

Appendix B

MODEL WATER SHARING AGREEMENT B (LIMITED PURPOSE)

The *Model Water Sharing Agreement B (Limited Purpose)* should be used when water management needs are limited in scope. It is a model agreement to achieve certain specific, limited purposes.

B.1 ARTICLE 1B: DECLARATION OF POLICIES AND PURPOSES

§1B-1-01 Purposes and Scope of Agreement

- (a) The waters of the _____ River Basin have local, regional, and national significance; equitable and reasonable allocation of the shared waters of the Basin are public purposes for the respective signatory Parties.
- (b) The purposes of this Agreement are to promote interstate [international] comity; to remove causes of present and future controversy; to make secure and protect water resource developments within the Parties; to equitably and reasonably allocate the shared waters of the Basin; and to augment the benefits of the shared waters of the Basin through joint planning and management of specific projects.
- (c) The physical and other conditions peculiar to the Basin constitute the basis for this Agreement, and its provisions are applicable only [to the surface waters of the Basin] [to underground waters and atmospheric water augmentation as well as the surface waters affecting the Basin].

Commentary: This article is critical to future interpretation and implementation of the agreement. The nature of this product-oriented compact presupposes the existence of specific purposes for which the agreement is made, and those should be set out here. If the agreement is to focus only on allocation, for example, references to drought or flood control strategies would be excluded (Draper 2002b). In paragraph (b), drafters may wish to use the words “. . . to promote international equity” rather than “interstate equity.” In paragraph (c), the choice of parenthetical phrase to be used will depend on whether the agreement concerns only surface waters or all water sources.

It is important to acknowledge that the agreement reflects the particular circumstances and compromises reached in its formulation, as applied to the particular basin. Care should be taken to ensure that this agreement could not be applied to other basins, unless the intent of the parties is otherwise. The inclusion of §1-1-01(c) avoids later claims that other rivers and basins, or other bodies of water, should be dealt with in a similar manner. If underground water and atmospheric water are to be included within the scope of the agreement, it may be mentioned here. It is particularly important to address the atmospheric and underground water issues in this paragraph to avoid later disputes over whether or not underground water and atmospheric water are included within the scope of the agreement.

Cross References: §1B-1-02 (coordination and cooperation); §1B-1-03 (good faith implementation); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-01 (effective date); §2B-1-02 (duration of agreement); §2B-1-03 (consent to jurisdiction); §2B-1-04 (amendments and supplements); §2B-1-05 (limited applicability); §2B-1-06 (annexes); §2B-2-01 (atmospheric water); §2B-2-03 (conservation measures); §2B-2-04 (drought); §2B-2-06 (flood); §2B-2-07 (party or parties); §2B-2-08 (underground water); §2B-2-09 (waters of the basin); §3B-1-01 (use of party officials); §3B-1-02 (substitution of officials); §3B-1-03 (implementation and verification of agreement); §3B-1-04 (funding); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality).

Similar Agreements: *Arkansas River Compact*, 63 Stat. 145 (1949); *Belle Fourche River Compact*, 58 Stat. 94 (1944); *Canadian River Compact*, 66 Stat. 74 (1952); *Colorado River Compact*, 45 Stat. 1057 (1928); *Costilla Creek Compact*, 60 Stat. 246 (1946), amended 77 Stat. 350, Art. I (1963); *Kansas–Nebraska Big Blue River Compact*, 86 Stat. 193 (1972); *Klamath River Basin Compact*, 71 Stat. 497 (1957); *Pecos River Compact*, 63 Stat. 159 (1948); *Red River Compact*, 94 Stat. 3305 (1980); *Snake River Compact*, 64 Stat. 29 (1949); *Upper Colorado River Basin Compact*, 63 Stat. 31 (1949); *Upper Niobrara River Compact*, 83 Stat. 86, Art. V (1969).

§1B-1-02 Coordination and Cooperation Alternative 1

- (a) Each of the Parties pledges to support implementation of the provisions of this Agreement, and covenants that its officers and agencies will not hinder, impair, or prevent any other Party from carrying out any provision or recommendation of this Agreement.
- (b) The Parties shall at all times endeavor to agree on the interpretation and application of this Agreement, and shall make every attempt through cooperation and consultations to arrive at a mutually satisfactory resolution of any matter that might affect its operation.
- (c) The Parties agree that their respective governmental organizations shall provide the information necessary to assist in the equitable and reasonable utilization of those resources. Such information shall include, but not be limited to, all planning and management activities and water projects affecting their shared water resources.
- (d) The Parties further acknowledge that all states are expected to conduct themselves with an absence of malice and deceit, with no intention to seek unconscionable advantage.

Alternative 2

The Parties agree to the following objectives:

- (a) To cooperate and consult with the other Parties to this Agreement in their development, utilization, consumption, and conservation of the water and related resources shared by the Parties in order to ensure equitable and reasonable use of those waters while minimizing harm to other Parties.
- (b) To cooperate on the basis of equality and territorial integrity in the utilization and protection of the shared water resources.
- (c) To conduct themselves with an absence of malice or deceit and with no intention to seek unconscionable advantage.

Commentary: Normally a state or nation enters into any international agreement with a position of self-interest. In the negotiations, each party seeks the rights and authorities critical to certain political, economic, or social objectives while ceding less critical rights and authorities to the other parties. While accepting this fact, all parties have a duty to cooperate and negotiate in good faith (Draper 2002b). This principle is the foundation of international law, and it applies in all relations between autonomous states.

This provision provides a framework for the parties in the development of their individual water policy planning. It recognizes that there are certain fundamental principles that each party should follow in their rational management of water resources. It would be irrational for one party to agree to “equitable and reasonable utilization” when it does not follow a similar philosophy within its own borders. These general objectives and principles improve the likelihood of accomplishing the purposes of the water sharing.

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-03 (good faith implementation); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-01 (effective date); §2B-1-02 (duration of agreement); §2B-1-03 (consent to jurisdiction); §2B-1-04 (amendments and supplements); §2B-1-05 (limited applicability); §2B-1-06 (annexes); §2B-2-05 (equitable and reasonable utilization); §3B-1-01 (use of party officials); §3B-1-02 (substitution of officials); §3B-1-03 (implementation and verification of agreement); §3B-1-04 (funding); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality); §5B-1-01 (resolution by signatory parties); §5B-1-02 (right to litigate).

