

Recently Funded Produced Water Projects at Oklahoma State University

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S³OK: Finding Socially Sustainable Solutions for Water, Carbon, and Infrastructure Resilience

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EPSCoR RII Track 1*

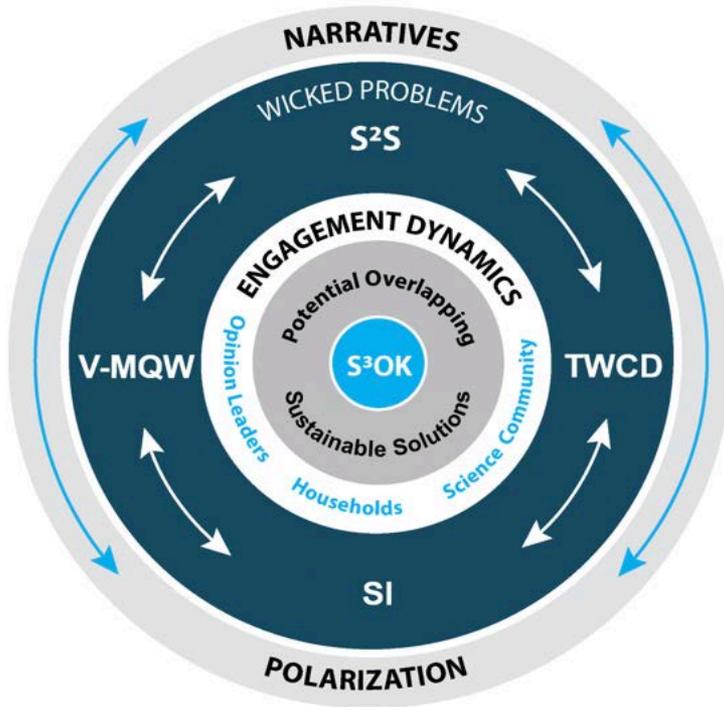


The Grand Challenge

Find **broadly acceptable and sustainable solutions** to the intersecting problems posed by:

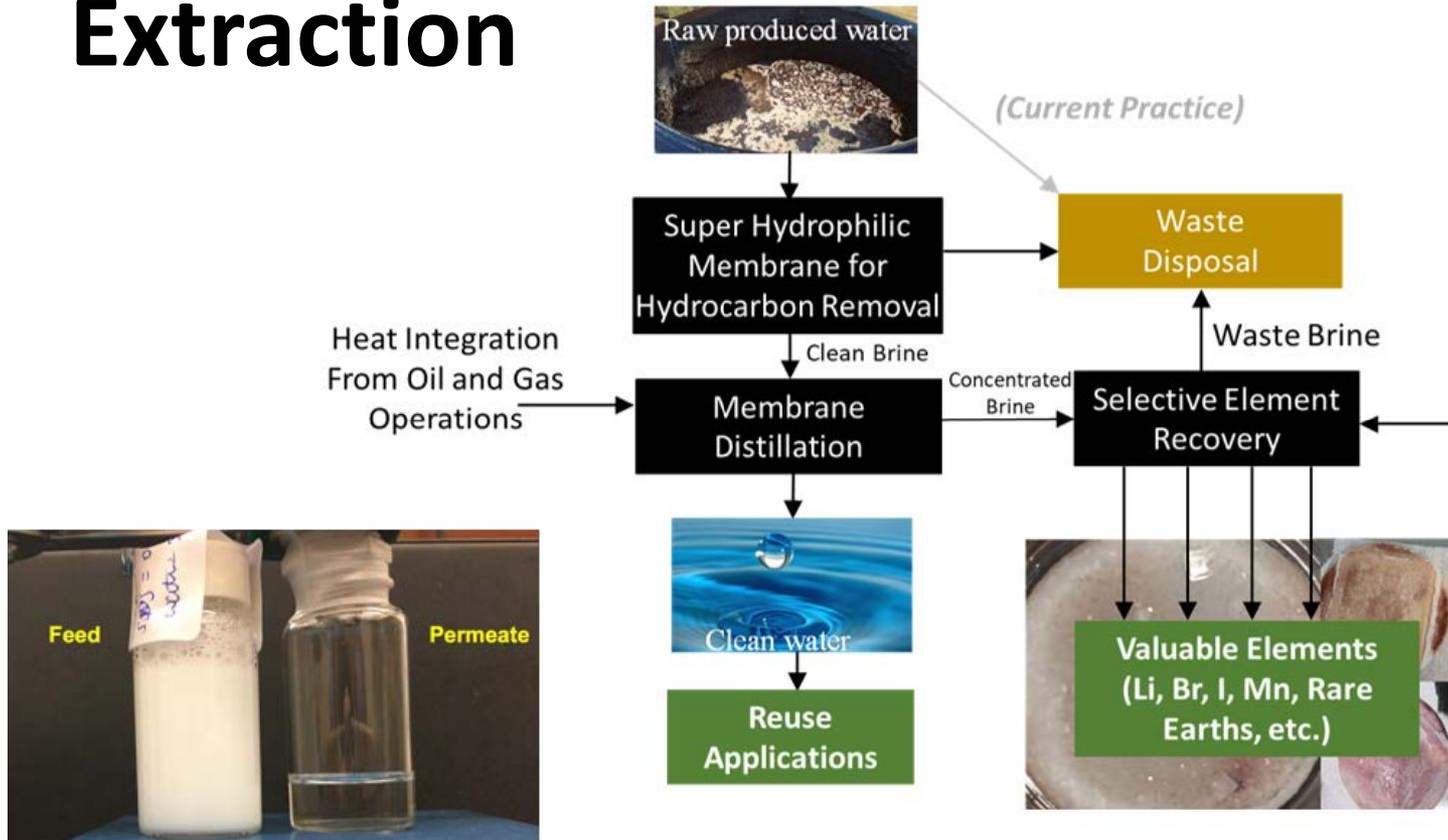
- **Changing weather patterns**
- **Terrestrial water and carbon dynamics**
- **Changing water quality/quantity
shifting landscape use**
- **Enhanced threats to infrastructure**

S³OK Problem Focus and Framework



- Social Dynamics Framework
 - Problems and solutions as narratives
 - Polarization and gridlock
- Wicked Problem Focus Areas
 - S2S (Changing weather patterns)
 - V-MQW (Water quality)
 - TWCD (Land cover management)
 - SI (Sustainable infrastructure)
- Engagement Dynamics
 - Opinion Leaders (OLAN)
 - Science Community (ESPAN)
 - Oklahoma Households (M-SISNet)
 - Annual Oklahoma Academy
- Sustainable Solutions

OCAST – Produced Water Treatment Fueled by High Value Product Extraction



Builds on an already strong collaboration between OSU and D&B Services

