

2011 Clyde O. Martz Summer Conference



Navigating the Future of the Colorado River

June 8-10, 2011

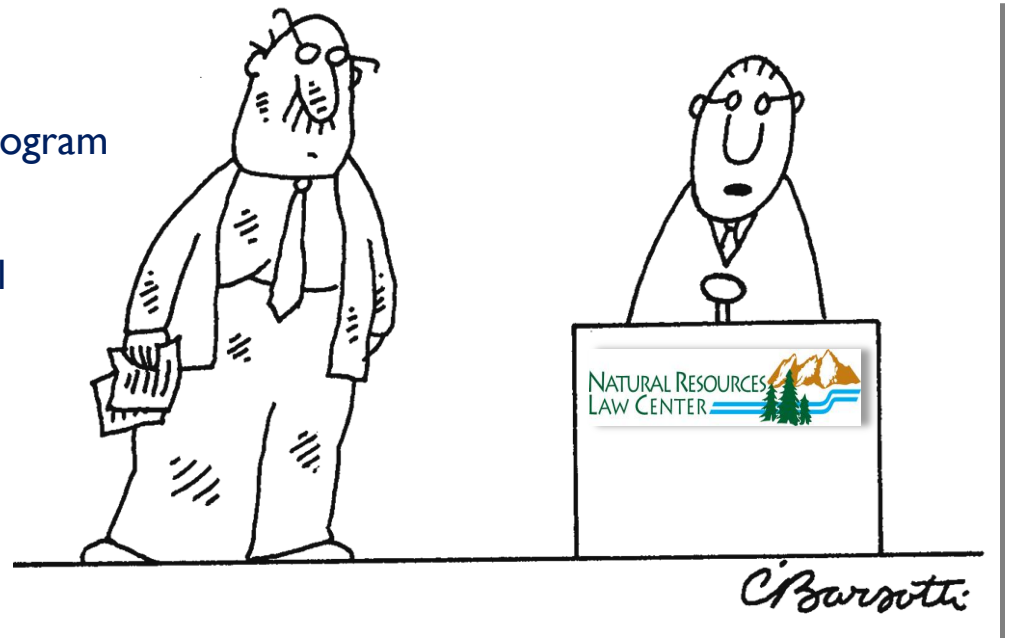
**University of Colorado Law School
Wolf Law Building
Boulder, Colorado**



How Does Climate Change Impact the Need for, and Direction of, Institutional Reform?

