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ORIGINAL

Date: October 24, 2016

To: **Docket Control**
Arizona Corporation Commission
1200 West Washington St.
Phoenix, AZ 85007

From: Robert T. Hardcastle
Brooke Water LLC
Circle City Water Co. LLC

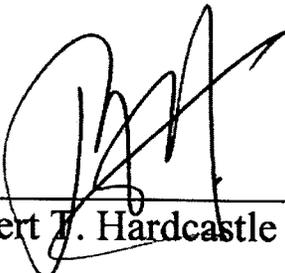
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DOCKET NO. W-03039A-16-0322 and W-03150A-16-0322

Re: Plan of Improvement

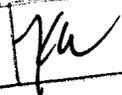
By:



Robert T. Hardcastle

Arizona Corporation Commission
DOCKETED

OCT 24 2016

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Plan of Improvement

Brooke Water LLC.

October 24, 2016

Date: October 24, 2016

To: Arizona Corporation Commission
Docket Control
1200 W. Washington St.
Phoenix, AZ 85007

From: Brooke Water LLC
Robert T. Hardcastle, Managing Member
P.O. Box 82218
Bakersfield, CA 93380-2218

Re: Decision No. 75755; ACC Docket No's. W-03039A-16-0322 and W-03510A-16-0322

The following Plan of Improvement (the "Plan") is presented pursuant to Arizona Corporation Commission ("ACC" or "Commission") Decision No. 75755 ("Decision")¹. It should be noted that the Decision was voted upon by Commissioners on September 23, 2016 but was not published by Docket Control until October 4, 2016. The Plan is timely filed on behalf of Brooke Water LLC ("Brooke").

The following responses, in part, disagree with some of the conclusions reached by the Commissioners in the Decision. Brooke has provided herein its rationale and basis for such any disagreement as information, data, and attachments that support its positions. It is the desire of Brooke this rationale will provide Commissioners and Staff with a well informed and broader perspective upon which to make decisions that are in the interest of customers, the Company, and the Commission as well. Any positions described in the Plan should not be interpreted as Brooke's refusal to adopt a Commission order and comply with a Decision – as it has done for more than twenty years.

HIRING ADDITIONAL OPERATIONS STAFF

This section of the Plan is derived from Commissioner Tobin's Amendment to the Staff Report dated September 20, 2016 and was adopted by the Commissioners present. This Recommendation did not provide for evaluation, analysis, or research as to whether or not additional maintenance staff is actually needed and, if so, (1)

what additional staff would do that is not currently being done, and (2) why additional staff would make a positive difference to operations and/or customers.

Simply, BWLLC's position is that **additional operational staff is not warranted.** Brooke normally operates with an operational staff of three. Hiring additional operational staff is expensive. The cost far exceeds any modest understanding related only to wages. More experienced prospective staff employees can easily cost up to 50%ⁱⁱ more than an employee new to the position. Numerous other costs must be incurred to start a new operational employee - many in advance of the employee reporting for work. These costs include advertising; recruitment and qualification; interview and reference checking; background checks; testing; follow-up interviews; communication devices; moving expense if applicable; financial advances if applicable; tools and equipment; first year regular time wages and labor burden; vehicle; training; operational staff rotating on-call hours; lost productivity; supervision; and, operator certification. Brooke's normal employment cost of starting a new additional operational employee can easily exceed \$80,000 and frequently requires two months to start a selected individual. There is no guarantee that a newly acquired employee will successfully complete the 90-day probationary period and demonstrate the mechanical, regulatory, and customer relations acumen necessary for the position. Thus, the decision to acquire additional maintenance staff is not a decision made lightly and without significant analysis of actual need. The penalty of such a decision accrues to customers in the form of unnecessary higher rates. No such decision can be successfully made by proclamation.

A regular full-time operational employee is based on 2,080 hours per year. A first-year employee is expected to actually provide 1,968ⁱⁱⁱ net hours of productivity. Since the thirty-five month period June 1, 2013^{iv} through September 2016 Brooke's total overtime hours have averaged less than 50 hours monthly^v. During the same period operational overtime hours were occasionally as little as 3 hours. This is a management analysis that Brooke performs constantly to ensure that proper operational staffing levels are maintained and that employment productivity is sufficient to meet the needs of the Company and customers (see Attachment 1).

A full-time operational staff employee works 173.3 hours monthly. Thus, an unnecessary operational staff employee, under Brooke's actual operational circumstances, would require almost a 250% increase^{vi} in available hours for which no work is regularly necessary. Brooke closes its accounts and records usually by the 10th of the following month. As a policy of the Company all customer service orders, work orders, complaints, and monthly billings must be

completed by that date. On a regular basis the operations of Brooke are completed every month. Very infrequently uncompleted work from the prior month over flows into the subsequent month.

