

ORIGINAL



0000057746

50

Mr. Brian Bozzo
Compliance Manager
Arizona Corporation Commission – Utilities Division
1200 West Washington Street
Phoenix, AZ 85007

WS-01303A-02-0867
WS-01303A-02-0868
WS-01303A-02-0869
WS-01303A-02-0870
W-01303A-02-0908

August 10, 2006

RE: Decision No. 67093 (Docket No. WS-01303A-02-0867) Compliance

Brian,

Page 48, lines 6 through 17 of Decision No. 67093, dated June 30, 2004 ordered Arizona-American Water Company to submit water loss reports to the Director of the Utilities Division within 30 days of the end of each six-month period for *one year* after the date of the decision (see Exhibit 1). On February 3, 2005 the Company filed its first compliance report in docket no. 02-0867 (see Exhibit 2). On January 13, 2006 the Company filed its second, and final, compliance report in the form of the pre-filed testimony of Brian Biesemeyer in docket no. 06-0014 (Mohave rate case), thus satisfying the aforementioned compliance requirement (see Exhibit 3). Please accept this filing as resolving any outstanding compliance issues regarding this particular issue. If you have any questions please contact Joel Reiker at 623.445.2490.

Sincerely,


Tom Broderick
Manager, Rates 

cc. Craig Marks, Esq. – AWW
Joel Reiker – AWW

RECEIVED
2006 AUG 10 P 4: 10
AZ CORP COMMISSION
DOCUMENT CONTROL

Arizona Corporation Commission
DOCKETED
AUG 10 2006

DOCKETED BY 



EXHIBIT 1

1 **XI. OTHER ISSUES**

2 **A. Depreciation Rates**

3 Staff recommends in its testimony that the Company continue to use its current depreciation
4 rates. The Company did not object. This recommendation is reasonable and we will adopt it.

5 **B. Water Loss Reports and Plans**

6 Staff notes in its testimony that the Havasu, Lake Mohave Highlands, Desert Foothills, and
7 Mohave-Main water systems show non-account water losses of greater than 10 percent. Staff
8 recommends that effective upon the date of this Decision, the Company be required to monitor these
9 over-limit systems and submit reports to the Director of the Utilities Division within 30 days after the
10 end of each six-month period for one year, indicating the quantity of water pumped, gallons sold and
11 water loss percentage for each month during that six-month period. Staff recommends that if water
12 loss cannot be reduced to less than 10 percent, the Company be required to submit to the Director of
13 the Utilities Division, within 18 months of this Decision, a plan that outlines the procedures, steps
14 and timeframes to achieve acceptable levels of water loss. The Company did not object to this Staff
15 recommendation. It is reasonable and we will adopt it.

16 **C. Curtailment Plan Tariffs**

17 Staff's testimony recommends that the Company be required to submit, within 90 days of this
18 Decision, Curtailment Plan Tariffs conforming to the sample tariff posted on the Commission's
19 website to the Director of the Utilities Division for review and certification for all the systems in its
20 Mohave Water District, and for its Tubac, Havasu, Sun City, Sun City West, Agua Fria, and Anthem
21 Water Districts. This recommendation is reasonable and will be adopted.

22 * * * * *

23 Having considered the entire record herein and being fully advised in the premises, the
24 Commission finds, concludes, and orders that:

EXHIBIT 2

ORIGINAL

OPEN MEETING AGENDA ITEM

Mr. Ernest Johnson
Utilities Director
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

Operations

Name Brian K. Biesemeyer
Phone 623-815-3125
Fax 623-815-3141
E-Mail bbieseme@amwater.com

February 2, 2005

WS-01303A-02-0867
WS-01303A-02-0868
WS-01303A-02-0869
WS-01303A-02-0870
W-01303A-02-0908
W-01303A-01-0983

RE: Unaccounted for Water – Arizona American Water, 2004
(Docket No.W-01303A-02-0869)

Dear Mr. Johnson:

In compliance with Arizona American Water's last Rate Order (Decision No. 67093), the attached spreadsheet documents unaccounted for water in four separate public water systems: Havasu Water, Lake Mohave Highlands, Desert Foothills, and Mohave–Main. In general, when compared to 2003, combined unaccounted for water in these systems trended down in 2004. Unaccounted for water for all four systems was over 14.9% in 2003, and now is slightly less at 12.75%. While the totals for the last six months of data show an even more dramatic decline, it is difficult to determine presently if this is more than a seasonal effect.

