

Community and Landowner Impacts from Exports of Groundwater in Texas

Lonnie L. Jones
Department of Agricultural Economics
Texas A&M University
College Station, TX

© Lonnie L. Jones

Focus on Third Party Impacts (TPI)

- Third party impacts are defined as an economic or fiscal loss (gain) to a person or entity that is a non-participant in the groundwater export transaction that causes the impact.
- Loss in the exporting region
- Gain in the importing

© Lonnie L. Jones

Why May TPI Become a Major Issue?

- Concentration of population in cities
 - Over 80% of Texans live in urban areas
- Future growth will be in and near cities
- Slower growth in rural, agricultural areas
- Municipal and Industrial (M&I) will be a driving force in water demand

© Lonnie L. Jones

Concerns (cont'd)

- Cities will look increasingly to rural, agricultural areas for water as local supplies are exhausted
- Strong incentive to sell and export:
 - Value of M&I water \$500-\$800/acft +
 - Value of irrigation water \$30-\$50/acft
- Perceived link between water and local economic welfare and future development

© Lonnie L. Jones

What's Happening Elsewhere?

- California – 22 of 58 counties prohibit export of water since 1996
- Colorado – *HB03-1113* – would require compensation to supply region for TPI
- Ochiltree Groundwater Conservation District – permits and export fees

© Lonnie L. Jones

Who is Impacted?

- Focus on the negative impacts within the exporting region
- Significant impacts will come from large water transfers only
- Extent of impact depends on importance of irrigation in the exporting region's economy

© Lonnie L. Jones

Potential Impacts in the Exporting Basin

- Tier 1 – Private Sector
 - Farm operators who lease land
 - Hired farm laborers

- Reduced irrigated acreage and fewer on- farm jobs

© Lonnie L. Jones

Potential Impacts in the Exporting Basin

- Tier 2 –
 - Farm input supply firms
 - Farm service firms
 - Commodity processing firms

- Less demand for inputs and services
- Less throughput for processors

© Lonnie L. Jones

Potential Impacts in the Exporting Basin

- Tier 3 –
 - Business and personal service firms
 - Wholesale and Retail firms

- Generally less demand for “main street” goods and services, reduced income and employment

© Lonnie L. Jones

Potential Impacts in the Exporting Basin

- Tier 4 –
 - Schools
 - County and City governments
 - Special taxing districts

- Loss of sales taxes
- Loss of property taxes

© Lonnie L. Jones

Factors Limiting Impacts

- Impacts will be affected by existing laws, policies and by the response of the local economy
- Farmers change to next best farming alternative for income (dry-land crops or livestock)
- Business impacts are limited to “margins” businesses (retail, wholesale, transportation)
- Special tax provisions for agriculture (sales and property taxes)

© Lonnie L. Jones

Impact Estimation

- Multipliers developed from Economic Models
 - Employment
 - Personal income
 - Gross Regional Product (value added)

- Direct, Indirect and Induced Impacts

© Lonnie L. Jones

Predicted Regional Labor Income (\$MM) related to Agriculture, 2012

	Annual Pumping Limit (1,000 ac. ft. per year)				
	513, No Limit	450	400	340	175
Total Ag Labor Income (\$MM), HCP Area	55	52	49	48	26
% of Uvalde and Medina Income	6.8	6.4	6.0	5.9	3.2

Western Region: No loss of income to 340K, with loss of \$23 Million at 175K

Central and Eastern Regions: Loss of \$3 Million in Each Region at 340K, with no further loss from 340K to 175K

Downstream Region: No Change (\$0)

© Lonnie L. Jones

- ## Conclusions
- Community impacts will result from any transfer of water out of the basin
 - Impacts will be significant to the overall economy only where exports cause a large reduction in agricultural production and alternatives are limited
 - Mitigation alternatives already exist
- © Lonnie L. Jones

- ## Why Bother with TPI?
- Some large transfers may require and EIS and/or HCP (TPI included)
 - Senate Bill 1 requires TPI consideration
 - Opponents of a water transfer may use TPI to block, hinder or delay implementation of inter-basin transactions
- © Lonnie L. Jones

- ## Why Bother (cont'd)
- *“Given the public nature of groundwater resources, all impacted stakeholders should be engaged in the public policy process”*
 - *“Groups suffering from neglect, perceived or real, in the process can mobilize resources to affect institutional change”*
 - Paul Wilson, U. of Arizona
- © Lonnie L. Jones