WATER TRADEOFFS AMONG AGRICULTURE, MUNICIPALITIES, AND THE ENVIRONMENT ON NEW MEXICO'S RIO GRANDE

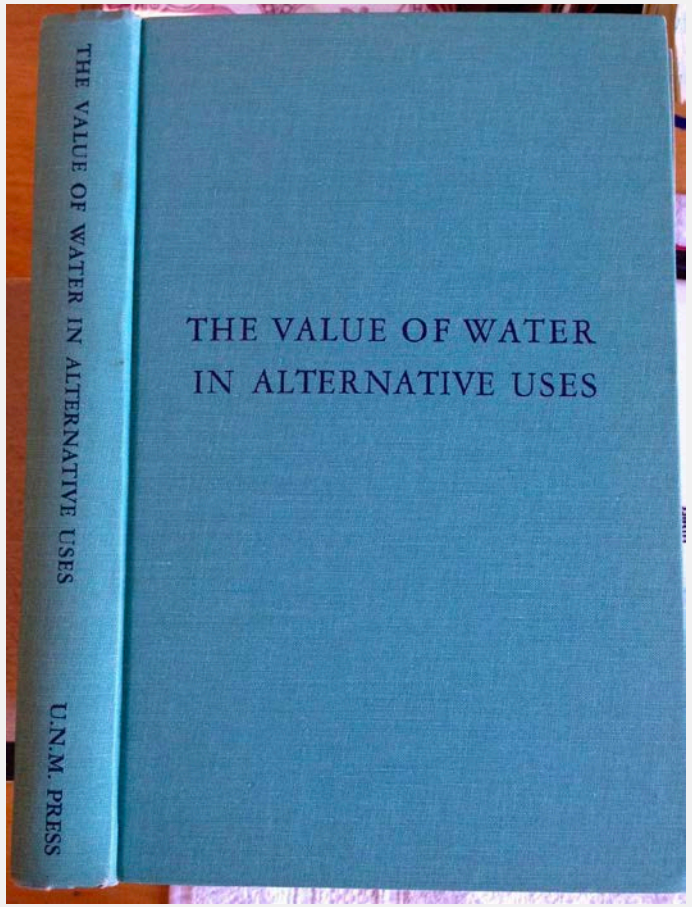
New Mexico Water Dialogue

January 2021

BRIEF THANKS UP FRONT

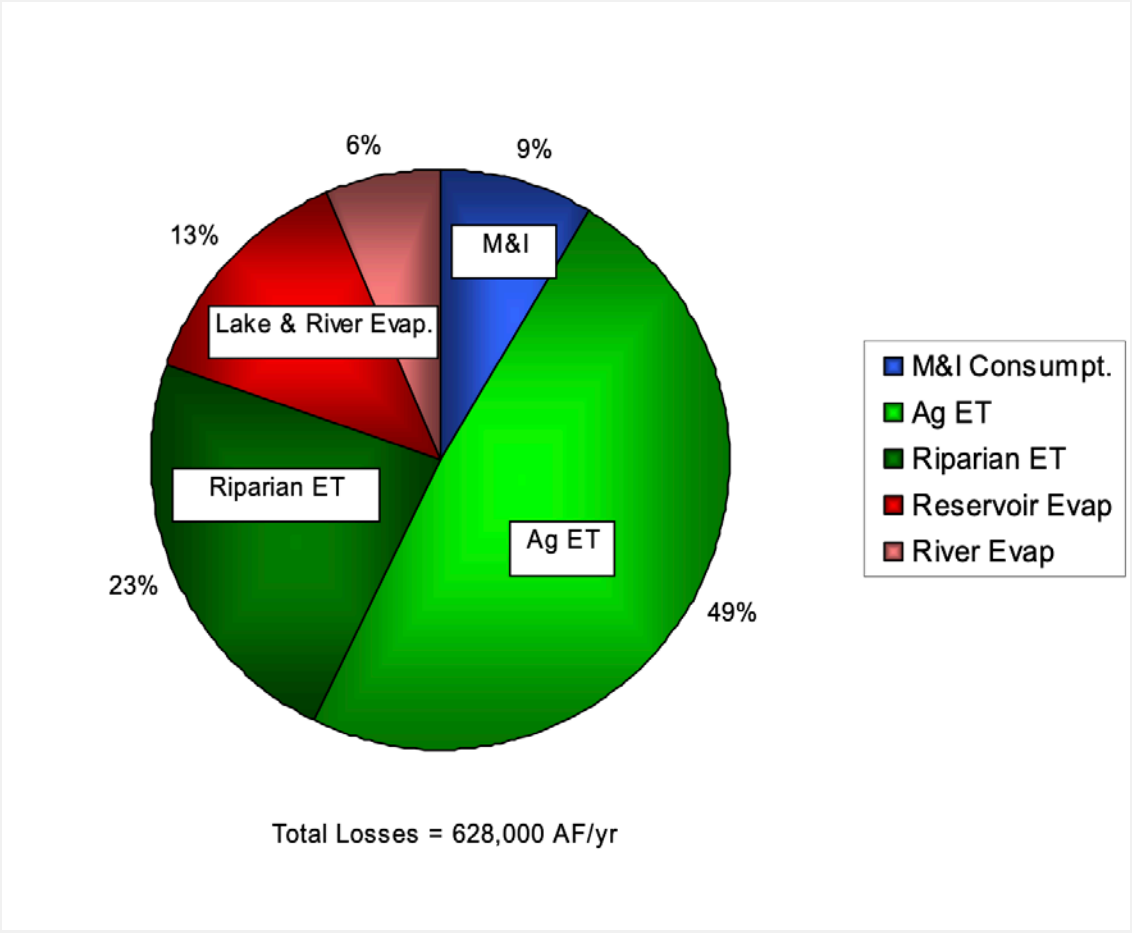
- *The @UNMWater "Value of Water in Alternative Uses" group - Bob Berrens, Benjamin Jones, Tylee Griego, Talisa Barincek, Annalise Porter, Becky Bixby, Mary Harner, Emma Brinley Buckley, J. Scot Key*
- *The National Science Foundation and the USGS-University of Oklahoma South Central Climate Adaptation Science Center, which have been funding some of the work*