Arizona American Water will continue efforts in reducing unaccounted for water during 2005 by doubling expenditures on an accelerated meter replacement program, timelier and more accurate reporting of construction water consumption, and increased diligence in tracking unaccounted for water throughout the year. Arizona American Water remains optimistic that through these efforts, lost water will continue to decline for the systems listed above.

If you have any additional questions about unaccounted for water, please give me a call at (623) 815-3125.

Sincerely,

Brian K. Biesemeyer
Arizona Network General Manager

Enc. Arizona Corporation Commission
DOCKETED
FEB 03 2005

DOCKETED BY

AZ CORP COMMISSION
DOCUMENT CONTROL

2005 FEB - 3 P 1:57

RECEIVED

Arizona American Water
15626 N. Del Webb
Boulevard
Sun City, Arizona 85351
USA
T +1 623 815-3125
F +1 623 815 3141
I www.amwater.com



**Arizona American Water
Report on Unaccounted for Water
Mohave County**

Note: Large monthly swings in unaccounted for water are due to differences in billing and accounting periods.

Havasu Water 2004 UNACCOUNTED WATER (KGALS)		PWS # 08-015		Rts. 2201-2206			
	July 2004	August 2004	September 2004	October 2004	November 2004	December 2004	LAST SIX MONTHS - 2004 UNACCOUNTED WATER
Production	20,235	33,397	34,423	20,851	15,299	8,161	132,366
Consumption	15,811	21,801	24,744	18,671	17,480	11,289	109,886
Unaccounted	4,324	11,596	9,679	2,180	-2,181	-3,128	22,480
Percent Unaccounted	21.37%	34.72%	28.12%	10.46%	-14.13%	-38.45%	16.98%

Mohave Main 2004 UNACCOUNTED WATER (KGALS)		PWS # 06-032		Rts. 0001			
	July 2004	August 2004	September 2004	October 2004	November 2004	December 2004	LAST SIX MONTHS - 2004 UNACCOUNTED WATER
Production	202,603	181,554	247,566	178,884	136,906	91,268	1,033,801
Consumption	179,029	294,075	98,332	186,733	126,686	89,000	972,855
Unaccounted	23,574	-112,521	144,234	-7,849	11,220	2,268	60,946
Percent Unaccounted	11.64%	-61.98%	58.27%	-4.39%	8.19%	2.48%	5.89%

La Mohave Highline 2004 UNACCOUNTED WATER (KGALS)		PWS # 08-062		Rts. 0001			
	July 2004	August 2004	September 2004	October 2004	November 2004	December 2004	LAST SIX MONTHS - 2004 UNACCOUNTED WATER
Production	2,566	2,724	3,278	2,351	1,847	1,111	13,877
Consumption	2,032	2,402	2,237	2,221	1,924	1,429	12,245
Unaccounted	534	322	1,041	130	-77	-318	1,632
Percent Unaccounted	20.81%	11.82%	31.76%	5.53%	-4.17%	-28.62%	11.76%

Desert Foothills 2004 UNACCOUNTED WATER (KGALS)		PWS # 08-137		Rts. 1131-1136			
	July 2004	August 2004	September 2004	October 2004	November 2004	December 2004	LAST SIX MONTHS - 2004 UNACCOUNTED WATER
Production	11,973	12,282	13,995	8,935	12,524	5,474	65,183
Consumption	1,291	11,462	25,900	991	9,358	7,249	56,251
Unaccounted	10,682	820	-11,905	7,944	3,166	-1,775	8,932
Percent Unaccounted	89.22%	6.68%	-85.07%	88.91%	25.28%	-32.43%	13.70%

UTAH STATE WATER DIVISION - 2004		MOHAVE		LMH		DFE		UNACCOUNTED WATER	
	HAVASU 2004	MOHAVE 2004	LMH 2004	DFE 2004	UNACCOUNTED WATER				
Production	255,558	2,063,009	26,272	117,609	2,467,448				
Consumption	194,968	1,836,935	20,889	99,982	2,152,772				
Unaccounted	60,592	231,074	5,383	17,627	314,676				
Percent Unaccounted	23.71%	11.17%	20.49%	14.99%	12.75%				

