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transboundarywaters

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Officially there are 11 transboundary aquifers between Mexico and the US
Current research shows there can be 36
12 potential aquifers with limited data
Mexico and Texas: Current research shows...
33 hydrogeological units
21 potential aquifers
50% of the shareable land has good aquifer potential
and good to moderate water quality
Red areas indicate zones of potential prioritization
Another approach beyond delimitation...
- The ETAA approach offers an alternative way to assess priority areas within the natural boundaries of each HGU.

- A more refined, practical and effective aquifer boundary can be delineated.

- A more comprehensive and local approach for governance and management options in a more feasible way.

- Applicable not just at the binational level but also at the domestic level.
TBAs with potential ETAAs
TBAs with potential ETAAs

Carrizo-Wilcox
TBAs with potential ETAAs

CARRIZO-WILCOX 2000
TBAs with potential ETAAs

Carrizo-Wilcox
Laredo-Palma
Guayabal
TBAs with potential ETAAs

- Carrizo-Wilcox
- Laredo-Palma Guayabal
- Yegua-Jackson
TBAs with potential ETAAs

Yegua-Jackson Heads 1997
TBAs with potential ETAAs

Carrizo-Wilcox
Laredo-Palma Guayabal
Yegua -Jackson
Lower Catahoula
TBAs with potential ETAAs

- Carrizo-Wilcox
- Laredo-Palma Guayabal
- Yegua-Jackson
- Lower Catahoula
- BRB/Gulf Coast Aquifer
Accordingly, priority TBAs:
BRB/Gulf Coast
Yegua-Jackson
Laredo-Palma Guayabal
AND THE MANAGEMENT??
- 44 interviews (Mexico and Texas):

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<td>Private/Industry</td>
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Figure 1.
Preference of Binational Groundwater Agreement Vs Other Options (percentage of interviewees)
Maturity Process of Transboundary Groundwater Cooperation Efforts

High

Water quantity/water rights?
GCDs/Basin Council management/governance model/local scale?
Binational agreement model/large scale?
Minute model?
Political will?

Political momentum
Institutional/regional involvement
Regional/long term approach
Systemic impacts
Water quality/environmental concerns
Funding and institutional commitment

Leadership/Individual personalities involved
Communication/Collaboration
Local/temporal approach
Non-systemic impacts
Water quality/environmental concerns
Limited funding

Low

Achievability

Formality
Take home ideas
First, stakeholders support a binational groundwater agreement; however, the majority also suggest that short-term local or regional arrangements may be preferable as local/regional approaches may be more achievable or realistic.

Second, participants identified leadership and individual personalities as key factors for success at the local level, but such influence had limited sustainability over time and limited regional-systemic effects.

Third, water quality, rather than water quantity, is the main driver of transboundary cooperation efforts in the region.
So, what is the proposed MODEL?

- Local-scale
- Non-binding arrangements
- Focused on water quality/environment
- Leadership
Looking for data? We are too! Transboundary.tamu.edu
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