Thus, Brooke strongly believes that this portion of the Decision should be more carefully considered and may represent a waste of the Company's and customers money. All too frequently there are outcry's of public observations of numerous roadside utility employees standing around in large numbers with numerous idle equipment, manpower, and with only a couple of employees actually performing work. That condition is not the case at Brooke. The Company has owned and operated the water systems for more than 21 years. Several years during that period the condition of the water systems was very poor – much worse than their present condition. Each water system has its own behavior, sensitivities, and idiosyncrasies. No one is better informed and more experienced in managing the water systems than Brooke. Consequently, no one is more knowledgeable about the staffing requirements than Brooke.

The Company's operational employees work hard, maintain high levels of expectations and integrity, regularly advance their certification levels, and complete their work. There are many ways in the Arizona regulated water utility industry to cut corners, falsify reports, and cheat on water quality standards. Brooke does none of those things. Again, as referenced by the Tobin Amendment, **additional operational staff is not warranted.**

CUSTOMER SERVICE CENTER ("CSC")

Decision No. 75755 Finding of Fact #71, item (b) requires Brooke to either (1) establish a new internal CSC, or (2) establish a CSC closer to the service territory.

The analysis of replying to this portion of the Order is not as simple as it might seem. In order to satisfactorily appreciate the complexity of this issue it is necessary to understand the context of what is required. It is also necessary to understand that any shortcomings related to Brooke's CSC are **not a function of proximity** but a combination of regulatory compliance, management policies, and training. A CSC located within Brooke's offices or in a city in Arizona does not guarantee that the same, or similar shortcomings, would be resolved. Almost all customers primarily contact Brooke by telephone or mail – the physical location of the receiving telephone is not determinant of high standards of customer service.

Brooke operated both internal and contract CSC's during the period 1995 through 2006. Although any problems related to those CSC's may have been different in nature, frequency and/or severity it cannot be concluded that customer service was better, worse, acceptable, or unacceptable because of CSC proximity.

One of the most important criteria Brooke considered in establishing the current CSC was the complete end-to-end integration of the customer service and operational functions of its business with the financial reporting of its business (the "Integration"). The expansive search for Integration capability in 2004 through 2005^{vii} yielded very few choices and the CSC chosen to provide this capability met the Integration criteria and was the least cost alternative. Brooke invested nearly 1-1/2 years making this decision.

The Integration of these functions requires that any cost, expense, payroll, revenue source, bank deposit, account payable^{viii}, or account receivable event that occurs would be accounted for at the financial statement level daily. This capability provides Brooke with near-real time financial reporting.^{ix} The proximity of the system software and hardware resources necessary to support this capability are limited to availability. Absent this capability additional staff resources are necessary to perform the manual management and financial reporting. In one form or another many of the customer-related events begin with, or pass through, the CSC for processing.

A decision to locate a data center in Brooke's local offices has many ramifications that cannot be anticipated by simply changing billing systems, relocating a data center, or contracting with another provider for traditional billing system services.

Thus, it is **critical to clearly understand that relocation of the CSC to either an internal new location or commercial provider would fundamentally change the core nature of Brooke's business at many levels that far exceed a billing system and someone answering telephones.** Brooke has previously explained this to Staff. A complete search of the available alternative options that may meet this requirement cannot be reasonably and fairly completed by the response deadline required in Finding of Fact #71 of the Decision.

Another important issue arises when considering relocation of a CSC to an internal new location or third party contractor. In most cases the decision criteria for one alternative versus another (and relevant in answering the pertinent Finding of Fact #71 question) will be to determine a monthly cost per customer (the "Pricing Value"). It is important to thoroughly understand if the Pricing Value is inclusive,

or exclusive, of numerous factors in order to yield an apples-for-apples analysis. Some of these factors include mail processing; initial set-up fees; software programming; software user licenses; annual software maintenance fees; CSC staff size; staff response requirements; message taking; 24/7 capability; telephone costs; credit card processing fees; automation of the bank deposit process; after-hours emergency contact and dispatch services; website development and maintenance; return payment envelopes; bank fees related to payment deposits; and others. Absent an equivalent comparison it is impossible to fully understand the actual Pricing Value.^x

For the purposes of a reply to Finding of Fact #71, item (b) Brooke discusses below the results of its investigation, to date, in three areas: (1) establishing a CSC within its Parker, AZ offices, (2) contracting with a commercial CSC contractor, and further (3) Plan improvements of Brooke's existing CSC. The analysis below assumes (a) a constant CSC staff size of not less than three and not more than five CSR's, and (b) 2,288 water customers.^{xi} It is possible that additional sufficient time to research and analyze this issue could yield presently unknown alternatives.

Establishing an In-House CSC

Brooke has had more than 20 years' experience with CSC's. Contemplation of a CSC within Brooke's Parker, AZ office is not practical due to space limitations already housing the Operations Department. Therefore commercial space would need to be leased to locate the hardware data center (even of a small size) with sufficient security, fire protection, ventilation and air conditioning. Brooke's analysis of these features and costs are provided on Attachment 2.

As shown by Attachment 2 the investment required to establish an internal CSC with similar capabilities to the existing CSC inclusive of a 15% contingency reserve is estimated to be \$237,763. This is investment that could be better spent on plant improvements. Accordingly, the cost per customer per month is estimated to be \$11.18^{xii}. Brooke estimates that, if negotiations regarding existing software and contract termination were successful, approximately five to eight months would be required to establish an independent internal CSC.

