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The Economic Consequences of Contested Government Takeovers of Investor-Owned Water Utilities

Analysis Group, Inc.

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I. INTRODUCTION

There are approximately 156,500 utilities in the United States that provide drinking water to more than 320 million people. Approximately 5% of all systems (9,400 systems) serve communities of more than 3,300 residents, providing drinking water to more than 87% of the total service population.[1] Some of these systems are investor-owned utilities (IOUs), but the vast majority are government-owned utilities (GOUs).[2]

Ownership and control of water systems has become a hotly debated topic in many communities. Some communities with government-owned water systems are debating whether to partner with IOUs to build sorely needed infrastructure or to run the water system, or whether to sell the system outright to an IOU. In contrast, other communities are debating whether to take ownership of IOU water systems through a negotiated settlement or litigation under eminent domain laws.

In most cases where a government takeover of an IOU is considered, the community ultimately decides not to pursue a change of ownership. Where the community chooses to pursue a takeover and an agreement cannot be reached with the IOU, the local government may invoke eminent domain authority in an attempt to take over utility ownership. This report examines the economic effects of contested changes in ownership of water utilities from investor-owned to government-owned. This report is not intended to endorse or support one ownership model over another (e.g., government vs. investor). This report also does not examine the economic effects of negotiated change of control transactions.

Among the arguments made in favor of government ownership of water utilities, the most frequent are local control, improved service quality, and reduced water bills.[3] Advocates for government ownership argue that the advantage of local control is an ability to hold public officials accountable, and to improve system management through better planning and control.[4] It is argued that better service through

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1 2014 AWWA *State of the Water Industry Report*, p. 8, available at: http://www.awwa.org/Portals/0/files/resources/water%20utility%20management/sotwi/AWWASotWIReport2014.pdf.

2 The USGS Water Science School, "Public-supply water use," available at: http://water.usgs.gov/edu/wups.html; and National Association of Water Companies, "The Truth about Private Water Service Providers," available at: http://www.nawc.org/uploads/documents-and-publications/documents/document_9f2bbfe0-e863-4081-991f-0a3cc72b406d.pdf.

3 *Food and Water Watch*, 2012, "How U.S. Communities Can Secure Local Public Control of Privately Owned Water and Sewer Systems, Municipalization Guide," p. 6, available at: https://www.foodandwaterwatch.org/sites/default/files/Water%20Municipalization%20Guide%20Report%20July%202012.pdf.

4 In the eminent domain lawsuit filed by the City of Claremont (CA) against Golden State Water Company, the IOU operator of the local water system, the city argued that its taking of Golden State's water system was necessary because "local control" would benefit customers. The trial judge rejected the City's argument: "'local control' is [not] inherently better than the process that the [California] Legislature has imposed to regulate the rates, practices and investment decisions of investor-owned utilities … The Court does not find that escaping from the procedures that are designed for the PUC regulation of investor-owned utilities supports the exercise of

government-owned systems will lead to better quality and safer water.[5] Another recurring argument is that government ownership will ultimately reduce costs and lower water bills for customers by removing the profit incentive of IOUs and by reducing the utility's tax burden.[6]

Although there have been many theoretical and empirical studies examining the relationship between type of ownership and performance, academic research does not offer any broad conclusions regarding which ownership model is more efficient; the operating and financial performance of water utilities depends on individualized circumstances much more than whether the system is investor-owned or government-owned. Economists have developed theoretical models that draw on property rights, public choice, and principal agent models to examine the relationship between ownership and utility performance. For example, one concern is that utilities regulated under a rate of return framework, such as investor-owned water utilities in California, may theoretically have an incentive to over-invest in infrastructure.[7] The economic efficiency of investment by any utility, government-owned or investor-owned, will depend on the quality of management, system configuration, and the regulatory environment in which the utility operates.[8]

The empirical literature also emphasizes the importance of individual utility circumstances in the evaluation of firm performance. For instance, Feigenbaum and Teeples (1983) find no difference in the

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eminent domain power to acquire an investor-owned water utility." *City of Claremont v. Golden State Water Company, et al.*, No. BC 566125, Calif. Super., Los Angeles Co., p.35.

5 In the Claremont case, Golden State Water argued that its operation of the "Claremont water system is demonstrably superior to the City's planned operation with respect to water safety and reliability." The trial judge accepted the utility's argument: "Golden State is the superior operator of the Claremont water system … because Golden State has greater expertise in water management, familiarity with the Claremont water system and provides continuing training to its personnel on water quality issues. The Court will dismiss the [City's] complaint because Golden State has proven that the City's plans for operation of the Claremont water system do not provide adequate assurance that it will maintain water quality, safety and reliability in the Claremont service area at the level now provided by Golden State." *Claremont v. Golden State Water*, pp. 18-19.

6 The judge in the Claremont right-to-take trial rejected the City's argument that City ownership of the Claremont water system would reduce rates: "[T]he City's acquisition through eminent domain will necessarily increase subscriber water rates from today's level in order to service and pay down the bond indebtedness that the City will incur to purchase the Claremont Water Assets … Golden State has rebutted any presumption that the City's acquisition is 'a more necessary use' or is 'required' by the public interest and necessity to obtain lower subscriber rates." The judge also rejected the City's argument that a municipal system does not pay income or property taxes: "The Court does not agree with the premise that an eminent domain acquisition of a private utility provides a benefit because the utility under municipal operation will not pay taxes. The tax loss caused when income or property taxes are avoided is merely shifted to other taxpayers and they pay more in taxes; tax avoidance is a cost of the acquisition." *Claremont v. Golden State Water*, pp. 39-40.

7 Averch, H. and Johnson, L. L. 1962. "Behavior of the Firm under Regulatory Constraint." *The American Economic Review*, Vol. 52, No. 5, pp. 1052-1069.

8 In the Claremont case, the trial judge characterized as "dubious" the City's argument that municipal control would result in better investment decisions, concluding: "Golden State has rebutted any statutory presumption that the City's acquisition of the Claremont Water Assets is required by the 'public interest and necessity' or is 'a more necessary public use' as to … levels of capital investment." *Claremont v. Golden State Water*, p. 35.

costs of government- and investor-owned water utilities, utilizing a hedonic cost approach.[9,10] Alternatively, a recent study reports that government "agency managers must secure political support for the revenue increases, capital investments, and increased operating expenditures that regulatory compliance requires … consequently, [government] agencies tend to underprice their services and produce inferior quality relative to private firms."[11] The same study also found that "compared with private firms, governments violate [the Safe Drinking Water Act] significantly more frequently and are less likely to be penalized for violations."[12] Another study conducted by University of California, Santa Barbara researchers evaluated ownership and management alternatives for retail water distribution systems, concluding that two local IOUs serving parts of the City of Thousand Oaks, CA, operated with greater efficiency than the city's water utility on three of four operational efficiency indices studied.[13]

One area that the empirical economic literature does not examine is the impact on utility performance of contested change of control from investor-owned to government-owned. Contested government takeovers involve the power of eminent domain; require building significant public support for the takeover effort; are challenged in the courts; can take substantial time; and tend to be costly endeavors. Motivated by the substantial risks involved with contested takeovers and the lack of research on this topic, we empirically examine what has happened in past contested transactions to gather evidence about the impact of contested takeovers.

In this report, we present the results of case studies of four systems where eminent domain proceedings were initiated: in three cases, the systems were eventually taken over by a government entity. The fourth system is still in the final stages of litigation, and an order of possession has not been entered as of the date of our study. These systems serve as case studies to examine the effects of a contested acquisition. For two of the systems – Felton, CA, and Montara, CA – enough time has passed since the takeovers for us to investigate the long-run effects of the contested transaction. In the case of Nashua, NH, the litigation concluded relatively recently; insufficient time has elapsed to allow a thorough evaluation of the effects of the ownership change. Additionally, the terms of transfer of ownership of the Nashua system were substantially different than in the cases of Felton and Montara. The city of Nashua purchased all

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9 Feigenbaum, S. and Teeples, R. 1983. "Public versus private water delivery: a hedonic cost approach," *The Review of Economics and Statistics 65*, pp. 672-678.

10 For a summary of some of the theoretical arguments and a review of the empirical evidence on ownership and performance, see Renzetti, S. and Dupont, D. 2003. "Ownership and Performance of Water Utilities," *Greener Management International*, Summer, Vol. 42, pp. 9-19.

11 Konisky, D.M. and M.P. Teodoro. 2016. "When Governments Regulate Governments." *American Journal of Political Science*, Vol. 60, No. 3, pp. 559-574, at pp. 560-561.

12 Konisky, D.M. and M.P. Teodoro. 2016. "When Governments Regulate Governments." *American Journal of Political Science*, Vol. 60, No. 3, pp. 559-574, at p. 559.

13 Cowan, H., Mescher, A., Miller, J., Pettway, K. and Pink, B. 2005, "A Framework for Evaluating Water System Ownership and Management Alternatives." University of California, Santa Barbara, pp. xiii, 30-36, 101-104; http://www.esm.ucsb.edu/research/documents/towater_final.pdf.

outstanding stock in the utility, becoming its sole shareholder, but the system continues to be regulated as an IOU by the New Hampshire Public Utilities Commission, including being subject to rate-of-return regulation. Litigation regarding the fourth system – Missoula, MT – is ongoing. These case studies begin with an historical overview, examine the projections that were made at the time of takeover for GOU and IOU ownership, and, where possible, compare these projections with what actually happened.

In addition to these four cases studies, this report also examines the anticipated savings from municipalization and the costs incurred during contested transactions. These costs include the price of acquiring the system, as well as the large transaction costs associated with legal and consulting fees paid as a result of undertaking eminent domain proceedings.

Overall, the purpose of this report is to provide an overview of the economic effects of condemnations. The key conclusions are:

- Government ownership of the Montara and Felton systems has failed to deliver the rate benefits promised to customers.
- Change of ownership, from investor to government entity, places immediate and substantial financial burdens on customers and taxpayers for which there is no compensating benefit.
- Advocates of government takeovers typically identify the elimination of "profits" and taxes as two sources of financial benefits from a change in ownership. There is no sound basis in accounting or economics to support the expectation of real benefits to ratepayers, in the form of lower bills, from the elimination of these sources.
- Local governments and advocates of government takeover tend to underestimate acquisition costs by more than 100%.
- Contested takeover efforts have proven very costly to government entities. The costs incurred to support eminent domain litigation and to finance the acquisition represent a significant economic burden on ratepayers, above and beyond the cost to acquire the system.

II. CASE STUDIES OF CONTESTED WATER UTILITY CONDEMNATIONS

A. Felton, CA

Felton is a small community located in the Santa Cruz Mountains of California, approximately 22 miles from San Jose. The local drinking water system provides service to approximately 1,300 customers, or about 4,000 people. In 2004, at the request of a group of Felton residents, the San Lorenzo Valley Water District (SLVWD) and Santa Cruz County began efforts to study the feasibility of acquiring the Felton water system from the owner at that time, California American Water ("Cal-Am"),[14] a relatively large water utility that serves about 630,000 people in California through 180,000 service connections deployed from Sacramento to San Diego.

[14] Jim Mueller, District Manager of SLVWD, Monterey Water Forum, February 28, 2011 ("Mueller Transcript"), 6:4-9.

