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## POLICY MEMORANDUM

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**SUBJECT:** Sharing water in the Rio Grande

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### Topic and Purpose

The Rio Grande Basin has economic, cultural, and environmental values to communities throughout Colorado, New Mexico, Texas, and bordering Mexican states. The current agreements and structures in place to manage waters of the Rio Grande are failing to protect the values of all stakeholders dependent on the river. This brief analyzes the issues present in the current management and ownership structures and provides a recommendation to encourage a sustainable relationship with the Rio Grande Basin.

### Background

Water in the Rio Grande is shared between Mexico and the United States under a series of agreements, notably, the [1944 Water Treaty](#). Under this treaty, the United States gives water to Mexico from the Colorado River in exchange for water from the Rio Grande in five-year cycles. Water dedicated to the United States under the treaty is shared with New Mexico under the [1938 Rio Grande Compact](#)—this is water in the upper portion of the Rio Grande Basin.

Ongoing drought combined with increased water demand, which is associated with agricultural development and population growth in the Texas border region, has stoked tensions between Texas and Mexico, and between New Mexico and Texas. Mexico has repeatedly failed to deliver the amount of water specified in the 1944 Water Treaty to Texas, while Texas has consistently honored the agreement. Per the treaty, the only excuse for not being able to deliver this water is if Mexico is in an extraordinary drought—a term that is not defined in the treaty. As an addendum to the 1938 Rio Grande Compact, in 2008, Colorado, New Mexico, and Texas entered into an [agreement](#) detailing an operational plan to better manage and allocate flows in the Rio Grande, recognizing the potential lawsuits over water in the future. In 2011, New Mexico sued Texas to invalidate the 2008 agreement. Texas then countersued for violation of the compact per the original 1938 conditions. These compact violations are still awaiting judgment by the US Supreme Court.

### Issues and Assessment of Current Policy

Texas faces problems related to providing enough water to the Rio Grande's users, but these problems arise from the issue of agreement violations by both Mexico and New Mexico. Water uses from the Rio Grande include agriculture, municipal, industry, and environmental, and the river is already over-allocated to its many users. The overall issue here, then, lies in the nature and structure of differing political structures—affecting management strategies—and differing water ownership laws in New Mexico, Texas, and the Mexican states that border the United States.

While the 1944 Water Treaty and the 1938 Rio Grande Compact create agreements within this environment of disparate water policy, the following issues are not explicitly addressed, making sustainable management difficult:

- **Holistic basin management.** While the Rio Grande is one river system, management strategies treat it as two—the upper and lower basins. The upper basin stretches through Colorado, New Mexico, and Texas and is governed by the 1938 Rio Grande Compact and each state's respective

water laws and management strategies. The lower basin covers a thin area in Texas but primarily lies in Mexican states. The majority of issues Texas faces are driven by climatic factors and management strategies in the Mexican portion of the basin. Remedies to Mexican faults on the 1944 Water Treaty are addressed through the Rio Grande Compact in the upper portion of the basin. The mismatch in agreements and multiple levels of government involved in water policy decisions has created disparate treatment of the upper and lower segments of the Rio Grande and has made coordination of basic water management challenging.

- **Best available science used for adaptive management**, particularly concerning water budgets, groundwater-surface water interaction, and water quality standards. While the two agreements discussed here were created in response to agricultural development, neither have the foresight to address needs related to regional population growth, increased water demand, and variability in future water supplies. Of particular note, the agreements do not address transboundary groundwater management.
- **Social, environmental, and economic implications of management**. Management in the upper portion of the basin leaves the lower portion of the basin in want of water. Permitted users and environmental flows downstream may rarely get their allocated supply, diminishing the quality of water available for use. This area, which includes some of the poorest counties in the US, cannot necessarily afford to purchase more water from other sources and treat that water to safe standard. Overall human use is considered priority over environmental needs, leaving the lower stretches of the river environmentally degraded and, at times, completely dry, thus impacting the ecosystems that thrive off of continual river flows.
- **Mismatched management strategies and ownership laws**. The priorities and goals of water management among the major stakeholders—New Mexico, Texas, and the Mexican states—creates mismatched and often one-sided discussions concerning water policy, with each entity strongly standing with their own preferred management objectives. This encourages competitive water use rather than cooperative water use. In Texas, disparate management of groundwater and surface water has created a legal discrepancy that exacerbates interstate water management weaknesses.