Contract CSC's

Brooke must re-emphasize that relocating the CSC to a closer proximity CSC **provides no assurance that a customer service product would, necessarily, be different than the existing CSC.**

Brooke researched numerous utility CSC's in nearby states describing its requirements and criteria for integration, customer call handling, emergency services, and references. Some of these firms were already established water utility companies that have internal and/or commercial CSC's. A total of five firms were responsive to Brooke's inquiries that offered varying levels of service. Two of these firms were located in Arizona. One of the Arizona CSC's specialized in operational utility management only and did not offer commercial CSC services.^{xiii}

The other Arizona firm was the most responsive to Brooke's inquiry. The firm provides a cafeteria-type services menu and pricing plan that is tailored to client needs but does not offer end-to-end integration. Without substantial further investigation and research it is unclear what file exporting capability is available, and to what extent additional accounting staff requirements would be necessary, from this firm. Until Brooke has a thorough understanding of this capability it is not possible to determine the level of additional manual staff necessary to integrate the monthly CSC data with Brooke's financial reporting system.

Not surprisingly, in no case were any of these contract CSC's able to provide end-to-end integration of the CSM software similar to the features currently available to Brooke.

Brooke also contacted four Arizona water utility companies inquiring into their Pricing Value. Three of the four didn't respond with any meaningful reply. One additional water utility company indicated they could not release their costs as a matter of confidentiality and added, confirming Brooke's previously expressed concerns herein, that making an apples-to-apples comparison of their services to those of Brooke would very difficult if not impossible because of the differing nature of their offered services, number of locations, and third-party vendor contracts for some services.

The unavailability of end-to-end integration has varying ramifications. Two of the firms contacted could provide month end electronic files that would, in part, provide a partial financial reporting solution. In one of these cases it is unclear, without substantial further investigation and development, how much customized software programming would be required, what manual financial staff resources would be required, what costs would be involved, or how long the implementation would require. In such cases the total cost of the Pricing Value would remain largely unknown until a contract was negotiated.

Improvements to the Existing CSC

In order to address the perceived shortcomings of the existing CSC Brooke proposes to add an additional level of experienced call center supervision; hire a software training contractor that would provide initial basic instruction to all Custom Service Representatives ("CSR's") as to the proper use of the Customer Management System ("CMS"); provide ongoing bi-monthly training for each CSC employee; make software programming modifications that address reasonable customer concerns as described by this Plan; address each of the recommendations for improvement related to the CSC included in Finding of Fact #68 of the Decision; develop a website that would advise and inform customers of general operational information; maintain a current and updated Emergency Operations Plan ("EOP") at all times; research modifications to the existing voice message system to provide a waiting queue announcement and provide more user friendly information; develop a customer outreach committee of an appropriate size to meet with Brooke at regular intervals to provide input into how the customer service function can be improved; re-evaluate management policies that will provide increased flexibility for CSR's to make on-call customer account adjustments; make regular contact with customers for the purpose of including additional or updated email advisory addresses; integrate the CMS with currently available GPS locations of operational vehicles so as to expedite dispatch during emergency conditions; develop an adjunct to the existing after-hours emergency message system that allows for direct paging contact with operational employees regarding emergency conditions; and, develop improved telephone after-hours emergency contact system to better advise of water service interruptions and current operational conditions.

As shown by Attachment 2 the investment required to make substantive improvements in the CSC is estimated to be \$26,850. Accordingly, the cost per month per customer is estimated to be \$3.05^{xiv}. Brooke estimates that the improvement process could begin almost immediately and be completed within sixty to ninety days.

CSC Conclusion

Brooke believes that developing an internal CSC is not a viable, cost effective solution that can be readily developed in a short amount of time. Any investment in an internal CSC could be better spent in plant improvements. Likewise, Brooke believes contracting to a commercial CSC may appear to be a viable option except that the economics of added monthly cost of information technology support and

maintenance staff and accounting staff ultimately requires higher management fees that accrue to customers in higher rates. The extent of these increased rates is unknown.

Brooke believes **strongly** it can make improvements to the existing CSC without incurring substantial wasteful contract termination costs and provide customer service levels that are conducive to customers and satisfy regulators. In conjunction with the required monthly progress updating included in the Decision it should be a transparent process that achieves the desired result. Any adversarial relationship with customers can be improved.

SURVEY OF LINES

During the September 23, 2016 Commission Open Meeting the undersigned ask for clarification of the Tobin Amendment, item (c)^{xv}. As a result of this discussion Brooke understands that this portion of the Decision would be complied with by filing recordable water system piping maps in digital and/or paper form. Further, such maps are to be recorded with the La Paz County, AZ Recorder and with the Commission.