SOUTH CENTRAL
CLIMATE ADAPTATION SCIENCE CENTER



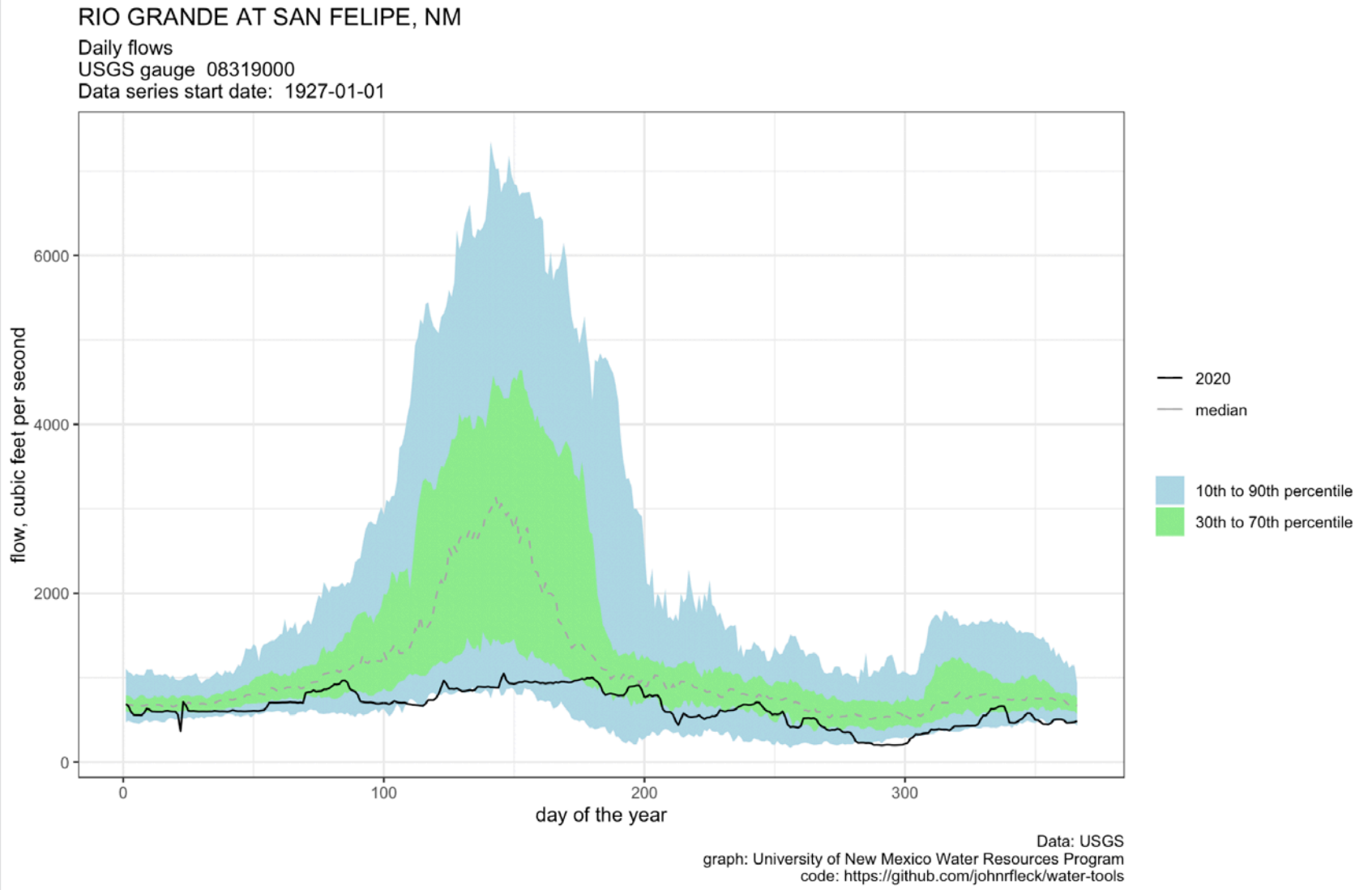
Wollman, Nathaniel. *The Value of Water in Alternative Uses: With Special Application to Water Use in the San Juan and Rio Grande Basins of New Mexico*. University of New Mexico Press, 1962.

