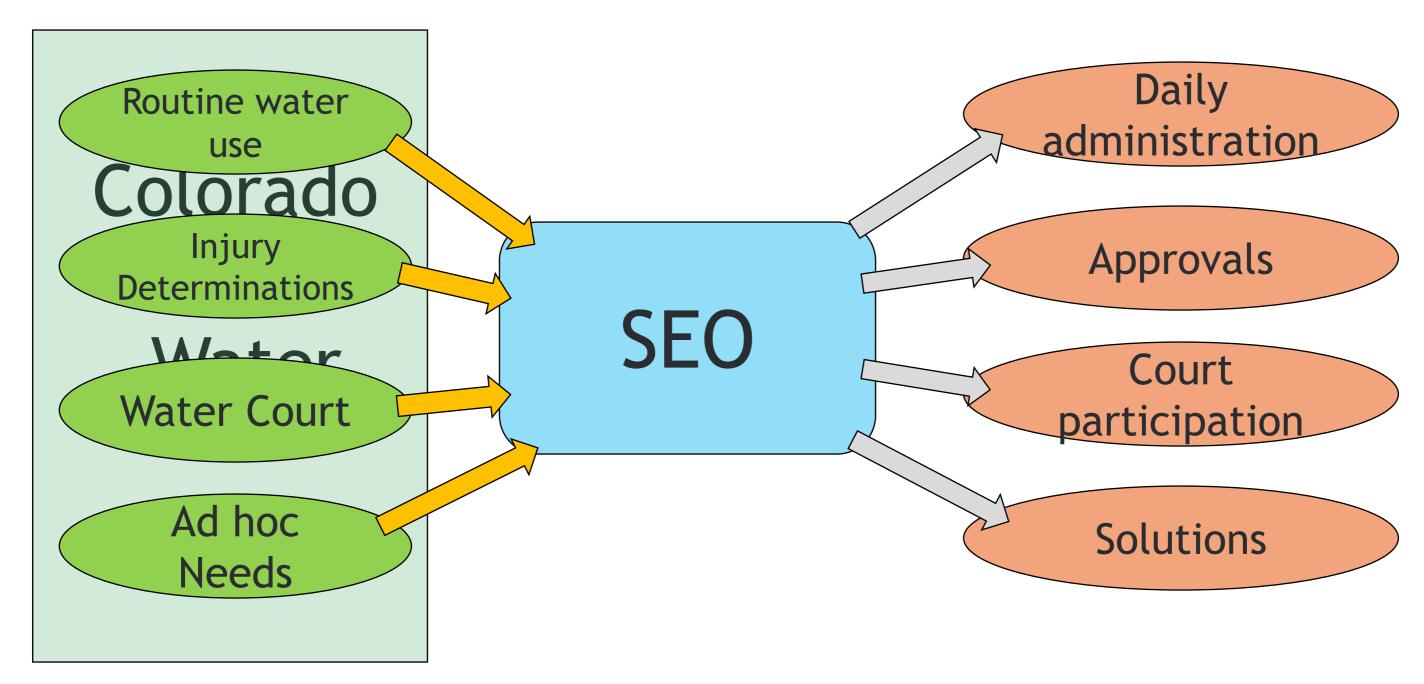
## The Colorado River Compact Compliance Administration