Similar Agreements: *Agreement Between the People's Republic of Bulgaria and the Republic of Turkey Concerning Co-operation in the Use of the Waters of Rivers Flowing through the Territory of Both Countries*, UNTS, Vol. 807, 117 (1968); *Convention between Switzerland and Italy Concerning the Protection of Italo-Swiss Waters Against Pollution*, UNTS, Vol. 957, 277 (1972); *Stockholm Declaration of the United Nations Conference on the Human Environment*, 11 ILM 1416 (United Nations 1972); *Treaty for Amazonian Cooperation*, 17 ILM 1046 (1978); *Convention between the Federal Republic of Germany and the Czech and Slovak Federal Republic and the European Economic Community on the International Commission for the Protection of the Elbe*, International Environmental Law, Multilateral Agreements, 976:90/1 (1990); *Convention on the Protection and Use of Transboundary Watercourses and International*

Lakes, 31 ILM 1312 (1992); *Canada–Mexico–United States: North American Agreement on Environmental Cooperation*, 32 ILM 1480 (1993); *Treaty of Peace between the State of Israel and the Hashemite Kingdom of Jordan*, 34 ILM 43 (1994); *Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin*, 34 ILM 864 (1995); *Convention on the Law of the Non-Navigational Uses of International Watercourses*, United Nations Document A/51/869 (United Nations 1997).

§1B-1-03 Good Faith Implementation

The Parties agree to implement all provisions of this Agreement, and each covenants that its officers and agencies will not hinder, impair, or prevent any other Party carrying out any provision or recommendation of this Agreement.

Commentary: It should be noted that good faith misinterpretation of compact obligations does not excuse a party from damage liability (*Texas v. New Mexico*, 482 U.S. 124, 1987). In that case, the U.S. Supreme Court reasoned that a compact is a contract, and standard contract law does not allow a defense based on misinterpretation of contract obligations (Grant 2001, §45.07(c), §46.05(d)).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-02 (coordination and cooperation); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-01 (effective date); §2B-1-02 (duration of agreement); §2B-1-03 (consent to jurisdiction); §2B-1-04 (amendments and supplements); §2B-1-05 (limited applicability); §2B-1-06 (annexes); §3B-1-01 (use of party officials); §3B-1-02 (substitution of officials); §3B-1-03 (implementation and verification of agreement); §3B-1-04 (funding); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality); §5B-1-01 (resolution by signatory parties); §5B-1-02 (right to litigate).

Similar Agreements: *Helsinki Rules on the Uses of the Waters of International Rivers*, 52 I.L.A. 484 (1966); *Stockholm Declaration of the United Nations Conference on the Human Environment*, 11 ILM 1416 (United Nations 1972); *Convention on the Law of the Non-Navigational Uses of International Watercourses*, United Nations Document A/51/869 (United Nations 1997).

§1B-1-04 Preservation of Federal Rights (Optional, for U.S. use)

Nothing in this Agreement shall be deemed:

- (a) To impair or affect any rights or powers of the United States, its agencies or instrumentalities, in and to the use of the waters of the _____ River Basin nor its capacity to acquire rights in and to the use of said waters;
- (b) To subject any property of the United States, its agencies, or instrumentalities to taxation by either State or subdivision thereof, nor to create an obligation on the part of the United States, its agencies, or instrumentalities, by reason of the acquisition, construction, or operation of any property or works of whatsoever kind, to make any payments to any State or political subdivision thereof, State agency, municipality, or entity whatsoever in reimbursement for the loss of taxes;

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

Commentary: This article should be included in agreements between states of the United States. Arguably, it may be unnecessary to preserve federal rights, but inasmuch as Congress should approve the agreement, the inclusion of these provisions may facilitate obtaining that approval.

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-05 (national security); §4B-1-01 (exclusive jurisdiction and control).

Similar Agreements: *Republican River Compact*, 57 Stat. 86 (1943); *Belle Fourche River Compact*, 58 Stat. 94 (1944); *Pecos River Compact*, 63 Stat. 159 (1948); *Snake River Compact*, 64 Stat. 29 (1949); *Upper Colorado River Basin Compact*, 63 Stat. 31 (1949); *Yellowstone River Compact*, 65 Stat. 663 (1950); *Canadian River Compact*, 66 Stat. 74 (1952); *Klamath River Basin Compact*, 71 Stat. 497 (1957); *Bear River Compact*, 72 Stat. 38 (1955), amended 94 Stat. 4, Art. XIII(2) (1980).

§1B-1-05 National Security (Optional, for international use)

- (a) Nothing in this Agreement shall be construed to require any Party to make available or provide access to information the disclosure of which it determines to be contrary to its essential security interests.
- (b) Nothing in this Agreement shall be construed to prevent any Party from taking any actions that it considers necessary for the protection of its essential security interests relating to a formal declaration of war.

Commentary: National security concerns necessarily take precedence over any program of water management and the exchange of data.

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-04 (preservation of federal rights); §4B-1-01 (exclusive jurisdiction and control).

Similar Agreements: *Canada-Mexico-United States: North American Agreement on Environmental Cooperation*, 32 ILM 1480 (1993).

B.2 ARTICLE 2B: GENERAL

Part 1 General Obligations

§2B-1-01 Effective Date

Alternative 1: (For international use)

This Agreement shall become operative when approved by the appropriate governing authorities of all Parties. The Agreement will go into full force and effect at 12:01 a.m. [time zone] on the day immediately following the final act necessary for approval of the Agreement, as defined by the domestic law of each Party, by the last Party to give such approval.

Alternative 2: (For U.S. use)

This Agreement shall become operative when, subsequent to approval by the Legislature of each of the States, the Congress of the United States adopts legislation providing, among other things, that:

- (a) Any equitable and reasonable uses hereafter made by the United States, or those acting by or under its authority, within a State, of the waters allocated by this Agreement, shall be within the allocations hereinabove made for use in that State and shall be taken

into account in determining the extent of use within that State.

- (b) The United States shall recognize, to the extent consistent with the best utilization of the waters for multiple purposes that equitable and reasonable use of the waters within the Basin is of paramount importance to development of the Basin. This shall pertain to the exercise of rights or powers arising from whatever jurisdiction the United States has in, over, and to the waters of the _____ River and all its tributaries. The United States government shall exercise no power that may interfere with the full equitable and reasonable use of the waters unless the exercise of such power is in the interest of the best utilization of such waters for multiple purposes.

