

Assessing Technical, Managerial and Financial (TMF) Capacity for Small Water Systems in California

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January 11, 2019



Top 5 indicators of unsustainable systems

Focusing on what we can measure:

- Repeated water quality violations
- Single source reliance without interties
- Retail rates above 1.5x state average
- Low operating ratio
- High leak rate or gallons/per capita/per day consumption

Assumption: TMF affects Human Right to Water

- Lack of system level TMF in long-term may result in one or more of the following at the customer level:
 - Unaffordable rates
 - Water quality violations
 - Unreliable supply
- If we collect new TMF data, we can test assumptions and try to predict HRW outcomes

Focus on F in TMF

- Focus on financial capacity (F) metrics at the system level
- Some technical (T) and Managerial (M) metrics also collectable (appendix slide)
- No known database or studies on TMF of small systems in CA

What we aim to assess :

- Relate financial capacity to quality violations
- Relate financial capacity to affordability of retail rates
- Relate financial capacity to supply shortages (new conservation data)
- Use to assess impact of and inform financial assistance programs

Guidelines on Financial Reporting

- State Water Board assessments for consideration of financial assistance
- AWWA Manuals (M29: Water Utility Capital Financing)
- International benchmarking efforts (IBNET)
- Few scholarly assessments
 - Blanchard and Eberle, 2013; Scott, 2018; Teernstra, 1993

Existing financial database across systems

California:

- No historical database of TMF for financial assistance- applicant systems
- No current data ask comparable to state's Electronic Annual Reporting system
- New survey being piloted to 10 small systems

Other:

- Environmental Finance Center dashboards for multiple states

Collection strategy: Mandatory reporting by some small systems

- 300+ Mutual Water Corporations (MWCs):
 - Annual I-990s for 300+ MWCs (2012-2016)
- 400 drinking water special districts:
 - financial reporting to state controllers (2003-2016)
- 94 Class B-D investor owned utilities (IOUs):
 - Annual Reports to CPUC (2012-2017)

Other potential data sources for small systems

- SRF data from PDFs and paper assessments
- Potentially survey of 500+ Mobile home park systems through Housing and Community Development department
- No known centralized source for:
 - Other small private systems
 - Small county and city systems embedded in larger public agency finances

Measurable Financial Metrics (all)

- Operating ratio (O&M expend/revenue)
- Revenues (fiscal capacity)
- Fiscal slack (assets-liabilities)
- Outstanding debt/debt to equity
- Median home values/bracketed income (economic capacity)

Additional F Metrics (MWCs and IOUs)

- Adjusted Operating ratio (incl. depreciation)
- Liquidity Measures (may be available for all)
- Depreciation
- Staffing ratio
- Capital to labor spending ratio
- Other metrics

Appendix: T and M metrics

Annual reports/ periodic sanitary surveys contain data on:

- Measures of value and quality of capital assets
- Presence and training level of certified operator
- Presence of capital improvement plan (?)