With voter-approved funding available, SLVWD offered to purchase the Felton system from Cal-Am for $7.6 million in late 2006. Cal-Am rejected this offer, and condemnation proceedings began shortly thereafter in early 2007.[15] In mid-2008, less than a week before the valuation phase of the eminent domain trial was set to start, SLVWD and Cal-Am reached an agreement to purchase the water system for $13.4 million.[16] The water system was purchased using the proceeds from a 30-year Mello-Roos bond and additional financial support from SLVWD. After the acquisition, the Felton system was incorporated into the SLVWD, which now consists of approximately 7,300 service connections.[17]

In July 2005, Felton voters passed Measure W, an $11 million ballot initiative to provide funds for the acquisition of the water system, with nearly 75% voter approval.[18] The rationale behind the takeover effort was communicated to voters in the voter information pamphlet on Measure W, and in many materials from Felton Friends of Locally Owned Water (FLOW), a community group organized in 2002 to gather support for a takeover.[19,20] The arguments in support of the acquisition included lower water rates, improved service, and local control.

Cal-Am is regulated by the California Public Utilities Commission (CPUC) as a Class A water utility (a system with more than 10,000 service connections). Every three years, Class A utilities are required by state law to file a General Rate Case (GRC) before the CPUC to seek approval for new infrastructure investments, update revenues and expenses, and recalibrate rates. In GRC filings, California utilities typically forecast revenue requirements for a single future "test year" and two subsequent "escalation years," where the primary increase is driven by inflation, needed infrastructure investments, and reduced sales (e.g., in 2007, Cal-Am filed its Monterey-Felton GRC for a 2009 test year, and 2010 and 2011 escalation years).[21] In its initial filings for the 2007 rate case, Cal-Am requested a rate increase to finance increasing operating costs and system infrastructure improvements.[22] In these filings, Cal-Am proposed

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15 Mueller Transcript, 10:20-24.

16 According to Mr. Mueller, "[s]hortly before the […] right-to-take case was to be heard, Cal-Am did waive its defense and stipulated that we had the right to take. So that left just the decision of how much was the Felton system worth." *See*, Mueller Transcript, 12:8-12.

17 2013 SLVWD Water & Wastewater Charges Study, p. 9. Felton customers represent approximately 18% of the SLVWD.

18 Mueller Transcript, 8:12-15; Statement of Vote for the July 26, 2005, Special Election Measure W Vote, available at: http://sccounty01.co.santa-cruz.ca.us/BDS/Govstream2/Bdsvdata/non_legacy_2.0/Minutes/2005/20050802-310/PDF/018-1.pdf.

19 Santa Cruz County Voter Information Pamphlet, 2005.

20 Mueller Transcript, 4:16-21.

21 Initial rate case filings typically represent the entire scope of capital improvement expenditures that the utility could undertake during the rate effective period. The Office of Ratepayer Advocates (ORA) reviews the utility's forecasts and capital budgets, and new rates are determined by a combination of settlement between the utility and the ORA, and ruling by an Administrative Law Judge.

22 *Patterson Irrigator*, "Breaking News: Cal-Am moving forward with Felton well," September 20, 2007. *See also* Decision 06-11-050 November 30, 2006, Opinion Resolving General Rate Cases; and Decision 08-10-023 October 8, 2008, Order of Dismissal.

increasing rates by 54% in 2009, and 6% each year in 2010 and 2011.[23] This proposed rate increase was eventually dismissed by the CPUC when SLVWD acquired the Felton system in 2008.[24]

As part of its campaign for takeover of the water system, Felton FLOW launched an online bill calculator in 2005, where Felton residents could enter their bimonthly water usage, and calculate water bill projections under both Cal-Am ownership and SLVWD ownership. The FLOW rate calculator assumed that, under SLVWD ownership, bills would increase at 2.5% annually, as that was "their historical average annual increase from 1991."[25] In comparison, FLOW's estimates of average water bills under Cal-Am ownership assumed a "5% per year increase. In fact, rates will change only once every several years, but likely by much more than 5%. [FLOW] believe[s] 5% is a conservative estimate of the average annual increase."[26]

Concerns over service quality and the lack of local control over the system were also articulated by Felton FLOW as reasons motivating the takeover efforts. Those concerns were described as follows:

> Under local control, if you have a problem, the people who answer the phone will not be in some distant office in Illinois or Indiana, they will be here in San Lorenzo Valley. And the person doing the repair will not be based in Monterey County, they will live and work full time in our valley and report to a local board of directors. If we don't like how the system is operating, we won't have to petition the Public Utilities Commission for relief through a bureaucratic maze. The SLV water district board is accountable to us the voters in regularly scheduled, democratic elections. We will control our water and watershed, not a foreign company with distant investors and directors whose primary motivation is maximizing their company's profits.[27, 28]

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23 Decision 08-10-023 October 8, 2008, Order of Dismissal. Cal-Am proposed increasing rates by 105% in 2006, 3% in 2007, and 1% in 2008. The CPUC adopted a rate increase of 21% for 2006, which would then be escalated for increases in costs for 2007 and 2008. Decision 06-11-050 November 30, 2006, Opinion Resolving General Rate Cases.

24 Decision 08-10-023 October 8, 2008, Order of Dismissal.

25 Felton Friends of Locally Owned Water, Rate Calculator, available at: http://www.feltonflow.org/ratecalc/.

26 FLOW's estimates of water costs under Cal-Am ownership start from a current 2005 bill ("2005 Current bill") and apply a 44.2% rate increase, which "is what you will pay when Cal-Am starts billing the rate increase they've already received." This adjusted amount is shown in the calculator as "2005 When rate increase kicks in." For 2006, 2007, and 2008, the calculator adds an additional increase to reflect Cal-Am's request "to increase its income from Felton by an additional 114%." This figure is shown in the calculator as "2006 including requested increase." Starting in 2009, Cal-Am water bills increase 5% each year.

See Felton Friends of Locally Owned Water, Rate Calculator, available at: http://www.feltonflow.org/ratecalc/.

27 Felton Friends of Locally Owned Water, About Us, available at: http://www.feltonflow.org/aboutus.html.

28 Jim Mueller, the District Manager for the SLVWD at the time of takeover, left the district two days after the release of a "civil grand jury report blasting the district for lack of financial and operational oversight." Among the criticisms mentioned was that the District failed to conduct an annual formal review of the manager between

Events following the contested takeover in Felton were not consistent with expectations. As discussed in more detail below, the cost of the acquisition was higher than expected; SLVWD customers outside Felton subsidized (and continue to subsidize) the costs of the acquisition, and ratepayers' financial burden under SLVWD ownership is higher than expected and higher than projected under Cal-Am ownership. Felton residents may have gained more local control as a result of the takeover, but they did so at the cost of a lengthy, risky, and expensive process.

1. Costs of the Takeover Were Substantially Higher than Expected

The initial estimate, prepared by advocates of government ownership, of the purchase price for the water system that serves Felton was $5.3 million.[29] A subsequent appraisal done on SLVWD's behalf estimated the system to be worth $7.6 million.[30] At a mediation held ahead of the valuation phase of trial, Cal-Am established its valuation of the Felton assets to be $25.6 million.[31] Mr. Jim Mueller, the District Manager of SLVWD, explained that, given the substantial difference between the two entities' valuations and the risks associated with a jury-determined valuation, Cal-Am and SLVWD reached a settlement agreement for $13.4 million in May 2008.[32] The $13.4 million settlement included a $10.5 million cash payment to Cal-Am and SLVWD's assumption of a $2.9 million outstanding obligation on a Safe Drinking Water Act (SDWA) loan for the Kirby Street Treatment Plant.[33]

The San Lorenzo Valley Water District acquired the Felton system for $13.4 million, 76% more than the District's appraised system value, and nearly one-third of the acquisition cost was funded by SLVWD customers who do not live in Felton.

1989 and November 2012. *Santa Cruz Sentinel*, June 20, 2014, "San Lorenzo Valley Water District fires district manager," available at: http://www.santacruzsentinel.com/general-news/20140620/san-lorenzo-valley-water-district-fires-district-manager. In November 2014, after the civil grand jury report was released, three board members on the SLVWD board were replaced. *Santa Cruz Sentinel*, January 5, 2015, available at: http://www.santacruzsentinel.com/environment-and-nature/20150105/san-lorenzo-valley-water-district-hires-new-chief.

29 Chicago Metro Water Facts, Case Study, Felton, CA. Available at: http://www.chicagometrowaterfacts.com/case6.php.

30 Mueller Transcript, 10:20-24.

31 Memo to Board of Directors from District Manager, May 30, 2008, California American Water Company Settlement Agreement, p. 2.

32 Mueller Transcript, 32:21–34:9.

33 Memo to Board of Directors from District Manager, May 30, 2008, California American Water Company Settlement Agreement, p. 2.

The Measure W bond that Felton residents approved, however, only allowed for the issuance of up to $11 million in debt. After accounting for issuance fees and other uses of funds, there was approximately $9 million in net proceeds available for the system acquisition, which was inadequate to cover even the $10.5 million cash portion of the settlement. To fully fund the acquisition of the Felton water system, SLVWD compensated for the shortfall by paying an additional $1.5 million in cash from existing reserves, in addition to assuming the $2.9 million loan obligation.[34,35] In the end, the $13.4 million acquisition cost was 76% higher than the estimate of the value of the system prepared by the District's appraiser, and nearly a third of the final acquisition cost was ultimately funded by SLVWD.[36]

In addition to the $13.4 million acquisition cost, SLVWD and Felton residents also paid more than $2 million in transaction costs associated with the litigation process (e.g., appraisals, lawyers, bond issuance costs). According to Mr. Mueller, SLVWD "came up with right over a million dollars out of its own pocket to pay all of the legal expenses, pay all of the acquisition costs."[37] Felton residents financed an additional $1 million through its Series A or Formation bond to "finance the costs associated with the complex transaction of acquiring a water system."[38]

2. Cross-Subsidies from Other SLVWD Customers Significantly Benefited Felton Residents

As previously discussed, the funding provided by the Measure W bond was insufficient to cover the full cost of acquiring the Felton water system. The amount not covered by the Measure W bond proceeds, but by SLVWD and its customers, represents a cross-subsidy to Felton water customers.

The $2.5 million SLVWD paid out of its own reserves to fund the acquisition and transaction costs represents a direct cash transfer from existing customers to newly added Felton customers.[39] The replacement of those reserve funds would not be borne by Felton customers alone, but by "the full

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34 *Ibid*.

35 Minutes of the Board of Directors Meeting, June 5, 2008, San Lorenzo Valley Water District, Motion to Approve Resolution No. 23, California American Water Company Settlement Agreement.

36 Mueller Transcript, 25:13-20. Of the $13.4 million final acquisition, SLVWD funded $4.4 million through reserve funds and assumed loan obligations.

37 Mueller Transcript, 14:17-21. *See also* Mueller Transcript 14:8-11, 26:9-10.

38 Implementation of Special Election Results for Community Facilities District No. 1 (Felton) available at: http://sccounty01.co.santa-cruz.ca.us/BDS/Govstream2/Bdsvdata/non_legacy_2.0/agendas/2005/20050802-310/PDF/052.pdf. *See also* Mueller Transcript, 8:18-22; and Community Facilities District No. 1 (Felton) of the County of Santa Cruz 2008 Special Tax Bonds (Series B) Issuance Offering Statement.