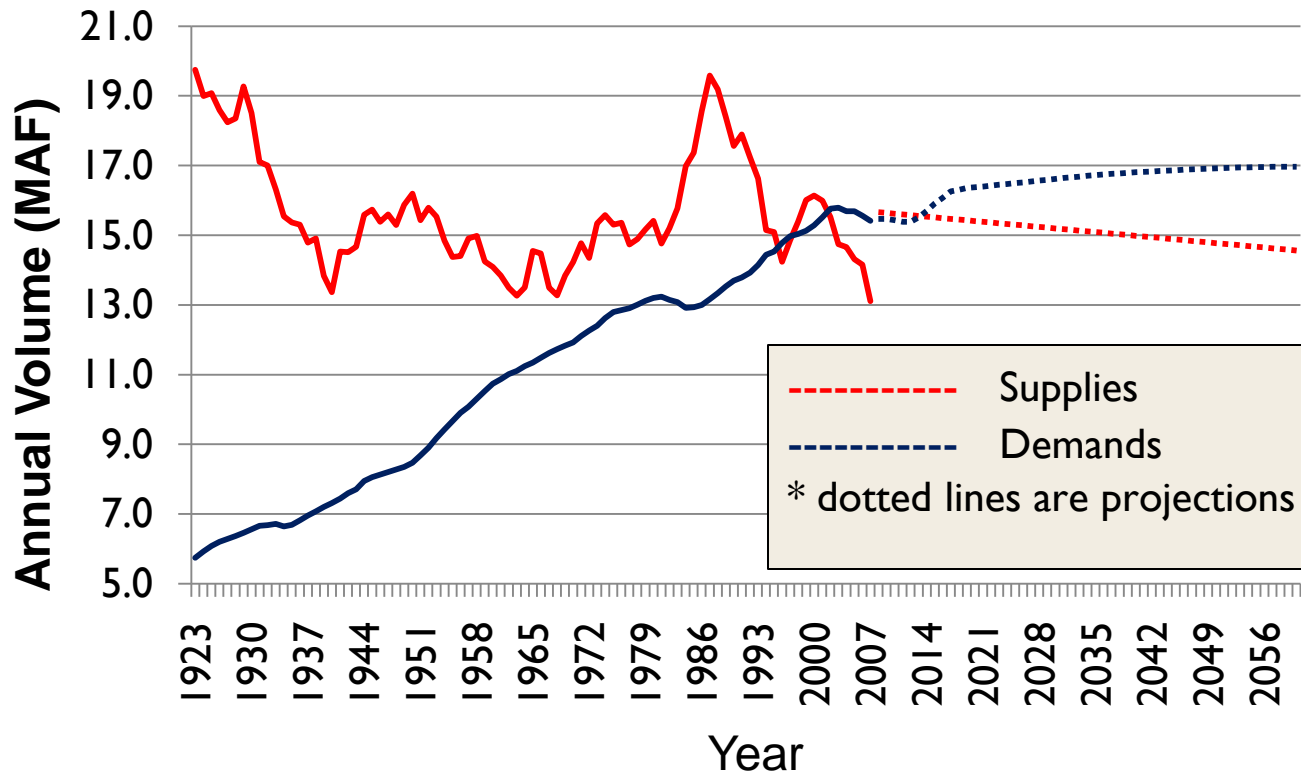
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Natural Resources Law Center
Boulder, CO
June 9, 2011



“Our next speaker looked into the abyss and made a few notes.”

Demands Have Caught up with Supplies... and the Gap is Projected to Widen



Supplies include all inflows above Lake Mead. The projected decline is extremely conservative (roughly 7%). Demands assume LB states (and Mexico) seek full apportionments (but no surpluses), and that UB states intend to follow their depletion schedules. (Values are 10-yr running averages.)

How Big of a Problem Is This?

“The sky is not falling, development of the river is just occurring as anticipated when the compact was created. That means moving forward everyone will have to adjust to living within their allocation”

-- CRWUA Survey Respondent # 1115

The Upper Basin Climate Change Squeeze

- Question: How does the amount of mainstem water available to the Upper Basin (UB), Lower Basin (LB), and Mexico shift under the following hydrologic assumptions about Lee Ferry virgin flow:
 - 15 MAF (normal)
 - 13.5 MAF (10% decline)
 - 12.0 MAF (20% decline)
 - 10.5 MAF (30% decline)