EXHIBIT 3

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

JEFF HATCH-MILLER, Chairman
WILLIAM A. MUNDELL
MARC SPITZER
MIKE GLEASON
KRISTIN K. MAYES

IN THE MATTER OF THE APPLICATION OF
ARIZONA-AMERICAN WATER COMPANY,
AN ARIZONA CORPORATION, FOR A
DETERMINATION OF THE CURRENT FAIR
VALUE OF ITS UTILITY PLANT AND
PROPERTY AND FOR INCREASES IN ITS
RATES AND CHARGES BASED THEREON
FOR UTILITY SERVICE BY ITS MOHAVE
WATER AND WASTEWATER DISTRICTS

DOCKET NO. W-01303A-06-0014

**DIRECT TESTIMONY
OF
BRIAN K. BIESEMEYER
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
JANUARY 13, 2006**

**DIRECT TESTIMONY
OF
BRIAN K. BIESEMAYER
ON BEHALF OF
ARIZONA-AMERICAN WATER COMPANY
JANUARY 13, 2006**

TABLE OF CONTENTS

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	EXECUTIVE SUMMARY iii
12	I. INTRODUCTION AND QUALIFICATIONS 1
13	II. PURPOSE OF TESTIMONY, SUMMARY AND CONCLUSIONS 2
14	III. UNACCOUNTED FOR WATER..... 3
15	IV. LEAK DETECTION & METER REPLACEMENT PROGRAMS 6
16	V. STAFFING CHANGES 8
17	

EXECUTIVE SUMMARY

Mr. Brian K. Biesemeyer testifies that:

Mohave Water is comprised of four separate areas. Three areas are in Bullhead City and the fourth Camp Mohave is outside the city and is entirely mobile homes. Desert Foothills is entirely non-mobile homes and Lake Mohave Highlands and Mohave-Main have significant mobile homes as those are older areas of the city. All water is provided from wells and we have a single operations center. The terrain of this service territory is varied, rocky and desert and thus maintaining the proper pressure in the many pressure zones is the primary operational challenge.

Arizona-American Water Company has been filing reports on Unaccounted-for Water in accordance with Commission Decision No. 67093. The reports show the Company's success in reducing unaccounted-for water in the overall Mohave District. With continued and increased focus in the Desert Foothills sub-district, the Company is optimistic it will be able to reduce the unaccounted for water by concentrating on replacing or rebuilding hydrant meters for construction use in addition to scheduled meter replacement.

The Company has accelerated the meter-replacement program by replacing meters after 10 years instead of 15 years or once metered over 1 million gallons.

The Company has also hired an outside contractor to perform comprehensive and detailed leak detection surveys in the older portions of the district.

The Company has added one additional position, a Plant Operator, as a result of test year growth.

The Company will be discussing Fire Flow issues with Bullhead City this year as the City has adopted the National Fire Code.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TELEPHONE**
3 **NUMBER.**

4 A. Brian K. Biesemeyer, 15626 N. Del Webb Blvd, Sun City, AZ, 623-815-3125.

6 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7 A. I am employed by Arizona-American Water Company (“Arizona-American” or the
8 “Company”) and I am the Network General Manager.

10 **Q. WHAT ARE YOUR RESPONSIBILITIES AS THE NETWORK GENERAL**
11 **MANAGER?**

12 A. I am responsible for customer service, water distribution, and wastewater collection
13 operations statewide serving over 131,000 customers.

15 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

16 A. I received a Masters of Science in Civil Engineering, a Masters of Science in Mineral
17 Economics and a Bachelors of Science in Geological Engineering all from the University
18 of Arizona in 1994, 1984, and 1982, respectively.

20 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.**

21 A. I am a Registered Professional Engineer with a Proficiency in Environmental
22 Engineering. I am also a Grade IV Arizona Department of Environmental Quality
23 (ADEQ) Certified Operator in Water Treatment, Water Distribution, Wastewater
24 Treatment, and Wastewater Collection. I have worked in the water industry for over
25 twelve years in research, government, and the private sector. Prior to my current job, I

1 was the Operations Manager for Arizona-American's Central Operations which included
2 all operations in Maricopa and Santa Cruz County.

3
4 **Q. HAVE YOU HAD ANY OTHER RELEVANT PROFESSIONAL EXPERIENCES?**

5 A. I am a member of ADEQ's Operator Certification Committee with the responsibility of
6 identifying operator compliance issues and requirements impacting operators and
7 developing and recommending solutions to support ADEQ's operator certification
8 program.

9
10 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

11 A. Yes. I have sponsored testimony in the Company's Paradise Valley rate case (Docket
12 No. WS-01303A-05-0405) and I testified in the recent Water and Sewer Line Protection
13 proceeding (Docket No. WS-01303A-05-0280).