39 SLVWD paid $1.5 million out of its own reserves toward the $10.5 million cash component of the acquisition cost, as well as $1 million out of pocket to cover transaction costs. *See* Memo to Board of Directors from District Manager, May 30, 2008, California American Water Company Settlement Agreement, p. 2; and Mueller Transcript, 14:17-20.

customer base of the district."[40] Use of the SLVWD reserves represents a clear cross-subsidy that benefited Felton residents, who did not have to raise the additional $2.5 million through a larger bond offering.

As part of the settlement, SLVWD assumed $2.9 million in debt for an SDWA loan. Under Cal-Am ownership, Felton customers paid a $23 bimonthly surcharge to fund the repayment of the SDWA loan. Felton FLOW's online calculator indicated that "if we merge with SLVWD, this [$23] charge ends."[41] Although true that this surcharge was eliminated from Felton customers' water bills after the acquisition, the underlying loan payments did not disappear. Instead, the annual debt-service cost of the SDWA loan was incorporated into the rates paid by all SLVWD customers, representing another form of cross-subsidy to Felton residents.

In combination, these cross-subsidies are a clear benefit to Felton residents, who were able to finance the acquisition of their water system with funding from other SLVWD customers. Mr. Mueller clarified this point at the Monterey Water Forum in 2011:

> Mr. Meurer: Okay. To repeat, there was the two-point-nine-million-dollar loan and the one million dollars of extra money that was needed to close the deal, that is paid for by the whole San Lorenzo Valley, as opposed to just the Felton customers. Did I get that correct?
>
> Mr. Mueller: Through rates?
>
> Mr. Meurer: Through rates.
>
> Mr. Mueller: Through rates. That is correct. Well, the one million – you call it through rates. The one million was paid of reserves –
>
> Mr. Meurer: Out of reserves.
>
> Mr. Mueller: – which brought the reserves down. And, obviously, if you wanted to say – if you wanted to replace those reserves, then it would be paid by the full – the full customer base of the district.[42]

Without these transfers, the costs to Felton residents would clearly have been higher, either in the form of higher property taxes from a larger bond offering, higher water rates, or both. This report approximates the value of the cross-subsidy to Felton customers in terms of the "but-for" cost. That is, the incremental cost Felton residents would have paid had they not received the benefit of the cross-subsidy. Felton residents contributed $9 million out of their own bond proceeds to finance the acquisition, while non-Felton SLVWD customers funded the remaining $4.4 million of reserve funds and ongoing rate

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40 Mueller Transcript, 40:11-41:2.

41 Felton Friends of Locally Owned Water, Rate Calculator, available at: http://www.feltonflow.org/ratecalc/.

42 Mueller Transcript, 40:11-25, 41:1-2.

revenues.[43] Non-Felton SLVWD customers effectively funded an additional 50% of Felton's contribution to complete the acquisition. Therefore, we estimate that, without the cross-subsidy, Felton residents would be paying nearly one and a half times the debt service they currently pay through special taxes.[44]

3. Projections Articulated to the Felton Public Were Overly Optimistic

a) The Financial Burden Increased Immediately upon Takeover

After the takeover, the total financial burden on Felton ratepayers increased. **Exhibit 1** below compares the cost of water service to a Felton customer in 2008 under Cal-Am ownership ("Cal-Am 2008") to the cost under SLVWD ownership ("SLVWD Actual 2008"). Under Cal-Am ownership, a customer with a 5/8" meter consuming 10 CCF of water in a month would pay $78.64 per month in 2008.[45] Under SLVWD ownership, that same customer would have paid $40.38 on his or her water bill, as well as an additional $44.62 each month in property taxes for debt service on the 30-year Mello-Roos bond, for a total financial burden of $85.00 per month.[46] Contrary to Felton FLOW's claims, the direct financial burden on Felton customers increased upon takeover.

Furthermore, the financial burden on Felton customers would have been greater had SLVWD customers not subsidized the acquisition. Without the benefit of the transfers from other SLVWD ratepayers discussed above, this example customer would have faced an additional $17.83 in costs, for a total cost of $102.83 per month. This is a 31% increase over the cost of water service under Cal-Am ownership.

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[43] The $13.4 million settlement included a $10.5 million cash payment to Cal-Am (of which $1.5 million was paid by the SLVWD) and SLVWD's assumption of a $2.9 million outstanding obligation on a Safe Drinking Water Act (SDWA) loan for the Kirby Street Treatment Plant.

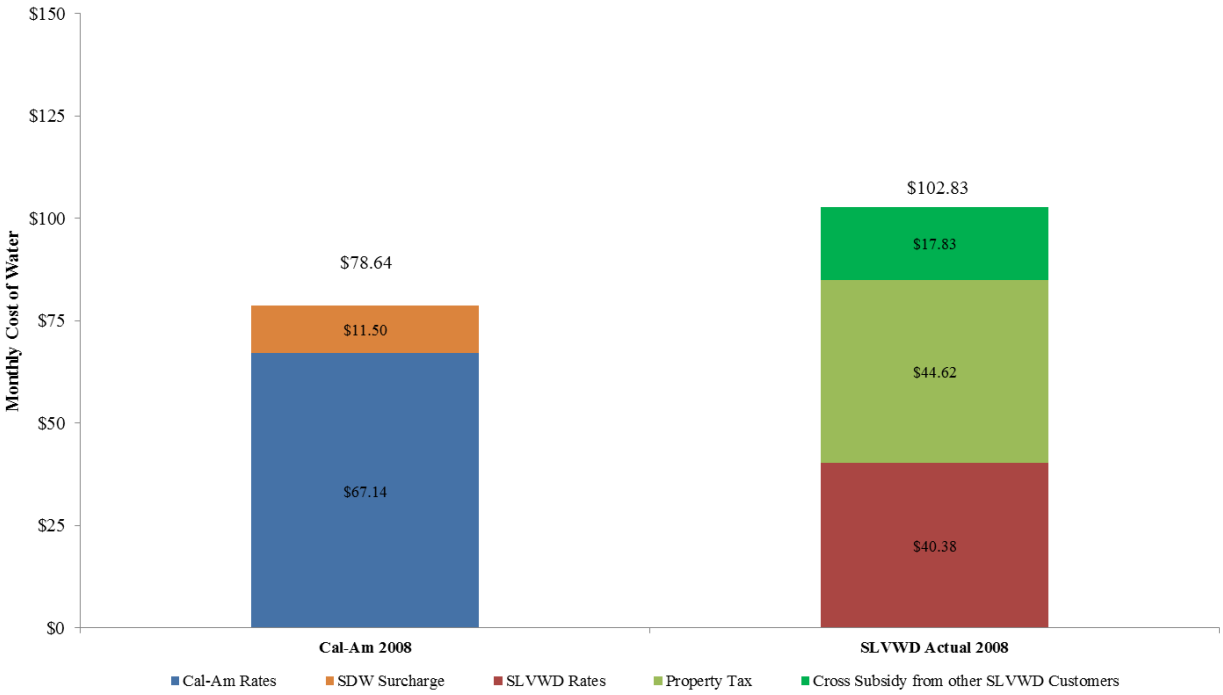
[44] The $4.4 million that SLVWD contributed to the settlement has been, and will continue to be, collected from customers over time through rates. Our analysis takes into account that Felton residents contribute to this $4.4 million through their rates on an ongoing basis. We assume for simplification that because Felton represents approximately 18% of SLVWD customers, they contribute approximately 18% of District revenues. This suggests that Felton residents benefit from non-Felton customers contributing to the remaining 82% of the $4.4 million contribution. Therefore, the cross-subsidy figures presented in Exhibits 1-3 are adjusted downward by 18%.

[45] According to the SLVWD and Cal-Am websites, billing is done on a monthly basis. *See* http://www.slvwd.com/_WaterBill.htm and http://www.amwater.com/files/CA-Mtry-Res_HowToReadBill2016_FINAL[1].pdf.

[46] Revenues for the debt service on the Mello-Roos bond are collected through a special tax on property owners in the Community Facilities District No. 1 (Felton). The special tax is apportioned to taxpayers according to the size of their water meter. Payment is collected annually at the same time as standard *ad valorem* property taxes. The figures included above are standardized to a monthly basis. *See* "Community Facilities District No. 1 (Felton) of the County of Santa Cruz 2008 Special Tax Bonds (Series B) Issuance Offering Statement," Appendix A: Rate and Method of Apportionment of Special Tax.

Before the takeover, the average Cal-Am customer in Felton paid a monthly bill of $78.64. Immediately after the takeover, that same customer paid a monthly bill of $40.38, as well as an additional $44.62 each month in property taxes for debt service on the acquisition bond, for a total financial burden of $85.00 per month. Contrary to Felton FLOW's claims, the direct financial burden on Felton customers increased upon takeover.

Exhibit 1



Notes:
[1] Assumes 10 CCF of consumption per month and a 5/8" meter.
[2] Cross Subsidy defined as Acquisition Costs not covered by Mello-Roos Bonds multiplied by the share of SLVWD connections that are not in Felton.
[3] Cal-Am rates include a $11.50 monthly surcharge for the California Safe Drinking Water Act Loan. Upon acquiring the Felton System, SLVWD assumed this loan. The loan payments have been borne by all SLVWD ratepayers ever since.

Sources:
San Lorenzo Valley Water District 2013 Water and Wastewater Charges Study; "History of Tax Rates-Felton CFD.xlsx," received from Santa Cruz County Auditor-Controller; 2010 Urban Water Management Plan for San Lorenzo Valley Water District; Memo on California American Water Company Settlement Agreement from SLVWD Board of Directors to District Manager; California American Water Company Advice Letter No. 688-A, April 18, 2008.

b) Cost of Water Service Under SLVWD Has Increased More than Felton FLOW Projections

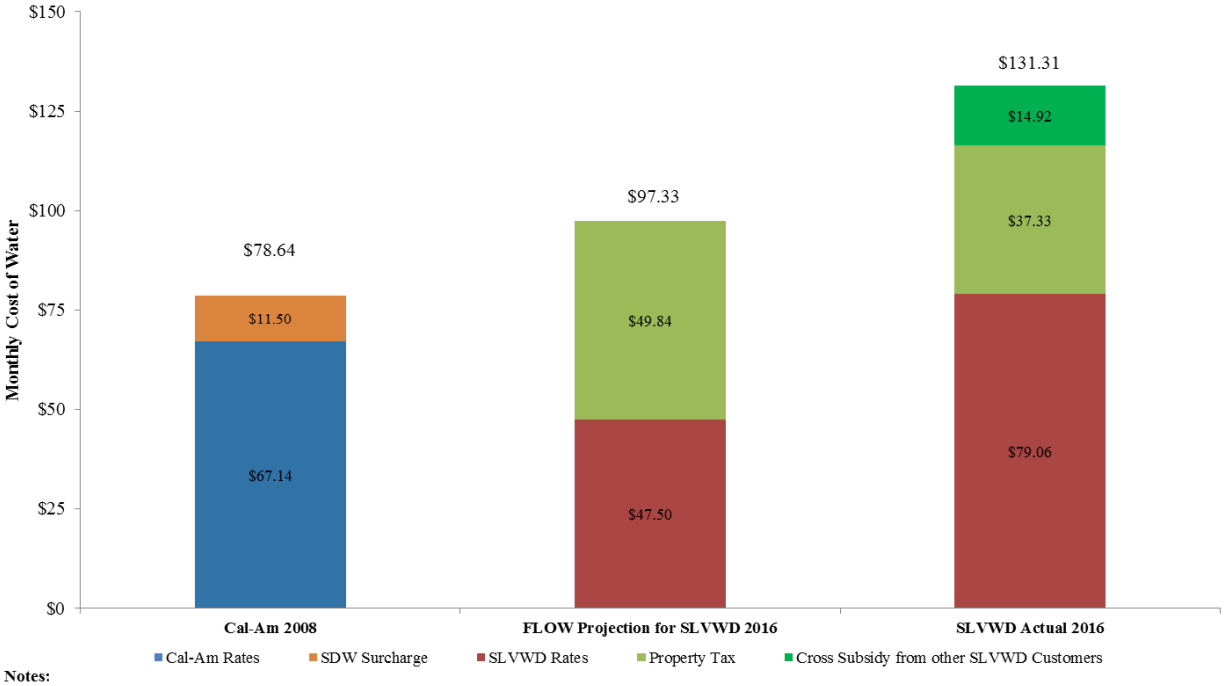
As of 2005, Felton FLOW's online bill calculator projected that, under SLVWD ownership, water bills would increase 2.5% annually, and under Cal-Am ownership, 5% annually. These projections of future water bills may have helped build support for the takeover of the water system, but have not accurately reflected the change in water service costs under SLVWD ownership over time. Like all water utilities,

