

Valuing Water Rights in a Water Utility Consolidation

California Water Association
Spring Conference

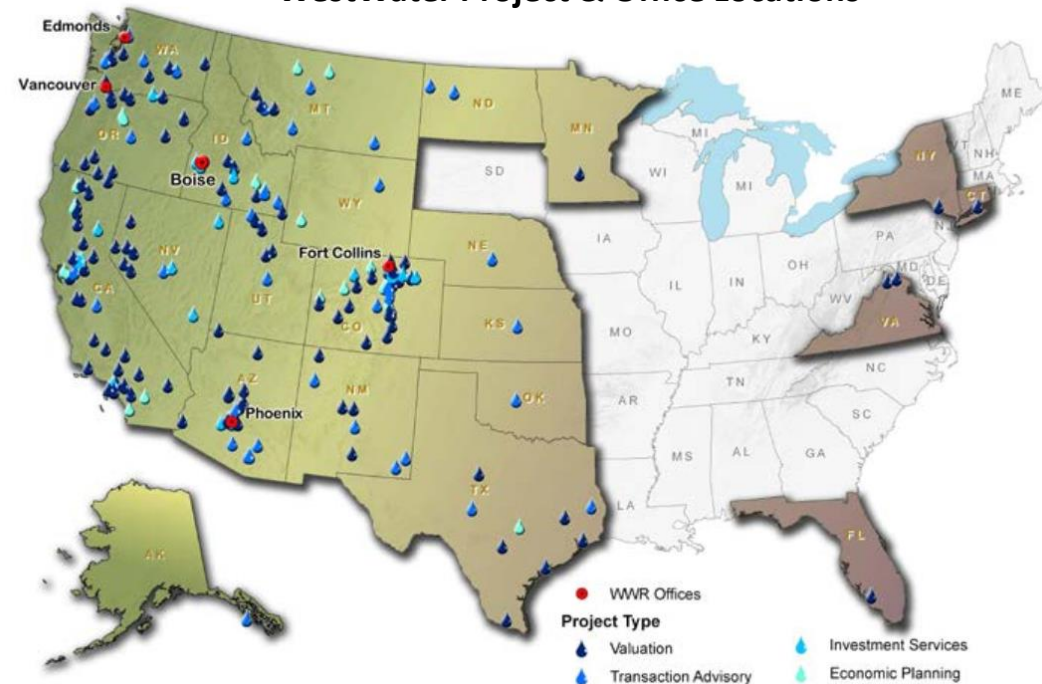
May 23, 2019

38.2%: 119.29
51.25%: 108.98
61.6%: 99.19

WestWater Research Overview

- Economic and financial advisory firm specializing in water resources.
- Nationwide practice with offices in four states.
- Professional team of economists and MBAs.
- Expertise in water rights valuation, transactions, market analysis, and strategic planning.
- Diverse clients across the public, private, and non-profit sectors.

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Why Water Rights Matter

Water rights provide multiple benefits to investor-owned water utilities and their customers:

- Water supply independence and control.
- Water supply reliability.
- Water supply redundancy.
- Reduced exposure to rising wholesale water costs.
- A long-term, non-depreciable asset.

Types of California Water Rights

Surface Water

- Riparian
- Appropriative
 - Pre-1914
 - Post-1914
- Contractual Entitlements

Groundwater

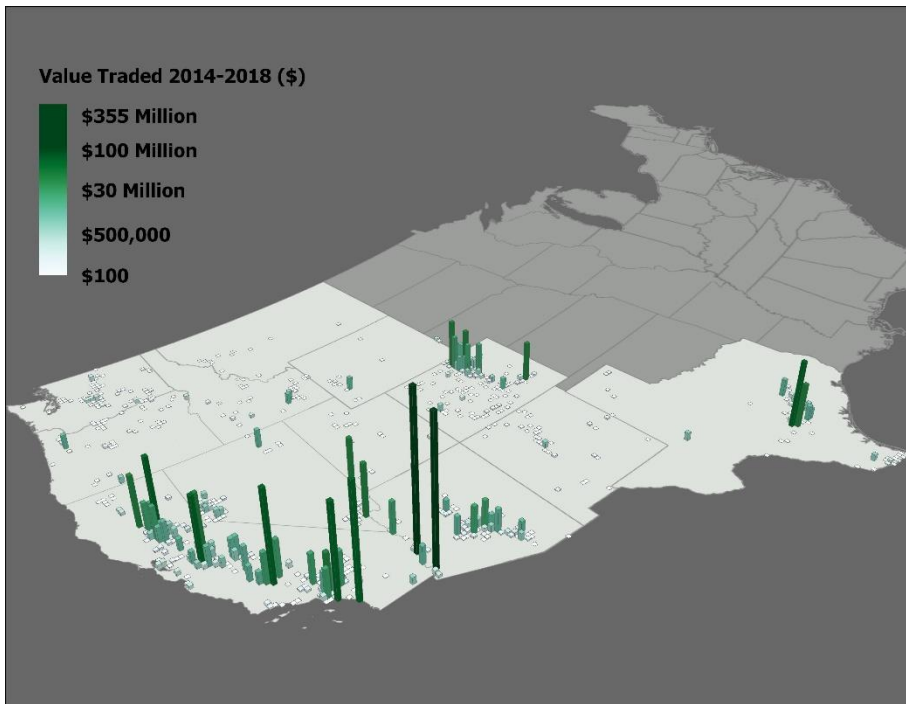
- Overlying
- Prescriptive
- Appropriative

