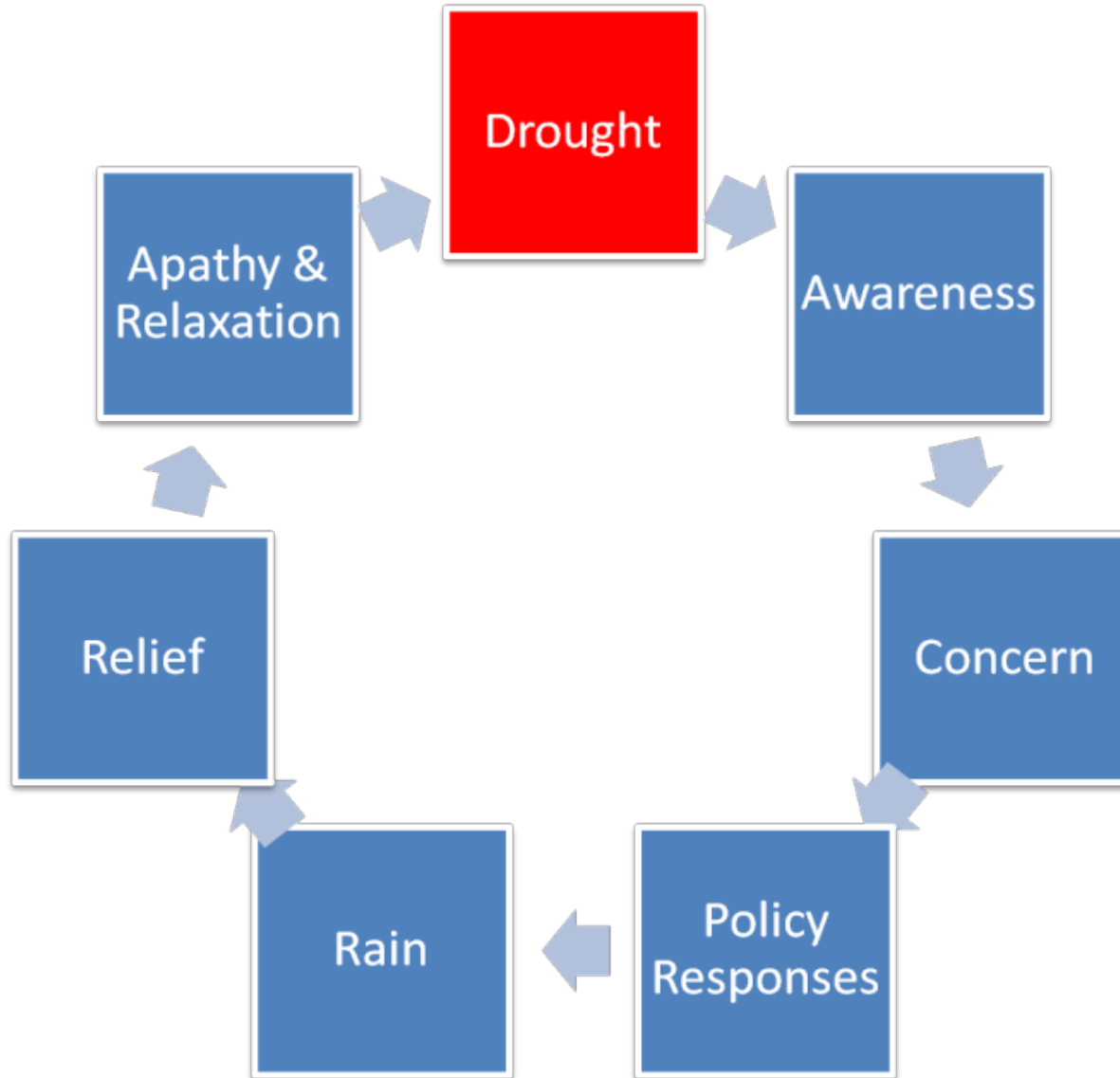


Sustainable Ground Water Management

Dr. Jeff Loux
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Hydro – Illogical Cycle