It should be noted that some of Brooke's water systems were installed by real estate developers as early as 1962. Naturally, Brooke has not verified the accuracy of the location of all portions of the water system infrastructure and, accordingly, will timely record the water system maps for Brooke in the current form. Similarly, water systems maps in their current form will be filed with the Commission.^{xvi}

BILLING SYSTEM

As presented in Brooke's Response to the Staff Report dated October 10, 2016, the Customer Service Center ("CSC") officially opened and "went live" on February 28, 2007. This operational status followed the nearly 1-1/2 years of research into various alternative site locations, facilities, and support. As part of that research numerous billings systems were considered. In consideration of billing systems various criteria were considered, including: number of existing installs, licensing fees, maintenance fees, support facilities, acquisition cost, training requirements, customization and related cost, ability to track customer records, record payments from various paper and electronic sources and locations, communication requirements, credit card payment compatibility, support of electronic field meter reading devices, and existing customer references^{xvii}. Most important to the

selection criteria, in addition to cost, was the compatibility with an existing, large, complex financial reporting system of the Company.

Such a billing system/software decision is usually the subject of a significant study and analysis and is very difficult to fairly consider from an apples-to-apples standpoint. The various alternatives were carefully considered by a Team of internal staff people from various disciplines. The proximity and fact that such system was required to be integrated with the existing reporting system was the largest deciding factor to be considered. The site location and billing system process was a lengthy and complex process^{xviii}.

It is important to note that a billing system is a simplified way of referring to computer software that must perform many more tasks and duties than simply billing. It has to support a communication system that allows interchange of processes, like issuance of service orders, while customers are on the phone. Investing in a small, simplified, standalone billing system that required redundant separate handling and posting of data was not an option.

Brooke is under contract with its CSC until March 1, 2022. The billing system, maintenance, and support costs and amortization are part of the obligation Brooke has with the CSC. The cost to purchase the remainder of the contract for the billing system is prohibitively expensive and, as structured, will likely exceed \$80,000 exclusive of further investments related to operating systems and hardware upon which it operates. The total cost of terminating the existing CSC and the replacement investment required cannot be more accurately negotiated within the time allotted for the Plan. The maintenance and support contract for the billing system has historically cost \$10,000 annually. User license fees from the software providers exceed \$3,000 annually. Cost and time requirements of custom software programming of the billing system to accommodate new installation and separate operating systems cannot be estimated within the time allotted for the Plan.

Brooke believes replacement of the existing billing system is not a practical decision and one that will be very costly, require massive conversion and installation. It is simply not a practical or economical decision to abandon the existing billing system in favor of a smaller, simpler system that addresses customers concern^{xix}. Such a billing system alternative is not likely to alleviate customer concerns. There are no mathematical or reporting errors with the current billing system. To date, no specific concerns or complaints have been received from any customers concerning the billing system. From that perspective a change

of billing systems to solve an unknown need is wasteful, time consuming, with offers no guarantee that any different result would occur.

Any billing system simply performs whatever tasks it has been programmed to perform. The problems cited in Commissioner Tobin's Amendment are **not the fault of the billing system.** There may be instructional programming that requires modification but the billing system currently in use is a manifestation of its current programming comprised of regulatory requirements, management policies, and training.^{xx}

As part of the Plan, Brooke proposes to contact its customers inquiring as to what practices and concerns they have. Brooke will solicit input from customers as to further explanations necessary to ensure a better understanding of the billing system requirements and/or make reasonable modifications to the billing process policies. This solicitation of customers will be completed not later than December 10, 2016 and allow customers sufficient, reasonable time to respond. Brooke will not reject any reasonable suggestion for improvement of the billing process and, where practical, make changes of improvement to the billing process while maintaining compliance with regulatory requirements.

PLANT IMPROVEMENTS

Brooke has previously submitted to Staff its 2016 Capital Expenditures Budget^{xxi} (the "Budget") pursuant to their request.^{xxii} As a result of the September 20, 2016 Staff Report Brooke has modified the Budget and added all applicable capital items suggested by Staff in the Decision under Finding of Fact #67, pages 17-18, except as noted herein. The capital improvement projects provided in the Budget have been prioritized and scheduled by fiscal quarter through 2021. It should be noted that Reference items #1, #5, #6, and #19 were completed in the first or second quarter of 2016^{xxiii}.

Brooke's Budget is frequently reviewed and modified for additions and changes in the requirements of the water systems. In some cases priorities of capital projects are periodically modified based on higher or changed need. Brooke is committed to maintain completion of the plant improvements as described by the Budget.

It should be noted that Staff's recommendation in Decision No. 75755 Finding of Fact #67, item (k), line 20, page 18 is in error. Backwash meters measuring outflow backwash water have been installed on ALL Brooke backwash lines for

many years.^{xxiv} Backwash meters were rebuilt during 2006-2007. Previously, Brooke has provided Staff with accurate estimates of 2015 water loss in all water systems measured to a precise level.^{xxv} This reporting of backwash water is the result of reading the existing backwash meters. Accordingly, this capital improvement item is not included on the 2016 Capital Expenditure Budget.^{xxvi}

WATER QUALITY

During the September 23, 2016 Open Meeting, Lakeside Water System ("LWS") customer Michelle Williams ("Williams") offered public comment. She indicated that her mobile home park, comprised of approximately ten connections, received unsatisfactory water service from Brooke. Williams described her water services as having an excessive caustic chlorine smell and causing staining in sinks and toilet bowls. Accordingly, Commission Tobin's Amendment to the Staff Report addressed this concern as item (f) in the Decision at Finding of Fact #71.