Commentary: Any agreement of this nature should specify the date or conditions upon which it will take effect. In the case of agreements between states of the United States, the conditions with respect to Congress are designed to provide some measure of protection against subsequent federal action that might disturb the allocation system agreed upon by the contracting parties. Despite the requirement of federal approval of interstate compacts, the federal government is not normally a party to those agreements and may not be bound by the provisions of those agreements unless there is specific legislation committing the federal government to be so bound. The provisions of §2-1-01, modeled after the *Republican River Compact*, 57 Stat. 86 (1943), and the *Belle Fourche River Compact*, 58 Stat. 94 (1944), condition the effectiveness of the agreement on passage of such legislation by Congress and also establish a basis for compensation for takings under the Fifth Amendment should a subsequent Congress decide to take action contrary to that commitment. A later Congress has the power to set aside the actions of an earlier Congress, but the question of takings and just compensation then arises. If these conditions are not incorporated, the states making the agreement may later find that federal actions render their agreement ineffective (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-1-02 (duration of agreement); §2B-1-03 (consent to jurisdiction); §2B-1-04 (amendments and supplements); §2B-1-05 (limited applicability); §2B-1-06 (annexes); §3B-1-01 (use of party officials); §3B-1-02 (substitution of officials); §3B-1-03 (implementation and verification of agreement).

Similar Agreements: *Republican River Compact*, 57 Stat. 86 (1943); *Belle Fourche River Compact*, 58 Stat. 94 (1944); *Delaware River Basin Compact*, Pub. L. 87-328, 75 Stat. 688-716 (1961); *Susquehanna River Basin Compact*, Pub. L. 91-575, 84 Stat. 1509-1541 (1970); *Convention on the Protection and Use of Transboundary Watercourses and International Lakes*, 31 ILM 1312 (1992); *Convention on the Law of the Non-Navigational Uses of International Watercourses*, United Nations Document A/51/869 (United Nations 1997).

§2B-1-02 Duration of Agreement (Optional)

The Parties intend that the duration of this Agreement shall be for an initial period of [] years from its effective date.

Commentary: The parties may prefer to establish no duration and rely on later provisions to modify or terminate the agreement. However, two significant principles are established by this provision. First, setting the duration for an extended period of time allows for predictability on terms of water resource development; it also allows sufficient time to recover capital costs in the financing of projects. Second, establishing an extended duration ensures that the parties reconsider the agreement only after a sufficient hydrologic record is estab-

lished. However, an extended duration does somewhat constrain the parties if significant climate change occurs and dramatically alters the hydrology of the shared water resource. Additionally, significant changes in water demands or changes in water technology could make the terms of the agreement unworkable (Draper 2002b).

Cross References: §2B-1-01 (effective date); §2B-1-04 (amendments and supplements).

Similar Agreements: *Delaware River Basin Compact*, Pub. L. 87-328, 75 Stat. 688-716 (1961); *Susquehanna River Basin Compact*, Pub. L. 91-575, 84 Stat. 1509-1541 (1970).

§2B-1-03 Consent to Jurisdiction (For U.S. use only)

This Agreement shall be effective upon the United States Congress giving its consent for the United States to be named and joined as a Party defendant or otherwise in any case or controversy involving the construction or application of this Agreement in which one or more of the States is a plaintiff, without regard to any requirement as to the sum or value in controversy or diversity of citizenship of Parties to the case or controversy.

Commentary: The predominance of federal interests in water resources makes it likely that any litigation concerning an agreement between states will involve federal interests. The doctrine of sovereign immunity could prevent joinder of the federal interests as parties to the suit absent a waiver of sovereign immunity. The inability to join federal parties led to dismissal of a suit filed by Texas against New Mexico in 1951 to enforce certain provisions of the *Rio Grande Compact of 1938*, 53 Stat. 785, 938 (1938). The U.S. Supreme Court dismissed the case because the federal government was not joined as a party but had important interests that would be affected by any such suit (*Texas v. New Mexico*, 352 U.S. 991 (1957)). The parties should consider including such a waiver of sovereign immunity as a condition to effectiveness of the agreement. They may also wish to add a provision granting jurisdiction over any such cases to the district courts, which may be preferable to the U.S. Supreme Court as the initial forum for resolving certain types of disputes. The *Red River Compact*, 94 Stat. 3305 (1980) takes this approach (Draper 2002b).

Cross References: §1B-1-04 (preservation of federal right); §1B-1-05 (national security).

Similar Agreements: *Kansas-Nebraska Big Blue River Compact*, 86 Stat. 193 (1972); *Red River Compact*, 94 Stat. 3305 (1980).

§2B-1-04 Amendments and Supplements (Optional)

The provisions of this Agreement shall remain in full force and effect until amended by action of the governing bodies of the Parties and consented to and approved by any other necessary authority in the same manner as this Agreement is required to be ratified to become effective.

Commentary: Agreements may, over time, fail to operate as well as initially intended. Therefore, some amendment process should be specified. In some cases, the approval of another institution may be required. If, for example, the agreement is between states of the United States, the U.S. Constitution arguably requires congressional approval of any amendment as well as approval of the original agreement, unless the agreement provides for a different method of amendment (Draper 2002b). In this latter case, the congressional approval of the initial agreement would implicitly grant consent to modify the agreement in accordance with the terms of the agreement. If the agreement is between nation-states, the references to other “necessary authority” may be omitted, but the particular circumstances of each case should be considered.

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-1-05 (limited applicability); §2B-1-06 (annexes); §3B-1-03 (implementation and verification of agreement).

Similar Agreements: *Delaware River Basin Compact*, Pub. L. 87-328, 75 Stat. 688-716 (1961); *Susquehanna River Basin Compact*, Pub. L. 91-575, 84 Stat. 1509-1541 (1970); *Convention on the Protection and Use of Transboundary Watercourses and International Lakes*, 31 ILM 1312 (1992); *Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin*, 34 ILM 864 (1995).

§2B-1-05 Limited Applicability (Optional)

Should a tribunal of competent jurisdiction hold any part of this Agreement to be void or unenforceable, all other severable provisions shall continue in full force and effect.