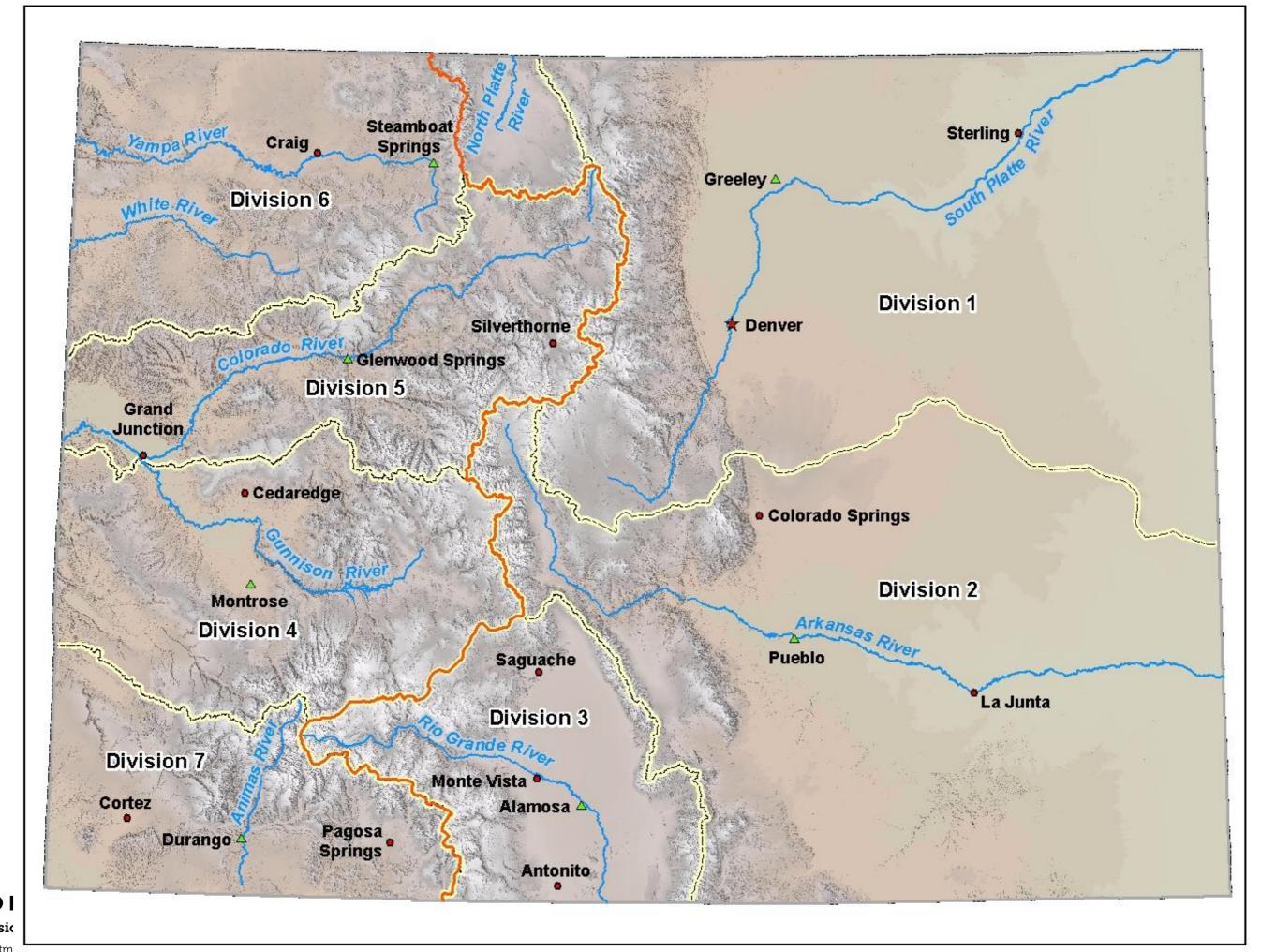
November 29, 2021

Kevin Rein, P.E., State Engineer Division of Water Resources

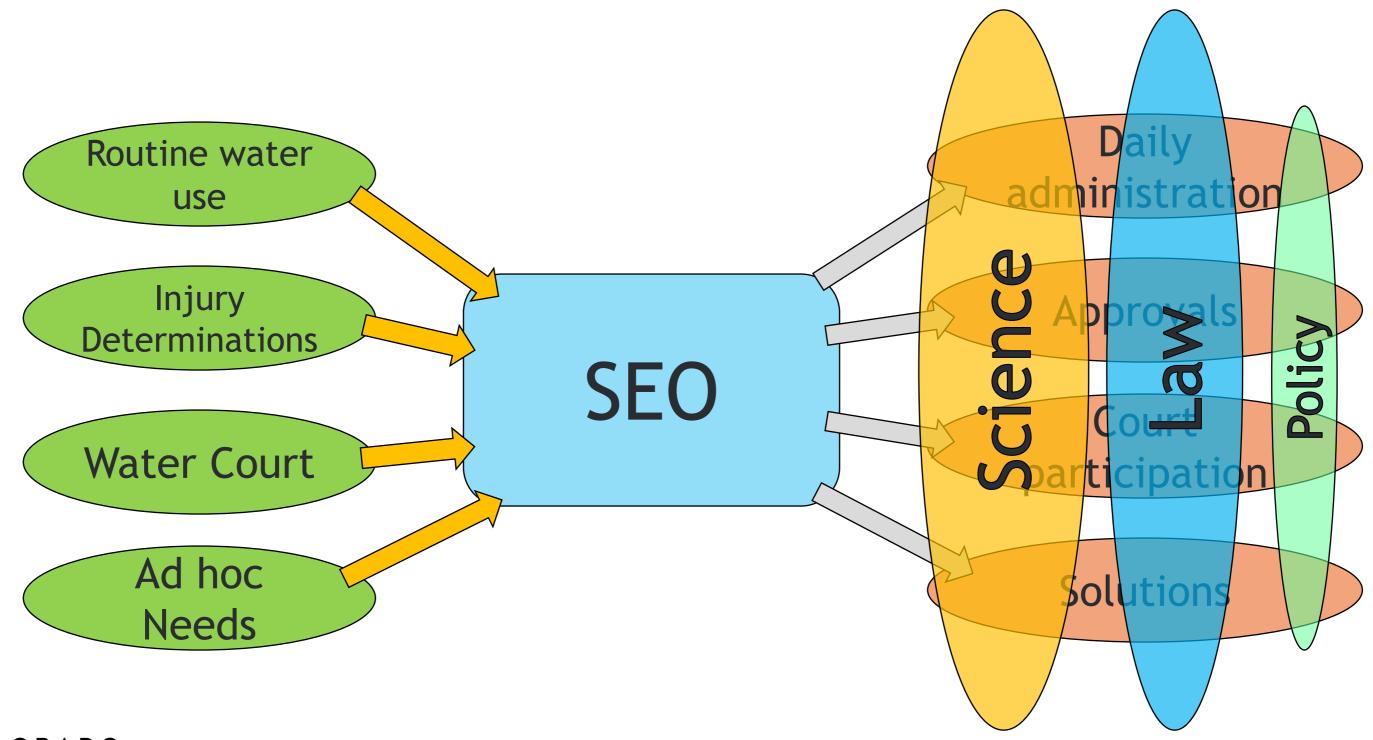


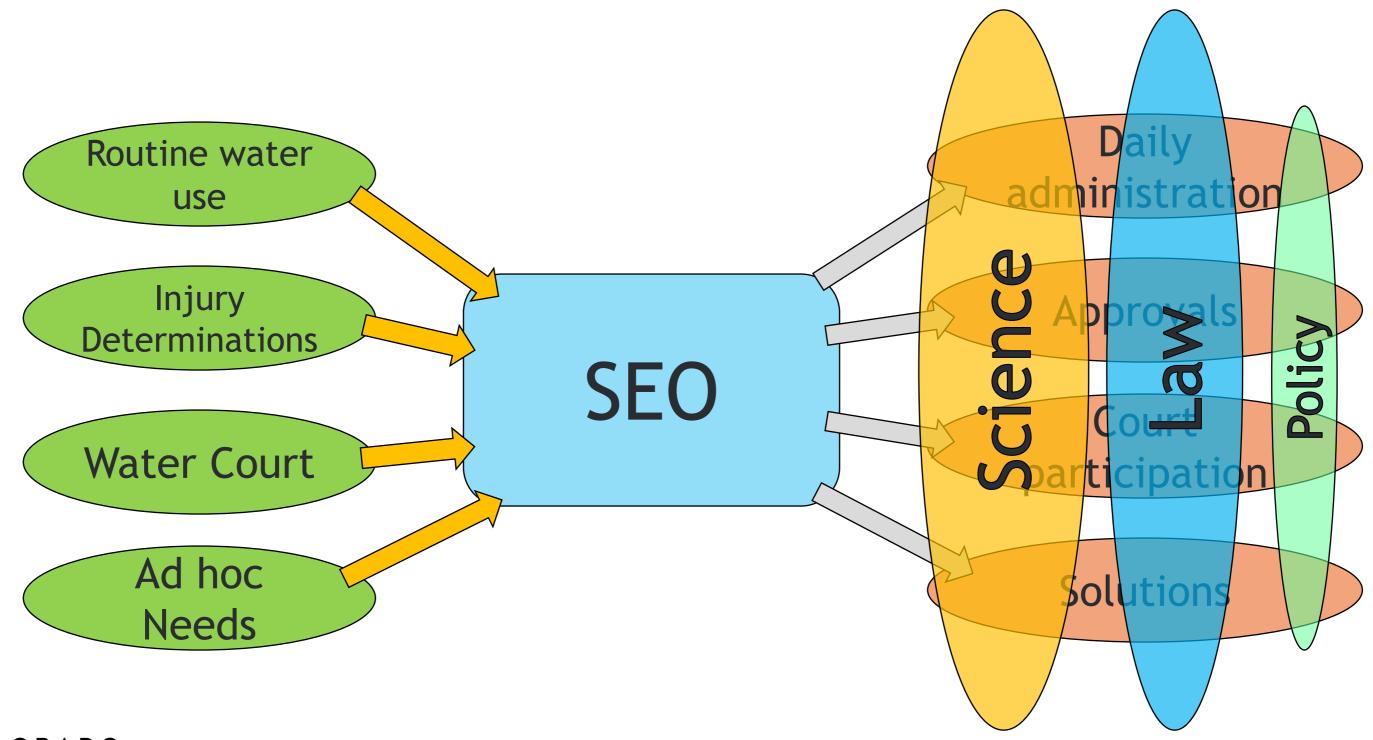












# Colorado River (and its tributaries in Colorado)

- Drought
- Over-appropriation
- Colorado River Compact
- Upper Colorado River Compact
- Compact Compliance Administ Zion
- Drought Contingency Plan
- Demand Management
- Lake levels
- Drought Response Operations Agreement
- •



# Colorado River (SEO Interest) (and its tributaries in Colorado)

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- Compact Compliance Administration
  - Colorado River Compact
  - Upper Colorado River Compact



