

# Adaptation Needs of the Legal Framework for Transboundary Waters

## Challenges Posed by Climate Change

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# U.S. Water Framework

- In western states - law of prior appropriation based on the idea that water is a scarce resource
- Based on twenty-six interstate water allocation compacts that share water from the major river basins
- These compacts have resulted in significant litigation.
- Major water allocation compacts in the U.S. include the:

1922 Colorado River Compact

Available at:

<http://www.usbr.gov/lc/region/g1000/pdffiles/crcompct.pdf>

# Climate Change and its Effect on Water in the U.S.

- The impact of CLIMATE CHANGE on WATER has been recognized by the U.S., most recently in a major government report.
- The report is entitled: The Effects of Climate Change on Agriculture, Land Resources, Water Resources & Biodiversity in the United States and was issued by the US Dept. of Agriculture in 2008.
- The report shows that Western states water will be reduced up to 25% in some areas.
- The report is available at:  
<http://www.climatescience.gov/Library/sap/sap4-3/final-report/default.htm>

# Example of the Climate Change Effect in a Western State

- In the state of California, U.S. it's estimated that the mean temperature will rise between 3-10 degrees between now and the end of the century. This will result in an increased demand for water to irrigate crops, for landscaping etc...
- At the same time it's estimated that the warmer temperature will cause a decline in snowpack runoff as the snowpack will melt faster and earlier.
- A decline in snowpack has the potential to result in a significant reduction in usable water in California, up to 25%.
- This study is available from the California Climate Change Center  
<http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF>

# The Solution to the Effect of Climate Change on Water is Adaptation

- From a legal perspective this includes:
- Better enforcement of existing water compacts, priorities etc...
- Use of dispute resolution mechanisms before legal action
- Creation of new agreements or compacts that have flexibility to meet water shortages
- For an example of a model compact designed with flexibility to meet climate change challenges see the Utton Transboundary Resources Center Model Interstate Water Compact

Available at : [http://uttoncenter.unm.edu/pdfs/Model\\_Compact\\_4-07.pdf](http://uttoncenter.unm.edu/pdfs/Model_Compact_4-07.pdf)



# Is the Legal Framework for Water in the U.S. Adapting to the New Challenges?

- What is the adaptation decisional framework that has been utilized?
- Is this form of dispute resolution working?
- What are the triggering mechanisms?
  
- Are there lessons to be learned from this adaptation?

# Colorado River Interim Guidelines for Lower Basin Shortages (2007)

- In the face of growing water shortage concerns related to climate change and persistent drought the U.S. Dept. of Reclamation developed a Record of Decision -- for the circumstances under which the annual amount of water available for consumptive use from Lake Mead to AZ, CA, & NV would be reduced.
- Hailed the most important agreement among the seven Colorado River Basin states since the original 1922 Colorado River Compact.
- Commits all seven states to consultation and negotiation before resorting to litigation when conflicts emerge.
- The Guidelines are applicable for 25-50 years depending on each clause with the potential for renewal of the Guidelines at the end of the specified period.
- Available at:  
<http://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>

# Creation of the Guidelines to Address Potential Water Shortages on the Colorado River

- Public Notice of Intent to Act
- Public Meetings
- Consultation with stakeholders
- Request for comments
- Draft Document Released
- Public Meetings
- Request for comments
- Record of Decision signed



# Shortage Guidelines Highlights

- Specific water levels in Lake Mead will be used to determine when there is a shortage condition (availability of less than 7.5 million acre-feet of water).
- Establishes rules for shortages – specifying who will take reductions and when they will take them.
- New operational rules for Lake Powell and Lake Mead that will allow the two reservoirs to rise and fall in tandem, thereby better sharing the risk of drought.
- New guidelines for surpluses so that when there is extra runoff the water will be captured and used reasonably.
- Implementation of mechanisms to encourage augmentation/conservation of water in Lake Mead.

# United States & Mexico:

- Two major rivers, the Colorado and the Rio Grande are shared between Mexico and the U.S.
- Initially the U.S. took the traditional upstream position that all water was subject to capture and use before it crossed the international boundary into Mexico
- However, the U.S. and Mexico entered into the 1906 Rio Grande Treaty and the 1944 the Colorado River Treaty to share the river water. Available at: <http://www.ibwc.state.gov/Files/1944Treaty.pdf>
- BUT the Colorado River Treaty provides that the U.S. does NOT need to fulfill its delivery of water in extraordinary drought. (Art. X, 59 Stat. 1219 (1944)).
- However, when creating the Colorado River Interim Guidelines for Lower Basin Shortages in 2007 the U.S. government consulted with Mexico and reached the understanding that the Guidelines would not affect current water deliveries to Mexico under the Colorado River Treaty nor would it be a final determination of future U.S. policy regarding water deliveries to Mexico.

# International Boundary and Water Commission

- Created by the 1944 Colorado River Treaty
- The Commission is tasked to provide binational solutions to issues that arise during the application of United States - Mexico treaties regarding boundary demarcation, national ownership of waters, sanitation, water quality, and flood control in the border region.
- The US section available at: <http://www.ibwc.state.gov/home.html>
- The Mexico section available at: <http://www.sre.gob.mx/cila/>
- Example of binational project of the IBWC
  - Tijuana River Flood Control Project (provides flood control protection and coordination for Mexico and the U.S.)

# Example of Transnational Claim between Mexican Landholders and U.S. Government

- Gasser v. United States 14 Cl. Ct. 476(1988),  
withdrawn 22 Cl. Ct. 165 (1990).
- In a property damage action brought by Mexican landowners, the U.S. Court of Claims held that U.S. law, which makes the government liable for flood damages beyond the boundaries of the navigation servitude, applied to the operation of the Glen Canyon dam and applied outside of the country. Thus, the court held that the U.S. government was liable to the Mexican landowners -- however the parties settled and the case was ultimately dismissed.



# United States & Canada:

- The Great Lakes Example:
  - In 2005 eight Great Lake States and the Canadian provinces of Ontario and Quebec signed an Agreement and created a draft compact.
  - This Agreement prevents almost all diversions of water from the Great Lakes Basin.
  - The Agreement is a tiered system of review for diversions.
  - In the Agreement all basin users agree to share climate change risks.
  - Agreement available at: [http://www.cglg.org/projects/water/docs/12-13-05/Great\\_Lakes-St\\_Lawrence\\_River\\_Basin\\_Sustainable\\_Water\\_Resources\\_Agreement.pdf](http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_River_Basin_Sustainable_Water_Resources_Agreement.pdf)



# International Adaptation Issues

- Professor Dan Tarlock of the Chicago-Kent College of Law posits that:
- “International water management and allocation regimes will face more difficult adaptation problems than domestic water law regimes for three reasons.”

Those Reasons are:

- Less developed property rights
  - Less flexible than domestic regimes
  - Ecosystem protection remains subordinate to multi-purpose water development
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- Cited from: How Well Can International Water Allocation Regimes Adapt to Global Climate Change, 15 J. Land Use & Envtl. L. 423, 423-24 (2000).