The Western Water Dashboard
Comparing Groundwater Regulation Among the Western States

Debra Perrone
Postdoctoral Research Scholar
Civil and Environmental Engineering
Woods Institute for the Environment
Stanford University, Stanford, California

Rebecca Nelson
Fellow, Woods Institute for the Environment
Stanford University, Stanford, California
Senior Fellow, Melbourne Law School
University of Melbourne, Melbourne, Australia

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What is the Western Water Dashboard?

→ Interactive Webpage

→ Groundwater Management

→ 17 Western States

→ Inform Stateholders

Phase | Approach | Objectives
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1 | Spatial analysis | Geospatial extents of groundwater management
2 | Spectrum of legal regimes | Characterizing regulatory regimes (permitting)
3 | Link legal regimes to physical system | Effectiveness of regulatory regimes
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What are SMAs?

- Geographically defined subareas
- Intentional groundwater withdrawals
- “Special” statutory regime applied

Quality Control Ongoing
What are SMAs?

- Wide net to capture any arrangements that differ in intensity from the rest of the state.
- Excludes water quality concerns.

How are SMAs Different?

No controls to limited controls

Early Groundwater Legislation

State-wide common-law doctrines (i.e., prior appropriation)

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Statutes for specific geographic areas**

State-wide statues

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State-wide statues

Today

** Excludes adjudication — looking at statutory elements
Statewide Common-Law Doctrines

Default Statutory Regime
   Statewide Groundwater Statutes
      No Requirements
      May Require Permit
      Must Require Permit

Statutory Special Management Areas

Additional regulatory layer often overlooked

No Requirements

May Require Permit

Must Require Permit

Hypothesis: Default set of laws and regulations within a state is often of secondary importance because of the extent and importance of SMAs.
Why are SMAs Important?

- Cover significant areas across the west

Transitional SMA

- Having SMAs covering an entire state does not mean that the SMA regs are the default regs

State Area Covered by SMAs:
- 0% - 20%
- 21% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 100%
SMA’s Uncovered

Variation across states

State Centric
- State administers rules
- AZ: Active Management Areas
- State administers Rules
- Local districts advise
- Local districts administer rules
- States give limited direction
- Local districts administer rules
- CA: Special Act Districts

Local Centric
SMA’s Uncovered

→ Variation across states

→ Variation within states

Voluntary Management Plans + New Legislation

Priority Groundwater Management Area —> Groundwater Conservation District

SMA’s Uncovered

→ Variation across states

→ Variation within states

→ Variation across SMAs and States
SMA’s Uncovered

→ Variation across states

→ Variation within states

→ Variation across SMAs

→ Variation within SMAs

Legend
Special Act District permit power

No
Yes
What does this mean for management?

Common pool resource with spectrum of management regimes
Surface water doctrines have evolved over time too…
Take Aways?

SMAs are used widely

Spectrum of permitting criteria that each SMA provides for its state

Helpful to other states looking for tools to manage their groundwater better
Questions?

debra.perrone@stanford.edu

http://waterinthewest.stanford.edu