## Understand Compact Compliance Strategy

# What does the Colorado River Compact say (Article III(d))?

- "The states of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years..."
- That is the recognized (Upper Basin States') standard for maintaining compact compliance,
- What is compliance? How do we maintain it?



## Understand Compact Compliance Strategy

## What does the Upper Colorado River Compact say (Article IV)?

- a) "Curtailment" may be necessary, if the flow at Lee Ferry is not met
- b) UCRC sets "quantity" and "time" of curtailment for each state
- c) The state (Colorado) determines how to meet compact compliance obligations

Compact Compliance Strategy addresses a), b), and c).



## Understand Compact Compliance Strategy

- Multi-faceted, holistic approach that addresses a), b), and c),
- The State Engineer's actions are part of a Compact Compliance Strategy, not Compact Curtailment



#### Probability of need to take action, Compact Administration

Year	AnnuaL Lee Ferry	Ten-Year Total
	Flow (ac-ft)	(ac-ft)
2001	8,361,000	101,872,000
2002	8,347,000	102,197,000
2003	8,372,000	102,432,000
2004	8,348,000	102,475,000
2005	8,395,000	101,628,000
2006	8,507,000	98,603,000
2007	8,421,000	93,150,000
2008	9,180,000	88,890,000
2009	8,406,000	85,866,000
2010	8,437,000	84,774,000
2011	12,753,000	89,166,000
2012	9,542,000	90,361,000
2013	8,289,000	90,277,000
2014	7,590,000	89,519,000
2015	9,157,000	90,282,000
2016	9,138,000	90,913,000
2017	9,170,000	91,661,000
2018	9,171,000	91,653,000
2019	9,264,000	92,511,000
2020	8,436,000	92,509,000

Remember the "Curtailment may be necessary" standard.