Commentary: The drafters of the agreement should consider whether they wish this clause to be included. The advantage of such a clause is that it avoids the possibility of having the entire agreement become null and void if any part is found to be void or unenforceable. On the other hand, the agreement may be viewed as such an integrated package that the parties would choose to have the entire agreement fall if any part falls (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-1-04 (amendments and supplements); §2B-1-06 (annexes); §3B-1-01 (use of party officials); §3B-1-02 (substitution of officials); §3B-1-03 (implementation and verification of agreement); §3B-1-04 (funding); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality); §5B-1-01 (resolution by signatory parties); §5B-1-02 (right to litigate).

Similar Agreements: *Yellowstone River Compact*, 65 Stat. 663 (1950); *Sabine River Compact*, 68 Stat. 690 (1953), amended 76 Stat. 34 (1962), 91 Stat. 281 (1977), 106 Stat. 4661 (1992); *Klamath River Basin Compact*, 71 Stat. 497 (1957); *Delaware River Basin Compact*, Pub. L. 87-328, 75 Stat. 688-716 (1961); *Susquehanna River Basin Compact*, Pub. L. 91-575, 84 Stat. 1509-1541 (1970).

Part 2 Definitions

§2B-2-01 Atmospheric Water

The phrase “atmospheric water” means all available moisture above the surface of the earth, including underground and surface water and all forms of precipitation but not including water projecting from irrigation systems.

Commentary: This definition is consistent with the definitions usually used in state and federal laws on weather modification. See generally Beck (2001), §3.04; Davis (1987); Gochis (2001); Keyes (2006).

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-2-09 (waters of the basin).

§2B-2-02 _____ Basin

“_____ Basin” means the area of drainage into the _____ River and its tributaries, [and] aquifers underlying the drainage, or only the aquifers themselves.

Commentary: The agreement could include the total surface area of drainage throughout the basin and contain aquifers underlying the surface drainage. Some tributaries can be connected to the underlying aquifers holding the underground water. Some of the aquifers could be connected to more than one of the surface

water basins. The geographic scope of the agreement should be defined to ensure that there are no future disagreements about what lands are or are not covered by the agreement. A map may be incorporated, but care should be taken that the map is cartographically accurate. Because the map is likely to be at a scale too small for precise delineation of boundaries, it should be made clear that it is for general reference only. In the event of a dispute over land or within the defined _____ River and its tributaries, the actual limits of the watershed as determined on the ground should be controlling (Draper 2002b).

Cross References: §2B-2-05 (equitable and reasonable utilization); §3B-1-02 (substitution of officials); §4B-1-03 (water levels protected).

§2B-2-03 Conservation Measures

“Conservation measures” refers to any measures adopted by a water right holder, or several water right holders acting in concert pursuant to a conservation agreement reviewed and approved by the Commission as being appropriate water-saving strategies for purposes of the Comprehensive Water Management Plan, to reduce the withdrawals and/or consumptive uses, including, but not limited to:

- (a) Improvements in water transmission and water use efficiency;
- (b) Reduction in water use;
- (c) Enhancement of return flows; and
- (d) Reuse of return flows.

Commentary: Sustainable development requires steps to conserve the waters of the river basin. This definition limits the application of the term “conservation measures” to practices that have been reviewed and approved by the commission as being appropriate water-saving strategies for the purposes of the comprehensive water management plan. Specifically excluded from this definition are practices applied to native or naturally occurring waters, return flows from other water rights, or other water sources not associated with the water right holder or sought by the applicant (Draper 2002b).

Nothing in this model agreement attempts to spell out in detail what steps might actually qualify as appropriate conservation measures. Such efforts as improved efficiency in manufacturing processes, the substitution of drip irrigation for sprinklers, or the introduction by a public water supply enterprise of a requirement that customers use low-flow toilets or showerheads would all be appropriate examples. The model agreement leaves the precise details regarding the suitability of these or other possible conservation measures to be developed by the regulatory and planning processes prescribed for the state agency (Draper 2002b).

Cross Reference: §1B-1-01 (purposes and scope of agreement).

§2B-2-04 Drought

“Drought” means conditions of abnormal water scarcity in a specific area, resulting from natural conditions.

Commentary: Management action arises from a drought, or lack of mean annual rainfall, but could arise from other causes as well, such as the collapse of a dam with the resulting draining of a reservoir on which the commission users depend. The definition should be determined, in large measure, by the use intended. Then a “drought management strategy” would be a specific course of conduct planned by the commission as a necessary or appropriate response to the lack of precipitation (Draper 2002b).

Cross Reference: §1B-1-01 (purposes and scope of agreement).

§2B-2-05 Equitable and Reasonable Utilization Consumption or Diversion

Utilization, consumption or diversion of a transboundary water resource in an equitable and reasonable manner requires taking into account all relevant factors and circumstances, including:

- (a) Geographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character;
- (b) The social and economic needs of the Parties concerned;
- (c) The population dependent on the water resource in each of the Parties;
- (d) The effects of the use or uses of the water resources in by one Part on other Parties;
- (e) Existing and potential uses of the water resource;
- (f) Conservation, protection, development and economy of use of the water resource and the costs of measures taken to that effect;
- (g) The availability of alternatives, of comparable value, to a particular planned or existing use.
- (h) The potential or actual material injury or harm to other Parties utilizing the shared water resource.

Commentary: This definition is based in the 1997 *Convention on the Law of the Non-Navigational Uses of International Watercourses*, which was approved by the General Assembly of the United Nations by a vote of all but three nations. Drafters may wish to revert to the use of the term “equitable apportionment.” However, this phraseology and definition are recommended since it is more encompassing and more descriptive of water-related activities that will affect water availability to the Parties.

Cross-references: §1B-1-02 (coordination and cooperation); §2B-2-02 (equitable and reasonable utilization, consumption or diversion); §4B-1-01 (exclusive jurisdiction and control).

§2B-2-06 Flood

“Flood” means a rising of water to levels that have detrimental effects on or in one or more Basin States with a frequency agreeable to the Parties.

Commentary: The flood condition is almost the opposite of a drought. A large amount of water is to be controlled by facilities of the commission. The parties are to agree as to the frequency of the flow of high waters in the basin. Most of the time, these flows are during periods that exceed the amount of flow that occurs during the years of mean annual precipitation (Draper 2002b; ILA 2004). As an example, 10-year flood, meaning a flood that has a 10% probability of occurring during any one year.