Brooke has contacted ADEQ to confirm that no Maximum Contaminant Levels ("MCL") chlorine violations of the Maximum Residual Disinfection Level ("MRDL") standards are present in the LWS or any other Brooke water system. Accordingly, Brooke provides Attachment 6 that are 2016 ADEQ monthly MRDL reports filed timely indicating a twelve month average of 1.11 mg/L as compared to an exceedance standard of 4.0 mg/L. The average of monthly averages for the previous twelve months is 1.18 for the LWS. This result is only 29.5% of the MCL.

Further, on October 18, 2016 at approximately 1400 hours Brooke took a chlorine residual water sample immediately adjacent to Williams' water service location and recorded a chlorine residual level of 0.87 mg/L.^{xxvii} The measurement at the Williams service location is LOWER than the MRDL level measured at the LWS plant and reported to ADEQ.

Brooke has no tests, samples, regulatory reports, or records of excessive chlorine residual levels that exist in the LWS, any Brooke water system, or the Williams service location.

This Plan includes Brooke's continuing commitment that compliance with MRDL standards be maintained at all times. There is no reason to be concerned that excessive chlorine levels exist, or will exist, that would be the source of offensive odors.

SERVICE LIST FOR DOCKETS NOS. W-03039A-16-0322 AND W-03510A-16-0322:

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-
- i Decision No. 75755, page 20, Finding of Fact 71.
- ii Variances is starting wages is dependent on market conditions, employee qualifications, experience, and marketplace candidate availability. A higher level of water operator certification can cost as much as 50% more than a beginning new employee.
- iii Available hours of productivity excludes vacation, sick days, holidays, and personal days.
- iv Date of water company acquisition by JW Water Holdings LLC. This period of time provides an “apples-for-apples” comparison of the same work staff in Brooke. See included chart “Brooke Aggregate Weekly OT Hours” as Attachment 1.
- v Inclusive of overtime hours during the week of August 22, 2016.
- vi The difference between the monthly average of overtime hours and a regular employee working 173.3 hours.
- vii The current CSC was established in February 2007.
- viii With few exceptions, third party vendor accounts payable are automatically received, processed, coded, reviewed, paid, and electronically forwarded to the respective parties.
- ix Extraordinary accounting entries such as journal entries and accruals require additional accounting staff attention.
- x It is important to Note that some contract CSC’s require inclusion or exclusion of some features.
- xi Inclusive of 179 customers in Circle City.
- xii No return on initial investment is included in this cost. It should be noted that the cost per customer per month of Brooke’s last contract CSC was \$9.90 in late 2006.

xiii To their credit this firm has re-contacted Brooke and expressed interest in growing their business in the direction of commercial CSC management.

xiv *Ibid*, xi above.

xv *Ibid*, i above, item (c)

xvi To the best of Brooke's knowledge the water system piping maps have been updated as changes have occurred.

xvii A legacy system previous used by Brooke ceased being available or supportable and caused numerous internal problems trying to find support.

xviii During its investigation Brooke learned that numerous foreign countries have major operations. Costa Rica is one of the leading call center and CSC data locations in the world. Hundreds of thousands of people are employed in Costa Rica call centers. Major domestic and foreign countries have located CSC's in Costa Rica such as Hewlett-Packard, Amazon, Western Union, PayPal, Google, and many others.

xix The Brooke billing system is one that is compatible with very large Microsoft-based systems and is in use by dozens of utility companies around the world. The billing system is well known to much larger water, electrical, telephone, and other utility companies in the United States.

xx It should be noted that the current form of customer billing statement was proposed, reviewed, and approved by the Commission's Consumer Services Division in approximately June 2009. Since that time no changes to the billing statement format have been made. There are no computational mistakes on the statements. All customer statements clearly show customer bill date, past due date, and disconnection date in advance.

xxi See Attachment 3.

xxii See Attachment 3.

xxiii Complete change of all systems filtration media was completed in early April 2016 in advance preparation for the high demand summer water season. The effect of the changed media was immediately felt as turbidity levels and backwash frequency were reduced.

xxiv See Attachment 4 for photograph of the LWS backwash meter.

