Thank you

• Thanks to the CWEMF for the Hugo B. Fischer award
• Credit belongs to a lot of people
  ▪ My first supervisor late Dr. Young Yoon
  ▪ Ali Taghavi and Tariq Kadir
  ▪ My colleagues over the last 30 years – too many to name
  ▪ My family
Hydrologic Modelers Deal with Both Known and Unknown
Johari Window of Known and Unknown

JOE AND HARRY- JOHARI
- Joseph Luft & Harry Ingham
- Group dynamics study at UCLA in 1955
- 56 personality attributes cards were distributed to subject (self) and others
- Results are sorted into 4 groups
Let’s look at a real-life application
Modeler’s Dilemma: When to Stop Calibration?
Modelers Face Abundance of Disagreements!

Young Lady

Old Lady
“All models are wrong, but some are useful. The practical question is how wrong do they have to be to not be useful.”

**Occam’s Razor:** When presented with competing hypothetical answers to a problem, one should select the one that makes the fewest assumptions.

“The purpose of a hydrologic model is to support resource management decisions. All other truths on this subject are merely derivative.”

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George Box (1919-2013)
Statistician

William of Ockham (1285-1347)
Philosopher and Theologian

CWEMF 2005 Annual Meeting
Resource Management Decisions Must Overcome Conflicts Between **Facts and Values**

**SCIENTIFIC FACTS**
things that are known to be true

**PUBLIC VALUES**
things that are regarded as desirable
The Missing Link!

Effective Communication of Technical Information
The Missing Link of Effective Communication of Technical Information
Effective Communication of Modeling Results is Key to SGMA Success

We Modelers Got to Do It!