Water Management today has changed



Water wars



The “new” water sources of the have changed



Complex and Integrated Portfolio Water Management

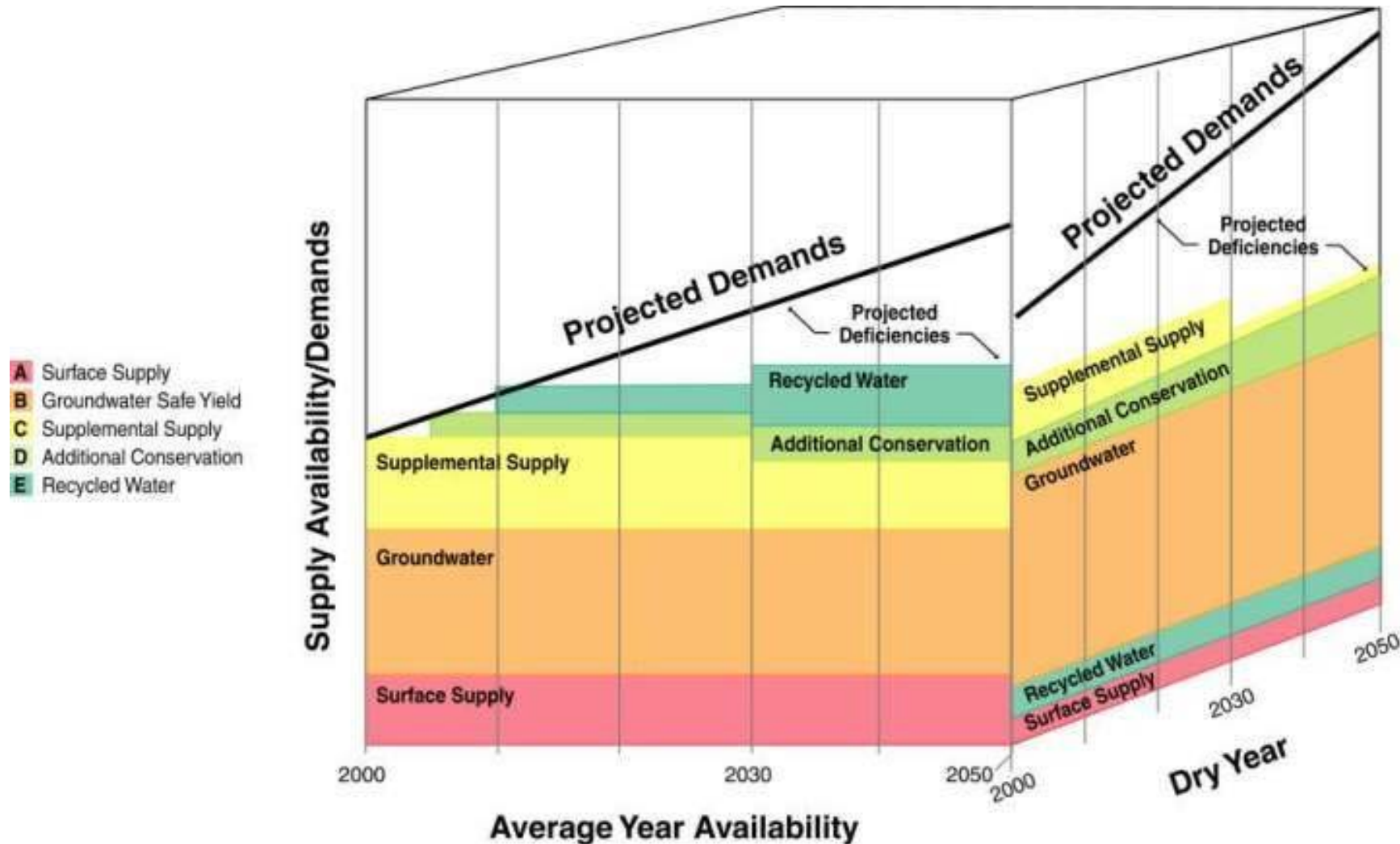
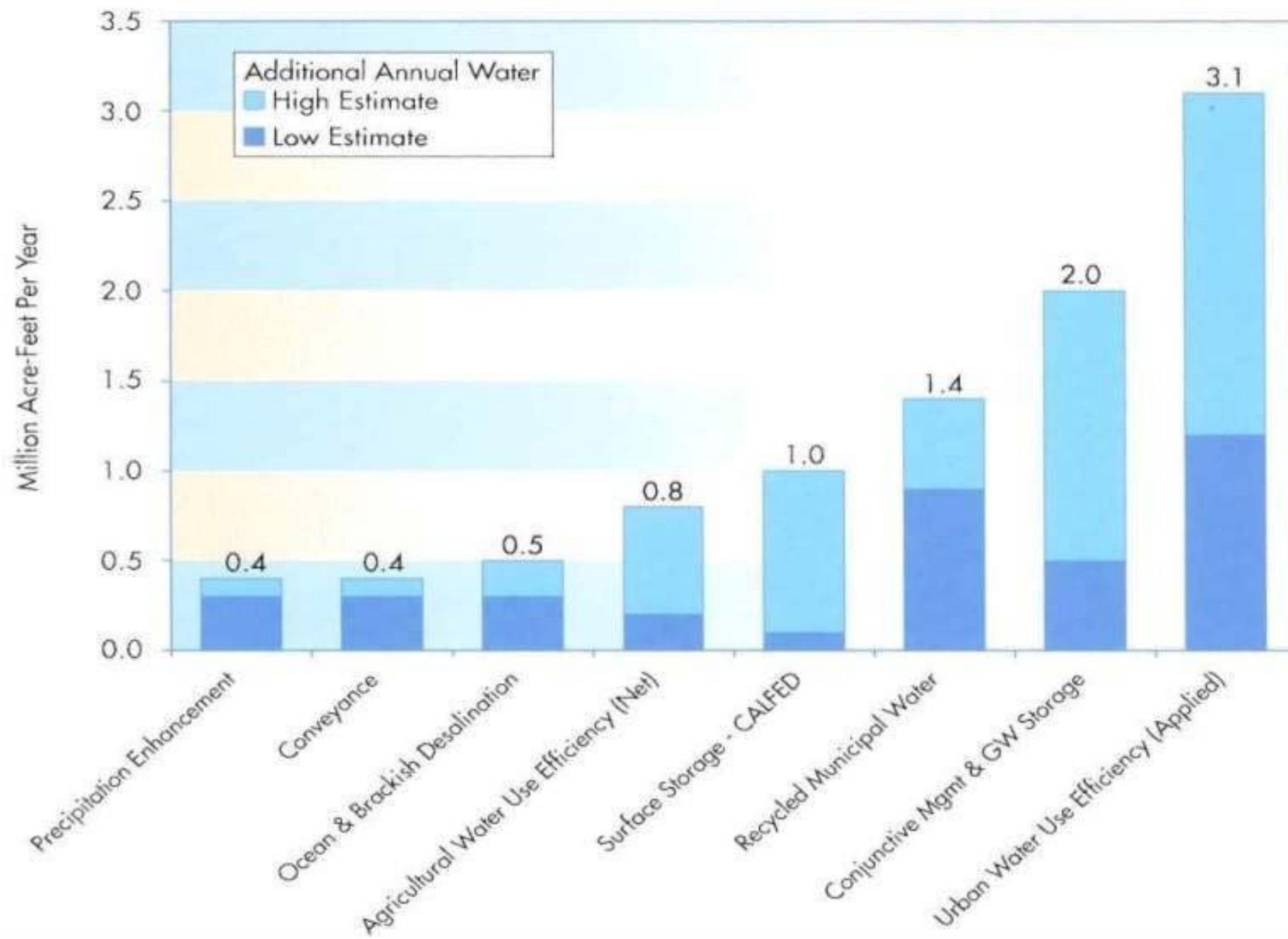
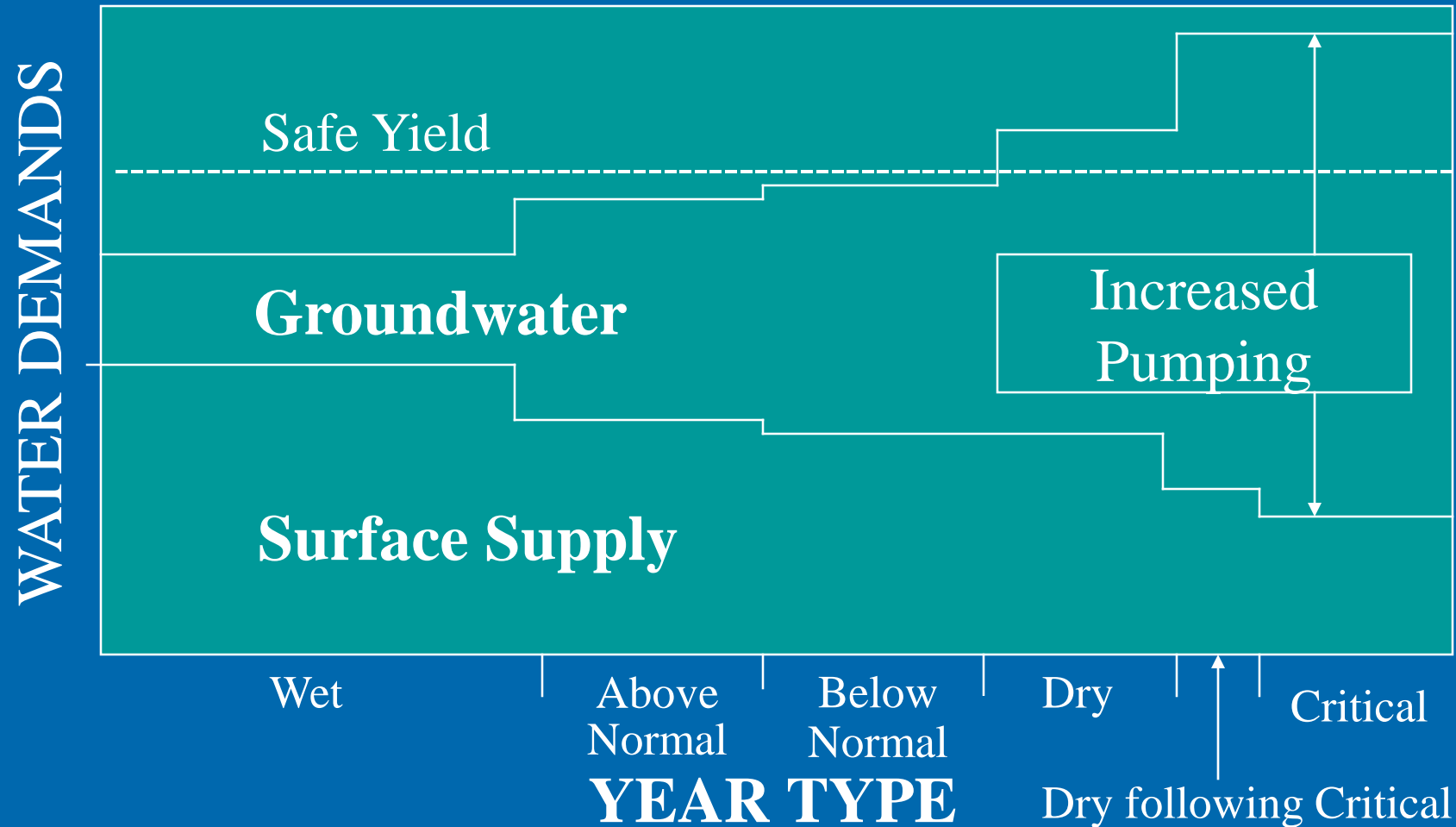


Figure 1-1 Range of additional annual water for eight resource management choices



Conjunctive Use of Surface and Groundwater



What should we do to manage ground water sustainably?

- ◆ Required ground water extraction and water level monitoring & reporting
- ◆ Coordinated data management and modeling – needs major investment
- ◆ Expand/empower AB 3030/SB 1938 to allow for extraction limitation, develop templates and review at State, clarify storage rights and processes and make logical transfers easier
- ◆ Designate critical basins of Statewide interest; overdraft + impact + value
- ◆ Better link land use planning to ground water management
- ◆ Require ground water management plans in those basins of critical interest
- ◆ Leave it to local and regional agencies or collaborations to develop and implement, but with timelines and requirements from State
- ◆ Use a phased data driven, thresholds based approach, stakeholder driven, facilitated, but with timelines and milestones from the State
- ◆ Indemnify the losers – insurance fund from rate payers, beneficiaries, State, Delta project?
- ◆ Follow Hanak, Lund et al. new State Mega-Water Agency with regional management, SWP as a public utility
- ◆ Much more transparency, public engagement in water supply and ground water



危机

On the cover is the Chinese ideogram for “crisis,” which is comprised of the characters for “danger” and “opportunity.”