Governing Ground Water along the Texas–México Border

Legal Mechanisms & Their Transboundary Implications

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Summary Overview

MÉXICO

All water—both surface and ground water—is property of México held in trust for its people.

- Constitution and National Water Law
- Federal water rights, water quality, environment, and energy law
- State, regional, and local institutions—only minimal authority
- No ground water common law.
- Recognizes connection between surface and ground water.

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Landowner owns ground water in place beneath land as private property.

- Water quality laws = mostly federal
- Water quantity/rights= states
- Federal environmental laws
- GCDs—limited authority to regulate
- Ground water common law.
- No surface-ground water connection.

Ground Water Rights & Allocation

MÉXICO

Water rights exclusively federal.

México's Constitution

- Free withdrawal except in zones.
- Sustainable water resource development, human right to water.
- Municipalities provide water and sewage.

National Water Rights Law

- Assignments and Concessions

Federal Law on Water Excise Taxes

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No federal U.S. water rights law.

Texas State Law

Two separate legal regimes for surface and ground water.

1. Surface water is owned by the state under the Texas Water Code
2. The ground water estate is real property, constitutionally protected.

Limits on Ground Water Rights

MÉXICO

- Regulated Zones
- Suspension of *Libre Alumbramiento*
- *Rescates*

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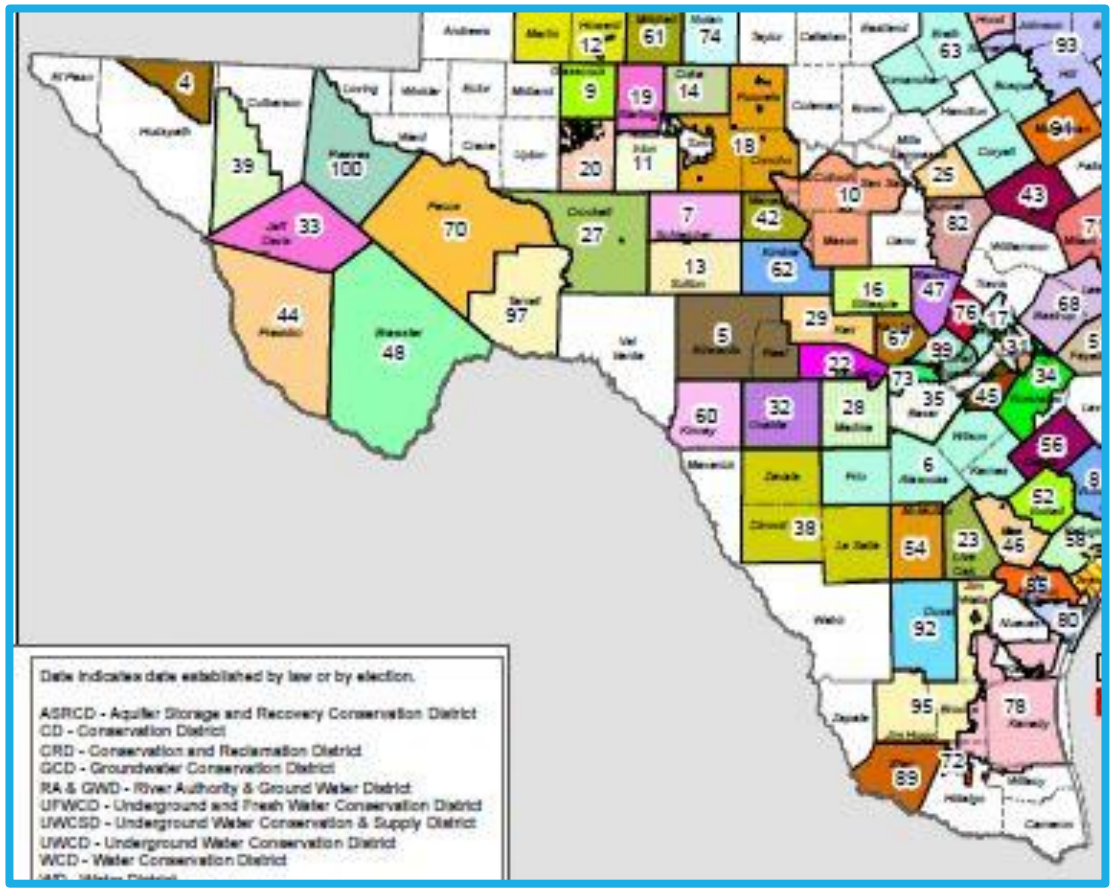
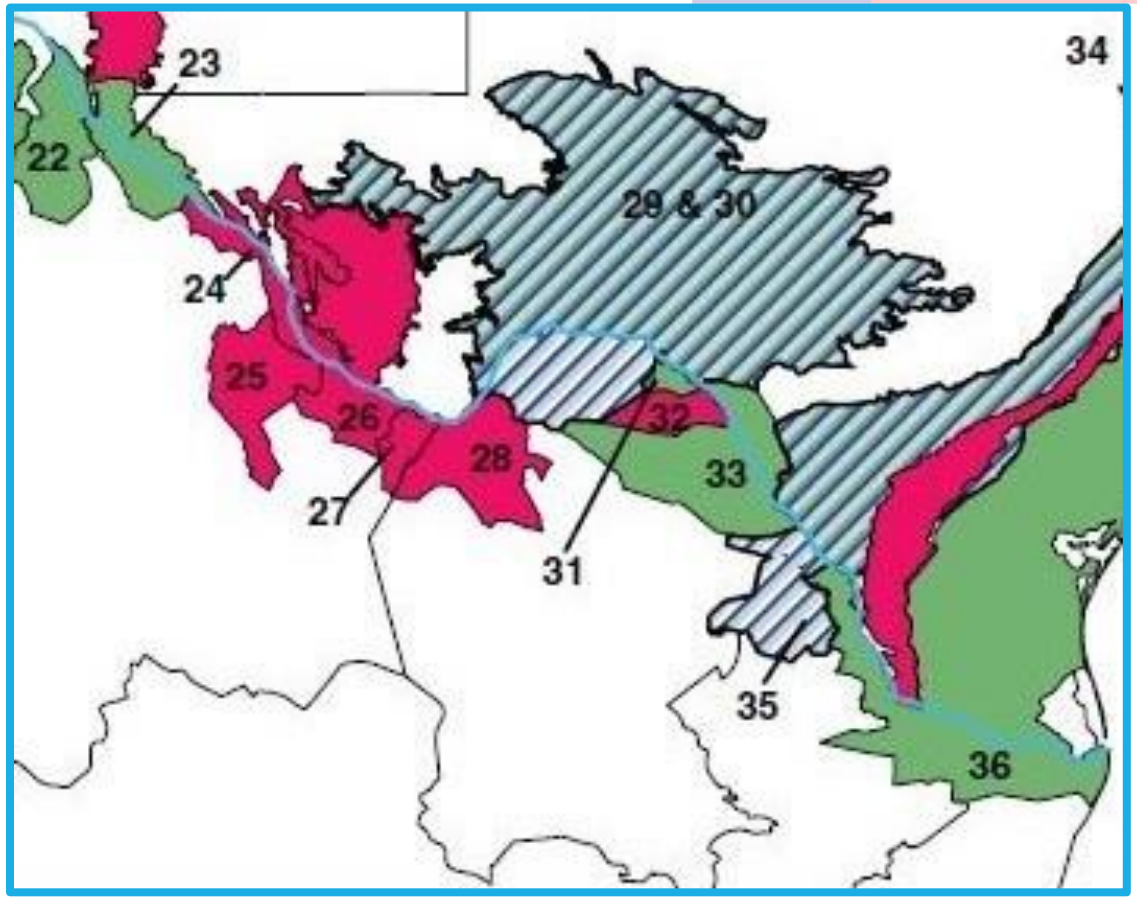
- Rule of Capture = the "law of the biggest pump."
- Common Law Exceptions
- Accommodation Doctrine
- Ground Water Conservation Districts ("GCD"s)