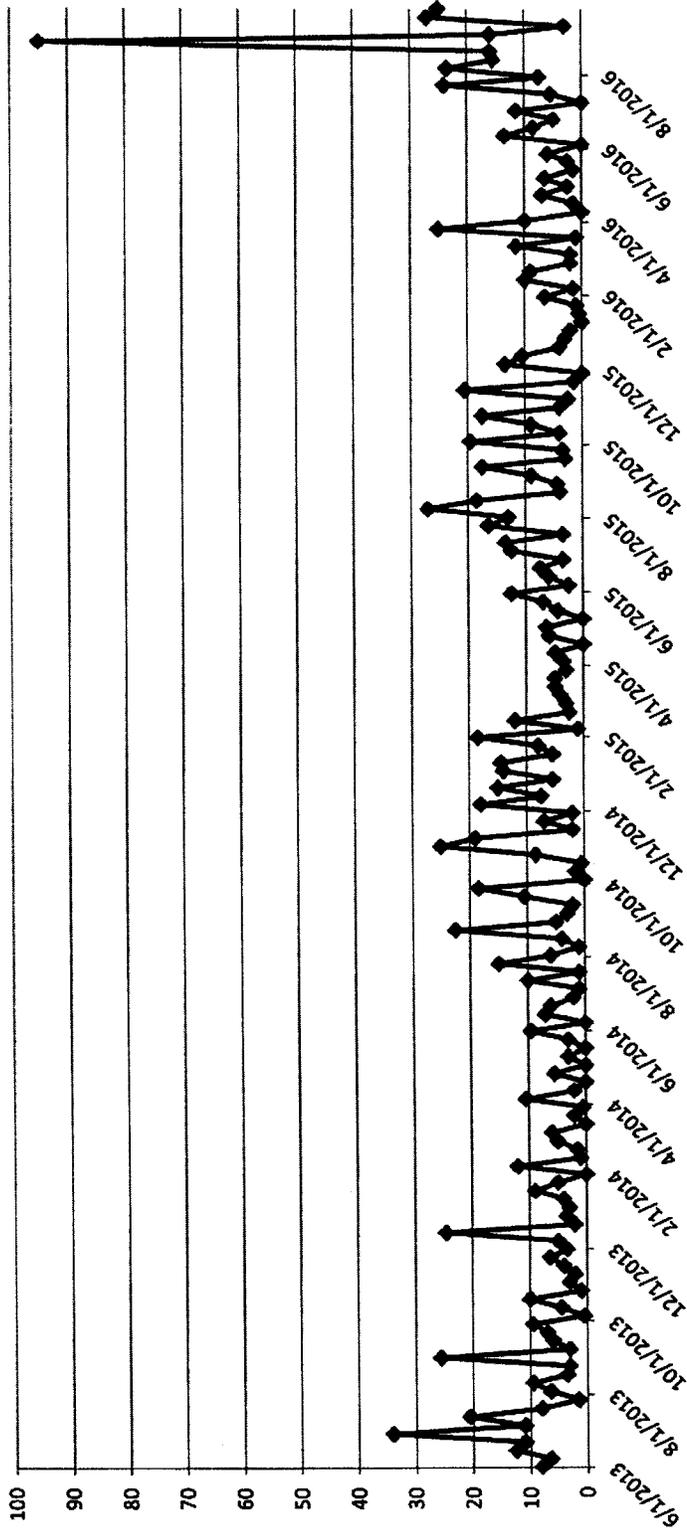
xxv See Attachment 5 for sources of estimated 2015 water loss.

xxvi See Attachment 6.

xxvii See Attachment 7. It should be noted that the Williams measured chlorine level was less than Brooke measured at the LWS plant used for the ADEQ monthly MRDL reports. Brooke made several direct attempts to contact Williams to permit an on-site water sample. None of Brooke's request calls to Williams were answered or returned.

Attachment 1

Brooke Aggregate Weekly OT Hours



Attachment 2

Brooke Water LLC

2016/2017 Customer Service Centers Budget

Description	Monthly Establish Internal CSC	Fixed Cost Establish Internal CSC	Contract CSC	Fixed Cost Contract CSC	Monthly Improvements Existing CSC	Fixed Cost Improvements Existing CSC
Office space	\$1,150					
Software (estimated)		\$80,000		\$80,000		
CSC contract termination (estimated)		\$25,000		\$25,000		
Tenant improvements (floor)		\$5,500				
Tenant improvements (fire and A/C)	\$150	\$3,000				
Tenant improvements (security)		\$2,200				
Hardware (5 stations, server, CAT5 cabling)	\$650	\$40,000				
Telephone broadband and TI		\$3,400				
Telephone and communications software		\$11,500				
Staff supervisor with burden	\$4,160	\$2,250			\$1,000	
Staff supervisor with burden	\$12,480	\$4,200				
Staff overtime	\$500				\$200	\$10,000
Software (maintenance)	\$833	\$10,000			\$833	\$3,500
Software (user fees for 5 stations)	\$292	\$3,500			\$292	\$4,000
Training (initial)		\$6,200				
Training (ongoing)	\$500				\$600	
Software (programming)		\$6,000				\$6,000
Voice mail message system		\$200				\$400
Emergency contact system	\$200	\$1,300				\$200
Credit card processing	\$200	\$2,500				
Website	\$285		\$480		\$360	
Bank fees	\$125		\$285		\$200	
Staff supplies					\$285	
Establishment service-set-up costs	\$2,200			\$2,800	\$125	
Management fees (accounting)						
Contract fees (variable)						
			\$2,200			
			\$10,914			
<i>Subtotal</i>	\$24,085	\$206,750	\$13,879	\$107,800	\$6,671	\$26,600
Contingency	\$1,500	\$31,013	\$250	\$2,000	\$300	\$250
<i>Total</i>	\$25,585	\$237,763	\$14,129	\$109,800	\$6,971	\$26,850
	2,288		2,288		2,288	
<i>Number of Customers</i>	\$11.18		\$6.18		\$3.05	
<i>Cost per customer/month</i>						

Attachment 3

Brooke Utilities, Inc
2016 Capital Expenditures Budget

Brooke Water L.L.C.

