water:

[T]he watershed of the 1990s has become a focal point for addressing fundamental issues of resource management and democratic administration, emphasizing many of the ideas expressed a century earlier by John Wesley Powell — including the importance of a regional perspective, the integration of institutions for land and water, the link between environmental sustainability and community stability, and participatory government.

KENNEY, RESOURCE MANAGEMENT, *supra* note 92, at A-42.

The importance of interagency coordination among all levels of government has been addressed by a number of other scholars, including Professor Dan Tarlock: “Protecting healthy watersheds and restoring degraded ones is one of this country’s major unmet environmental challenges. Because watersheds do not respect political boundaries, effective watershed conservation will require cooperation and coordination among all levels of government, including local units.” A. Daniel Tarlock, *The Potential Role of Local Governments in Watershed Management*, 20 PACE ENVTL. L. REV. 149, 149 (2002). The “spirit of John Wesley Powell” was also invoked by Barbara Cosens in her discussion of the coordination mechanisms contained in the Fort Belknap Compact between the State of Montana and the Fort Belknap Indian Tribe:

[T]he compact does establish institutions that set the stage for the residents of the valley itself, in the spirit of John Wesley Powell, to resolve future water problems within the basin. The compact does this by setting up a system of coordination between disparate governmental entities, thus providing a forum for future dialogue on the direction of the valley with respect to water.

Barbara Cosens, *A New Approach in Water Management or Business as Usual? The Milk River, Montana*, 18 J. ENVTL. L. & LITIG. 1, 49 (2003).

The purpose of this language is to establish both goals and expectations regarding communication between and among the signatory parties. The importance of such communication on a practical level has been addressed by a member of the Advisory Committee who is also the Colorado representative on a number of compact commissions. With regard to the Costilla Creek Compact, he concluded that, “[a]lthough streamflow gauging stations equipped with remote access instrumentation and the Operating Manual with an electronic accounting spreadsheet are available to assist in daily water administration, the communication and collaboration efforts among the water users and state administration officials are the keys to successful water allocation.”¹⁰⁷

B. *Legitimacy and Transparency*

The language of Article IX.C regarding reporting and publicity requirements is representative of language contained in the vast majority of interstate water compacts. Article IX.C imposes on the Commission a duty to “keep the public informed” of Commission activities. To fulfill this requirement, the Commission may use any method that the Commission deems appropriate. If the Commission determines that additional reports from the signatory parties are needed to properly inform the public, the Commission has ample authority under Article IX.C to require such reports.

The Commission is also required to prepare an annual report, which is to include budgetary and financial information, relevant statistics,

107. Knox, *Costilla Creek Compact*, *supra* note 33, at 476. The role of communication in successful water allocation is illustrated by the La Plata River Compact:

Effective interstate water administration...is based upon knowing the amount of water available at the two index streamflow gaging stations, the amount and location of ditch diversions, and the travel time between key locations in the system. Advancements in water measurement and reporting technologies aid water officials in the daily administration of this ephemeral river. For example, the two streamflow gaging stations are equipped with remote sensing equipment that instantaneously measures river height at fifteen minute intervals to complement the continuous streamflow recorders. A satellite transmits this information at regular intervals. The information is then transformed into streamflow amounts for viewing by water officials and public water users in both states. This instant and perpetual source of information provides an effective tool to monitor and distribute the greatly varying water supplies to intrastate water users and to meet compact delivery requirements with the highest level of efficiency and confidence. It also subjects water administration officials to intense scrutiny by both interstate and intrastate water users who may not have full appreciation or knowledge of transit losses, the travel times between key locations, and the changing river call priority.

Kenneth W. Knox, *La Plata River Compact*, *supra* note 24, at 116-17 (citations omitted).

data, and an “interpretative commentary” regarding the water resources of the basin. This report, which should also include a summary of Advisory Committee meetings and significant Commission activities, is to be “distributed to the legislative and executive branches of the signatory parties and their administrative agencies conducting programs in the Basin.”¹⁰⁸

The reporting and publicity requirements contained in Article IX.C address the need for Commission activities to be both legitimate and transparent. These requirements also facilitate interagency coordination and are essential for meaningful stakeholder involvement.