SLVWD has faced increasing operating and maintenance costs, which required the Water District to increase rates more quickly than FLOW projected. For example, in 2013, the SLVWD Board of Directors sought to increase rates by 53% over the subsequent five years to fund "several major projects and cover regular increases in operating costs."[47]

Exhibit 2 compares the actual water bills for Felton residents today ("SLVWD Actual 2016") to those projected using the Felton FLOW calculator ("FLOW Projection for SLVWD 2016"), assuming 10 CCF of consumption per month and a 5/8" meter. These bills also incorporate the property taxes for debt service on the 30-year Mello-Roos bond and the cross-subsidy from SLVWD customers to Felton. Felton FLOW projected that bills under SLVWD ownership would increase 24% between 2008 and 2016. In actuality, SLVWD water rates increased 67% between 2008 and 2016, an annual average increase of approximately 7%, or almost three times the FLOW assumed growth rate of 2.5%.

[47] *Press Banner*, "SLV District to Seek Substantial Rate Increase to Complete Projects," May 9, 2013.

Exhibit 2



Notes:
[1] Assumes 10 CCF of consumption per month and a 5/8" meter.
[2] FLOW assumes an 2.5% annual rate increase since 2005.
[3] Cross Subsidy defined as Acquisition Costs not covered by Mello-Roos Bonds multiplied by the share of SLVWD connections that are not in Felton.
[4] Cal-Am rates include a $11.50 monthly surcharge for the California Safe Drinking Water Act Loan. Upon acquiring the Felton System, SLVWD assumed this loan. The loan payments have been borne by all SLVWD ratepayers ever since.

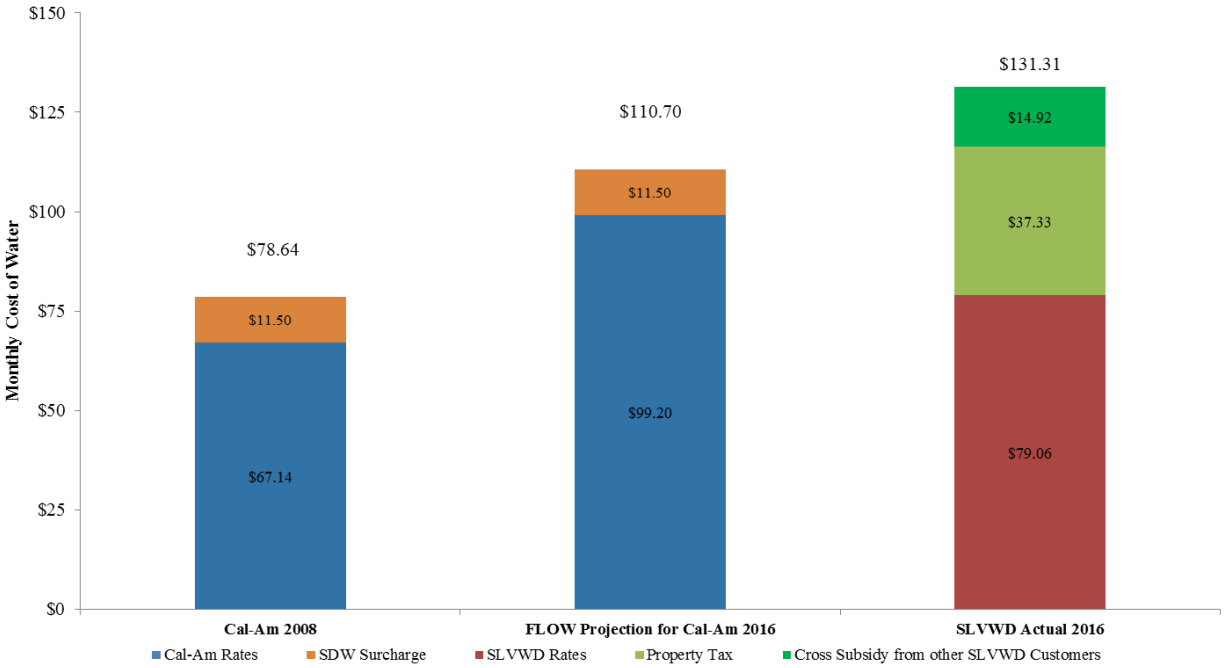
Sources:
Felton FLOW Rate Calculator; San Lorenzo Valley Water District 2013 Water and Wastewater Charges Study; "History of Tax Rates-Felton CFD.xlsx," received from Santa Cruz County Auditor-Controller; 2010 Urban Water Management Plan for San Lorenzo Valley Water District; Memo on California American Water Company Settlement Agreement from SLVWD Board of Directors to District Manager; San Lorenzo Valley Water District Schedule of Monthly Rates and Charges Effective 01/01/2016; California American Water Company Advice Letter No. 688-A, April 18, 2008.

4. The Cost of Water Service in 2016 Is Higher than Felton FLOW Projections under Cal-Am Ownership

In 2005, Felton FLOW projected that the cost of water service under SLVWD ownership would be less burdensome than under continued Cal-Am ownership.[48] However, the cost of water service that Felton residents pay for SLVWD service today (SLVWD Actual 2016), including the Mello-Roos bond payments, are entirely consistent with the bills Felton FLOW projected under Cal-Am ownership (FLOW Projection for Cal-Am 2016). *See* **Exhibit 3**. This suggests there are minimal cost savings for Felton ratepayers today as a result of the government takeover. Furthermore, Felton residents continue to benefit from SLVWD cross-subsidies, without which the burden on Felton residents today would be even higher than FLOW projected under Cal-Am ownership.

48 Felton Friends of Locally Owned Water, Rate Calculator, available at: http://www.feltonflow.org/ratecalc/.

Exhibit 3



Notes:
[1] Assumes 10 CCF of consumption per month and a 5/8" meter.
[2] FLOW assumes an 5% annual increase in Cal-Am rates.
[3] Cross Subsidy defined as Acquisition Costs not covered by Mello-Roos Bonds multiplied by the share of SLVWD connections that are not in Felton.
[4] Cal-Am rates include a $11.50 monthly surcharge for the California Safe Drinking Water Act Loan. Upon acquiring the Felton System, SLVWD assumed this loan. The loan payments have been borne by all SLVWD ratepayers ever since.

Sources:
Felton FLOW Rate Calculator; San Lorenzo Valley Water District 2013 Water and Wastewater Charges Study; "History of Tax Rates-Felton CFD.xlsx," received from Santa Cruz County Auditor-Controller; 2010 Urban Water Management Plan for San Lorenzo Valley Water District; Memo on California American Water Company Settlement Agreement from SLVWD Board of Directors to District Manager; San Lorenzo Valley Water District Schedule of Monthly Rates and Charges Effective 01/01/2016; California American Water Company Advice Letter No. 688-A, April 18, 2008.

B. Montara, CA

Montara is a small, unincorporated California coastal community located 30 miles south of San Francisco. The water system consists of approximately 1,600 service connections. Historically, water bills in Montara have been among the highest in the region, with bimonthly bills often more than $200.[49] According to the local newspaper, the *Half Moon Bay Review*, the Montara Sanitary District (later to become the Montara Water and Sanitary District, or MWSD) began discussing a takeover effort in early 2001 when Citizens Utilities, the IOU that owned the Montara water system at the time, filed a request

[49] Ordinance No. 174: Ordinance of the Montara Water and Sanitary District Restating and Amending Master Fee Schedule; Montara Water and Sanitary District 2011 Water System Master Plan; Official Statement for Montara Sanitary District General Obligation Bonds (Series 2003).

with the CPUC to sell its assets to another IOU, Cal-Am.[50] The CPUC approved this sale of the Montara system to Cal-Am in late 2001, and by January 2002, Cal-Am had taken ownership.[51]

The MWSD Board voted in May 2002 to pursue eminent domain proceedings to acquire the water system from Cal-Am's parent company, American Water Works Company, Inc. ("American Water").[52] However, over the course of 2002, American Water negotiated to be acquired by another utility, the German firm RWE. As part of the CPUC's review of the acquisition, it stipulated that Cal-Am had to divest itself of the Montara water system to MWSD within 90 days for the sale to RWE to proceed.[53] In December 2002, only seven months after voting to pursue eminent domain, MWSD was granted the right to purchase the water system. Shortly thereafter, MWSD and Cal-Am reached a settlement to purchase the Montara water system for approximately $11 million.[54] With voter approval from Measure V, MWSD issued $17.5 million in 25-year general obligation bonds to acquire the system and to finance system improvements.[55] Repayment of these bonds is funded by property taxes levied on residents in the Montara Water and Sanitary District, with the amount paid determined by assessed property values.[56]

There were multiple reasons presented by Montara residents and the MWSD for acquiring the water system, including high water bills, potential rate increases in the future under Citizens and Cal-Am ownership, and concerns regarding ownership by a multi-utility firm with headquarters out of state.[57] According to local news sources, the water system also had issues historically with water quality and inadequate supply.[58] The *Half Moon Bay Review* endorsed Measure V, and asserted in a number of editorial columns that ratepayer fees contributed significantly to company profits and tax obligations,

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50 *Half Moon Bay Review*, "Montara Sanitary moving ahead with purchase," May 24, 2001.

51 *Half Moon Bay Review*, "Citizens Utilities Sale Price Wins PUC Okay," September 27, 2001; and *Half Moon Bay Review*, "Unanimous vote for eminent domain," May 8, 2002.

52 *Half Moon Bay Review*, "Unanimous vote for eminent domain," May 8, 2002.

53 *Half Moon Bay Review*, "Montara wins big in buyout," December 26, 2002.

54 *Half Moon Bay Review*, "Montara braces for bond payout," July 16, 2003; and Official Statement for Montara Sanitary District General Obligation Bonds (Series 2003).

55 In late 2001, the voters of Montara and Moss Beach overwhelmingly voted to approve Measure V, which authorized the issuance of up to $19 million in bonds to acquire the water system and finance system improvements. *See* Official Statement for Montara Sanitary District General Obligation Bonds (Series 2003).

56 *Half Moon Bay Review*, "Montara payout less than expected," October 7, 2001.