Ref. #	Water System	Priority	Expenditure Description	2016		2016		2016		2017	
				IQ	2Q	3Q	4Q	IQ	2Q		
1	All Systems	1	filtration media replacement	\$ 35,000	\$ 17,000	\$ 18,000	\$ -	\$ -	\$ -	\$ -	\$ -
2	Lakeside	1	inspect inside of storage tanks	\$ 19,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,000
3	Lakeside	1	Repair/replace/replace altitude valve	\$ 4,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,500	\$ -
4	Lakeside	1	Exterior tank refurbishment	\$ 13,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,000
5	Lakeside, Moonalya Keys	1	rebuild fillers	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	All Systems	1	SCADA system automation	\$ 4,000	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	All Systems	2	replace booster & intake pumps	\$ 12,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000	\$ -
8	Parker Dam, Marina Village	2	replace main line valves 1 Per. Q.	\$ 7,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,600
9	All Systems	3	replace 1 service truck	\$ 28,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28,000
10	All Systems	3	replace meters quarterly	\$ 33,300	\$ 1,850	\$ 1,850	\$ -	\$ -	\$ -	\$ 1,850	\$ 1,850
11	Holiday Harbour	3	replace portions of main on Rio Grande Vista	\$ 9,800	\$ -	\$ 2,100	\$ -	\$ -	\$ -	\$ 2,100	\$ -
12	Moonalya Keys	3	rebuild MV inaker (small) pump	\$ 3,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,400
13	Parker Dam	3	replace plan main	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000
14	Parker Dam	3	replace 1500 gal. pressure tank	\$ 41,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 41,000
15	Rio Lindo	3	replace meter reading cart	\$ 3,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,700
16	All Systems	4	replace meter reading cart	\$ 6,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,000
17	Holiday Harbour	4	Rebuild PRV (2)	\$ 24,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,500
18	Holiday Harbour, Moonalya Keys, Lakeside	4	repair interior tank coating	\$ 1,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,300
19	Lakeside	4	Rebuild PRV	\$ 2,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,200
20	Lakeside, Parker Dam	4	2" diaphragm pump with hoses	\$ 145,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 145,000
21	Parker Dam	4	new 100,000 gal storage tank	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000
22	Rio Lindo	4	20,000 gallon storage	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000
23	Rio Lindo	4	relocate pumps and electric	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000
24	Lakeside, Moonalya Keys, Parker Dam	5	backwash basin fencing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25	Other			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Other			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Other			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Other			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	Other			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total				\$ 446,900	\$ 32,850	\$ 21,950	\$ -	\$ -	\$ 11,450	\$ -	\$ 34,950
Annual Total				\$ 66,250							

Attachment 4

Bob Hardcastle

From: Dale Allred
Sent: Tuesday, October 18, 2016 2:26 PM
To: Bob Hardcastle
Subject: LKS
Attachments: IMG_0909.JPG; ATT00001.txt; IMG_0910.JPG; ATT00002.txt

Bob,

Here are photos of the 4" backwash meter at the Lakeside Treatment plant.



800000

3757927

Attachment 5

Brooke Water LLC

2015 Operational Water Use (estimated)

<u>Description</u>	<u>Gallons</u>	<u>Gallons</u>	<u>Difference</u>
BOR Colorado River Diversions	143,154,700		
Back wash water		11,213,660	
Main leaks		5,500,000	
Service line leaks		1,125,000	
Distribution system leaks (other)		1,500,000	
Customer Consumption		98,615,907	
Unaccounted for water (customers)		1,000,000	
Unaccounted for water (BWLLC)		1,000,000	
Media filtration repair/replacement		330,000	
Construction water		0	
Meter error loss		3,578,868	
Other		0	
<i>Total</i>	<u>143,154,700</u>	<u>123,863,435</u>	<u>19,291,266</u>

Attachment 6

Arizona Department of Environmental Quality
 Quarterly Report
 Maximum Residual Disinfection Level (MRDL)
 Chlorine/Chloramines--1012/1006
 (Distribution Sampling)

10/7/16
 Report/Date

151010
 System ID

Lakeside
 System Name

This report is for (check one) Qtr 1[] Qtr 2[] Qtr 3[] Qtr 4[] of Year 2016

RDL must be measured at the same points and time as the microbiological samples are collected.