Cross References: §1B-1-01 (purposes and scope of agreement); §4B-1-03 (water levels protected); §4B-1-05 (flood protection works).

§2B-2-07 Party or Parties

“Party or Parties” means, unless the text otherwise indicates, those governments signatory to this Agreement.

Commentary: Defining the terms in this way avoids the need to include similar language at numerous points throughout the agreement (Draper 2002b).

Cross References: §3B-1-01 (use of party officials); §3B-1-02 (substitution of officials); §3B-1-03 (implementation and verification of agreement); §3B-1-04 (funding); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground

water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality); §5B-1-02 (right to litigate).

§2B-2-08 Underground Water

“Underground water” means water beneath the surface of the ground located in a saturated zone and in direct contact with the ground or soil.

Commentary: This definition of “underground water” includes all forms of water in the ground, being equivalent to terms such as “groundwater” and similar expressions. It excludes soil (capillary) moisture that might be drawn upon by plants but cannot practically be withdrawn by direct human activity. A somewhat more precise definition is found in the *Illinois Water Use Act*: “water under the ground where the fluid pressure in the pore space is equal to or greater than atmospheric pressure” (*Illinois Water Use Act* 1983; Dellapenna 2001 §6.04; Murphy 2001).

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-2-09 (waters of the basin); 4B-1-07 (water quality).

§2B-2-09 Waters of the Basin

“Waters of the Basin” shall include all water found within the Basin, whether surface, underground, or atmospheric water other than marine waters.

Commentary: This definition would be included to make it clear that underground water and atmospheric water are included within the scope of the agreement, if that is the intent of the parties. The technological questions relating to atmospheric water and, possibly, underground water, may result in uncertainty regarding its allocation, but to the extent the parties wish to reach a complete agreement, the matter should be addressed, or recognition should be given to the fact that the parties have chosen to reserve that issue for later resolution. The parties should also decide whether water imported from other basins should be included within the scope of the agreement. If it is not to be so included, that exclusion should be noted in this article.

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-2-01 (atmospheric water); §2B-2-08 (underground water); §4B-1-02 (water allocation); §4B-1-07 (water quality).

B.3 ARTICLE 3B: ADMINISTRATION

Part 1 Administration Officials

§3B-1-01 Use of Water Management Officials of the Parties
It shall be the duty of the Parties to administer this Agreement through the official of each Party who is now or may hereafter be charged with the duty of administering the public water supplies, and to collect and correlate through such officials the data necessary for the proper administration of the provisions of this Agreement. Such officials may, by unanimous action, adopt rules and regulations consistent with the provisions of this agreement.

Commentary: This article is one of two articles that provide a minimal means of administering the agreement. If a more structured or active administration is desired, a commission and authority may be established; *see* Model A (Coordination and Cooperation) and Model C (Comprehensive Management) for appropriate provisions and commentary (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-02 (coordination and cooperation); §1B-1-03 (good faith implementation); §2B-2-07 (party or parties); §3B-1-02 (substitution of officials); §3B-1-04 (funding).

Similar Agreements: *La Plata River Compact*, 43 Stat. 796 (1925); *Republican River Compact*, 57 Stat. 86 (1943); *Snake River Compact*, 64 Stat. 29 (1949); *Costilla Creek Compact*, 60

Stat. 246 (1946), amended 77 Stat. 350 (1963); *Upper Niobrara River Compact*, 83 Stat. 86, Art. V (1969).

§3B-1-02 Substitution of Officials

Whenever any official of any Party is designated to perform any duty under this Agreement, such designation shall be interpreted to include the Party’s official or officials upon whom the duties now performed by such official may hereafter devolve.

Commentary: This is the second of two articles that provide a minimal means of administering the agreement. Article 3B-1-02 is included to guard against confusion in the event that there is a subsequent reorganization of a party’s government (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-02 (coordination and cooperation); §1B-1-03 (good faith implementation); §2B-2-02 (basin); §2B-2-07 (party or parties); §3B-1-01 (use of party officials); §3B-1-04 (funding).

Similar Agreements: *La Plata River Compact*, 43 Stat. 796 (1925); *South Platte River Compact*, 44 Stat. 195 (1923).

§3B-1-03 Implementation and Verification of Agreement

- (a) Each Party shall identify or maintain the administrative machinery necessary to implement the provisions of this Agreement and, where several governmental institutions are involved, create the necessary coordinating mechanism for the authorities dealing with designated aspects of the environment.
- (b) Each Party shall establish, maintain, and operate such suitable water gauging stations and facilities for measuring water quantity and quality as it finds necessary to administer and effect verification of this Agreement.

Commentary: Implementation and verification of the agreement require administrative and technical support that should be provided by the parties. This article obligates the parties to provide that support (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-02 (coordination and cooperation); §1B-1-03 (good faith implementation); §2B-2-07 (party or parties); §3B-1-04 (funding); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality).

Similar Agreement: *La Plata River Compact*, 43 Stat. 796 (1925).

§3B-1-04 Funding

Each Party shall allocate sufficient qualified personnel with adequate enforcement powers and sufficient funds to accomplish the tasks necessary for the implementation of this Agreement.

Commentary: In the case of simple allocation agreements in which no commission is established, funding provisions are not normally included. However, to ensure that no misunderstanding exists concerning the responsibilities of each party, an explicit provision may be preferable. Article 3B-1-04 is designed to avoid disputes over financing by requiring that each party will operate the necessary facilities within its borders (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-02 (coordination and cooperation); §1B-1-03 (good faith implementation); §2B-2-07 (party or parties); §3B-

1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality).

Similar Agreement: *Agreement on the Conservation of Nature and Natural Resources* (ASEAN 1985).

Part 2 Activities Within the Territory of Other Party

§3B-2-01 Rights in Territory of Other Party (Optional)

Either Party shall have the right, in accordance with the laws of the other Party, to file applications for and obtain consent to construct or participate in the construction and use of any dam, storage reservoir, or diversion works in the territory of the other Party for the purpose of conserving and regulating the apportioned water without prejudice based on extra-territorial status, provided, that such right is subject to the rights of the other Party to control, regulate, and use water apportioned to it.