C. *Advisory Committee*

An Advisory Committee, to be appointed by the Commission, is established under Article IX.B. This Committee (which is to be both “multi-interest” and “multi-disciplinary”)¹⁰⁹ is intended to provide a means by which individuals and both governmental and non-governmental entities with water-related expertise and interests might be involved in Commission activities. It is also intended to provide a means for public participation in activities of the Commission, as are the provisions regarding open meetings. Such participation by stakeholders is critical to both the success and the legitimacy of Commission activities. It has been suggested that any entity with authority analogous to that of the Commission needs to provide opportunities for stakeholder participation. Specifically, the need for decision-making mechanisms that facilitate public participation and provide clear outcomes was noted.¹¹⁰

The importance of mechanisms to facilitate public participation was stressed repeatedly by the Advisory Committee, echoing the views of many commenters:

Integrating and resolving conflicts over land use, water supply diversions, water quality protection, navigation, flood damage reduction, recreation, hydropower, and ecosystem

108. Article IX.C.

109. See Article IX.B(1) for various suggestions of representatives.

110. Kenney, *Institutional Options*, *supra* note 23, at 839. *Accord* DuMars, *supra* note 33. Public participation is also important regarding the development of appropriate models to be used in river basin management: “By involving the various stakeholders early and often in development of the technical analysis models, the study management team is hoping to build trust and develop a solution that best reflects public values.” Cardwell et al., *supra* note 35. *Accord* Daniel P. Loucks, *Watershed Planning: Changing Issues, Processes and Expectations*, WATER RESOURCES UPDATE, No. 111, Spring 1998, at 38, 41 (the successful use of computer models “depends in large part on the confidence and feeling-of-ownership stakeholders have in those models”).

restoration in watersheds involves nothing less than the active participation of all of impacted stakeholders. This includes the participation of professionally trained ecologists, economists, engineers, planners, and others. It includes the involvement of appropriate Federal, state and local governmental agencies. But these professionals and government agencies can not do this job by themselves. Watershed planning today requires the contributions of all impacted stakeholders having any interest in the resources of the watershed.¹¹¹

Given that issues relating to the allocation and management of water resources are cross-cutting issues that involve multiple stakeholders, differences between stakeholders are certain to become apparent whenever the Commission proposes actions of various kinds. However, in order to facilitate an integrated approach to water resources management, it is necessary that these differences be both expressed and reconciled, if possible: "Conflict among stakeholders has to be resolved by dialogue and compromise. Somehow all stakeholders have to feel their concerns and desires are being considered and that they are a part of an equitable decision making process."¹¹²

It is reasonable to impose this obligation on the Commission, the Council, and the Division. In fact, given that stakeholder interests tend to be focused on specific issues or concerns, it is unlikely that implementation of the Compact would be successful if it failed to include stakeholders in the decision-making process.

In essence, the allocation and management of Basin water resources involves nothing less than the active participation of all impacted stakeholders. The provisions of Article IX are intended to help achieve this goal.¹¹³ With regard to stakeholder involvement in the allocation and management of interstate water resources, the importance of achieving these goals was expressed by John Thorson, a prominent water lawyer and

111. Loucks, *supra* note 110, at 38, 39. In a study of five large-scale water problems, Grigg reached a similar conclusion: "The successes and failures shown in the cases suggest the benefits of a comprehensive and collaborative approach *with effective stakeholder involvement*." Neil S. Grigg, *Management Framework for Large-Scale Water Problems*, 122 J. WATER RESOURCES PLAN. & MGMT. 296, 298 (1996) (emphasis added).

112. Grigg, *supra* note 111; Loucks, *supra* note 110.

113. For example, the Commission is authorized under Article IV.F(1) to establish rules regarding the conduct of Commission, Council, Division, and Advisory Committee meetings. With only limited exceptions as provided by the Commission, it is expected that all meetings of the Advisory Committee will be open to the public. The Commission may wish to provide a process for the taking of comments from the general public during open meetings on topics and at times for which there is significant public interest.

member of the Advisory Committee: "At the end of the day, maybe the process is as important as any result."¹¹⁴

114. John E. Thorson, *Visions of Sustainable Interstate Water Management Agreements*, 43 NAT. RESOURCES J. 347, 368 (2003).