Key Water Rights Attributes

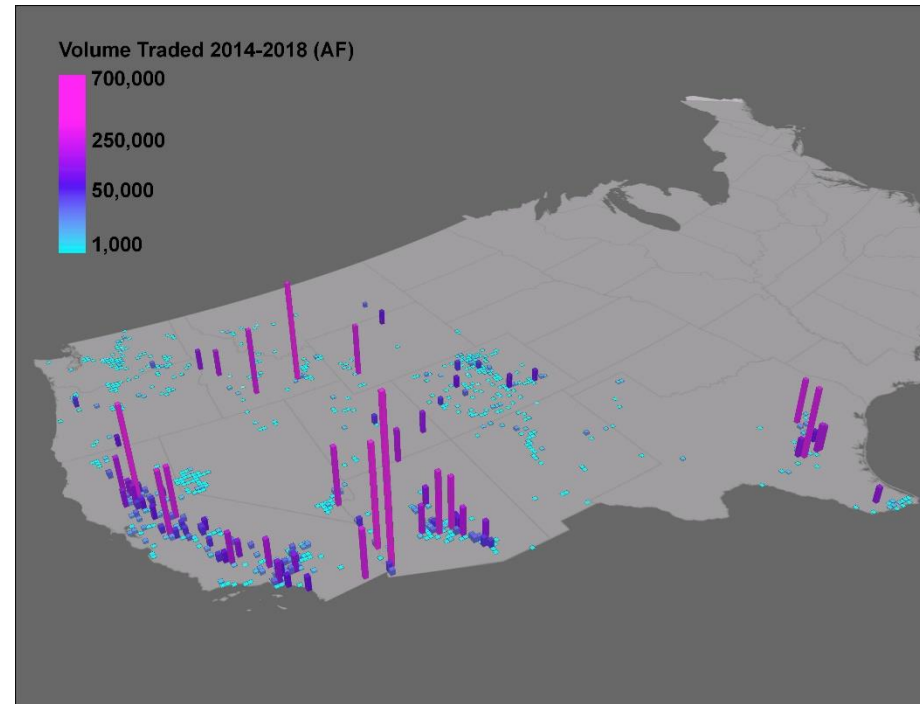
- Location
- Source
- Reliability/priority
- Volume
- Transferability and separability from utility system
- Useful life (perpetual or limited)

Where Water Rights are Trading

Water Value Traded in the Western U.S. 2014-2018



Water Volume Traded in the Western U.S. 2014-2018



Water Rights Valuation Approaches

Comparable Sales

- Preferred approach if sufficient and recent sales data are available.
- Value the subject water rights using market prices in precedent transactions of similar water rights.