Assumptions

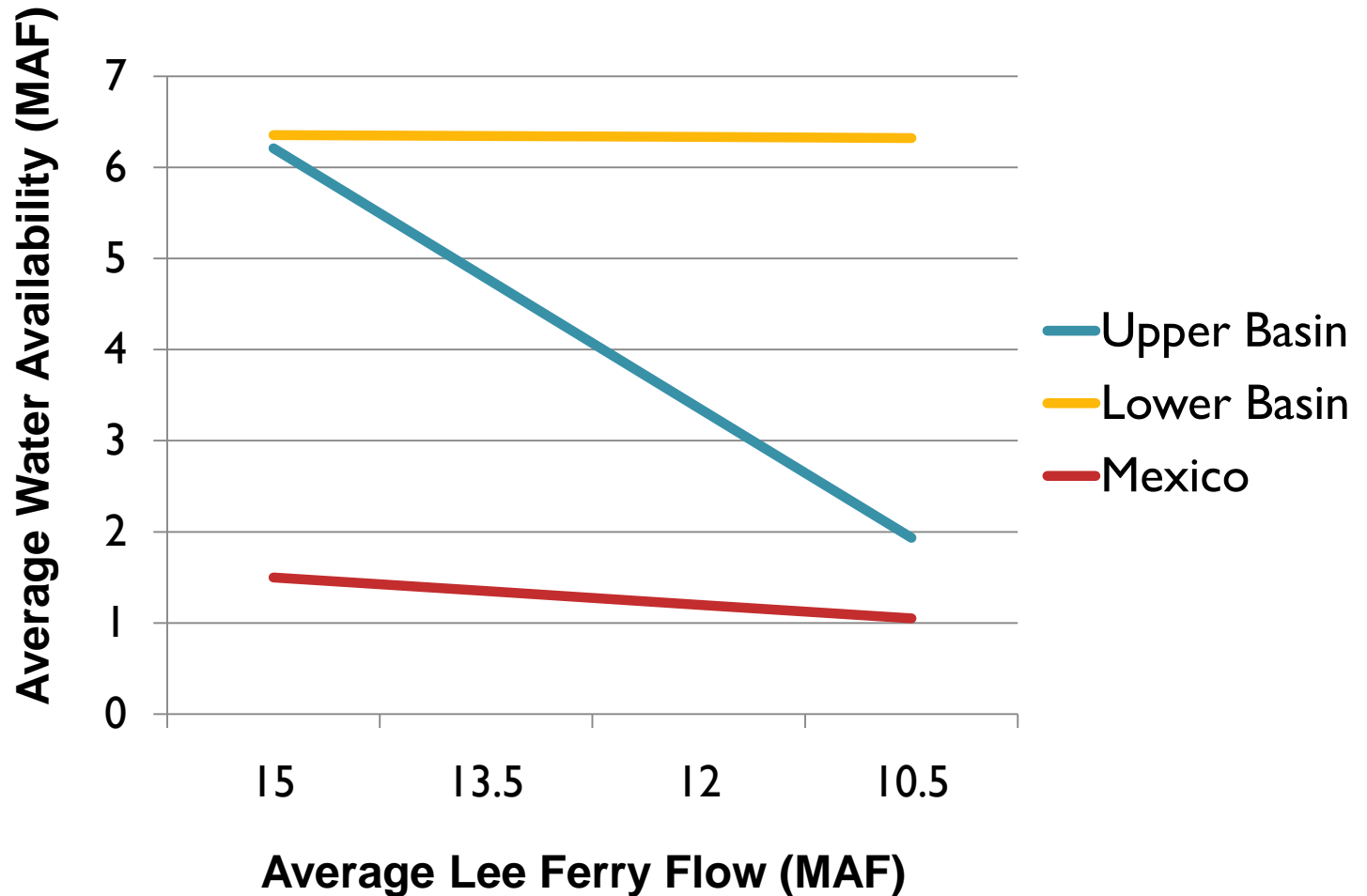
Hydrology:

- Assumes “normal” intervening flows (between Powell and Mead) are 860 KAF, with declines in same proportions as for Lee Ferry
- Assumes constant rate of evaporation/losses of 1.235 MAF from Lower Basin and 560 KAF from Upper Basin