ARTICLE X

BUDGETING AND FUNDING

- A. *Capital Budget*
The Commission shall annually adopt a capital budget listing all capital projects it proposes to undertake or continue during the budget period and containing a statement of the estimated cost of each project and the method of its financing.
- B. *Operating Budget and Assessments*
The Commission shall annually adopt a current operating expense budget for each fiscal year, including (1) estimated expenses for administration, operation, maintenance and repairs for each project, together with its cost allocation, and (2) estimated revenues from charges for supplemental apportionments and all other sources. Following the Commission's adoption of the operating budget, the Commission's executive director shall notify the signatory parties and their principal budget officers of the amounts due under existing cost sharing agreements for each project and the amount required to balance the operating budget. Responsibility for any remaining deficit shall be allocated equitably among the signatory parties by unanimous vote of the Commission based upon land area or population within the Basin, the relative size of their respective apportionments, or such other equitable factors as the Commission may determine.
- C. *Payment of Assessments*
The signatory parties shall include the amounts so assessed in their respective currently proposed budgets. Such amounts shall be payable to the Commission in quarterly installments during its fiscal year, provided that the Commission may draw upon its working capital to finance its current expense budget pending remittances by the signatory parties.
- D. *Sanctions for Failure to Pay Assessments*
Failure of any signatory party to pay all of its assessment in a timely fashion shall authorize the Commission to suspend the delinquent party's voting rights under the Compact and any ongoing or planned implementation of Commission projects or programs, including supplemental apportionments, benefiting that party until such assessment is paid.
- E. *Annual Independent Audit*
(1) As soon as practical after the closing of the fiscal year, an audit shall be made of the financial accounts of the Commission. The audit shall be made by qualified certified

public accountants, selected by the Commission, who have no personal interest direct or indirect in the financial affairs of the Commission or any of its officers or employees. The report of audit shall be prepared in accordance with accepted accounting practices and shall be filed with the chairman and such other officers as the Commission shall direct. Copies of the report shall be distributed to each commissioner and shall be made available for public distribution.

- (2) Each signatory party by its duly authorized officers shall be entitled to examine and audit at any time all of the books, documents, records, files, and accounts and all other papers, things, or property of the Commission. The representatives of the signatory parties shall have access to all books, documents, records, accounts, reports, files, and all other papers, things, or property belonging to or in use by the Commission and necessary to facilitate the audit and they shall be afforded full facilities for verifying transactions with the balances or securities held by depositaries, fiscal agents, and custodians.
- (3) The financial transactions of the Commission shall be subject to audit by the General Accounting Office in accordance with the principles and procedures applicable to commercial corporate transactions and under such rules and regulations as may be prescribed by the comptroller general of the United States. The audit shall be conducted at the place or places where the accounts of the Commission are kept.

ARTICLE X COMMENTARY BUDGETING AND FUNDING

The Model Compact tries to minimize the impact of its operations and programs on the party treasuries by conferring broad financing powers on the Commission and by authorizing pricing of supplemental apportionments, user fees, and cost sharing arrangements in connection with particular programs and projects, as well as taxation of the regional beneficiaries of those programs.¹¹⁵ The provisions of Article X regarding budgeting and funding are representative of similar provisions contained in a number of interstate water compacts. Articles X.A and X.B require the Commission to adopt an annual capital and operating budget, respectively. Once the capital and operating budgets have been adopted, the executive director of the Commission is to notify the signatory parties of the “amounts due under existing cost sharing agreements for each project and the amount required to balance the operating budget.”¹¹⁶

If any deficit remains after the Commission informs the signatory parties of their respective obligations, the Commission is authorized to allocate the deficit among the signatory parties “based upon land area or population within the Basin, the relative size of their respective apportionments, or such other equitable factors as the Commission may determine.”¹¹⁷

Under Article X.C, the signatory parties are obliged to pay the amounts assessed by the Commission. Should a signatory party fail to pay the assessments in a timely manner, the Commission is authorized under

115. See commentary on Article IV, *supra*. Alternative means of funding an entity such as the Commission are discussed in John E. Thorson, *A Proposal for a Missouri River Corridor Trust*, 23 PUB. LAND & RESOURCES L. REV. 77, 90-98 (2002) (pt. VII. Trust Finances). In interstate basins with significant water quality problems, such as the Great Lakes and Chesapeake Bay, a compact commission might well consider the October 2004 proposal of the Chesapeake Bay Watershed Blue Ribbon Finance Panel to take dramatic action to meet the \$15 billion initial capital costs and \$2.7 billion annual operating costs of the bay restoration components of the Chesapeake Bay Program. The Panel recommended establishing a Chesapeake Bay Financing Authority capitalized by the federal and state governments on an 80/20 percent basis with the capacity to make loans and grants for various projects. It would be charged with developing a sustainable revenue stream derived from various state sources, such as surcharges on water and sewer fees, septic fees, and development fees. CHESAPEAKE BAY WATERSHED BLUE RIBBON FINANCE PANEL, SAVING A NATIONAL TREASURE: FINANCING THE CLEANUP OF THE CHESAPEAKE BAY 4, 24 (2004), http://www.chesapeakebay.net/pubs/blueribbon/Blue_Ribbon_fullreport.pdf. Maryland has already initiated one of the most innovative and progressive water quality funding programs in the nation by imposing a \$2.50 per month surcharge on sewer bills and \$30 per year on septic system owners. *Id.* at 27.

