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

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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)
• 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 (?)