



W-01303A-08-0227

SW-01303A-08-0227

From: Jim Patterson [jampat@att.net]
Sent: Wednesday, March 18, 2009 6:35 PM
To: John LeSueur
Cc: Rich & Nancy Bohman
Subject: Tubac -- DOCKET NO. W-01303A-08-0227
Attachments: Baca Float-AAW Cost Comparison.xls; Comments to Commissioners 3-18-09.doc

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AZ CORP COMMISSION
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John,

It was good meeting you today at the ACC public comment session. I appreciate the advice you provided regarding formalizing my comments and supporting evidence. To that end, I have attached the Excel workbook, along with a copy of the comments.

We will call you at your office tomorrow when we get to Phoenix.

Best regards,

Jim Patterson
2nd Vice President
Santa Cruz Valley Citizens Council
Tubac Arizona

520-398-2511
jampat@att.net

Arizona Corporation Commission
DOCKETED
MAR 20 2009

DOCKETED BY [Signature]

Re: DOCKET NO. W-01303A-08-0227

Commissioners,

Thank you for making the trip, and welcome, to Tubac. We appreciate your recognition of the burden it would place on residents, small business people, people on fixed incomes, to travel to Phoenix to express themselves regarding potential rate increases by Arizona American Water Company.

We have been working as a community to understand the proposed rates. And we wish to acknowledge the cooperation of Arizona American in submitting two grant applications to fund the construction of the arsenic removal facility. We also have special appreciation for the role the Company is playing as the lead applicant seeking loan money from WIFA. We hope that one of these avenues will help mitigate the high cost to customers of a small water system.

Beyond this partnership, however, we have a duty to point out what we view as a flaw in the process leading to the Arsenic Cost Recovery Mechanism. As it stands now, the Company submits its estimates of the cost of the facility. That information is used to set the surcharges of the ACRM. Following construction of the facility, the Company submits invoices for the job, and adjustments are made for any differences. This is a little like two wolves and a sheep voting on what to have for dinner.

RUCO analysts and ACC staff focus on difficult-to-understand, for the layperson, issues of Weighted Average Cost of Capital, rate base components and depreciation schedules, and the Gross Revenue Conversion Factor. And we're glad they do. But the cost assumptions leading to construction appear to go unchallenged.

Please look at the spreadsheet we have handed out. Across the highway from Arizona American's wells is a system operated by the Baca Float Water Company. They have just installed arsenic treatment. There are notable similarities between the two systems – they both use Granular Iron Media as the treatment method. Baca Float can handle treatment for 518 connections. Ours is designed for 14 more connections. There are differences – our system needs to

treat for a higher concentration of arsenic. Our system needs a long transmission line between the two wells to return treated water. These differences are accounted for in the spreadsheet – much like a Realtor would adjust for differences in houses recently sold to estimate the sales price of a new listing.

With these adjustments, the Baca Float system cost about \$1.1 million, compared with the \$2.3 million cost estimate from Arizona American. Notable differences include, for example, Engineering expense at Baca Float of \$20,000, compared with \$245,000 at Arizona American – more than 12 times as much. And then there's the black hole titled "Internal Costs," which along with Allowance for Funds Used During Construction amounts to three-quarters of the entire cost of the Baca Float system.

Part of the problem with Arizona American's numbers seems that there was no competitive bidding. Adedge Technologies, a major competitor of the company that manufactured the system purchased by Arizona American, was never asked to submit a bid. In fact, Adedge is known as a low-cost provider; they construct skid-mounted treatment systems much like a mobile home is manufactured in a factory. 10 weeks from order to delivery – it's plopped on a pad, takes about three days to hook up and test. Adedge was asked in December by Arizona American's engineering firm if they were interested in our project. Unfortunately, Adedge discovered the treatment vessels had already been purchased and stored since '05, and declined to take on a project in mid-stream.

Thus, rate-payers are already on the hook for an expense incurred in 2005, without bids, from a high-cost provider.

On page 3 of the spreadsheet, we projected the cost of the arsenic treatment facility a second way – using Time & Materials estimates provided by the company. The cost again is about \$1.1 million, only about \$25,000 different than the cost derived from the Baca Float system.

Commissioners, even if I've underestimated the costs by 20%, Arizona American's projection is a million dollars high.

So we ask that the Commission and staff take a skeptical view of cost estimates provided by Arizona American *before* embedding those costs in the Arsenic Cost Recovery Mechanism. We ask that the Company solicit and provide the Commission bids from Adedge Technologies and others. If an Adedge system or another bid turns out to be lower than the expense incurred for the system purchased in 2005, then we ask that that expense be disallowed. And we further ask that Allowance for Construction Funding and other Internal Costs be viewed with special skepticism.

We hope that this cost analysis proves useful in the decision-making process.

Thank you...