116. Article X.B.

117. Article X.B.

Article X.D to suspend that party's voting rights and to suspend "any ongoing or planned implementation of Commission projects or programs, including supplemental apportionments, benefiting that party until such assessment is paid."¹¹⁸

Though these provisions may sound a bit Draconian, they are necessary to justly and equitably apportion the costs both of the Commission and of Commission projects and programs. Absent such provisions, signatory parties that have not paid their annual assessments but that nonetheless benefit from the initiatives of either the Commission or other signatory parties would become "free riders." One way to address the "free rider effect" is for sanctions for the nonpayment of assessments to be sufficiently stringent to deter such behavior.

The authors are of the opinion that the sanctions contained in Article X.D should be sufficient regarding all of the signatory parties except the United States (should the United States be a signatory party). Because of Congress's misguided decision in 1997 to discontinue payment of its share of the annual assessment of operating costs for both the Delaware River Basin Commission (DRBC) and the Susquehanna River Basin Commission (SRBC),¹¹⁹ it was felt necessary to include provisions for sanctions for such default. Although these provisions might have little deterrent effect on Congress if it chooses to disregard its sovereign commitments under a compact, they should influence the states and tribes to honor their commitments to fund the Commission's programs.

118. Article X.D.

119. As part of the 1997 Emergency Supplemental Appropriations Act, the Congress deleted federal funding of the office of federal commissioner for the DRBC and SRBC as well as the federal government's financial participation as a signatory party to those compact commissions commencing in October of 1997....Statements in the July eleventh 1995 Congressional Record indicate that the Congress felt that the compact commissions serve the states much more than the federal government, and that river basin management is predominately a state concern and should be funded accordingly.

Featherstone, *Existing Interstate Compacts*, *supra* note 39, at 281. *Accord* Featherstone, *Interstate Organizations*, *supra* note 39.

The decision to terminate federal contributions to the Delaware and Susquehanna Basin Commissions allegedly was "influenced by a January 1995 report of the Heritage Foundation that described the commissions as providing only regional benefits...." Based on this recommendation, funding for the two commissions was not included in the FY 1998 budget. However, "Congress...made no effort to withdraw the federal government from the compacts as it could under Section 1.4 of both compacts." Cairo, *supra* note 39, at 129 (citation omitted).

Article X.E imposes an annual audit requirement.¹²⁰ As noted previously, Commission operations need to be transparent if Commission decisions are to be considered both legitimate and credible. The audit requirement, particularly the provision of Article X.E(1) that the audit “shall be made available for public distribution” so as to facilitate public participation in Commission activities, is key to providing the requisite transparency.

120. The language of Article X is derived from the Delaware River Basin Compact, art. 14.11, and Susquehanna River Basin Compact, art 15.11, which, because the United States is a signatory party, necessarily must involve the General Accounting Office in an annual audit. This assumes, of course, that the United States is paying its annual assessments. As recent history has demonstrated, this is not a safe assumption. *See supra* note 119 and accompanying text.

ARTICLE XI
RELATIONSHIP OF COMPACT TO EXISTING LAW

- A. *State and Tribal Laws*
Except as expressly preserved herein or in the congressional legislation consenting to this Compact, any present or future state or tribal laws or regulations that are irreconcilably inconsistent with any provision of this Compact are superseded by such Compact provisions.
- B. *Federal Laws*
- (1) Except as expressly preserved herein or in the congressional legislation consenting to this Compact, any present federal laws or regulations relating to the waters covered by this Compact that are irreconcilably inconsistent with any provision of this Compact are superseded by such Compact provisions.
 - (2) Any future federal laws, regulations, or judicial or administrative decisions that directly or indirectly negate or significantly modify the Compact's interstate water apportionments or the powers or programs of the Commission without the consent of the signatory states shall authorize the Commission, by a majority vote of the signatory state members, to terminate the Compact, subject to the conditions of Article II.B(2). Such termination shall be effective 180 days after written notice by the Commission to the President and Congress.
 - (3) For the purpose of providing a uniform system of laws applicable to the Commission, the Council, the Division of Scientific Analysis, and the Advisory Committee relating to the making of contracts, conflicts-of-interest, financial disclosure, open meetings, advisory committees, disclosure of information, judicial review, and related matters, the federal laws applicable to such matters, including but not limited to the Administrative Procedure Act (5 U.S.C. § 500 *et seq.*), the National Environmental Policy Act (42 U.S.C. § 4321 *et seq.*), and the Federal Advisory Committee Act (5 U.S.C. Appendix), shall apply to the extent that the Commission shall deem appropriate.
 - (a) In applying the federal laws applicable to financial disclosure under the preceding sentence, such laws shall be applied to members of the Commission, the Council, the Division of Scientific Analysis, and the Advisory Committee without regard to the duration of their