14
15 **II. PURPOSE OF TESTIMONY, SUMMARY AND CONCLUSIONS**

16 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

17 A. My summary and conclusions are contained in my Executive Summary. The scope of
18 my testimony is:

- 19 1. Describing our efforts to reduce unaccounted-for water.
- 20 2. Describing our leak detection and meter replacement programs.
- 21 3. Describing our staffing changes since the end of the Test Year and any other
22 operations issue relevant to the case.

23
24 **Q. PLEASE BRIEFLY DESCRIBE WATER AND WASTEWATER OPERATIONS
25 IN THE COMPANY'S MOHAVE DISTRICT.**

26 A. Mohave Water is comprised of four separate areas. Three areas are in Bullhead City and

1 the fourth, Camp Mohave, is outside the city and is entirely mobile homes. Desert
2 Foothills is entirely site-built homes, while Lake Mohave Highlands and Mohave-Main
3 have large numbers of mobile homes, as these are older areas of the city. All water is
4 provided from wells and we have a single operations center. The terrain of this service
5 territory is varied, rocky and desert; thus, maintaining proper pressure in the many
6 pressure zones is the primary operational challenge.

7
8 Nearly all of Mohave Wastewater's customers are served drinking water by Bermuda
9 Water Company, so there is almost no overlap of the Mohave Water and Wastewater
10 customer bases.

11
12 **III. UNACCOUNTED-FOR WATER**

13 **Q. WHAT IS UNACCOUNTED-FOR WATER?**

14 **A.** Unaccounted-for water is water that is not tracked or accounted for as billed water or
15 non-revenue water. Billed water is that water consumption that we bill customers for,
16 typically metered. Non-revenue water is water that is used, but is not billed, such as
17 water used during a fire, water used at company facilities, and water lost during main
18 breaks. Unaccounted-for water is typically water that is lost or stolen. Water loss
19 occurs in systems due to leaks (both small and large) and under-metering (old or
20 malfunctioning meters). Theft of water in Mohave has typically occurred in our new
21 development areas with developers using water through fire hydrants or blow-offs
22 without Company approval or knowledge.

23
24 **Q. WHY IS IT A CONCERN?**

25 **A.** Unaccounted for water is largely a concern for conservation of water in our desert
26 environment, but it is also a concern for efficiency of operations and accuracy and

1 fairness of customer billings.

2

3 **Q. WHAT IS THE LEVEL OF UNACCOUNTED-FOR WATER IN THE ENTIRE**
4 **MOHAVE WATER DISTRICT?**

5 A. For the most recent twelve months ended December 2005, unaccounted-for water loss in
6 the Mohave District as a whole was 11.2%.

7

8 **Q. WHAT ARE THE SPECIFIC CAUSES OF UNACCOUNTED-FOR WATER IN**
9 **MOHAVE?**

10 A. The typical reasons for unaccounted for water are under reporting of water use by old
11 meters and water loss due to leaks and theft. Thefts typically occur when developers or
12 their sub-contractors deliberately underestimate construction water usage or take water
13 from non-metered hydrants. Two other factors contribute to unaccounted-for water in the
14 Mohave Water District. Customer density per pipe mile is low, especially compared to a
15 more urban system. This means that more pipe, interconnections, and pumps are required
16 to serve relatively fewer customers, and line-losses per customer will consequently be
17 higher. Finally, the Mohave Water District's rolling topography results in more areas of
18 high pressure, as water that is pumped uphill, returns downhill. Higher line pressure
19 causes greater line losses.

20

21 **Q. COMMISSION DECISION NO. 67093 REQUIRES THE COMPANY TO FILE A**
22 **SERIES OF REPORTS DOCUMENTING TRENDS IN UNACCOUNTED-FOR**
23 **WATER, PARTICULARLY IN THE LAKE MOHAVE HIGHLANDS AND**
24 **DESERT FOOTHILLS SECTIONS OF THE MOHAVE DISTRICT. PLEASE**
25 **SUMMARIZE THE RESULTS OF THOSE REPORTS.**

26 A. The Company's February 2, 2005, filing indicated percentages of 11.17% for Mohave

1 Main, 20.49% for Lake Mohave Highlands, and 14.99% for Desert Foothills for the
2 twelve months ended December 2004. The Company's July 20, 2005, filing provided
3 only six months-ending data which is not indicative of trends as it is impacted by
4 seasonal variations. The most recent twelve months ended December 2005 data for these
5 communities is 10.0% for Mohave Main, 4.2% for Lake Mohave Highlands and 22.1%
6 for Desert Foothills.