Opportunities to remedy these issues have rarely taken the form of collaborative interstate and international management. Instead, the issues are addressed through lawsuits and federal intervention, where Texas is often left having to put pressure on New Mexico and Mexico to deliver agreed-upon water.

If these issues are not resolved with new management strategies, the water crisis along the border will be exacerbated and the competitive nature of water management in the Rio Grande system will continue, unsustainably.

## Alternatives

The following are proposed alternatives to address the issues discussed in the previous section:

### 1. **New treaty with Mexico**

*Advantages:* Reinvigorate treaty enforcement efforts to ensure delivery during specific climatic conditions; opportunity to encompass groundwater, which will become important in the future; opportunity to clarify terms, such as “extraordinary drought”.

*Disadvantages:* Mexico would likely not concede to new treaty terms; immigration, economic factors, and other issues between the US and Mexico would likely inhibit productive discussion of new treaty terms.

## 2. New agreement with New Mexico

*Advantages:* Consensus agreement could settle current water disputes; more holistic management of the system; spark reexamination of Texas' disparate treatment of water ownership and management.

*Disadvantages:* This would likely require Texas to revisit its own groundwater/surface water disconnect, which is unlikely to be resolved politically.

## 3. Consensus meeting between the southwestern states and Mexico to reconsider interstate and international agreements & implementation of an international watermaster program.

*Advantages:* The already-existing Border Governors Conference offers the perfect meeting event to stage a consensus decision-making effort; an international entity, such as the International Boundary & Water Commission, would provide support for holistic management and create accountability.

*Disadvantages:* Administratively cumbersome; international watermaster program is unprecedented in scale, and unlikely to gain support.

## Recommendation

We recommend alternative number three, because this is most likely the scenario that will lead to more sustainable management of the Rio Grande. Within alternative three, the following points of contention need to be resolved:

- Mexico's noncompliance with past treaties
- Reluctant involvement of the US federal government in the managing of the Rio Grande's resources
- New Mexico's noncompliance with past interstate agreements
- The support of environmental flows to the Gulf of Mexico

This recommendation comes with challenges. Mustering the political will, and challenging treaties which favor Mexico, are realistically impossible given current political environments. The federal government is strongly distrusted in most of the southwestern United States. Relying on them to broker a better deal between Texas, New Mexico, and Mexico would be an ideological challenge for some individuals and communities. In addition, Texas' continued use of the two-tiered water management system creates numerous legal challenges within the state if a new precedent were established. Finally, the growing populations along the border mean that even if water were perfectly managed, there still might not be enough to go around.

## Other references

1. Roosevelt, F. Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande: Treaty between the United States of America and Mexico. (1944). at <<http://www.ibwc.gov/Files/1944Treaty.pdf>>
2. Roosevelt, T. Equitable Distribution of the Waters of the Rio Grande. (1906). at <<http://www.ibwc.gov/Files/1906Conv.pdf>>
3. TCEQ. TX Commission on Environmental Quality: Chapter 303, Subchapter B: Watermaster - Regulatory Functions. (2006). at <<https://www.tceq.texas.gov/assets/public/legal/rules/rules/pdflib/303b.pdf>>
4. Kramer, P. A Border Crosses. *The New Yorker* (2014). at <<http://www.newyorker.com/news/news-desk/moving-mexican-border>>
5. Earl, R. A. & Czerniak, R. J. Sunbelt water war: The El Paso-New Mexico water conflict. *The Social Science Journal* **33**, 359–379 (1996).