service or the amount of compensation received for such service.

- (b) For the purpose of judicial review of any action of the Commission or challenging any provision of this Compact, notwithstanding any other provision of law, the courts of the United States shall have exclusive jurisdiction of any such review.

C. *United States Supreme Court Decrees*

Nothing in this Compact shall adversely affect any interstate water allocation or other rights that a signatory state may have been awarded by a United States Supreme Court decree in an equitable apportionment or interstate compact action prior to entering into this Compact, except where expressly provided in this Compact or by unanimous vote of the Commission.

ARTICLE XI COMMENTARY RELATIONSHIP OF COMPACT TO EXISTING LAW

Parties involved in disputes over interstate water resources do not necessarily live happily ever after following resolution of a conflict by compact. As existing statutes and case law may be modified by the ratification of an interstate water compact, existing interstate compacts may be modified, either intentionally or inadvertently, by subsequent federal statutes. Article XI addresses the relationship of the Model Compact to state and tribal laws (Article XI.A), to federal law (Article XI.B), and to decrees of the United States Supreme Court (Article XI.C).

In order to understand these relationships, it is important to remember that an interstate water compact, once it has been ratified by the party states and consented to by Congress, becomes “a law of the United States.”¹²¹ Consequently, under the Supremacy Clause of the Constitution,¹²² such compacts as federal law would supercede inconsistent state laws, unless the compact or the congressional consent legislation provides otherwise.¹²³ In essence, in the event of a conflict over the allocation and

121. *New Jersey v. New York*, 523 U.S. 767, 811 (1998) (No. 120, Orig.) (quoting *Cuyler v. Adams*, 449 U.S. 433, 438 (1981) and citing *Texas v. New Mexico*, 462 U.S. 554, 564 (1983) (No. 65, Orig.)).

In *Texas v. New Mexico*, a conflict arising under the Pecos River Compact, which provided equal representation for both states, Texas asked the Supreme Court to fashion an equitable remedy to resolve a deadlock on the Pecos River Commission by providing for a tiebreaking vote. The Court refused, stating that such a fundamental restructuring of the Commission would require congressional action because the Pecos River Compact became federal law once it had been consented to by Congress. “[U]nless the compact to which Congress has consented is somehow unconstitutional, no court may order relief inconsistent with its express terms.” 462 U.S. at 564. *See also* Pecos River Compact, ch. 184, 63 Stat. 159 (1949).

Consequently, “the United States Supreme Court has shown a firm unwillingness to do anything other than enforce compacts according to their terms.” Robert Haskell Abrams, *Interstate Water Allocation: A Contemporary Primer for Eastern States*, 25 U. ARK. LITTLE ROCK L. REV. 155, 157 (2002).

122. U.S. CONST. art VI, cl. 2:

This Constitution and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

123. [A] state statute is void to the extent that it actually conflicts with a valid federal statute; and “[a] conflict will be found ‘where compliance with both federal and state regulations is a physical impossibility....’ *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142–43 (1963), or where state ‘law stands as an obstacle to the accomplishment and execution of the full

management of water resources between the requirements of a compact and the requirements of state law, the requirements of the compact would prevail. As Justice Douglas noted in *Oklahoma ex rel. Phillips v. Guy F. Atkinson Co.*:¹²⁴

“Whenever the constitutional powers of the federal government and those of the state come into conflict, the latter must yield.” *Florida v. Mellon*, 273 U.S. 12, 17 [1927]...[T]he suggestion that this project interferes with the state’s own program for water development and conservation is likewise of no avail. That program must bow before the “superior power” of Congress.¹²⁵