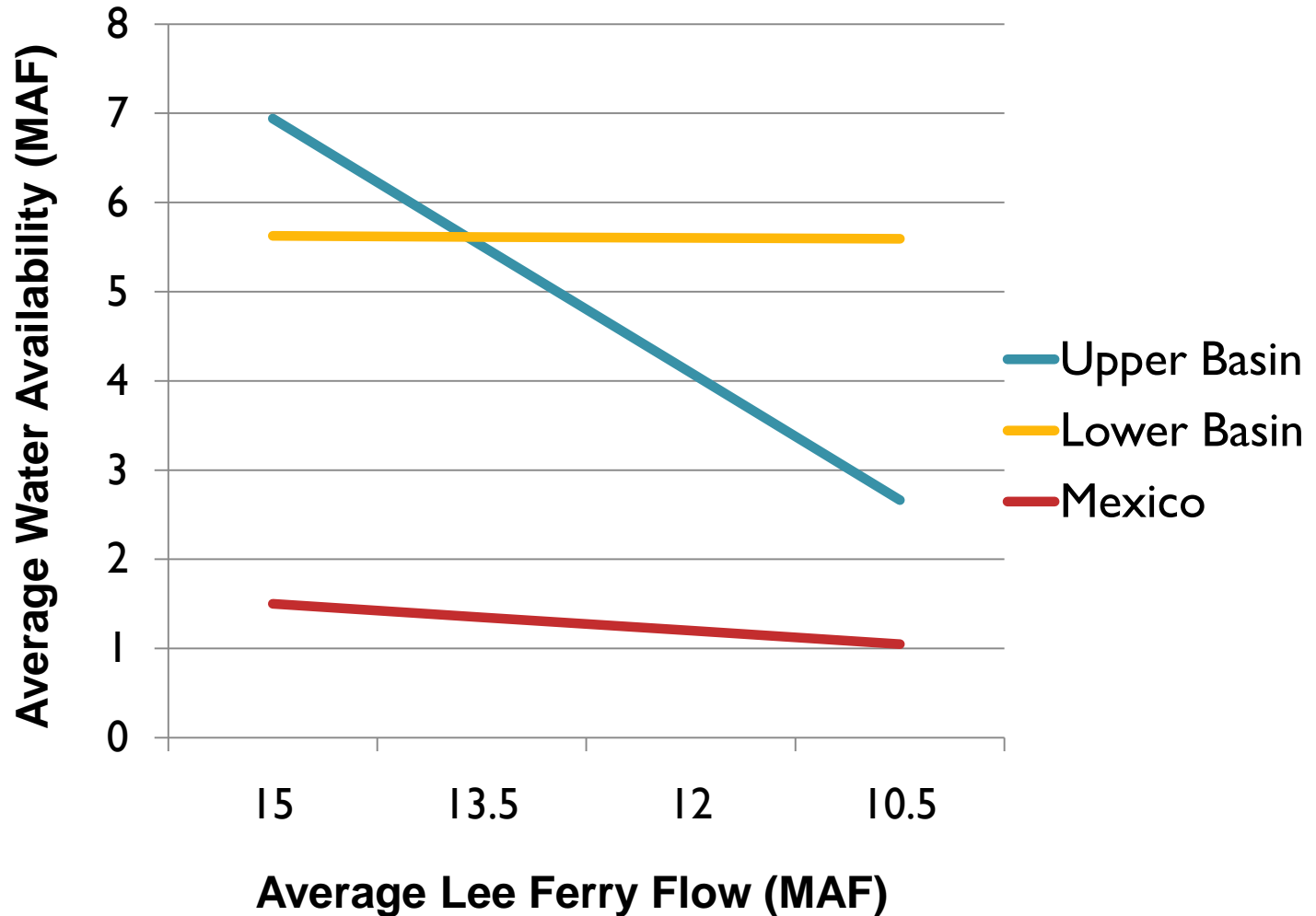
Management:

- Two Glen Canyon release scenarios:
 - Annual release of 8.23 MAF
 - Annual release of 7.5 MAF
- Assumes the Mexican apportionment is reduced in proportion to declines in Lee Ferry flows (0-30% over the 4 hydrologic scenarios), and that these “savings” are shared equally between Upper and Lower Basins

Assuming 8.23 MAF Releases



Assuming 7.5 MAF Releases



The Conclusion

- Climate change can quickly create vast uncertainties and inequities regarding the “practical” interbasin apportionment
- This was not (and is not) the intent of the Compact
- Climate change likely requires some significant changes in how the river is administered



Thank You.

More products of the Colorado River Governance Initiative (CRGI) are online at:

www.waterpolicy.info

And/or contact the team at:

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