A. Number of RDL samples collected during each of the past three months 2 2 2
 Last m 2 m ago 3 m ago

*B. Monthly average of all samples collected in each month for the last 12 months 1.11 0.90 1.09
 Last m 2 m ago 3 m ago

1.08 0.85 1.36 0.90 1.77 1.47 1.86 0.78 1.06
 4 m ago 5 m ago 6 m ago 7 m ago 8 m ago 9 m ago 10 m ago 11 m ago 12 m ago

During the first year of monitoring insert 'N/A' for months monitoring was not required. (i.e. first quarter report for 2004 will have only three results and nine 'N/A')

C. Annual average of monthly averages for the previous 12 months 1.18

When calculating the annual average use monthly averages for only the last twelve months. If the system has not completed a full year of monitoring, the annual average is calculated by adding the individual monthly averages, and dividing by the number of months sampled

D. Did the annual average in C exceed the MRDL of 4.0 mg/L? Yes _____ No

I hereby certify that the information provided in this report is accurate and correct to the best of my knowledge.

Authorizer Name: Dale E Allred II Signature: [Signature]

Arizona Department of Environmental Quality
 Water Quality Compliance Section 5415B-1
 1110 West Washington Street
 Phoenix, AZ 85007

For Questions Call: (602) 771-4624 or within AZ (800) 234-5677 ext. 771-4624

Arizona Department of Environmental Quality
Quarterly Report
Maximum Residual Disinfection Level (MRDL)
Chlorine/Chloramines--1012/1006
(Distribution Sampling)

10/7/16
Report Date

1/5/105/8
System ID

Holiday Harbour
System Name

This report is for (check one) Qtr 1[] Qtr 2[] Qtr 3[] Qtr 4[] of Year 2016

RDL must be measured at the same points and time as the microbiological samples are collected.

A. Number of RDL samples collected during each of the past three months 1 1 1
Last m 2 m ago 3 m ago

*B. Monthly average of all samples collected in each month for the last 12 months 1.13 0.78 1.03
Last m 2 m ago 3 m ago

1.27 1.32 1.34 1.56 1.32 1.76 1.43 0.56 0.88
4 m ago 5 m ago 6 m ago 7 m ago 8 m ago 9 m ago 10 m ago 11 m ago 12 m ago

During the first year of monitoring insert 'N/A' for months monitoring was not required. (i.e. first quarter report for 2004 will have only three results and nine 'N/A')

C. Annual average of monthly averages for the previous 12 months 1.19

When calculating the annual average use monthly averages for only the last twelve months. If the system has not completed a full year of monitoring, the annual average is calculated by adding the individual monthly averages, and dividing by the number of months sampled

D. Did the annual average in C exceed the MRDL of 4.0 mg/L? Yes _____ No

I hereby certify that the information provided in this report is accurate and correct to the best of my knowledge.

Authorizer Name: [Dale E Allred II] Signature: [D. E. Allred II]

Arizona Department of Environmental Quality
Water Quality Compliance Section 5415B-1
1110 West Washington Street
Phoenix, AZ 85007

For Questions Call: (602) 771-4624 or within AZ (800) 234-5677 ext. 771-4624

Arizona Department of Environmental Quality
 Quarterly Report
 Maximum Residual Disinfection Level (MRDL)
 Chlorine/Chloramines--1012/1006
 (Distribution Sampling)

[10/7/16]
 Report Date

[151-011]
 System ID

[Marina Village]
 System Name

This report is for (check one) Qtr 1[] Qtr 2[] Qtr 3[X] Qtr 4[] of Year [2016]

RDL must be measured at the same points and time as the microbiological samples are collected.

A. Number of RDL samples collected during each of the past three months 1 1 1
 Last m 2 m ago 3 m ago

*B. Monthly average of all samples collected in each month for the last 12 months 1.47 1.01 0.59
 Last m 2 m ago 3 m ago

1.51 1.35 1.13 1.07 1.72 1.36 0.67 1.94 1.08
 4 m ago 5 m ago 6 m ago 7 m ago 8 m ago 9 m ago 10 m ago 11 m ago 12 m ago

During the first year of monitoring insert 'N/A' for months monitoring was not required. (i.e. first quarter report for 2004 will have only three results and nine 'N/A')

C. Annual average of monthly averages for the previous 12 months 1.24

When calculating the annual average use monthly averages for only the last twelve months. If the system has not completed a full year of monitoring, the annual average is calculated by adding the individual monthly averages, and dividing by the number of months sampled

D. Did the annual average in C exceed the MRDL of 4.0 mg/L? Yes _____ No X

I hereby certify that the information provided in this report is accurate and correct to the best of my knowledge.

Authorizer Name: [Dale E Allred II] Signature: [Dale E Allred II]

Arizona Department of Environmental Quality
 Water Quality Compliance Section 5415B-1
 1110 West Washington Street
 Phoenix, AZ 85007

For Questions Call: (602) 771-4624 or within AZ (800) 234-5677 ext. 771-4624

Attachment 7

Bob Hardcastle

From: Dale Allred
Sent: Tuesday, October 18, 2016 2:13 PM
To: Bob Hardcastle
Subject: Chlorine residual
Attachments: IMG_0908.JPG; ATT00001.txt

Bob,

I took a CL2 reading from 31602 Storage Place (our records show this as STORAGE PL). This is the next service down stream from LMM 24B customer Michelle Williams. As you can see in the attached picture, our residual level is well below the max limit of 4.0mg/L

TRACOR

METER # 8V3

Pocket Colorimeter™

CHLORINE

mg/L Cl₂

LR

HR