TEXAS—GCDs & Transboundary Aquifers





TEXAS—GCD Rules

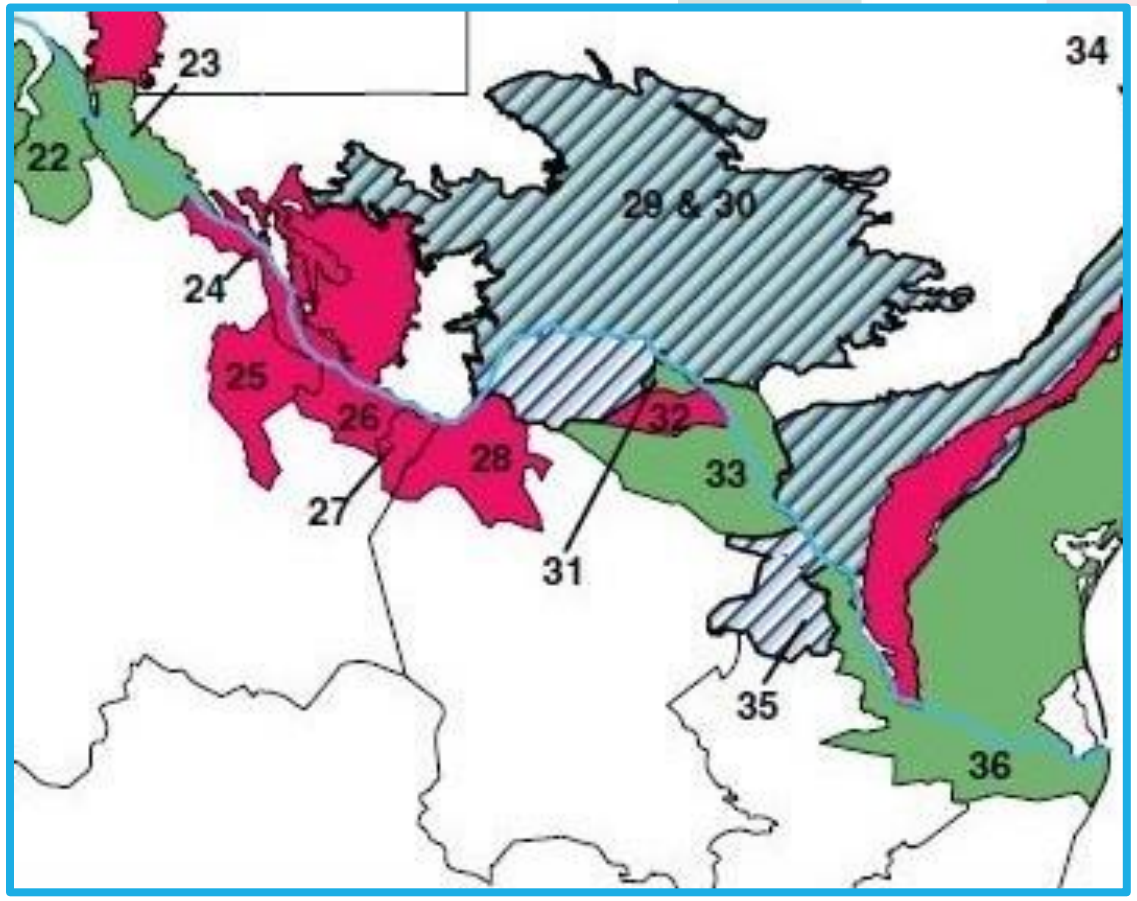
GCDs can lawfully create rules that limit the Rule of Capture to a narrow degree.