57 *Half Moon Bay Review*, "Unanimous vote for eminent domain," May 8, 2002. *See also Half Moon Bay Review*, "Montara Sanitary moving ahead with purchase," May 24, 2001; *Half Moon Bay Review*, "Election choice will cost a lot either way," August 8, 2001; *Half Moon Bay Review*, "Citizens Utilities sale price wins PUC okay," September 27, 2001; and *Half Moon Bay Review*, "Montara moves quickly to take over water biz," November 14, 2001.

58 *Half Moon Bay Review*, "Montara utility to issue new hookups," January 6, 2014; *Half Moon Bay Review*, "MWSD releases master water plan," July 7, 2004; "Montara citizens can make water opinions heard," November 11, 2003; and *Half Moon Bay Review*, "Montara water district moves toward rate hike," February 14, 2007.

which would not be the case under local control.[59] Several MWSD Board Members claimed that by not paying said profits or taxes, the utility would be able to "reduce water rates or use excess revenues to pay down the bond debt," or "use the same money to improve the system."[60] The *Half Moon Bay Review* also indicated that although taxpayers would experience an increase in property taxes, over the long run, this increase would be offset by savings in water bills and improvements in water quality.[61]

The takeover in Montara did not result in lower rates or produce excess revenues. As discussed in more detail below, the total cost of the acquisition was higher than expected – under MWSD ownership, the utility retained Cal-Am's rate structure, and water bills today are higher than MWSD projected. Many Montara residents expressed frustration at the large increases in property taxes without corresponding reductions in water rates. Furthermore, it is not clear that local ownership solved Montara's water system issues; four years after the acquisition, at least some residents believed that they "still do not have adequate water supply, better water or adequate water for fire protection, and … still have higher rates and more debt."[62]

1. Costs of the Montara Takeover Were Higher than Expected

The initial estimate, prepared by advocates of government ownership, of the purchase price for the water system that serves Montara was $5 million.[63] In 2001, Citizens filed an application with the CPUC to sell its water utility assets to American Water. The *Half Moon Bay Review* reported that the proposed purchase price was $9.4 million, and at the time, this figure was criticized as "inflated" by local leaders, including members of the sanitary district board of directors.[64,65] One board member was quoted by the *Half Moon Bay Review* stating that "he believed the price of the system should be closer to $5.8 million, the book value of Citizens' local assets."[66] A different board member argued that a takeover was a good idea in a public opinion piece published in the local newspaper. She noted in her public editorial:

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59 *Half Moon Bay Review*, "Election choice will cost a lot either way," August 8, 2001; *Half Moon Bay Review*, "Unanimous vote for eminent domain," May 8, 2001; and *Half Moon Bay Review*, "The Review's endorsements for the local measures," October 17, 2001.

60 *Half Moon Bay Review*, "Election choice will cost a lot either way," August 8, 2001; and *Half Moon Bay Review*, "Unanimous vote for eminent domain," May 8, 2001.

61 *Half Moon Bay Review*, "No on Measure U; Yes on Measure V," September 10, 2001.

62 *Half Moon Bay Review*, "Montara water district moves toward rate hike," February 14, 2007; and *Half Moon Bay Review*, "Montara utility to issue new hookups," January 6, 2014.

63 Chicago Metro Water Facts, Case Study, Montara, CA. Available at: http://www.chicagometrowaterfacts.com/case3.php.

64 The source of the $9.4 million figure is unclear. American Water's acquisition of the Montara assets was part of a multisystem and multistate transaction for $979 million. American Water did not report a purchase price for the Montara system. *Water and Wastes Digest*, "American Water Works Company Completes Acquisition of Citizens Utilities Water and Wastewater Assets," January 16, 2002.

65 *Half Moon Bay Review*, "Montara Sanitary moving ahead with purchase," May 24, 2001.

66 *Half Moon Bay Review*, "Montara moves quickly to take over water biz," November 14, 2001.

> The state Public Utilities Commission (PUC) staff has recommended against the purchase [from Citizens Utilities to Cal-Am] because Cal-Am is offering a whopping $9.4 million for the Montara/Moss Beach district. The PUC staff says that local ratepayers will ultimately pay through the nose without receiving any benefit at all.[67]

The final negotiated acquisition cost that Montara paid for the system was $11 million, well in excess of any valuation figure published previously.

In addition to the approximately $11 million acquisition cost, approximately $2 million from bond proceeds were used to pay the MWSD's legal fees associated with the condemnation proceedings. These transaction costs would have been even higher had Cal-Am not been required to divest the Montara system and eminent domain proceedings had been prolonged.

2. MWSD Has Increased Water Bills More than It Projected

Contrary to earlier statements by the MWSD Board, the District did not lower water rates upon takeover. In July 2003, MWSD voted to keep water rates at the levels established by Cal-Am.[68] The result was that, after the takeover, Montara residents paid identical water bills, plus an additional burden in the form of higher property taxes.[69] **Exhibit 4** below highlights the financial burden on Montara customers post-takeover, which approximately doubled with the addition of new property taxes.

After the takeover, Montara residents paid identical water bills, plus an additional burden in the form of higher property taxes.

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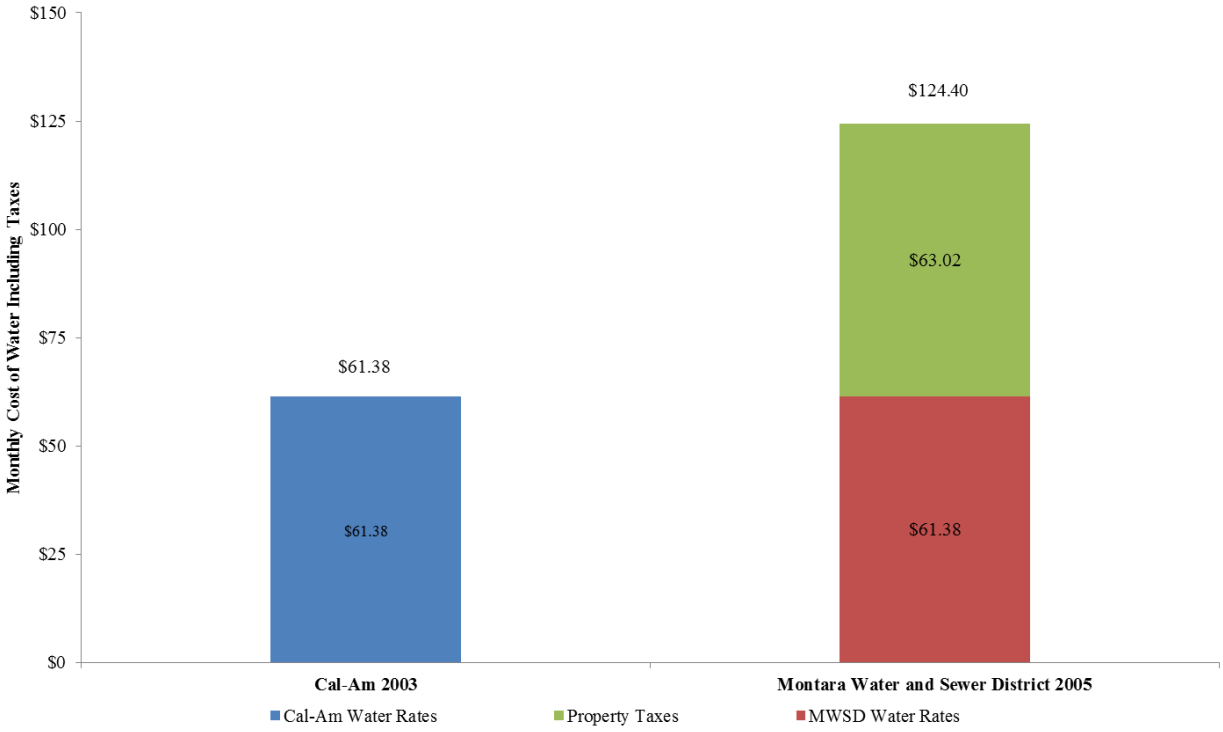
67 *Half Moon Bay Review*, "Putting real citizens in charge of their own utility is a good idea," June 20, 2001.

68 *Half Moon Bay Review*, "Montara District votes to maintain high water rates," July 23, 2003.

69 In 2003, residents were charged $109 in taxes for every $100,000 in assessed property value for bond repayment. In 2004, the taxes were expected to increase to $180 for every $100,000 in assessed property value. *See Half Moon Bay Review*, "Water buyout backlash," November 12, 2003.

Exhibit 4



Notes:
[1] Assumes 8 CCF of consumption per month.
[2] Projected taxes are calculated by dividing the year 2005 bond payment by the number of service connections in Montara.
[3] Actual rates are based on rates in the 2005 Draft Rate Study Presentation.

Sources:
2005 Draft Rate Study Presentation; Official Statement for Montara Sanitary District General Obligation Bonds (Series 2003); 2002 Annual Report of District Operations for California-American Water Company, Montara District to the California Public Utilities Comission.

Furthermore, since the takeover in 2002, MWSD's costs have increased more quickly than its own projections of those costs. In 2005, MWSD commissioned a rate study that included projections of water bills for the next 10 years under various scenarios that include both water rates and taxes.[70] The rate study was publicly available on the MWSD website. As shown in **Exhibit 5**, 10 years after the rate study, the actual cost of water service (including taxes) paid by an average Montara resident with a 5/8" meter and 8 CCF per month is more than 15% higher than had been projected.[71]

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70 Water Rate Study Status Report, Bartle Wells Associates, April 28, 2005.

71 Water rates are based on 8 CCF water consumption per billing cycle, which is the level of water consumption that the 2005 rate study uses when calculating future water bills. Property tax rates are calculated by dividing the annual debt-service payment by the number of service connections in Montara.

Exhibit 5

Notes:
[1] Assumes 8 CCF of consumption per month.
[2] Projected rates are calculated using the 2005 Draft Rate Study Presentation and assume the same 3% inflation rate used in the presentation.
[3] Property taxes are calculated by dividing the year 2015 bond payment by the number of service connections in Montara.
[4] Actual rates are based on water rates passed on June 4, 2015 in MWSD Ordinance No. 177.

Sources:
2005 Draft Rate Study Presentation; MWSD Ordinance No. 177; Official Statement for Montara Sanitary District General Obligation Bonds (Series 2003); Montara Water and Sanitary District 2011 Water System Master Plan.