Adapting to climate change requires us to think about tradeoffs.

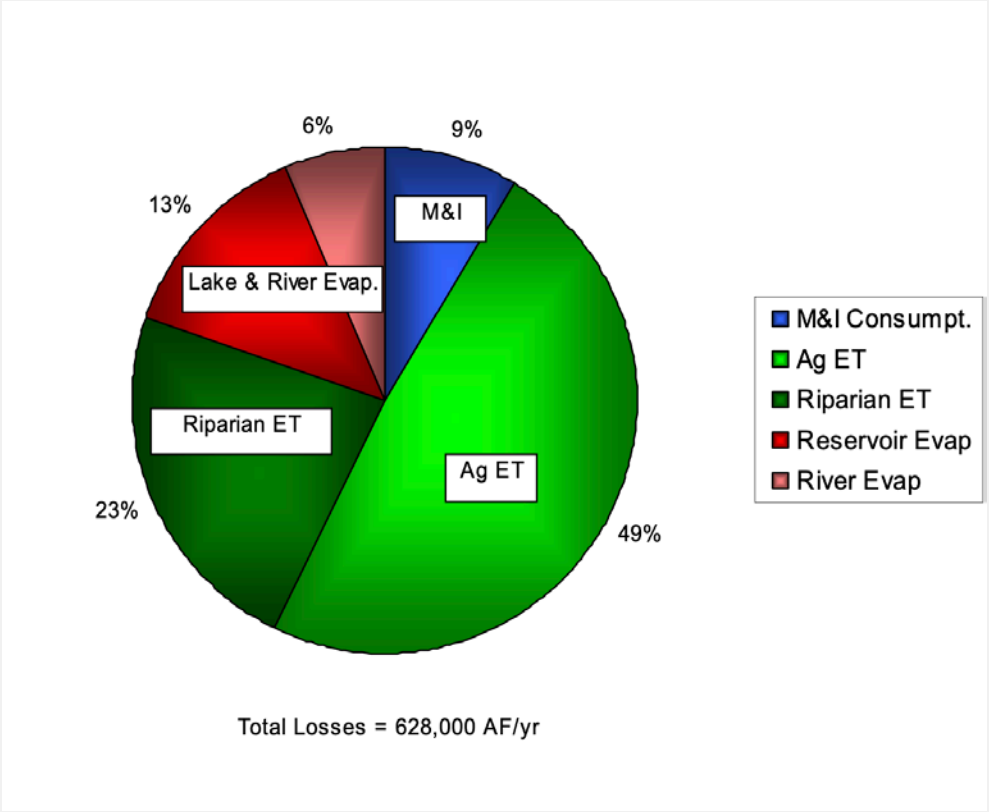


Bruce Thomson 2014

BUT THE PIE IS SHRINKING



There's some science here to be done, but the big questions are more about our values.