Commentary: To achieve efficient use of allocated water, it may be desirable for one party or its citizens to construct reservoirs or other works within the boundaries of the other party. This is the first of two articles that strive to gain concurrence and consent to do so while preserving the rights of the party in which the works are constructed to control resource use within its territory (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-03 (consent to jurisdiction); §2B-2-07 (party or parties); §3B-1-03 (implementation and verification of agreement); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control).

Similar Agreements: *Belle Fourche River Compact*, 58 Stat. 94 (1944); *Republican River Compact*, 57 Stat. 86 (1943); *Snake River Compact*, 64 Stat. 29 (1949); *Upper Colorado River Basin Compact*, 63 Stat. 31 (1949); *Yellowstone River Compact*, 65 Stat. 663 (1950).

§3B-2-02 Storage and Diversion (Optional)

Each claim hereafter initiated for storage or diversion of water in the territory of one Party for use by another Party shall be filed in the appropriate office of the Party in which the water is to be diverted, and a duplicate copy of the application including a map showing the character and location of the proposed facilities and the location(s) of the proposed uses shall be filed in the appropriate office of the Party from which the water is to be withdrawn. Any such construction or diversion by one Party within the territory of a second Party shall be subject to all appropriate laws and regulations of the second Party.

Commentary: This is the second of two articles that strive to gain concurrence and consent to do so, while preserving the rights of the party in which the works are constructed to control resource use within its territory (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-03 (consent to jurisdiction); §2B-2-07 (party or parties); §3B-1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control).

Similar Agreements: *Belle Fourche River Compact*, 58 Stat. 94 (1944); *Snake River Compact*, 64 Stat. 29 (1949); *Yellowstone River Compact*, 65 Stat. 663 (1950).

§3B-2-03 Eminent Domain (Optional)

- (a) Any Party, or person, or other entity claiming water pursuant to the allocation of water to either Party, shall have the right to acquire necessary property rights in the territory of another Party by purchase or through the exercise of the power of eminent domain for the construction, operation, and maintenance of storage reservoirs and of appurtenant works, canals, and conduits required for the enjoyment of the privileges granted by Article 4B, provided, however, that the Party, person, or entity exercising such rights shall pay to the political subdivisions of the Party in which such works are located, each and every year during which such rights are enjoyed for such purposes, a sum of money equivalent to the average annual amount of current year taxes assessed against the lands and improvements thereon during the years preceding the use of such lands in reimbursement for the loss of taxes to said political subdivision of the Party.
- (b) Such power of condemnation shall be exercised in accordance with the provisions of any law applicable to the jurisdiction in which the property is located.
- (c) Nothing in this Agreement authorizes the taking of any existing vested property right in the use of water except for just compensation, in accordance with the internal laws of the Party in which the property or usufructuary right exists.

Commentary: To actually use the water allocated by the agreement, it may be necessary for one of the parties or its citizens to construct reservoirs or other works within the boundaries of the other party. This provision allows that to be done, through eminent domain if necessary, but also provides for payments in lieu of property taxes to avoid problems, which might arise if one party attempted to tax property belonging to another. If this provision is not included, the use of eminent domain presents a question of party law in the party in which the works are to be constructed. This alternative is likely to be adopted only within the United States or another federal system; issues of authority may preclude use of this alternative as between autonomous states on the international level (Draper 2002b).

This provision expressly requires “just compensation” for any taking of property rights. The “just compensation,” however, depends largely on the individual internal laws of the parties themselves. In the United States, the recent rulings in regulatory affairs by the U.S. Supreme Court have held that a serious impairment of the value of land by a regulation of its use should be compensated, but lawmakers have noted that the state could diminish the value of a water right by as much as 95% without incurring liability, at least when a system of regulated riparian rights exist (Lucas 112 S. Ct. 2886, 1992; Byrne 1995; Houck 1995; Sax 1990).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-03 (consent to jurisdiction); §2B-2-07 (party or parties); §3B-1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §4B-1-01 (exclusive jurisdiction and control).

Similar Agreements: *Belle Fourche River Compact*, 58 Stat. 94 (1944); *Republican River Compact*, 57 Stat. 86 (1943); *Snake River Compact*, 64 Stat. 29 (1949); *Upper Colorado River Basin Compact*, 63 Stat. 31 (1949); *Yellowstone River Compact*, 65 Stat. 663 (1950).

§3B-2-04 Navigation (For international use)

- (a) The Parties agree that the navigation of the _____ River shall forever continue free and open for the purposes of commerce to the inhabitants and to the ships, vessels, and boats of both Parties equally, subject, however, to any laws and regulations of either Party, within its own territory, not inconsistent with such privilege of free navigation and applying equally and without discrimination to the inhabitants, ships, vessels, and boats of both Parties.
- (b) It is further agreed that so long as this Agreement shall remain in force, this same right of navigation shall extend to all water bodies, tributaries, and canals connecting boundary waters, now existing or which may hereafter be constructed on either side of the line. Either of the Parties may adopt rules and regulations governing the use of such connecting water bodies, tributaries, and canals within its own territory and may charge tolls for the use thereof, but all such rules and regulations and all tolls charged shall apply alike to the subjects or citizens of the Parties and the ships, aid vessels, and boats of both of the Parties, and they shall be placed on terms of equality in the use thereof.

Commentary: A clear statement of navigational interests of each party is set forth. Should some other paramount use between the parties dominate at the time of treating or negotiations, this utilization would be set forth herein (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-03 (consent to jurisdiction); §2B-2-07 (party or parties); §3B-1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §4B-1-01 (exclusive jurisdiction and control); §4B-1-03 (water levels protected).

Similar Agreement: *Treaty between the United States and Great Britain Relating to Boundary Waters*, 36 Stat. 2451 (1909).

B.4 ARTICLE 4B: EQUITABLE AND REASONABLE USE OF WATER

§4B-1-01 Exclusive Jurisdiction and Control

- (a) Each of the Parties reserves to itself, unless otherwise mandated by federal law or contractually agreed upon by the Parties, the exclusive control over the equitable and reasonable utilization, consumption, or diversion of all waters within its borders.
- (b) The Parties agree that any use or diversion from their natural channel of shared waters which result in injury to one Party's equitable and reasonable utilization of the shared waters shall give to the injured Party, or citizens of that Party, the same legal rights and entitlements to the same legal remedies as if such injury took place within the jurisdiction of the Party where such use or diversion occurs. Requirements for legal standing of citizens of the Party incurring injury by actions within the territory of the other Party shall

be identical to those established for the citizens of the other Party.