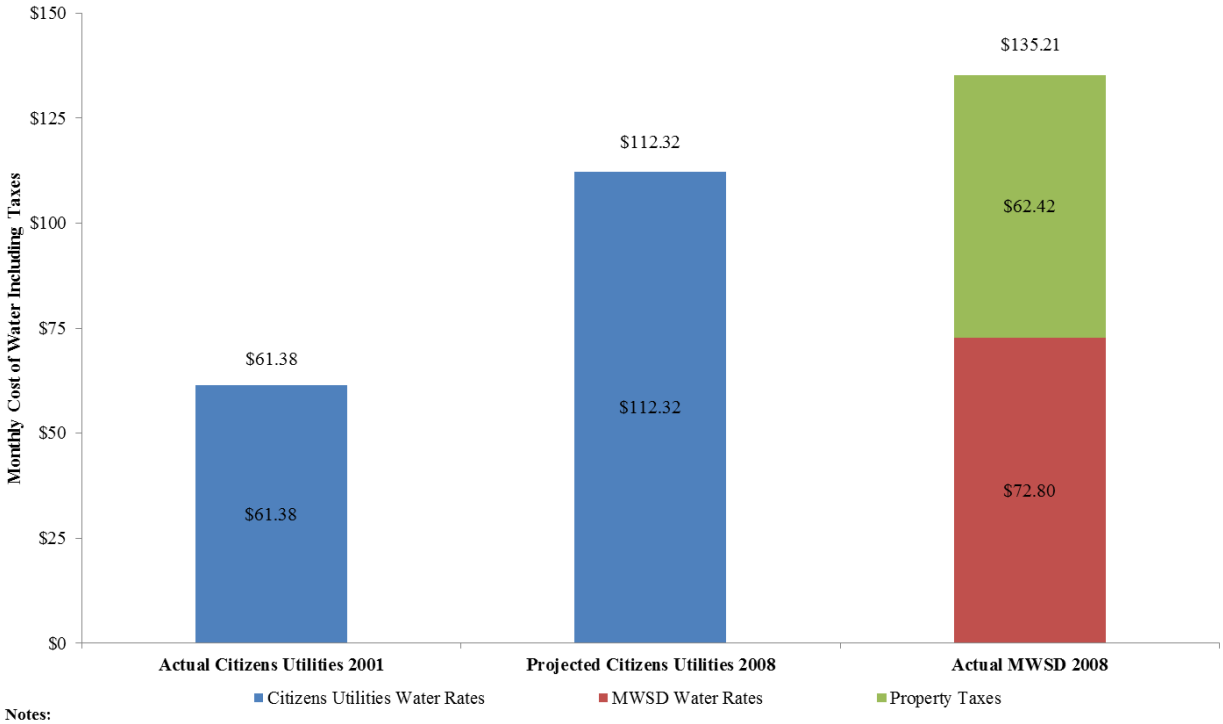
3. MWSD's 2008 Water Bills Were Higher than Proposed Increases Under Citizens Utilities Ownership

One concern expressed by Montara residents prior to the MWSD takeover was large projected rate increases under continued Cal-Am/Citizens ownership. Specifically, several commentators projected that rates would increase by 83% under Citizens Utilities for infrastructure upgrades over the next seven years. This figure was widely cited in numerous articles in the *Half Moon Bay Review* and in the voter information guide for Measure V, and was generally used to build public support for the takeover. The District was quoted in the newspaper as saying that it could make the improvements at a lower cost and could avoid a rate increase by borrowing to fund the improvements.[72] In actuality, the total financial burden on Montara ratepayers between MWSD rates and property taxes in 2008 was *higher* than the rate

[72] *Half Moon Bay Review*, "Election choice will cost a lot either way," August 8, 2001; *Half Moon Bay Review*, "Public agency wants to raise $20 million to buy water system," June 13, 2001; and *Half Moon Bay Review*, "Putting real citizens in charge of their own utility is a good idea," June 20, 2001. *See also* League of Women Voters, "Measure V Acquisition and Improvement of District Water System Montara Sanitary District," available at: http://smartvoter.org/2001/11/06/ca/sm/meas/V/.

increases Citizens Utilities had requested in its CPUC filings.[73] *See* **Exhibit 6**. This clearly indicates that there were no cost savings from the contested takeover.

Exhibit 6



Notes:
[1] Assumes 8 CCF of consumption per month.
[2] Montara Projected Citizens Utilities in 2008 is estimated based on a the assumption of a 83% rate increase from 2001 to 2008, per the Half Moon Bay Review.
[3] Property taxes are calculated by dividing the year 2008 bond payment by the number of service connections in Montara.
[4] The MWSD water rate for 2008 is taken from the 2013 Water Rate Study.
[5] Rates are as of the second half of years 2001 and 2008.

Sources:
Half Moon Bay Review: "Election Choice will cost a lot either way", August 8, 2001; 2005 Draft Rate Study Presentation; 2013 Water Rate Study; Official Statement for Montara Sanitary District General Obligation Bonds (Series 2003); Montara Water and Sanitary District 2011 Water System Master Plan.

Montara was a high-cost area to serve at the time of the takeover, and as **Exhibit 7** below illustrates, the change of ownership did not affect this. Montara continues to be one of the highest-cost areas in the region.

[73] The actual rates are based on 8 CCF water consumption per billing cycle, which is the level of water consumption that the 2005 Rate Study uses when calculating future water bills. Property tax rates are calculated by dividing the annual debt-service payment by the number of service connections in Montara.

Exhibit 7

Average Monthly Bill Comparison

City	Water Service Provider	2001/02	2014/15
Hillsborough	Town of Hillsborough	$100.76	$237.70
Burlingame	City of Burlingame	$36.54	$102.86
San Bruno	City of San Bruno	$38.35	$80.94
Belmont	Mid Peninsula Water District	$30.07	$62.15
Half Moon Bay	Coastside County Water District	$32.54	$58.03
Redwood City	City of Redwood City	$23.95	$55.16
San Carlos	California Water Service Company	$33.16	$50.15
San Mateo	California Water Service Company	$33.16	$50.15
South San Francisco	California Water Service Company	$26.33	$40.81
Foster City	Estero Municipal Irrigation District	$27.83	$30.74
Pacifica	North Coast County Water District	$32.10	$30.07
Daly City	City of Daly City	$22.71	$22.04
Montara	**California-American Water**	**$86.97**	
Montara	**Montara Water & Sanitary District Bill**		**$125.93**
Montara	**Montara Water & Sanitary District Bill + Property Tax**		**$186.65**

Notes:

[1] Table presents bills based on average monthly residential water usage in each community as obtained from the BAWUA or BAWSCA survey.

[2] In 2001/02, Montara, San Carlos, and San Mateo water usage is assumed to be 14 CCF per month, the BAWUA member agency monthly average for 2001/02. In 2014/15, Montara water usage is assumed to be 10 CCF per month, the monthly average consumption of BAWSCA agencies for 2014/15.

Sources:

[1] Bay Area Water Users Association Annual Survey for Public Agencies, 2001/02 through Official Statement for Montara Bond.

[2] Official Statement for Montara Sanitary District General Obligation Bonds (Series 2003).

[3] Montara Water and Sanitary District 2011 Water System Master Plan.

[4] California Water Service Rate Sheets for San Carlos and San Mateo through Official Statement for Montara Bond.

[5] Bay Area Water Supply & Conservation Agency Survey for Public Agencies, 2014/15.

[6] Montara Water and Sanitary District Ordinance No. 174.

C. Nashua, NH

Nashua is the second-largest city in the state of New Hampshire and sits along the southern border with Massachusetts. There are approximately 24,000 water service connections in the City. Nashua began its efforts to acquire the water system from the Pennichuck Water Company in 2002 following news reports that Pennichuck was to be acquired by Philadelphia Suburban Corp for $103 million.[74] According to local news sources, long-standing concerns about watershed management, combined with the threat of out-of-state ownership, prompted the local government in Nashua to pursue acquisition of the water system.[75] In

[74] *Nashua Telegraph*, "Pennichuck Timeline," March 26, 2010, available at: http://www.nashuatelegraph.com/news/685559-196/pennichuck-timeline.html.

[75] *Nashua Telegraph*, "Pennichuck Timeline," March 26, 2010, available at: http://www.nashuatelegraph.com/news/685559-196/pennichuck-timeline.html; and *Nashua Telegraph*, "Nashua now owns Pennichuck Corp. after decade of talks and fights," January 26, 2012, available at: http://www.nashuatelegraph.com/news/947802-196/nashua-now-owns-pennichuck-corp.-after-decade.html.

January 2003, Nashua voters "passed a referendum, by a vote of 6,525 to 1,867, [nearly 78%] authorizing the City to acquire, through an eminent domain taking or otherwise, some or all of the Pennichuck water works system."[76] Later in 2003, Nashua offered to purchase Pennichuck Corporation for $121 million, but the company rejected the offer. The City of Nashua eventually filed with the New Hampshire Public Utilities Commission (NHPUC) to pursue eminent domain proceedings in March 2004.[77]

Over the next several years, Nashua and Pennichuck litigated the City's eminent domain claims in the courts and before the NHPUC. In 2009, the NHPUC ruled that Nashua could acquire the assets of Pennichuck Water Works, a subsidiary of Pennichuck Corporation, for $243 million,[78] and this decision was upheld by the New Hampshire Supreme Court in 2010. This solution would have presented challenges to both Nashua and Pennichuck, however, and the two entities began negotiating alternative settlements, including a merger agreement.[79] In 2010, the City of Nashua agreed to purchase all outstanding shares of Pennichuck stock at $29 a share ($137.8 million), becoming the company's sole shareholder. As part of the agreement, Nashua also assumed liability for $60 million in outstanding Pennichuck debt, bringing the total acquisition cost to $198 million – approximately 63% more than the City had originally offered Pennichuck Corporation in 2003. The acquisition was finally completed in early 2012. The utility, Pennichuck Water Works, remains organized as an IOU subject to regulation by the NHPUC.[80] Moreover, Pennichuck Water Works continues to be subject to NHPUC ratemaking authority, including the requirement to petition the Commission for permission to change rates, and its rates are set according to rate of return principles.

In addition to the $198 million acquisition cost, the City also paid $14.3 million to cover the costs of the takeover transaction, including $2.2 million in severance packages for departing Pennichuck executives, $5.3 million in legal and other fees, $5 million in a rate stabilization fund, and $1.8 million in bond issuance costs.[81] The City issued $150.57 million in taxable, general obligation bonds to finance the stock

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76 "Nashua Votes Approve Referendum Regarding Municipalization of Pennichuck," January 15, 2003, available at: http://www.pennichuck.com/press/011503%20Press%20Release%20City%20Vote.php.

77 *Nashua Telegraph*, "Pennichuck Timeline," March 26, 2010, available at: http://www.nashuatelegraph.com/news/685559-196/pennichuck-timeline.html.

78 The NHPUC valued the Nashua water system at $203 million, plus a $40 million fee for damage to Pennichuck's other subsidiaries. See *Nashua Telegraph*, "Pennichuck Timeline," March 26, 2010, available at: http://www.nashuatelegraph.com/news/685559-196/pennichuck-timeline.html.

79 *Nashua Telegraph*, "Pennichuck Timeline," March 26, 2010, available at: http://www.nashuatelegraph.com/news/685559-196/pennichuck-timeline.html.

80 *Nashua Telegraph*, "Pennichuck Timeline," March 26, 2010, available at: http://www.nashuatelegraph.com/news/685559-196/pennichuck-timeline.html; *Nashua Telegraph*, "Nashua now owns Pennichuck Corp. after decade of talks and fights," January 26, 2012, available at: http://www.nashuatelegraph.com/news/947802-196/nashua-now-owns-pennichuck-corp.-after-decade.html; and "Pennichuck FAQ's," available at: http://www.aldermancookson.com/docs/Pennichuck/Pennichuck%20FAQ.pdf.

81 *Nashua Telegraph*, "Nashua now owns Pennichuck Corp. after decade of talks and fights," January 26, 2012, available at: http://www.nashuatelegraph.com/news/947802-196/nashua-now-owns-pennichuck-corp.-after-decade.html.

purchase, pay transaction costs associated with the merger, and establish the rate stabilization reserve.[82] Although the acquisition bonds are a general obligation of the City of Nashua, at the present time there is insufficient publicly available information to evaluate the City's claim that revenues collected through Pennichuck operations will be sufficient to fund the debt service on the bonds.