As with conflicts regarding the requirements of state law, the potential also exists for compacts to conflict with the requirements of other federal laws. In such situations, the established rule of statutory construction is that, “[b]ecause the latest expression of the legislative will prevails, the statute last passed will prevail over a statute passed prior to it.”¹²⁶

There was discussion among the Advisory Committee as to whether Congress should consent to compacts that are inconsistent with the provisions of federal law or whether Congress should enact new federal laws that are inconsistent with the requirements of compacts. However, as noted in the Commentary to Article IV regarding the authority of the Commission, Congress has expressly reserved “the right to revoke, alter, or amend its consent” when it has consented to about two-thirds of interstate water compacts.¹²⁷ Even without such a reservation, “Congress is generally free to change its mind; in amending legislation Congress is not bound by

purposes and objectives of Congress.” *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941); *Jones v. Rath Packing Co.*, 430 U.S. 519, 526, 540–41 (1977). *Accord De Canas v. Bica*, 424 U.S. 351, 363 (1976)” *Ray v. Atlantic Richfield Co.*, 435 U.S. 151, 158 (1978).

Edgar v. Mite Corp., 457 U.S. 624, 631 (1982) (internal citations omitted).

124. 313 U.S. 508 (1941).

125. *Id.* at 534–35 (internal citations omitted).

126. Norman J. Singer, 1A SUTHERLAND STATUTES AND STATUTORY CONSTRUCTION § 23:18, at 525–26 (6th ed. 2002 rev.).

127. MUYS, INTERSTATE WATER COMPACTS, *supra* note 40, at 292 n.59. *See also supra* note 15 and accompanying text.

the intent of an earlier body.”¹²⁸ However, the extent to which Congress is “free to change its mind” is not without uncertainty.¹²⁹

The provisions of Article XI reflect the fact that numerous interstate water compacts may have been superseded or adversely impacted either in whole or in part by subsequently enacted federal legislation.¹³⁰ An example

128. *Community-Service Broad. of Mid-America, Inc. v. FCC*, 593 F.2d 1102, 1113 (D.C. Cir. 1978). The axiom that one Congress cannot bind a subsequent Congress is a well-established principle of American jurisprudence. *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177 (1803) (in contrast to a constitution, legislative acts are “alterable when the legislature shall please to alter [them]”); *Fletcher v. Peck*, 10 U.S. (6 Cranch) 87, 135 (1810) (noting the correctness of the principle that “one legislature is competent to repeal any [law] which a former legislature was competent to pass; and that one legislature cannot abridge the powers of a succeeding legislature”); *Street v. United States*, 133 U.S. 299, 300 (1890) (statute “was not intended to have, . . . [and] could not have, . . . any effect on the power of a subsequent Congress” to enact a different policy). The rationale for this rule is stated by Justice Brennan in his dissent in *United States Trust Co. of N.Y. v. New Jersey*, 431 U.S. 1, 45 (1977):

One of the fundamental premises of our popular democracy is that each generation of representatives can and will remain responsive to the needs and desires of those whom they represent. Crucial to this end is the assurance that new legislators will not automatically be bound by the policies and undertakings of earlier days.

129. After noting that “the Constitution gives to Congress certain plenary powers” and that “Congress has at its disposal abundant authority to supervise and regulate the activities of operational compacts in such a way as to insure that no violence is done by these compacts to more compelling federal concerns,” the Court of Appeals for the District of Columbia in *Tobin v. United States*, 306 F.2d 270, 273 (1962), noted:

Appellant argues...that Congress can adequately protect every interest that needs such protection because of the existence of an operational compact without, in doing so, being forced to the extremity of rescinding its consent under the compact clause, an action which appellant contends Congress has no constitutional power to perform.

Appellant’s assertion in this respect is not unpersuasive, since a holding that Congress has the constitutional power to “alter, amend or repeal” its consent under the compact clause can hardly be stated as a proposition of universal applicability. A line marking the boundary between two states, initially drawn by such states acting pursuant to an interstate compact, could hardly be erased at some later date by Congress’s enactment of hindsight legislation purporting to repeal its consent to the compact by which such boundary was initially determined. See the discussion in *Hinderlider v. LaPlata River and Cherry Creek Ditch Co.*, 304 U.S. 92 (1938) and cases cited therein.

Id. at 273–74 (internal citations omitted).