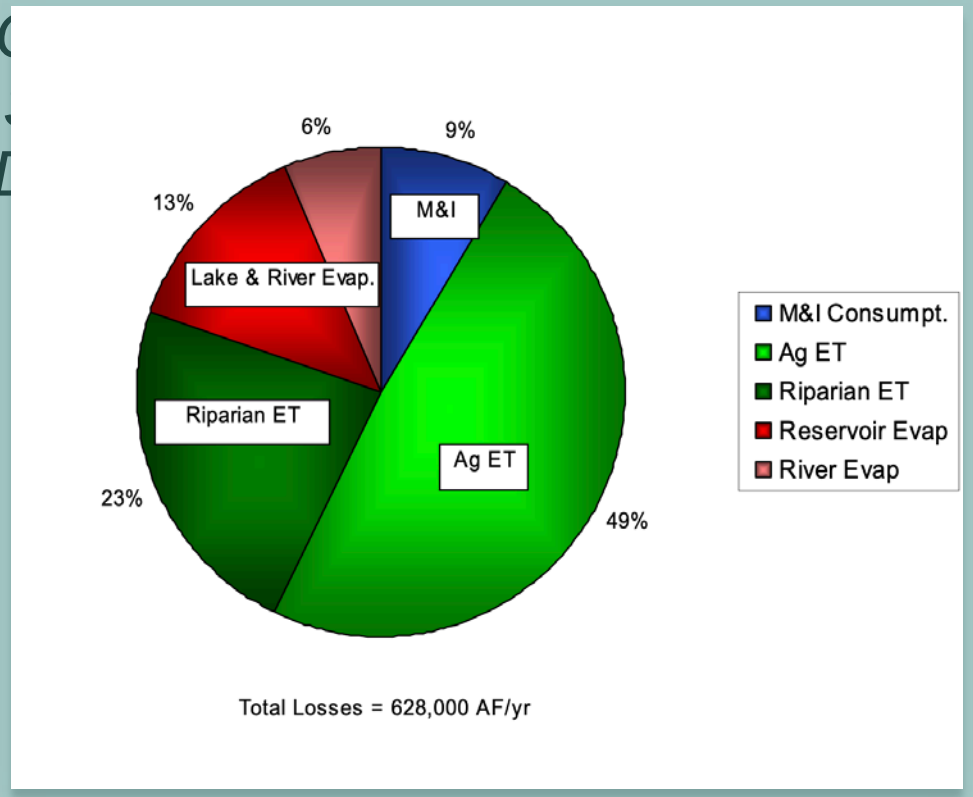


Thomson et al 2014

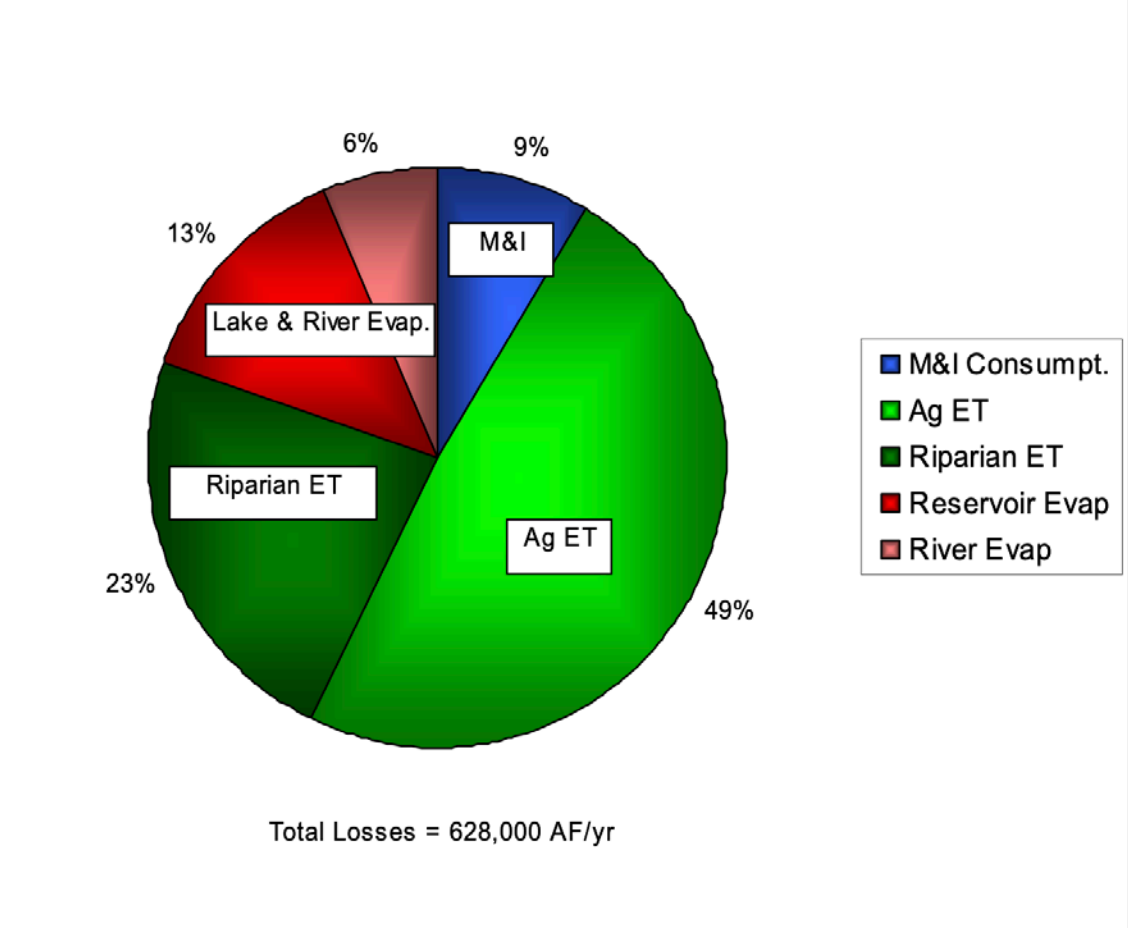
AN ALPHABET SOUP OF AGENCIES WHOSE RESPONSIBILITIES TOUCH PIECES OF THE PIE

ISC, OSE, USBR, NMED, USFWS, USACE, ABCWUA, COA, BC, POI, POSA, POS, POC, AMAFCA, SCAFCA, ESCAF EPA, NMGF, NMHS, NMLO, UCRC, NRCS, NOAA, CWCD and so on….

