Successes and Challenges in Groundwater Governance in California

Regional Workshop on Groundwater Resources Management in the Mediterranean
World Bank Water Global Practice / Center for Mediterranean Integration
Marseille, France
March 9-10, 2017

PRESENTED BY

Eric L. Garner, Esq.
Partner
CASGEM Groundwater Basin Prioritization

Statewide Groundwater Basin Prioritization Summary

<table>
<thead>
<tr>
<th>Basin ranking</th>
<th>Basin count per rank</th>
<th>Percent of total for State</th>
<th>GW use</th>
<th>Overlying population</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>43</td>
<td>69%</td>
<td>47%</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>84</td>
<td>27%</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>27</td>
<td>3%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Very Low</td>
<td>361</td>
<td>1%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>515</td>
<td>100%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
Historic Land Subsidence in Central Valley

• Signs on pole show approximate altitudes of land surfaces in 1925, 1955 and 1977
Subsidence in Central Valley

- 1988 - 2013
California Groundwater Law

- California groundwater law is pump until a judge tells you not to
- Well permits are health/safety and ministerial
- Correlative rights doctrine gives farmers a priority over the appropriative rights of cities
Adjudication - Key Hydrology Issues

- Basin boundaries and sub-basins if any

- “Safe Yield” – amount of water that can be extracted annually on a long-term basis without harming resource

- Pumping amounts and uses of most or all users
Adjudicated Basins

• Faced with proving rights, many parties settle

• Trial of water rights of non-settling parties and court enters judgment with physical solution

• Court enters a judgment with “physical solution”
Adjudicated Basins

• Physical solution typically provides for monitoring and payment mechanism for supplemental water

• Typically creates water market

• Court has continuing jurisdiction to enforce
Transferable Rights (Water Market)

- All rights severed from land (personal property not real property)
- Transferable amount is percentage of historic pumping
- Transferable only within basin (usually geographic and hydrologic limits)
- Watermaster (appointed by and reports to court) manages the market
Lessons from California’s Adjudications

• Water rights modified to largely maintain existing uses (can’t just cut off existing uses completely)

• Supplemental water has been crucial

• Occurred where municipal users could pay

• All stakeholders must be involved

• Continuing jurisdiction/adaptive management
Relevance to Mediterranean - Process

• Determine the hydrologic unit and Safe Yield

• Who are pumpers and how much are they pumping?

• Local management with all stakeholders

• Strategy to deal with pumpers benefitting from status quo (incentives or downside risk)