7
8 **Q. THE UNACCOUNTED FOR WATER IN DESERT FOOTHILLS STILL**
9 **EXCEEDS 10%. WHAT IS THE COMPANY DOING TO REDUCE THIS**
10 **FIGURE?**

11 A. The Company has had significant success in reducing unaccounted water in the overall
12 Mohave District and the sub-district area of Mohave Highlands through the end of 2005.
13 The Company has used a similar approach in the Sun Cities to effectively reduce and
14 keep lost water under 10% and I am optimistic we will be successful in Desert Foothills.
15 While the most recent results in the Desert Foothills sub-district area have been
16 disappointing, with continued and increased focus, the unaccounted water in Desert
17 Foothills can also be reduced. The Desert Foothills Water System is relatively new and
18 the unaccounted water in this system is most likely due to under reporting by hydrant
19 meters and developer/subcontractor theft. In 2006, the Company will concentrate on
20 replacing or rebuilding hydrant meters for construction use in addition to the scheduled
21 meter replacement program of 800 meters (throughout the Mohave water system).

22
23 To help address theft by developers, constructors, and customers, the company has
24 implemented an employee incentive program, rewarding employees with a potential \$25
25 bonus for reporting water theft. The incentive is designed to encourage prompt and
26 accurate reporting (paper audit trail) of theft or suspicious acts observed in the field.

1 The Company has also implemented tighter reporting controls for water lost due to main
2 breaks and for unreported water consumption used for construction purposes. Better
3 reporting of main breaks results in more accurate accounting for water use and helps us
4 better target where we should put our emphasis. In the past, field service representatives
5 have not always completed the forms containing an estimate of the amount of water lost
6 following a main break.

7
8 The Company has also hired an outside contractor, Hughes Supply, Inc., to perform
9 comprehensive and detailed leak detection surveys in the older portions of the Mohave
10 and Lake Mohave highlands Systems. While these surveys will not help the newer
11 Desert Foothills System, they will assist the Company in maintaining unaccounted water
12 below 10% for the entire Mohave Water District.

13
14 **IV. LEAK DETECTION & METER REPLACEMENT PROGRAMS**

15 **Q. CAN YOU BE MORE SPECIFIC CONCERNING HOW THE COMPANY'S**
16 **METER REPLACEMENT PROGRAM IS BEING IMPLEMENTED?**

17 **A.** In the Mohave District, the Company has implemented a program to replace all meters
18 when they are 10 years or more older, or have metered over 1 million gallons.
19 Previously, the Company had implemented meter replacement after 15 years, however
20 due to the high unaccounted for water in the Mohave District, this time interval has been
21 shortened to 10 years. Additionally, we also instituted a flow limit of 1 million gallons to
22 replace meters that, while relatively new, have seen substantial flow and are therefore
23 more likely to be in error. In 2005, we replaced 1176 meters (1144 x 5/8 inch, 18 x 1
24 inch, 14 x 2 inch) at a cost of \$43,286. Most of these meters (773) were replaced using
25 the criteria mentioned above. The remainder (403) were replaced due to a noticed error
26 (i.e., stuck or inoperable meter). In 2006, the Company plans to continue with systematic

1 replacement of 800 meters with an emphasis on many of the larger (2 inch and above)
2 meters including hydrant meters at a planned cost of \$50,000.
3

4 **Q. PLEASE PROVIDE MORE SPECIFICS ABOUT THE COMPANY'S LEAK**
5 **DETECTION PROGRAM?**

6 A. The Company has contracted with the Utility Services Group of Hughes Supply to
7 perform leak detection surveys on older sections of the Lake Mohave Highlands and the
8 overall Mohave Water district starting in January 2006. Hughes Supply offers
9 comprehensive leak-detection surveys using state of the art leak-locating equipment.
10 Hughes Supply has performed previous work for both the Company and for many
11 Arizona municipal water providers. The work to be performed includes detailed surveys
12 of over nine miles of main in the Mohave System and three miles of main in the Lake
13 Mohave Highlands. Hughes Supply will furnish detailed reports of the surveys with
14 estimated water loss from leaks identified. The anticipated cost for this initial effort is
15 up to \$8,000 in O&M cost outside of the test year.
16