130. For example, the Clean Water Act probably superceded many substantive provisions of the New England Interstate Water Pollution Control Compact, 61 Stat. 682 (1947), the Ohio River Valley Water Sanitation Compact, 54 Stat. 752 (1940), the Potomac River Basin Interstate Compact, 54 Stat. 748 (1940), *as amended*, 84 Stat. 856 (1970), the Tennessee River Basin Water Pollution Control Compact, 72 Stat. 823 (1958), and the Tri-State [Sanitation] Compact, 49 Stat. 932 (1935). See generally GEORGE WILLIAM SHERK, *DIVIDING THE WATERS: THE RESOLUTION OF INTERSTATE WATER CONFLICTS IN THE UNITED STATES*, 49–58 (2000) (ch. 5, “The Ecology of Options”).

is the South Platte River Compact, a water allocation compact between Colorado and Nebraska.¹³¹ The Riverside Irrigation District sought a nationwide temporary permit under section 404 of the Clean Water Act¹³² to discharge sand and gravel during the construction of a dam. The Corps of Engineers refused to issue the permit because operation of the proposed dam, by adversely impacting critical habitat of the whooping crane, was inconsistent with the requirements of the Endangered Species Act.¹³³ The district court concurred, ruling that the Corps' district engineer properly exercised his authority under the Clean Water Act and the Endangered Species Act.¹³⁴ The court also ruled that approval of the South Platte River Compact by Congress did not limit congressional authority thereafter to enact the Clean Water Act even though that Act affected state water rights in a manner inconsistent with the Compact.¹³⁵ In essence, the *Riverside* decisions stand for the proposition that interstate water compacts are subject to the provisions of subsequently enacted federal legislation, perhaps the two most important being the Clean Water Act and the Endangered Species Act, regardless of the impact of such legislation on compact apportionments or programs approved by an earlier Congress.

Further, suppose Congress approves a compact providing for delivery by an upstream state of a certain quantity of water to a downstream state at specified times. Assume further that protection of the critical habitat of an endangered species within the upper state requires it to deliver more than its compact obligation to the downstream state(s) or its compact obligation at different times. This imposes an unanticipated burden on the upstream state and may provide an unanticipated and perhaps inequitable windfall for the downstream state(s). Conversely, if the endangered species is in the downstream state, that state may be required to dedicate a substantial portion of its compact share to protect the species, a situation that was not anticipated when the compact was negotiated. As noted previously, under traditional rules of statutory interpretation, the later Endangered Species Act arguably would supercede the previously approved allocations. Unless the compact or the consent legislation makes some provision for addressing this future inequity, the states are faced with renegotiating the compact, a solution that might require a degree of magnanimity that political pressures in one or more of the compact states

131. South Platte River Compact, ch. 46, 44 Stat. 195 (1926). The terms of the Compact were at issue in *Riverside Irrigation District v. Stipo*, 658 F.2d 762 (10th Cir. 1981), *on remand sub nom. Riverside Irrigation Dist. v. Andrews*, 568 F. Supp. 583 (D. Colo. 1983), *aff'd* 758 F.2d 508 (10th Cir. 1985).

132. 33 U.S.C. § 1344 (2000) (permits for dredged or fill material).

133. 16 U.S.C. §§ 1531–44 (2000).

134. *Riverside Irrigation Dist. v. Andrews*, 568 F. Supp. 583, 590 (D. Colo. 1983).

135. *Id.* at 587.

or Congress might preclude, unless the Golden Rule is somehow made a constitutional or statutory mandate.

The foregoing hypothetical appears to have become a reality in the Rio Grande Basin in the interaction of the compact between Colorado, New Mexico, and Texas and the Endangered Species Act. A recent study concluded that the economic impacts of maintaining minimum annual flows in the middle Rio Grande Basin for the endangered Rio Grande Silvery Minnow produced a modest net benefit to New Mexico users downstream of the critical habitat area, but that the “major beneficiaries to maintaining an upstream habitat for the minnow include El Paso [Texas] industrial and municipal water users, who would gain more than \$1 million per year during drought years.”¹³⁶ These types of conflicts, which are illustrative of the types of conflicts that are virtually certain to emerge increasingly over time, are addressed in Article XI.

Reflecting the scope of preemption discussed above, Article XI.A provides that the Model Compact supersedes all state and tribal laws that

136. Frank A. Ward & James F. Booker, *Economic Impacts of Instream Flow Protection for the Rio Grande Silvery Minnow in the Rio Grande Basin*, 14 REVS. IN FISHERIES SCI. 187, 200-01 (2006). The article’s conclusions are of note:

This article estimated the economic impacts associated with one measure for increasing instream flows to meet critical habitat requirements of the endangered Rio Grande Silvery Minnow. Using an integrated model of the hydrology, economics, and institutions of the Rio Grande Basin, a 44-year simulation of future inflows to the basin was conducted to estimate economic impacts of providing minimum acceptable flows for the minnow.