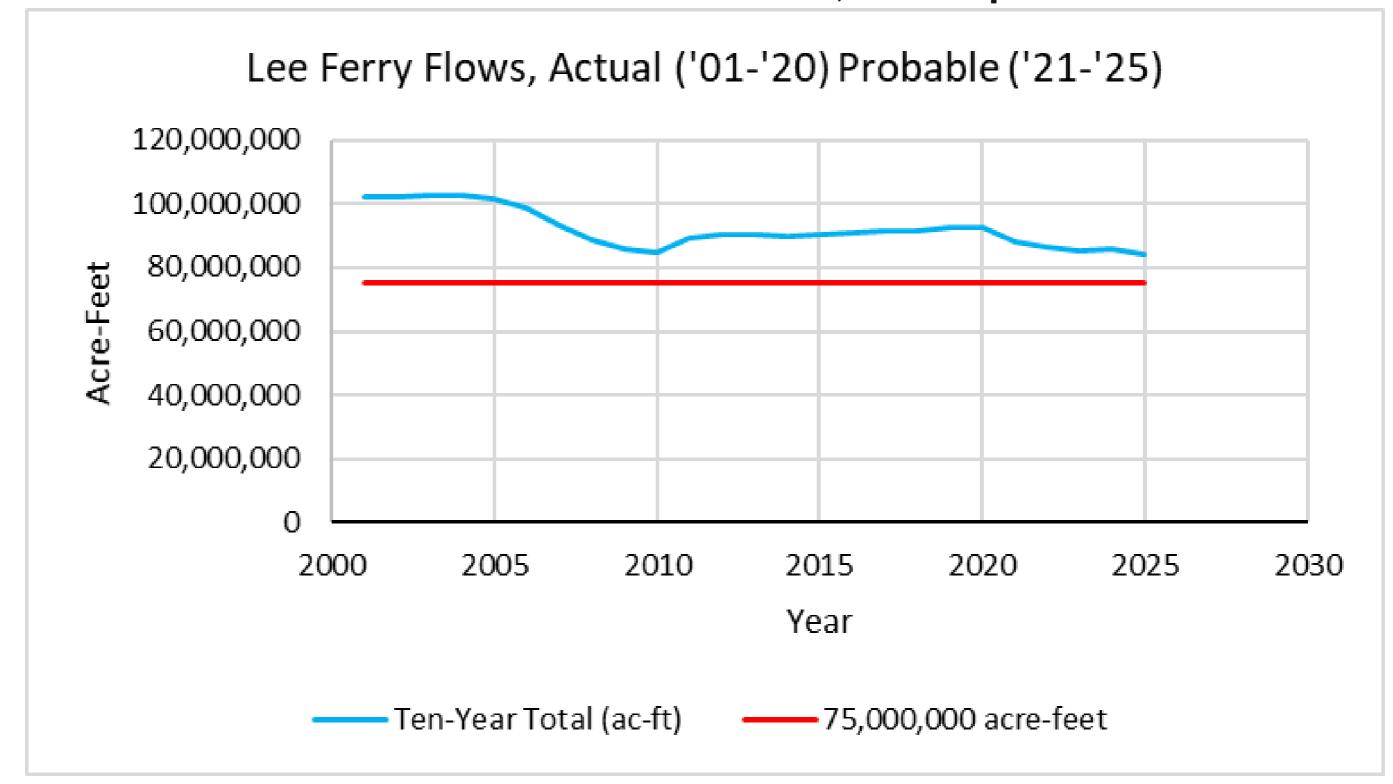
#### Outlook of the need to take action, Compact Administration

- 2017-2020 Actual Totals
- 2021-2022; Current projection, October 2020 24-Month Study\*
- 2023-2025; Conservative SEO assumption, for planning only = 7,480,000 acre-feet\*
- Acknowledge Mexico "obligation"
- \* Consider 150,000 ac-ft gain in river, Powell to Lee Ferry
- Sources:
  - 72nd Annual Report of the UCRC
  - USBR 24-Month Study (May, 2021)
  - '07 Guidelines

Year	AnnuaL Lee Ferry	Ten-Year Total
	Flow (ac-ft)	(ac-ft)
2017	9,170,000	91,661,000
2018	9,171,000	91,653,000
2019	9,264,000	92,511,000
2020	8,436,000	92,509,000
2021	8,380,000	88,137,000
2022	7,630,000	86,225,000
2023	7,630,000	85,566,000
2024	7,630,000	85,606,000
2025	7,630,000	84,079,000