Exceeding permissible level of regulation = constitutional regulatory "takings"

Common GCD Rules:

- Permits, Registration
- Exemptions
- Modifications
- Production Limits
- Well-Spacing
- Monitoring
- Transfers out of District

MÉXICO—States & Transboundary Aquifers



Ground Water Quality

MÉXICO

Water Quality Almost Exclusively Federal

- Federal Excise Tariff for Water Quality
- Official Standards Related to Ground Water
- Well Contamination
- Artificial Aquifer Recharge Standards

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Federal:

- Clean Water Act ("CWA") and "Waters of the United States"

State:

- Water Reuse for Oil & Gas ("Rule 8")

Federal via State:

- Safe Drinking Water Act ("SDWA")
- Resource Conservation and Recovery Act ("RCRA")
- Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA")

Environmental Laws & Ground Water

MÉXICO

Constitution—citizens' right to clean environment

2 primary federal laws:

1. The General Ecology and Environmental Protection Law ("LGEEPA")
2. Federal Law of Environmental Responsibility (LFRA)

National Water Law

- Environmental Flows

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Federal:

- Endangered Species Act ("ESA")

Potential Conflicts

MÉXICO

Inability to enforce laws→ self-help remedies and illegal pumping.

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Complex legal structures→ conflicting approaches to same resource.

BOTH MÉXICO & TEXAS

Lack of collaboration, information sharing, and personally invested users → users disenfranchised instead of taking joint responsibility.

Resources Endangered

- **Drawdown of aquifers**
  - Affects all users—**Tragedy of the commons**.
  - Affects surface water obligations where ground water connected.
  - Rule of Capture incentivizes over-pumping and devalues conservation.
- **Risks** of contamination, inadequate management plans, and over-allocation (insufficient monitoring and access to aquifer information).
- **Species habitats and ecosystems disrupted** by different rules for same aquifer.

Applying International Law Principles

Without encouraging any substantive shift in either México's or Texas' water law, increasing both the rights and responsibilities of self-governance would employ:

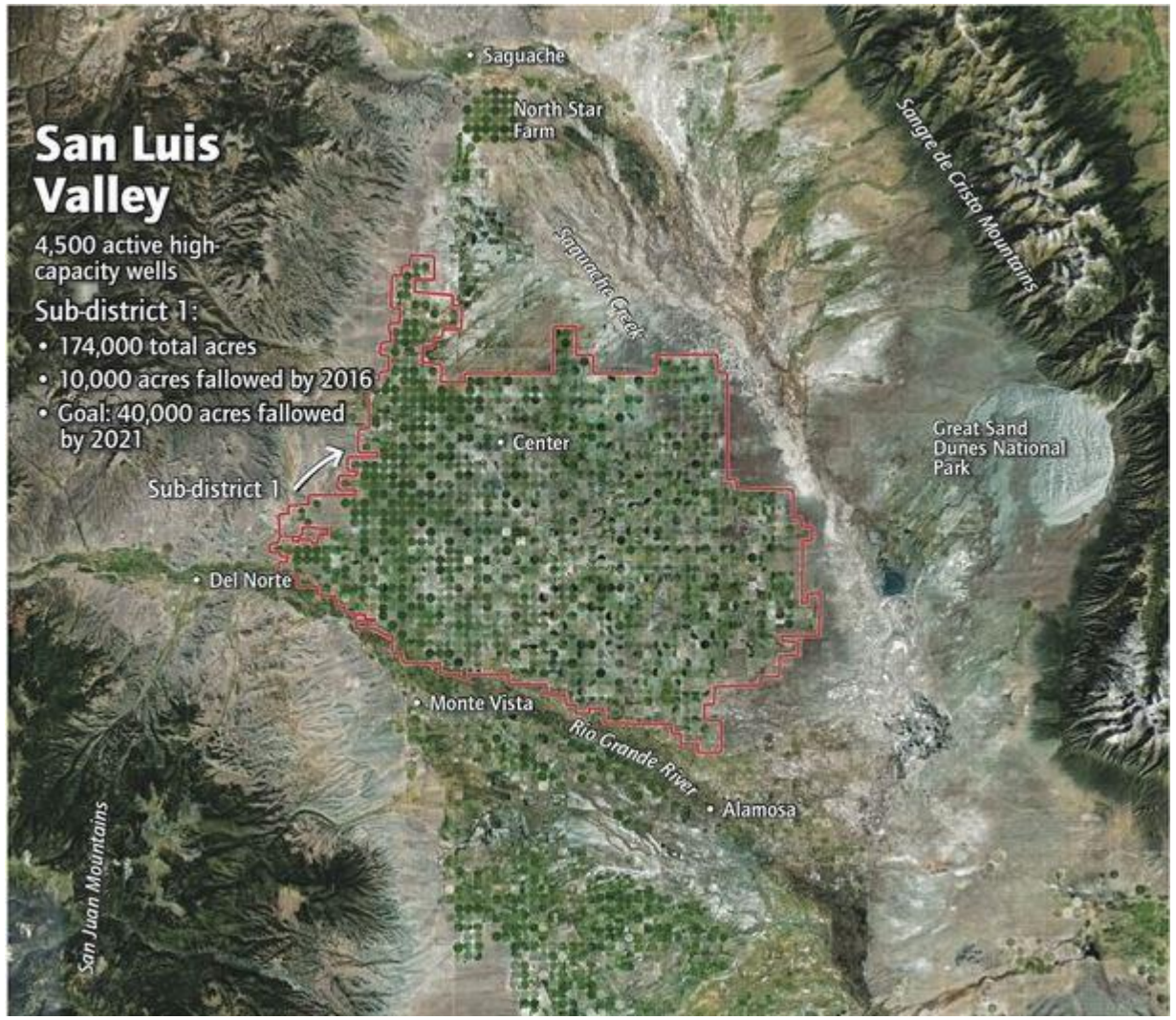
1. **Cooperation**
2. **Information exchange**
3. **Sovereignty**