Income Capitalization

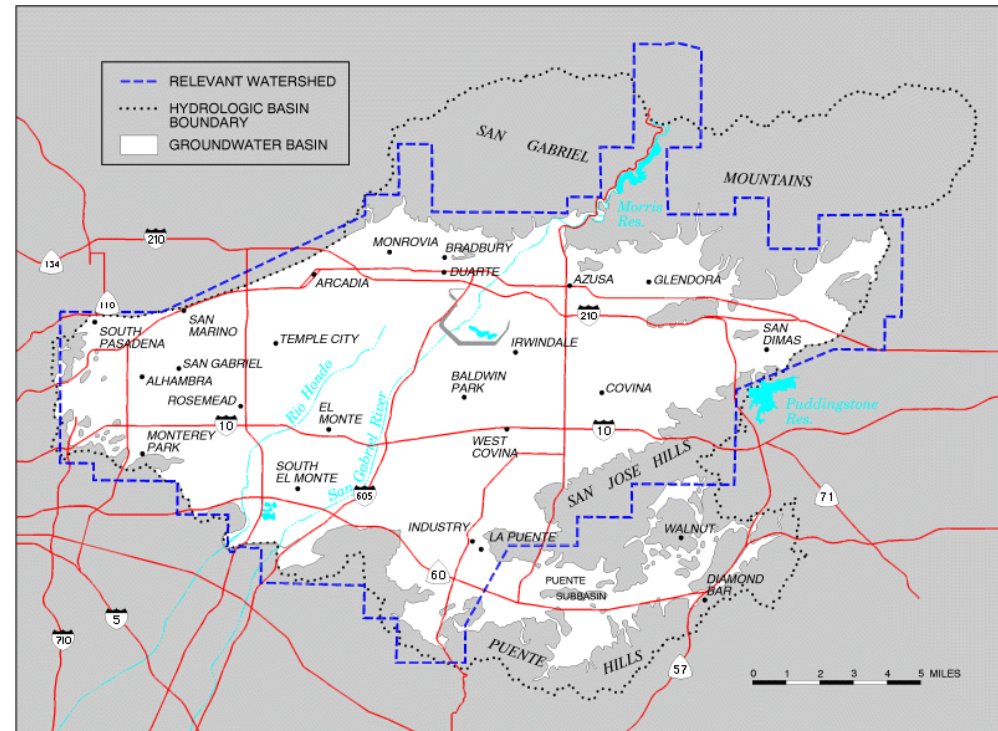
- Present value of forecasted net income generated by water rights through leases and/or sales.
- In utility consolidation, discount rate is the acquiring utility's WACC.

Cost Approach

- Present value of costs avoided through ownership of subject water rights.
- Cost of developing a replacement source of supply.

Example: Main San Gabriel Basin

- **Water Rights:** Prescriptive groundwater rights in an adjudicated basin.
- **Transferability:** Tradeable throughout the basin separate from land, utility systems, or other assets.
- **Market Dynamics:** Diverse buyers actively compete to purchase and lease water rights, reducing reliance on costly and unreliable imported water.

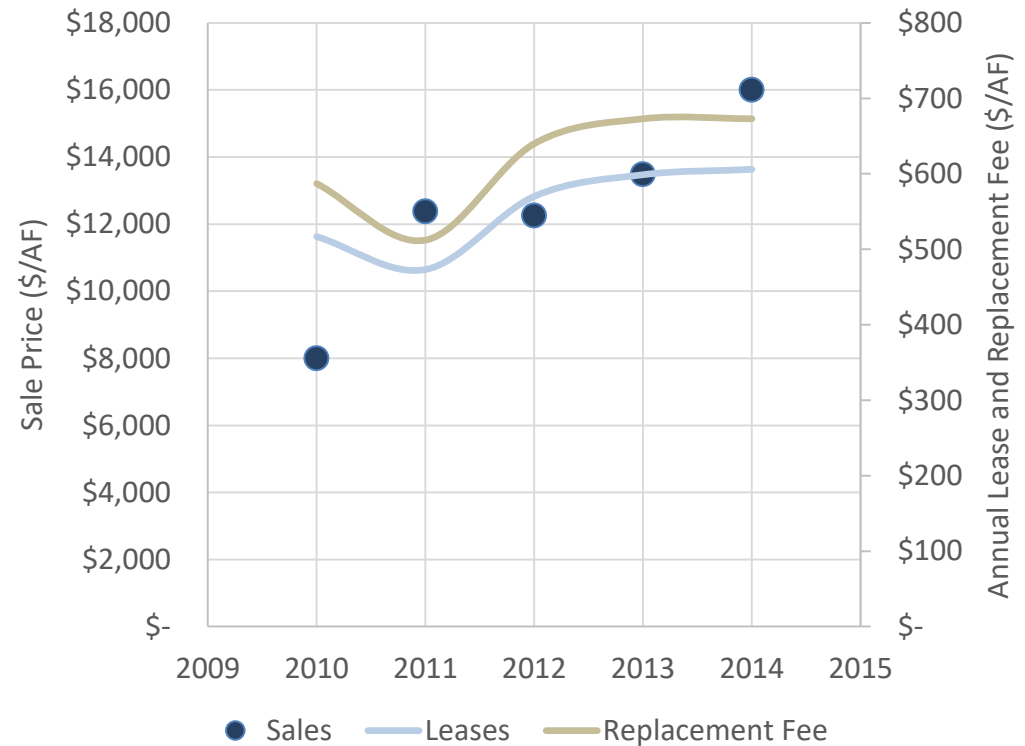


Example: Main San Gabriel Basin

2015 Valuation Analysis

- Comparables: \$16,000/AF.
- Income: \$18,000/AF.
- Cost: \$20,000/AF.