- (c) It is understood, however, that neither Party intends by the foregoing provision to surrender any right that it may have to enjoin or otherwise object to any interference with nor diversion by the other Party of shared waters that has a reasonable potential to cause material injury to the equitable and reasonable utilization of shared waters within its jurisdiction.

Commentary: This provision establishes the principle of the right of each party to allocate or otherwise use and control the waters within its borders, constrained only by the requirement that such use be reasonable and equitable. Enforcement of this principle shall be based on those causes of actions and remedies available in tort within the legal system of the party causing the injury. This article provides for prospective relief from use, interference, or diversion that may have a reasonable potential to cause material harm. A "reasonable potential" to cause material injury would be determined as a matter of law. The provision also resolves any legal standing issues that may arise in the case of citizens of one party requesting legal intervention within the territory of the other party (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-03 (consent to jurisdiction); §2B-2-05 (equitable and reasonable utilization); §2B-2-07 (party or parties); §3B-1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control).

Similar Agreements: *Treaty between the United States and Great Britain Relating to Boundary Waters*, 36 Stat. 2451 (1909); *Sabine River Compact*, 68 Stat. 690 (1953), amended 76 Stat. 34 (1962), 91 Stat. 281 (1977), 106 Stat. 4661 (1992).

§4B-1-02 Water Allocation (Optional)

[See Annex I for specific allocation alternatives]

Commentary: The basic allocation is a matter for negotiation. It may be based upon the relative geographic areas of the parties, the relative contribution of each party to the flow of the boundary stream, or any other method that is agreed upon as being equitable. A significant issue to be resolved in the negotiations is the means or methods used to verify compliance with the allocation provisions. A simple expedient of measuring flow at a specific point may be acceptable in cases in which the river flow is consistently stable. However, in cases in which extreme variations in flow occur or in geographic regions in which unstable meteorological and climatic changes are the norm, verification may require a sophisticated, complex scheme based on consistently measured consumption by the parties (McCormick 1994a, b; Draper 2002b).

The actual agreement may be relatively simple, as in the case of the *Sabine River Compact*, 68 Stat. 690 (1953), amended 76 Stat. 34 (1962), 91 Stat. 281 (1977), 106 Stat. 4661 (1992), between Texas and Louisiana. The Sabine originates in Texas, and then forms the border between the two states. Texas is given the right to unrestricted use of the water above the gauging station at Logansport, where the river becomes the state boundary, except for an essentially de minimis flow requirement. The water in the boundary reach is allocated equally between the two states, and any withdrawal from tributaries to that reach of the river is charged against the withdrawing state's allocation. A more complicated approach is seen in the *Red River Compact* among Texas, Oklahoma, Arkansas, and Louisiana (1980). The Red River serves not only as a state boundary but also flows

across borders. In addition, both appropriative and riparian water rights are recognized, depending on which state is involved. The resulting allocation is based on a division of the river into five reaches, with separate allocations for subbasins within each reach (McCormick 1994a, b; Draper 2002b).

Annex I provides a number of alternatives for allocation formulas that have been utilized in interstate compacts in the United States (McCormick 1994a, b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-03 (consent to jurisdiction); §2B-2-07 (party or parties); §2B-2-09 (waters of the basin); §3B-1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality).

Similar Agreements: See Annex I.

§4B-1-03 Water Levels Protected (Optional)

- (a) The Parties agree that, except for the dams, reservoirs, obstructions, and diversions heretofore permitted or hereafter provided for by special agreement between the Parties hereto, no additional dams, reservoirs, obstructions or diversions of the shared waters of the _____ River Basin which affect the natural level or flow of boundary waters on the other side of the line shall be made except by approval of the other Party.
- (b) The signatory Parties agree to furnish the other Party with complete documentation of any planned remedial or protective works or any dams, reservoirs, or other diversions or obstructions to waters flowing into or from waters of the Basin. The other Party shall analyze the documentation to determine the potential flood damages that may therefrom arise and consult with the signatory Parties concerning the findings of such analysis.
- (c) The foregoing provisions are not intended to limit or interfere with the existing rights of the Parties to undertake and carry on governmental works in shared waters for water development activities for economic growth, public health, recreational activities, or environmental protection, provided that such works are wholly within its jurisdiction and do not materially affect the level or flow of the waters available to the other Party.

Commentary: A significant source of controversy develops during the construction and operation of water supply reservoirs and hydropower facilities. In both cases, significant reduction in flow may dramatically lower the flow in the shared water resource. Although this reduction may be limited to the initial start-up period and may be limited to a period of several years, severe economic and social effects may occur to other parties. As importantly, releases from the works should be coordinated to ensure that downstream users are not affected. In the case of water supply reservoirs, this requirement may become critical during periods of drought. In the case of hydropower dams, especially those of a “peaking power” nature, the timing of release may be critical. This provision requires the sharing of data concerning such works and establishes a means of analysis of potential effects by specifically allowing for “special agree-

ments” regarding raised levels above the natural level of trans-boundary rivers between the parties. It also prohibits “dams or other obstructions” from raising the natural level of waters on the other side without such works having the approval of the other party (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-1-03 (consent to jurisdiction); §2B-2-02 (basin); §2B-2-06 (flood); §2B-2-07 (party or parties); §3B-1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality).

Similar Agreements: *Treaty between the United States and Great Britain Relating to Boundary Waters*, 36 Stat. 2451 (1909); *Pecos River Compact*, 63 Stat. 159 (1948).

§4B-1-04 Underground Water; Limit on Withdrawals (Optional)

When such action is necessary [to maintain an allocation set out elsewhere], the Parties shall regulate, in the same manner that surface flow is regulated, withdrawal of water from irrigation wells located within ____ miles of the river or its tributaries.