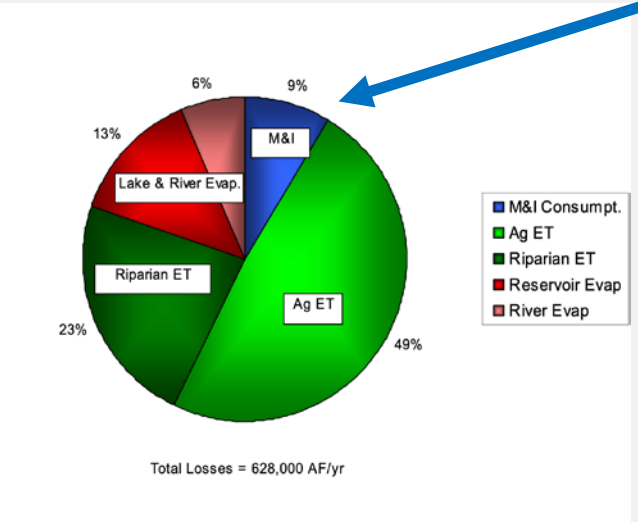
"Wait, who's in charge here?"



What are the values and benefits associated with the pie slices?



Thomson et al 2014



Water Economics and Policy, (2018) 1850022 (38 pages)

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Urban Trees and Water Use in Arid Climates: Insights from an Integrated Bioeconomic-Health Model