#### Outlook of the need to take action, Compact Administration



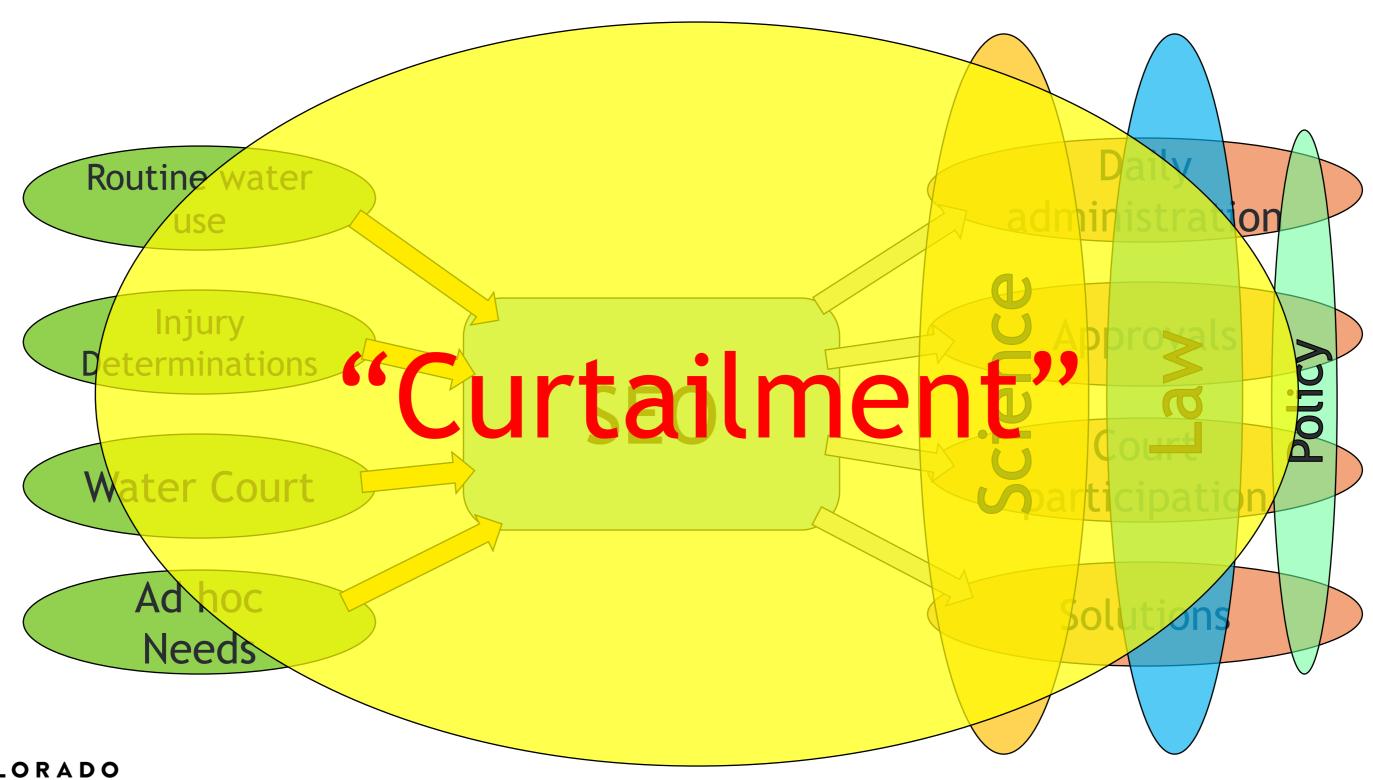


## What Influences Compact Compliance Strategy?

- What influences Compact Compliance Strategy?
  - Probability of a UCRC determination, that Colorado would need to take action. Probability is low, near term
  - Upper Colorado River Compact; UCRC role. Many unknowns,
  - Implement, if and when necessary. Many unknowns, many unidentified alternatives.
    - What can be done now? What should be done now?



- Plan for Curtailment?
  - Can we be more sophisticated, more thoughtful?



- Rulemaking
  - When does the need for Rules arise?
  - What legal issues need to be decided?
  - What do the Rules need to address?
- These are critical questions. How do we approach them?

- What do the Rules need to address?
  - Determine vulnerabilities
  - Determine strategies

- What do the Rules need to address?
  - Determine vulnerabilities
    - Who (segment)?
    - Type of use?
    - Consumptive use?
    - Priority?
    - Location?

- What do the Rules need to address?
  - Determine strategies
    - Plan for and mitigate impacts of curtailment, if it becomes necessary
    - How curtailment is applied
    - Investigate other strategies
  - What is the appropriate timing for preliminary discussions?
  - What is the timing for formal rulemaking?



## Questions?