Commentary: If underground water is subject to the allocation provisions of the agreement, it may be useful to specifically address the steps to be taken with respect to withdrawals. This provision, adapted from the *Kansas-Nebraska Big Blue River Compact* between Kansas and Nebraska, 86 Stat. 193 (1972), uses a distance limitation to determine which wells fall within the scope of the agreement. If it is possible to establish the hydrological connection among all wells and the surface flow, the mileage limitation may be replaced with references to wells with such connection. In the absence of definitive hydrologic information, the mileage limitation may make administration easier, if less accurate (Draper 2002b).

No further specific allocation systems for underground water are provided because it is assumed that if underground water is allocated by agreement, that allocation is in conjunction with allocation of related surface water sources and the allocation of underground water is incorporated as part of the overall allocation of water. If underground water is allocated independently from surface water, the parties might use the surface models as a guide with respect to types of allocations (e.g., proportional or guaranteed minimum) (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-1-03 (consent to jurisdiction); §2B-2-07 (party or parties); §3B-1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-05 (flood protection works); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality).

Similar Agreement: *Kansas-Nebraska Big Blue River Compact*, 86 Stat. 193 (1972).

§4B-1-05 Flood Protection Works (Optional)

- (a) As a general concept, the use of the channels of the waters of the _____ River Basin for the discharge of flood or other excess waters shall be free and not subject to limitation by either country, and neither country shall have any claim against the other in

respect of any damage caused by such use. However, the signatory Parties declare their intention to manage flood control programs and activities in such manner, consistent with the normal operations of its hydraulic systems, as to avoid, as far as feasible, material damage in the territory of the other.

- (b) Each Party agrees to furnish the other Party with complete documentation of existing and planned flood protection programs and works. The other Party shall analyze the documentation to determine the potential flood damages that may therefrom arise and enter into consultations and negotiations as necessary concerning the findings of such analysis.

Commentary: Flood control policies and works can have a dramatic effect on the timing and elevation of water levels and thus may become a major contentious issue between the parties. The issue often goes beyond “equitable and reasonable utilization” and needs to be addressed as an individual area of coordination. This provision recognizes the right of each party to make efforts to safeguard its people and economic forces from flood damages but also establishes an avenue for the sharing of data on flood control efforts, as well as an independent analysis by a third party of the effects of those efforts on other parties (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §1B-1-04 (preservation of federal rights); §1B-1-05 (national security); §2B-1-03 (consent to jurisdiction); §2B-2-06 (flood); §2B-2-07 (party or parties); §3B-1-03 (implementation and verification of agreement); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §3B-2-04 (navigation); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-06 (augmentation of supply); §4B-1-07 (water quality).

Similar Agreement: *Treaty between the United States and Mexico. Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande*, 59 Stat. 1219 (1944).

§4B-1-06 Augmentation of Supply (Optional)

- (a) Any importation of water from outside the Basin shall be excluded from the provisions set forth elsewhere in this Agreement, and the Party importing such water shall have the right to full and complete use and consumption of such imported water.
- (b) Any Party which augments precipitation within the Basin shall be entitled to full and exclusive use of additional water supplies resulting from such augmentation, notwithstanding any other standard of allocation set forth in this Agreement. In the event the Parties cannot agree on whether or to what extent precipitation has been augmented, the Party asserting the right to such increased supplies shall bear the burden of proving that the increase, if any, was the result of the Party’s augmentation efforts and not simply the result of natural variation in precipitation amounts.
- (c) Any Party implementing a conservation program with respect to water supplies shall be entitled to full and complete use and consumption of all increased supplies resulting from such conservation program. The burden of showing such increase shall rest on the Party claiming such increase.

Commentary: Article 4B-1-06 (a) makes clear that if a party arranges to increase supplies by importing water, it need not

share those additional supplies. Article 4B-1-06(b) applies the same principle for precipitation augmentation. Article 4B-1-06(c) provides encouragement for conservation by rewarding the party that undertakes that effort. Caution should be exercised in incorporating this provision, however, inasmuch as the level of conservation efforts between the parties may be unequal at the time the agreement is negotiated. A party that has already made significant efforts should not be placed at a disadvantage relative to a party that, before the agreement, made little effort to conserve (Draper 2002b).

Cross References: §1B-1-01 (purposes and scope of agreement); §2B-2-07 (party or parties); §3B-2-01 (rights in territory of other party); §3B-2-02 (storage and diversion); §3B-2-03 (eminent domain); §4B-1-01 (exclusive jurisdiction and control); §4B-1-02 (water allocation); §4B-1-03 (water levels protected); §4B-1-04 (underground water; limit on withdrawals); §4B-1-05 (flood protection works); §4B-1-07 (water quality).

Similar Agreements: *Rio Grande Compact of 1938*, 53 Stat. 785, 938 (1938); *Pecos River Compact*, 63 Stat. 159 (1948).

§4B-1-07 Water Quality (Optional)

Alternative 1 (For U.S. use)

The Parties shall:

- (a) Manage the waters of the _____ River Basin within their jurisdiction to maintain ecosystem integrity, preserve and protect aquatic ecosystems effectively from any form of (significant) degradation on a drainage Basin or sub-Basin basis. Natural water quality solutions, such as riparian vegetated buffers along the River and its tributaries, will be utilized to the maximum extent possible.
- (b) Publish biological, health, physical, and chemical quality criteria for all water bodies (surface and underground water), according to Basin capacities and needs, with a view to an ongoing improvement of water quality.
- (c) Establish standards for the discharge of effluents and for the receiving waters, no less stringent than the effluent limitations established by the U.S. Environmental Protection Agency, including standards for land use management.
- (d) Establish minimum flow criteria to ensure nourishment of wetlands and riparian buffers as necessary to properly filter nitrates and phosphorus arising from nonpoint runoff.
- (e) Maintain the quality of the Waters of the Basin at or above water quality standards as may be adopted, now or hereafter, by the water pollution control agencies of the respective Parties in compliance with the provisions of the Clean Water Act, 33 U.S.C. §§1251 *et seq.*, and amendments thereto.

Alternative 2 (For international use)

The Parties mutually agree to:

- (a) Comply with the principle of individual Party efforts to control natural and man-made water pollution within each Party and to the continuing support of both Parties in active water pollution control programs.
- (b) Cooperate, through their appropriate Party agencies, in the investigation, abatement, and control of sources of alleged interparty pollution within the Basin.
- (c) Cooperate in maintaining the quality of the Waters of the Basin at or above water quality standards as may be developed and agreed to by the Parties.