D. Missoula, MT

Missoula is a city in western Montana with approximately 71,000 residents. The utility, Mountain Water, serves the population through approximately 23,500 customer service connections. Around 2010, Missoula began exploring the possibility of acquiring the water system from Mountain Water, and in 2011 "[t]he Mayor informed the City Council and the public of his efforts to acquire the water system."[83] In 2011, ownership of the Missoula system changed hands when the Montana Public Service Commission approved a $102 million sale of Park Water Co., Mountain Water's parent company, to The Carlyle Group.[84] The City continued its pursuit with a series of offers to Carlyle, including an informal offer in February 2013, a formal offer to purchase the equity of Mountain Water for $65 million in October 2013, and a final offer of $50 million in January 2014. All of these offers were rejected.[85] In response, the City Council voted to pursue condemnation proceedings in April 2014.[86] In September 2014, Carlyle announced an agreement to sell Mountain Water to Algonquin Power and Utilities Corp (d/b/a Liberty Utilities).[87] In June 2015, the City was granted the right to take the water system, and subsequently in November 2015, the water system was valued during the valuation stage of trial at $88.6 million.[88]

The City summarized many of its arguments in support of the takeover in its condemnation complaint to take the water system. The City believes that government ownership will improve accountability, allow for local control, and provide savings because the government-owned utility will not earn a "profit."[89]

The court's $88.6 million valuation is significantly higher than the City's previous formal offers of $50 million and $65 million.[90] Additionally, transaction costs as a result of the legal battle in the

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82 City of Nashua, New Hampshire $150,570,000 General Obligation, Pennichuck Corporation Acquisition Bonds Official Statement, January 10, 2012, p. 11.

83 Findings of Fact, Conclusions of Law and Preliminary Order of Condemnation. Montana Fourth Judicial District Court, Missoula County. DV-14-352, June 15, 2015, p. 11-12.

84 *Missoulian*, "Missoula, Mountain Water disagree on total price for condemnation," February, 2, 2016.

85 Findings of Fact, Conclusions of Law and Preliminary Order of Condemnation. Montana Fourth Judicial District Court, Missoula County. DV-14-352, June 15, 2015, p. 13-14.

86 Findings of Fact, Conclusions of Law and Preliminary Order of Condemnation. Montana Fourth Judicial District Court, Missoula County. DV-14-352, June 15, 2015, p. 13-14.

87 Findings of Fact, Conclusions of Law and Preliminary Order of Condemnation. Montana Fourth Judicial District Court, Missoula County. DV-14-352, June 15, 2015, p. 15.

88 *Missoulian*, "Missoula, Mountain Water disagree on total price for condemnation," February 2, 2016.

89 Complaint for Order of Condemnation Under Montana's Law of Eminent Domain, Montana Fourth Judicial District Court, Missoula County, April 2014, pp. 6-12, 21-26.

90 *Missoulian*, "Missoula, Mountain Water disagree on total price for condemnation," February 2, 2016.

condemnation effort to date are significant and ongoing. The closing costs, legal fees for the City, legal fees for Mountain Water, and legal fees for The Carlyle Group total more than $15 million, of which the City of Missoula may have to pay the entire amount if it proceeds with the acquisition.[91]

The Montana Supreme Court, in a 5-2 decision rendered on August 2, 2016, affirmed a lower court order that gave the City of Missoula the right to take over Mountain Water Company. Litigation continues over the final number the City must pay for the system because the $88.6 million valuation does not include attorneys' fees and legal expenses, post-summons interest, and $3.5 million in outstanding property tax liability. In the final analysis, the City's bond to acquire the system may well be double that of its original offer. As of October 2016, the City has not completed the eminent domain takeover.

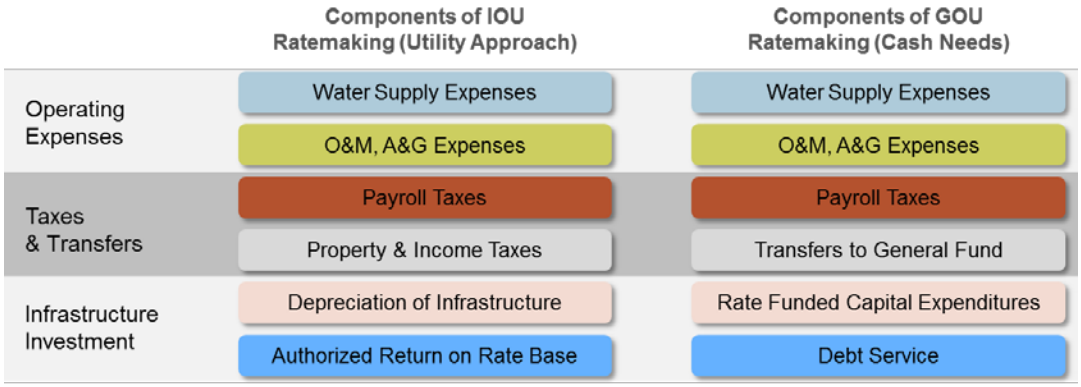
91 *Missoulian*, "Missoula, Mountain Water disagree on total price for condemnation," February 2, 2016.

III. ANTICIPATED COST SAVINGS UNDER GOVERNMENT OWNERSHIP

One of most frequently cited reasons that communities consider a takeover of the local water system is to lower future rates relative to current rates under the IOU. Some argue that IOU water rates are inflated because the utility setting the rates is a "profit-seeking" IOU that also pays significant taxes. Proponents of government takeovers often look at the costs that IOUs recover through rates, and incorrectly assume that, under government ownership, many of these costs would disappear, automatically lowering rates. However, the accounting is complex, and a detailed analysis is required to understand the expected cost savings (if any) from a change in ownership.

Regardless of the type of owner, water utilities have to pay similar operating expenses, payroll taxes, and infrastructure investment to continue operating – the difference stems from how those costs are accounted for in the rate-setting process (**Exhibit 8**). IOUs typically use a "utility basis" for accounting, whereas government-owned entities are more likely to use a "cash-needs" approach.[92]

Exhibit 8



Under the utility basis for accounting, rates include all taxes paid by the IOU: payroll taxes, state and local taxes, property taxes, and income taxes. GOUs are exempt from state and federal income taxes, as well as local taxes and property taxes. However, GOUs still pay payroll taxes. This reduction in tax requirements is often characterized as a direct savings for utility customers under government ownership. It would be more accurate, however, to describe the difference as an economic transfer from taxpayers to water customers. The forgone tax revenues mean that local, state, and federal governments must either identify other sources of revenue or cut back on government-funded services. Some GOUs may compensate for this shortfall by transferring funds to the local government general fund.[93] Tax avoidance

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92 *Manual M1: Principles of Water Rates, Fees, and Charges*, AWWA, Sixth Edition, 2012, pp. 10-18.

93 In Missoula, Mountain Water contributes funding to the city, local schools, special districts, state schools, and the county. The chairwoman of the Board of County Commissioners in 2014 noted that "… the county is slated to lose those dollars if the city succeeds in court." The Mayor of Missoula, John Engen, has said that the city

resulting from a government takeover of an investor-owned water utility does not produce economic benefits. As the judge in a recent right-to-take trial in California concluded, "The tax loss caused when income or property taxes are avoided is merely shifted to other taxpayers and they pay more in taxes. "[94]

Advocates of government ownership often claim that a reduced tax burden will be a direct savings for utility customers. In fact, the proposed tax avoidance would be a transfer from taxpayers to water customers, offering no real economic benefit.

Given the uniquely capital-intensive nature of water utilities, continued investment in capital infrastructure is extremely important, regardless of whether the utility is investor-owned or government-owned.[95] Although they follow different approaches to ratemaking, both IOUs and GOUs must collect the revenues needed to finance capital investment through rates. Under the utility basis for accounting, rates include two forms of capital costs: a depreciation expense and an authorized return on the rate base. Depreciation, which is based on historical expenses, is equivalent to the return to shareholders and lenders of capital invested in the water system. The return on the rate base, also based on historical expenses, compensates the IOU's shareholders and lenders for the use of their capital. Under the cash-needs approach, GOUs do not include depreciation, which is a noncash expense, in rates. Rather, they typically collect through rates the amount to be spent in a given year on routine capital investments (i.e., "rate-funded capital expenditure," or "pay-as-you go" financing).[96] GOUs that issue debt to take over a water system or to finance large capital investment projects will include debt-service costs in rates, under the cash-needs approach, in addition to rate-funded capital expenditures.

Many GOUs do not invest at a level commensurate with depreciation; even for those that do, as a consequence of inflation, increased cost of environmental and regulatory compliance, and other factors, that strategy is insufficient to maintain a utility's capital stock at a constant level in real terms. To keep track with rising costs, water utilities must replace capital and invest in infrastructure at a rate well in

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has planned to make payments in lieu of taxes if the municipality acquires the water system. *Missoulian*, "MCPS board chair: 'Somebody has obligation to pay Mountain Water taxes," April 30, 2016.

94 *Claremont v. Golden State Water*, pp. 39-40.

95 "Alternative Regulation and Ratemaking Approaches for Water Companies: Supporting the Capital Investment Needs of 21st Century," *The Brattle Group*, September 23, 2013, pp. 1-2.

96 "*Manual M1: Principles of Water Rates, Fees, and Charges*," AWWA, Sixth Edition, 2012, pp. 13, 14.; "*Manual M29: Water Utility Capital Financing*," AWWA, pp. 24, 59, 91

excess of depreciation. In contrast to the common practice of GOUs, investor-owned utilities typically invest at rates substantially higher than depreciation.

The return on the rate base in particular is often characterized as “profit” for the IOU that would not be included in rates under government ownership. Many proponents of takeovers argue that eliminating these “profits” will automatically reduce the cost of water to ratepayers. However, the return on the rate base is not profit per se; it is an IOU’s cost of borrowing through debt and through equity to finance necessary capital investment. Under the GOU cash-needs basis of accounting, the equivalent expense is the interest component of the utility’s debt-service costs; the interest paid on borrowed capital. In the event of a takeover, the GOU may collect the revenues needed for debt service on the acquisition bond through rate revenues or through property tax receipts, depending on the type of bond issuance. Either way, customers are paying these debt-service obligations through their water bills, their taxes, or both.

For these reasons, a change in the ratemaking treatment of capital expenses due to takeover will not result in savings for ratepayers, unless the government owner reduces annual investment in the water system.