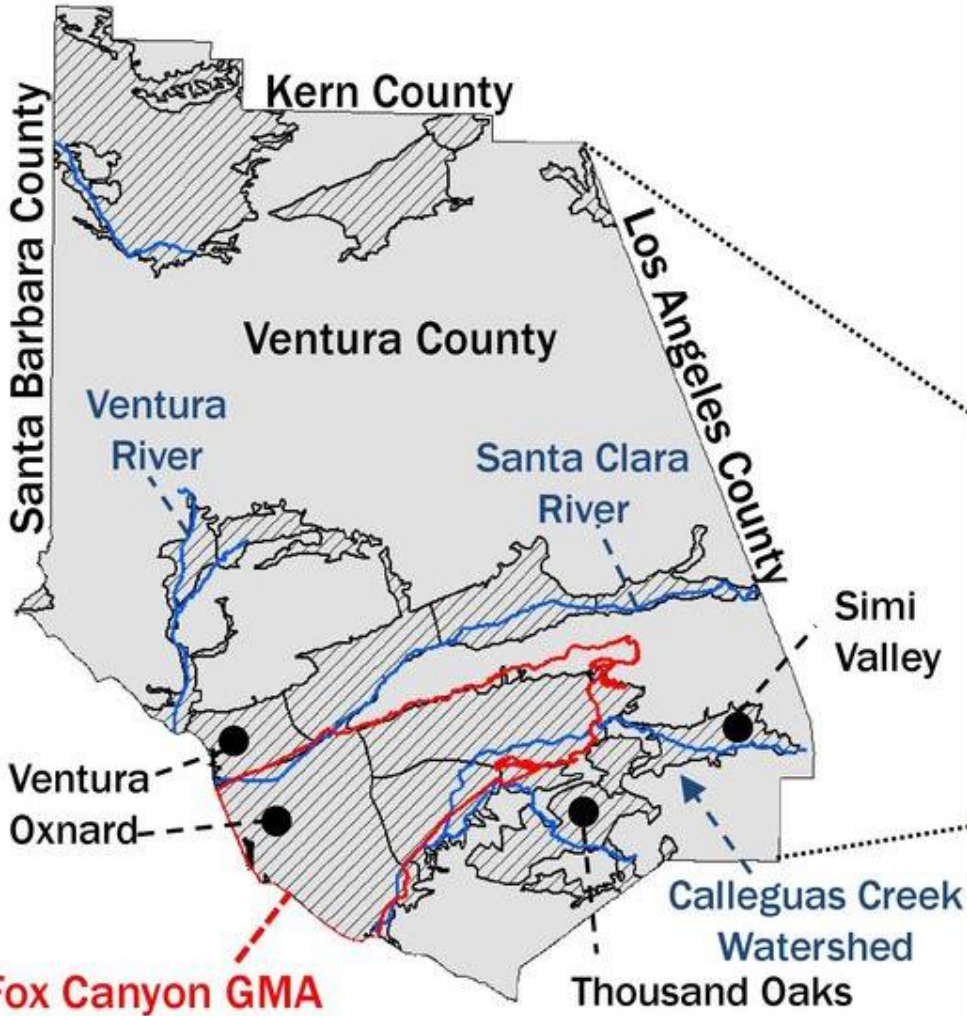
Main Basin Water Right Prices, 2010-2014



Recent Case Study: Rio Plaza

- **CPUC Application:** Purchase of a water utility serving 520 customers in Ventura County from a family that is no longer able to operate the system.
- **Water Rights:** Temporary Extraction Allocation of 224 AF issued by Fox Canyon GMA.
- **Issues:** Water rights valuation, nature of the water right asset (permanency and separability).
- **Outcome:** Proposed transaction and price authorized by CPUC in April 2019.

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Source: Bondy, Bryan. Presentation to GRAC Stream Depletion Workshop. August 2017.

Recent Case Study: Rio Plaza

- **Water Rights Valuation:** Applicant and Public Advocates Office took different approaches:
 - **Applicant:** \$4,900 - \$5,400/AF based on recent sales of Fox Canyon GMA Temporary Extraction Allocations.
 - **Public Advocates:** \$2,786/AF based on partial data found online for water rights transactions in Delano, Bakersfield, Yermo, Barstow, and Lucerne Valley.
- **Nature of Water Rights:** The record did not clearly establish that the water rights are permanent assets and separable from the utility system. Thus, the water rights were not accorded a separate asset value.

Recent Case Study: Rio Plaza

- **Lessons Learned:** When valuing water rights in the context of water utility consolidations...
 - Clarify the attributes of the water rights assets.
 - Assigning a separate asset value to water rights can be appropriate when the assets are legally divisible and transferable separate from the utility system.
 - Water right values are highly localized, and location is a key criterion for selecting relevant comparables.
 - Look under the hood while analyzing water right transactions data.
 - Many transactions are complex and occur under unique circumstances.
 - Interviewing buyers/sellers and obtaining supporting documentation are critical for bolstering value estimates.

Thank You

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