17 **Q. IS THE COST TO REDUCE UNACCOUNTED FOR WATER WORTH THE**
18 **BENEFIT?**

19 A. The Company believes the Commission's clear instruction was to reduce water loss to
20 10% or less and the Company is incurring costs to address this issue. It is difficult to
21 under-quantify the value of conservation in the desert. I have highlighted the costs of
22 these water-loss reduction programs and indicated which are capital versus O&M as well
23 as the benefits achieved to date. We are replacing meters after 10 years, yet our current
24 depreciation rate for meters is 15 years. Since we did not perform a depreciation study in
25 this rate case, we have not sought to change the meter depreciation rate.
26

1 I look forward to receiving an indication from the Commission as to whether this effort is
2 worth the cost insofar as the net benefits and costs are ultimately borne by our customers.

3
4 **V. STAFFING CHANGES**

5 **Q. WHAT STAFFING CHANGES HAVE OCCURRED IN MOHAVE WATER**
6 **DISTRICT SINCE THE TEST YEAR?**

7 **A.** In July 2005 we added one additional position, Plant Operator, as a result of prior growth
8 in the system. The expense for this position is included in adjusted test year expense as
9 are revenues for customer growth through the end of the test year.

10
11 **Q. ARE THERE ANY WATER QUALITY CONCERNS WITHIN ANY AREAS OF**
12 **THE MOHAVE DISTRICT?**

13 **A.** Strictly on a compliance basis, no; we meet all ADEQ and EPA primary water quality
14 standards. However, we do periodically receive customer complaints about taste, odor,
15 and hardness. The Camp Mohave system in particular has very high levels of
16 manganese, sulfate, and chloride, which leads to water that at times has a brown tint with
17 poor taste and odor qualities. Manganese, sulfate, and chloride are secondary
18 contaminants and as such, do not have enforced Maximum Contaminant Levels or
19 MCL's.

20
21 **Q. WHAT ARE THE MANGANESE, SULFATE, AND CHLORIDE LEVELS IN**
22 **THE CAMP MOHAVE SYSTEM?**

23 **A.** In 2005, the sampled levels of manganese, sulfate, and chloride were:

24 Manganese: 0.125 mg/l

25 Sulfate: 1182 mg/l

26 Chloride: 377 mg/l

1 The Secondary (non-enforceable) Drinking Water Standard for these contaminants is:

2 Manganese: 0.05 mg/l

3 Sulfate: 250 mg/l

4 Chloride: 250 mg/l

5
6 The Company plans to make an additional connection to Bermuda Water for purposes of
7 purchasing and blending water. However, we expect only slight improvement in the
8 levels of these contaminants.

9
10 **Q. FIRE FLOW HAS BEEN AN ISSUE IN SEVERAL OTHER COMMUNITITES**
11 **SERVED BY ARIZONA-AMERICAN. HAS IT BECOME AN ISSUE IN THE**
12 **MOHAVE DISTRICT?**

13 **A.** In November 2005, the Bullhead City Mayor and the Bullhead City Fire Chief called for
14 a meeting with Arizona American Water to discuss this issue. I was unable to attend,
15 however the Mayor and Fire Chief voiced their concern for adequate fire flow to our
16 local Operations Superintendent. The City recently adopted the 2003 International Fire
17 Code and would like to see a minimum of 1000 gallons-per-minute flow throughout
18 Bullhead City. Currently our system cannot meet this standard in many locations. I am
19 working to schedule a meeting in early 2006 to continue the discussion on the issue.

20
21 **Q. IF BULLHEAD CITY CONTINUES TO PUSH FOR FIRE FLOW SYSTEM**
22 **IMPROVEMENTS, HOW DO YOU INTEND TO HANDLE THEIR CONCERNS?**

23 **A.** We have been very successful in two communities, Paradise Valley and Sun
24 City/Youngtown, in forming community-based task forces to address this issue in a
25 comprehensive and strategic manner. I would propose the same task force approach with
26 Bullhead City. These investments are discretionary in nature and the community support

1 in Paradise Valley has been strong and unwavering. In Sun City / Youngtown, we are
2 still attempting to build community understanding and support for the willingness to pay
3 increased water rates to support the required infrastructure investments to increase fire
4 flows. This same cooperative effort between the Company, the community and the
5 Commission would be necessary in Bullhead City.

6

7 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

8 **A. Yes.**