Concepts for Self-Governance

1. Increase local authority within México and Texas.

2. Collaborative, incentivized schemes for self-governing jurisdictions delineated by aquifer.

Case Study: San Luis Valley, Colorado, USA



The Concept:

- State gave irrigators a choice: Form self-regulating groundwater management sub-districts empowered to tax users—or be subject to state authority.
- Created sub-district, collected $75/year per acre foot of ground water pumped.
- Farmers who fallow their fields can then pull money from the coffer of pumping taxes.
- Users can get credit for substituting surface water for ground water.

The Results:

- Aquifers recovered 250,000 acre-feet of water in 4 years.
- Users have pumped 1/3 less water, and 10,000 acres previously irrigated have been fallowed.
- Price of surface water rose with substitution credit.

Roadblocks to More Self-Governance

Institutions, Investment, and Infrastructure

MÉXICO

Institutional framework in place, but locally not authorized to act.

- Lack the infrastructure to access and monitor withdrawal and quality.
- Investment needed for infrastructure and to administer federal system locally.

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Focused on investment and infrastructure.

- Institutions overlap aquifers and each other, while leaving gaps elsewhere.
- Laws encourage users to view ground water as cash flow not resource to manage.

MÉXICO—Suggestions

- **Aquifer-based governing bodies**
  1. Sub-districts within each state including stakeholders overlying aquifer.
  2. Including existing Technical Committees ("COTA"s) as expert member and liaison in roundtable between the federal government and sub-districts.
  3. Give sub-districts authority to collect taxes and implement pay-to-take ground water system that pays users not to pump.
  4. Governing body's structure would adhere to federal laws, with room to incorporate laws relevant to geophysical and human considerations of overlying communities.

- **Goals**:
  - Incentivize conservation,
  - Value ground water resource,
  - Increase self-governance,
  - Improve enforcement of federal laws.

TEXAS—Suggestions

- **Aquifer-based governing bodies**:
  1. Restructure GCDs to adhere to aquifer boundaries.
  2. Require GCDs to be created for every part of the state—negotiated between state and local stakeholders.
  3. Regional liaison between GCDs and state, such as COTAs.
  4. Incorporating a scheme such as the SLV farmers did, including more than irrigators.
- **Goals**:
  - Value different water uses by region.
  - Require meeting state goals for ground water management areas.
  - Require cooperation to share data aquifer-wide.
  - Preserve the resource for all stakeholders across the reservoir.
  - Incentivize conservation and spur users' commitment to managing their own resources.

THANK YOU!

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