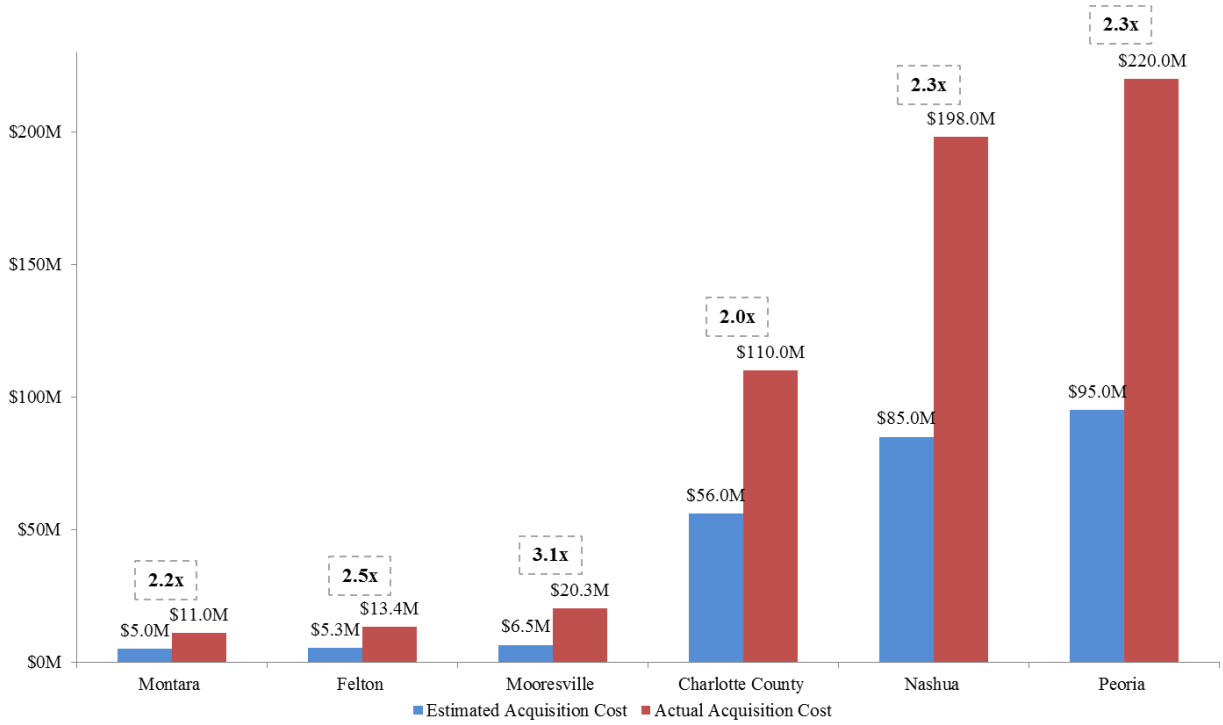
IV. MUNICIPAL ESTIMATES OF ACQUISITION AND TRANSACTION COSTS

The total acquisition cost associated with an eminent domain transaction plays an important role in determining the size of the total water bills ratepayers ultimately pay. Higher amounts of debt lead to higher tax payments (if the acquisition is funded through a general obligation bond) and/or higher water rates. Therefore, it is important to accurately assess what the actual final costs will be in the condemnation process. These costs come in two forms: direct acquisition costs and transaction costs. Direct acquisition costs are the costs associated with paying to acquire the water system assets from the private entity. Transaction costs are the costs associated with the condemnation process, including legal fees, feasibility and valuation consultants, bond issuance costs, etc.

A. Acquisition Costs

Our research suggests that government entities and takeover advocates routinely underestimate the costs of acquisition in contested transactions. **Exhibit 9** illustrates this fact by looking at recent condemnations and compares the initial valuations to the final valuation at the end of the condemnation process. In each of these cases, the final valuations were two to three times the initial valuations.

Exhibit 9



Notes:
[1] Nashua's valuation by court was $203 million, the final purchase price was $198 million in stock.
[2] Peoria City Council voted to end the takeover attempt due to high cost.

Sources:
Chicago Metro Water Facts, available at http://www.chicagometrowaterfacts.com/; The Indy Channel, "Mooresville drops water utility takeover plans," October 22, 2014; Indianapolis Business Journal, "Indiana town takes unusual step to gain control of utility," February 16, 2013.

There are several potential explanations as to why municipalities underestimate acquisition costs in contested transactions. Municipalities may be prone to lower estimates of the acquisition cost in order to

build public support for a takeover or as a strategy for litigation proceedings and negotiation purposes, or it may be that municipalities simply do not realize how expensive contested takeovers are.

Municipalities may face incentives to communicate lower estimates of the acquisition cost in order to build public support.

All else being equal, residents will respond more favorably to a takeover effort if they believe that it will result in savings on their water bills. As discussed above, one of the key factors in determining the water rates or taxes customers will pay is the debt service on the acquisition. Lower acquisition costs intuitively result in lower debt-service costs and, in turn, may result in lower water rates. It becomes harder to convince the community that a takeover will result in a rate reduction with a high estimate of the takeover costs. As a result, municipalities may face incentives to communicate lower estimates of the acquisition cost in order to build public support.

Systematic underestimation of costs may also serve as a litigation strategy. In a litigation context, there is an incentive for a municipality to provide a low estimate of acquisition costs given that (a) it will provide a price floor for the final acquisition cost; and (b) it sets a baseline for bargaining over the price of the system. This is particularly true given that municipalities are in the unique position of having to share expectations regarding the acquisition costs with the voting public who will ultimately fund these costs. These estimates of the acquisition cost are then often used in negotiations with the IOU or considered as evidence by the courts as part of the litigation process. As such, municipalities have an incentive to publicize the lowest possible estimate of the acquisition cost for litigation and negotiation purposes.

Alternatively, municipalities may simply not realize how expensive contested takeovers can be. In addition to the Felton, Montara, Nashua, and Missoula acquisition prices discussed above, the experiences of takeovers in Peoria, IL, Mooresville, IN, and Charlotte County, FL, lend additional support for this point:

- The Town of Mooresville, IN, pursued a takeover of its water system from Indiana America Water. The Town offered $6.5 million for the water system, which was rejected. The system was later valued by a jury at trial for $20.3 million, more than three times the amount of the Town's initial valuation. The takeover bid was subsequently dropped.[97]
- Charlotte County, FL, pursued a "quick-take" condemnation of the local investor-owned water system, a process by which the County was able to take possession of the system prior to a court determination of the amount of just compensation to the property owner,

[97] *The Indy Channel*, "Mooresville drops water utility takeover plans," October 22, 2014, available at: http://www.theindychannel.com/news/local-news/mooresville-drops-water-utility-take-over-plans; and *Indianapolis Business Journal*, "Indiana town takes unusual step to gain control of utility," February 16, 2013, available at: http://www.ibj.com/articles/39610-indiana-town-takes-unusual-step-to-gain-control-of-utility.

based on a preliminary valuation of $56 million commissioned by the County. Ultimately, the court valued the system at $110 million, an amount Charlotte County was obligated to pay having already taken possession of the system. Following resolution of the condemnation litigation, the County sued its lawyers and valuation consultants for underestimating system acquisition costs by almost 100%.[98]

- Peoria, IL, wanted to take over the local water system, which was owned by Illinois American Water. The City valued the water system at $95 million. Acquisition of the water system was arbitrated in front of a panel of three appraisers who valued the system at $220 million, 132% higher than the City's valuation. After the arbitrated value was established, the City decided not to pursue the acquisition because the costs were too high.[99]

The amount that ratepayers pay for water service post-condemnation, whether in the form of taxes or water rates, is directly linked to the acquisition costs. Because these costs are often substantially underestimated, it follows that residents' water bills post-takeover can be significantly higher than expected.

B. Transaction Costs

Successful takeover of a water system requires the government entity to both have the right to take and accept the final acquisition cost. The acquisition cost may be decided either by court or by a settlement, both of which may be preceded by a long and expensive litigation process. Many municipalities lack the legal and valuation expertise required in an eminent domain lawsuit, and instead have to rely on outside counsel and specialized consultants for support during such court cases. These costs are necessary to challenge private utility ownership in court, evaluate system quality, and provide a dollar valuation of the water system. However, these transaction costs are a pure deadweight loss in a meaningful and economic sense to the ratepayers – there is no value that is created and no transfer of assets associated with these costs.[100] They are real costs that must be financed using bond proceeds or cash reserves (e.g., a City's general fund), but they are ultimately paid by the local community through higher taxes or higher water rates.

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98 Chicago Metro Water Facts, Case Study, Charlotte County, FL. Available at: http://www.chicagometrowaterfacts.com/case1.php.

99 Chicago Metro Water Facts, Case Study, Peoria, IL. Available at: http://www.chicagometrowaterfacts.com/case2.php.

100 In comparison, the cost of acquisition is not a deadweight loss because there is a transfer of assets from one party to another.

Transaction costs are real costs that must be financed using bond proceeds or cash reserves (e.g., a City's general fund), but they are ultimately paid by the local community through higher taxes or higher water rates.

The data are relatively sparse on transaction costs. However, for the four takeovers examined earlier, we observe that the transaction costs are quite expensive and economically burdensome to ratepayers.

- In addition to the $13.4 million purchase price, Felton residents and the SLVWD paid more than $2.1 million in legal fees and bond issuance costs (16% of the acquisition cost) to acquire the Felton system.[101]
- MWSD spent approximately $2 million in legal fees and bond issuance costs in addition to the $11 million paid for the water system. This represents 18% of the acquisition price.[102]
- In the dispute between Missoula and Mountain Water, the City of Missoula may be required to pay up to $15.4 million in closing costs and legal fees for the City, Mountain Water, and The Carlyle Group. This would represent 17% of the acquisition costs, as the system was valued at $88.6 million in a November 15, 2015, valuation proceeding.[103]
- Nashua spent approximately $14.3 million over 10 years in its efforts to take over the water system from Pennichuck Corp. This is approximately 7% of the $198 million acquisition cost.

It is worth noting that although these costs are large and economically relevant to the impact of a contested takeover, they are typically not communicated to the public in a transparent manner.

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101 Mueller Transcript, 14:8-11.

102 *Half Moon Bay Review*, "Montara braces for bond payout," July 16, 2003.

103 *Missoulian*, "Missoula, Mountain Water disagree on total price for condemnation," February 2, 2016, available at: http://missoulian.com/news/local/missoula-mountain-water-disagree-on-total-price-for-condemnation/article_03c961dc-7fdf-5e65-bd33-e0a33a79450d.html.

V. CONCLUSION

This report examines four case studies of contested government takeovers of private water utilities. Additionally, it examines the acquisition and transaction costs incurred in numerous recent municipalizations. The key findings are:

- Government ownership of the Montara and Felton systems has failed to deliver the rate benefits promised to customers.
- Change of ownership, from investor to government entity, places immediate and substantial financial burdens on customers and taxpayers for which there is no compensating benefit.
- Advocates of government takeover typically identify the elimination of "profits" and taxes as two sources of financial benefits from a change in ownership. There is no sound basis in accounting or economics to support the expectation of real benefits to ratepayers, in the form of lower bills, from the elimination of these sources.
- Local governments and advocates of government takeover tend to underestimate acquisition costs by more than 100%.
- Contested takeover efforts have proven to be very costly to government entities. The costs incurred to support eminent domain litigation and to finance the acquisition represent a significant economic burden on ratepayers and taxpayers, above and beyond the cost to acquire the system.

The results of this report illustrate that contested takeovers are very costly for the acquiring government entity, and that advocates of contested takeovers tend to significantly overstate the economic benefits of government ownership. In the recent eminent domain litigation involving the City of Claremont (CA) and Golden State Water Company, the trial judge's rationale for dismissing the City's takeover attempt reflected the economic reality described in this study. The judge concluded that the City could not lower water rates by taking ownership of the system and, in fact, water rates would "necessarily increase subscriber water rates from today's level in order to service and pay down the bond indebtedness that the City will incur to purchase the Claremont Water Assets."[104]

[104] *Claremont v. Golden State Water*, pp. 29. The City of Claremont incurred $6.3 million in legal and consulting expenses in its losing effort, and may now be ordered to also pay Golden State's legal expenses.