Economic impacts to New Mexico agriculture were estimated at a positive \$68,000 per year, distributed as a \$149,000 loss to central New Mexico agriculture. One unexpected result of the study was that farmers in the Elephant Butte Irrigation District in southern New Mexico would gain because of increased flows for the minnow ending up in Elephant Butte Reservoir, downstream of the minnow’s habitat. Our results indicate that these gains by southern New Mexico agriculture could compensate losses incurred by central New Mexico agriculture, with a residual net gain of \$68,000. Annual average benefits lost to New Mexico M&I water users was a modest \$24,000, produced by the increased cost of pumping from groundwater sources after surface treatment facilities are built for Albuquerque’s M&I use of its San Juan Chama supplies. So the net annual average change in economic benefit to New Mexico associated with instream flow protection for the silvery minnow is a slightly positive \$44,000.

The policy of year-round minnow flows produced a gain in benefit of \$203,000 per year for El Paso, Texas agriculture as well as a gain in benefit of \$1,275,000 for El Paso M&I users. The major beneficiaries to maintaining the upstream habitat for the minnow include El Paso industrial and municipal water users, who would gain more than \$1 million per year during drought years.

Id.

are “irreconcilably inconsistent” with the provisions of the Compact. A slightly different approach is reflected in the relationship between the Model Compact and federal laws. Under Article XI.B(1), pre-existing federal laws and regulations that are “irreconcilably inconsistent” with the provisions of the Model Compact would be superseded by the Compact. However, as reflected in the *Riverside Irrigation District* decisions,¹³⁷ the authors believe that federal laws enacted following the approval of the Model Compact that are “irreconcilably inconsistent” would probably supersede the provisions of the Compact. Consequently, Article XI.B(2) provides in relevant part that “[a]ny future federal laws, regulations or judicial or administrative decisions that directly or indirectly negate or significantly modify the Compact’s interstate water apportionments or the powers or programs of the Commission without the consent of the signatory states shall authorize the Commission, by a majority vote of the signatory state members, to terminate the Compact....” While the signatory parties may not be able to change the will or inadvertent error of Congress, they retain their authority to terminate a compact that Congress may have altered substantially, which should prompt Congress to give more attention to the potential impact of water-related legislation on existing compacts and attempt to reasonably accommodate them.

Article XI.B(3) authorizes the Commission to determine the extent to which federal laws applicable to the making of contracts, conflicts-of-interest, financial disclosure, open meetings, advisory committees, disclosure of information, judicial review, and related matters should be applicable to the Commission. Federal laws potentially applicable to this interstate administrative entity would include the Administrative Procedure Act,¹³⁸ the National Environmental Policy Act,¹³⁹ and the Federal Advisory Committee Act.¹⁴⁰ With regard to judicial review of actions arising under the Model Compact, Article XI.B(3)(b) provides for exclusive jurisdiction in the courts of the United States. This provision reflects the Pacific Northwest Electric Power Planning and Conservation Act¹⁴¹ regarding the authority of the congressionally created Northwest Power Council on the Columbia River System and judicial review of Council actions.

Finally, Article XI.C makes it clear that the Model Compact is not intended to affect adversely “any interstate water allocation or other rights” that may have been awarded to a signatory party by the Supreme Court

137. See *supra* notes 131–135 and accompanying text.

138. 5 U.S.C. §§ 500–551, 551–559, 701–706, 1305, 3105, 3344, 4301, 5335, 5372, 7521 (2000).

139. 42 U.S.C. §§ 4321, 4331–4335, 4341–4347 (2000).

140. 5 U.S.C. app. §§ 1–15 (2000).

141. 16 U.S.C. § 839b(a)(4) (2000).

prior to ratification of the Compact. There are, however, two exceptions to this limitation. The Model Compact could adversely affect such rights if the adverse impacts were “expressly provided [for] in this compact” or “by unanimous vote of the Commission.”¹⁴²

142. Similar language is contained in the Delaware River Basin Compact, art. 3.3(a), 75 Stat. 688, 692-93 (1961) (requiring “unanimous consent of its members [to] authorize and direct an increase or decrease in any allocation or diversion permitted or releases required by the decree” in *New Jersey v. New York*, 347 U.S. 995 (1954) (No. 5, Orig.)).