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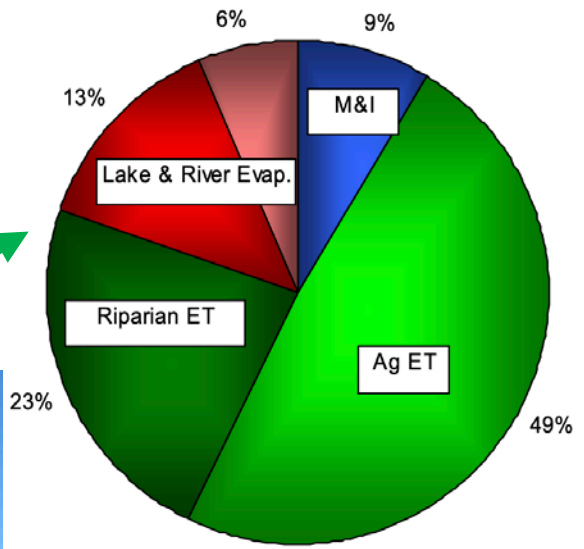
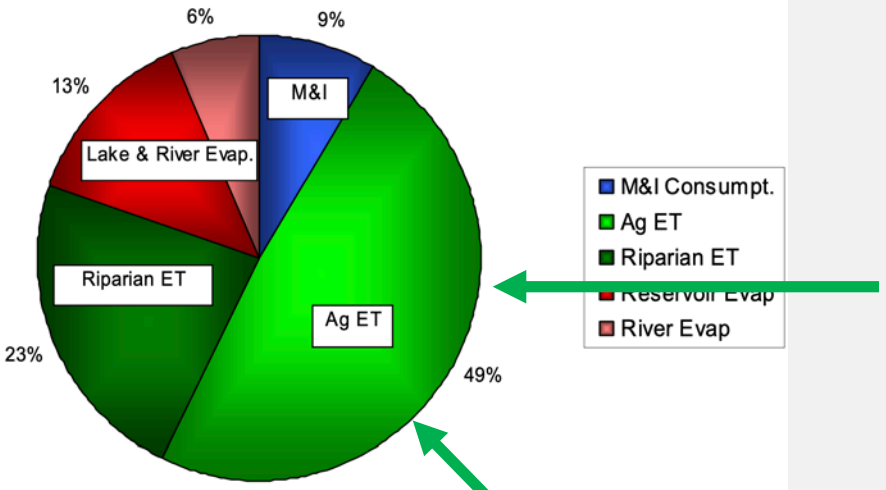
Jones, Benjamin A., and John Fleck. "Urban Trees and Water Use in Arid Climates: Insights from an Integrated Bioeconomic-Health Model." *Water Economics and Policy* 4.04 (2018): 1850022.



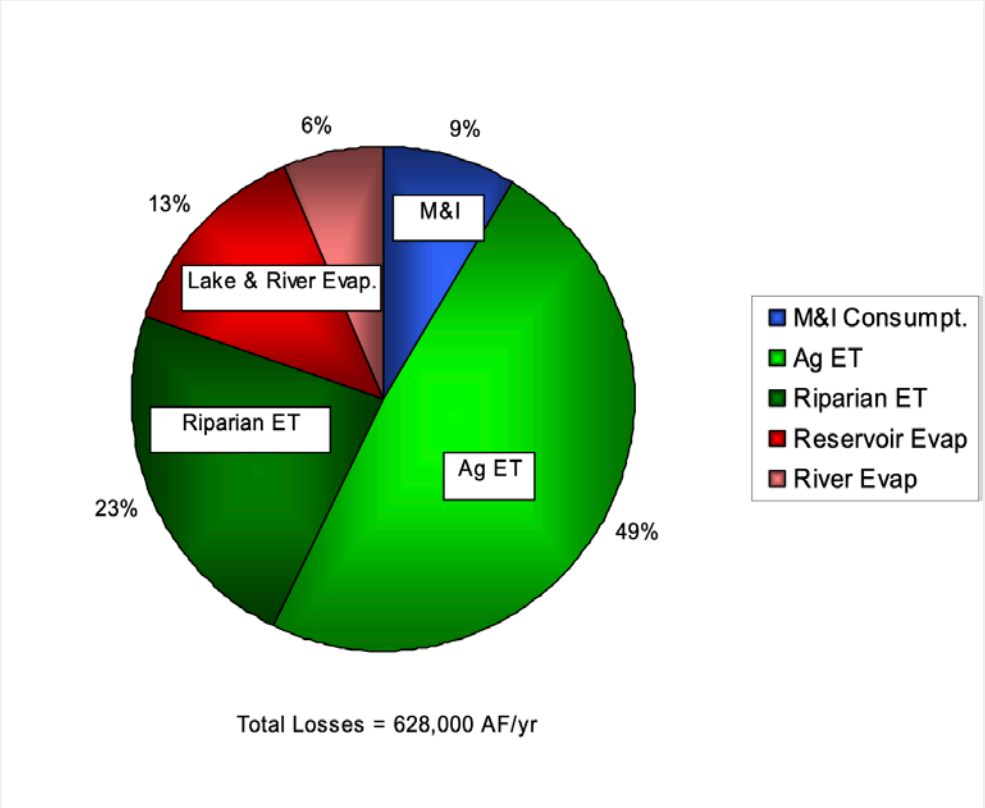
Total Losses = 628,000 AF/yr



Los Griegos, fall 2019

The multi-functional nature of Middle Rio Grande Valley agriculture: “agriculture” does not mean “commercial agriculture”

So as our community grows and climate change shrinks the amount of water flowing down the Rio Grande toward us each year, how do we think about the tradeoffs?



THE LOS CHAVEZ OUTFALL