James S. Patterson  
2<sup>nd</sup> Vice President  
Santa Cruz Valley Citizens Council

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# Tubac, Arizona

## Arsenic Treatment Cost Comparison

|                                                   | (Actual Costs)<br>Baca Float Water Co. | (2009 Estimated Costs) <sup>1</sup><br>Arizona American Water | (2005 Estimated Costs) <sup>2</sup><br>Arizona American Water |
|---------------------------------------------------|----------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| <b>System Characteristics</b>                     |                                        |                                                               |                                                               |
| # of wells                                        | 3                                      |                                                               |                                                               |
| # of Connections (Current)                        | 394                                    | 532                                                           |                                                               |
| # of Connections (Capable)                        | 518                                    | 532                                                           |                                                               |
| Arsenic Level                                     | 15-20                                  | 17-41                                                         |                                                               |
| pH                                                | 6.9                                    | 7.7                                                           |                                                               |
| Alkalinity                                        | 230                                    | 98-108                                                        |                                                               |
| Design Flow (gpm)                                 | 280                                    | 330                                                           |                                                               |
| Arsenic Treatment Method                          | Granular Iron Media                    | Granular Iron Media                                           |                                                               |
| <b>Expense Categories</b>                         |                                        |                                                               |                                                               |
| Engineering                                       | 20,000                                 | 245,000                                                       | 398,158                                                       |
| Site Prep                                         | included                               |                                                               | 56,900                                                        |
| Concrete and Building                             | 30,000                                 |                                                               | 497,000                                                       |
| Other Building Expense                            |                                        |                                                               | 151,000                                                       |
| Treatment Vessels                                 | 200,000                                | 965,000                                                       | 188,000                                                       |
| Instrumentation                                   | included                               | included                                                      | 35,000                                                        |
| Other Mechanical/Electrical                       |                                        |                                                               | 535,000                                                       |
| Other Equipment                                   |                                        |                                                               | 345,000                                                       |
| Labor/installation                                | 25,000                                 | included                                                      | included                                                      |
| Media                                             | 18,000                                 | included                                                      |                                                               |
| Generator                                         | 140,000                                |                                                               |                                                               |
| Wiring                                            | included                               |                                                               |                                                               |
| Pump                                              | n/a                                    |                                                               |                                                               |
| Continencies                                      | n/a                                    | 300,000                                                       | 180,790                                                       |
| Backwash Tank                                     | 5,000                                  | not included                                                  |                                                               |
| 8" Transmission Line <sup>(4)</sup>               | n/a                                    | 465,000                                                       | n/a                                                           |
| <b>Total</b>                                      | <b>438,000</b>                         | <b>1,975,000</b>                                              | <b>2,386,848</b>                                              |
| AFUDC, other AZ-AM Internal                       | n/a                                    | 326,000                                                       | 126,553                                                       |
| <b>Adjustments for Comparison:</b> <sup>(3)</sup> |                                        |                                                               |                                                               |
| 8" Transmission Line <sup>(4)</sup>               | 465,000                                |                                                               |                                                               |
| System Differences <sup>(5)</sup>                 | 200,000                                |                                                               |                                                               |
| Backwash Tank                                     | (5,000)                                |                                                               |                                                               |
| <b>Total Comparable Cost</b>                      | <b>1,098,000</b>                       | <b>2,301,000</b>                                              | <b>2,513,401</b>                                              |

Notes:

- (1) Estimated costs provided by AAW in 2009 were not broken down beyond the five categories shown
- (2) Estimated costs provided by AAW in 2005 are from filings with the Arizona Corporation Commission. Included storage, office costs.
- (3) Adjustments are made to provide a comparable basis for comparing system costs
- (4) 8" Transmission line is necessary to return treated water from AAW Well 5 to Well 4. Adjustment made to provide comparable cost analysis
- (5) System Differences -- an adjustment to allow for potential or real differences in design flow, arsenic levels, etc. between the two systems

Tubac, Arizona  
 Arsenic Treatment Facility  
 Estimated Cost Based on Time & Materials

| Expense Category                     | Amount <sup>(1)</sup> | Unit Cost <sup>(2)</sup> | Total            |
|--------------------------------------|-----------------------|--------------------------|------------------|
| Manhours                             | 8,467                 | \$ 60                    | \$ 508,020       |
| Concrete (yards <sup>3</sup> )       | 7                     | 90                       | 623              |
| Pipe line (feet)                     | 4,350                 | 2                        | 8,700            |
| Wiring (feet)                        | 1,000                 | 1                        | 1,000            |
| Generator                            | 1                     | 100,000                  | 100,000          |
| Pump                                 | 1                     | 10,000                   | 10,000           |
| Instrumentation <sup>(3)</sup>       | 1                     |                          |                  |
| Treatment System <sup>(4)</sup>      | 1                     | 400,000                  | 400,000          |
| Contractor's Overhead <sup>(5)</sup> | 15%                   |                          | 94,252           |
| <b>Total:</b>                        |                       |                          | <b>1,122,595</b> |

- (1) Estimates of Time and Materials necessary for construction provided by AAW
- (2) Estimates of costs derived from various vendors and best attempts to approximate costs
- (3) Included in Adedge system
- (4) Approximate cost of Adedge Technologies package system, not itemized by AAW
- (5) Allowance for overhead, not itemized in Time & Materials estimate provided by AAW