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**COMMISSIONERS**  
BOB STUMP - Chairman  
GARY PIERCE  
BRENDA BURNS  
BOB BURNS  
SUSAN BITTER SMITH

IN THE MATTER OF THE APPLICATION OF  
ESTATE OF WILLIAM F. RANDALL DBA  
VALLE VERDE WATER COMPANY FOR AN  
INCREASE IN ITS WATER RATES.

DOCKET NO. W-01431A-13-0265

STAFF'S NOTICE OF FILING DIRECT  
TESTIMONY

Staff of the Arizona Corporation Commission ("Staff") hereby files the Direct Testimony of  
Dorothy Hains in the above docket.

RESPECTFULLY SUBMITTED this 15<sup>th</sup> day of January 2014.

  
\_\_\_\_\_  
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Original and thirteen (13) copies  
of the foregoing filed this  
15<sup>th</sup> day of January 2014 with:

Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Copy of the foregoing emailed and/or  
mailed this 15<sup>th</sup> day of January 2014 to:

Steve Wene  
Moyes Sellers & Hendricks LTD  
1850 North Central Avenue, Suite 1100  
Phoenix, Arizona 85004

Arizona Corporation Commission

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JAN 15 2014

DOCKETED BY 



**BEFORE THE ARIZONA CORPORATION COMMISSION**

**BOB STUMP**

Chairman

**GARY PIERCE**

Commissioner

**BRENDA BURNS**

Commissioner

**BOB BURNS**

Commissioner

**SUSAN BITTER SMITH**

Commissioner

APPLICATION OF ESTATE OF )  
WILLIAM F. RANDALL DBA VALLE )  
VERDE WATER COMPANY FOR AN )  
INCREASE IN ITS WATER RATES )  
\_\_\_\_\_ )

DOCKET NO. W-01431A-13-0265

DIRECT TESTIMONY

OF

DOROTHY HAINS, P. E.

UTILITIES ENGINEER

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

JANUARY 13, 2014

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1 **INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Dorothy Hains. My business address is 1200 West Washington Street,  
4 Phoenix, Arizona 85007.

5  
6 **Q. By whom and in what position are you employed?**

7 A. I am employed by the Arizona Corporation Commission ("Commission" or "ACC") as a  
8 Utilities Engineer - Water/Wastewater in the Utilities Division.

9  
10 **Q. How long have you been employed by the Commission?**

11 A. I have been employed by the Commission since January 1998.

12  
13 **Q. What are your responsibilities as a Utilities Engineer - Water/Wastewater?**

14 A. My main responsibilities are to inspect, investigate and evaluate water and wastewater  
15 systems. This includes obtaining data, preparing reconstruction cost new and/or original  
16 cost studies, investigative reports, interpreting rules and regulations, and to suggest  
17 corrective action and provide technical recommendations on water and wastewater system  
18 deficiencies. I also provide written and oral testimony in rate cases and other cases before  
19 the Commission.

20  
21 **Q. How many companies have you analyzed for the Utilities Division?**

22 A. I have analyzed more than 90 companies fulfilling these various responsibilities for  
23 Commission Utilities Division Staff ("Staff").

1 **Q. Have you previously testified before this Commission?**

2 A. Yes, I have testified on numerous occasions before this Commission.

3

4 **Q. What is your educational background?**

5 A. I graduated from the University of Alabama in Birmingham in 1987 with a Bachelor of  
6 Science degree in Civil Engineering.

7

8 **Q. Briefly describe your pertinent work experience.**

9 A. Before my employment with the Commission, I was an Environmental Engineer for the  
10 Arizona Department of Environmental Quality ("ADEQ") for ten years. Prior to that time,  
11 I was an Engineering Technician with C. F. Hains, Hydrology in Northport, Alabama for  
12 approximately five years.

13

14 **Q. Please state your professional membership, registrations, and licenses.**

15 A. I have been a registered Civil Engineer in Arizona since 1990. I am a member of the  
16 American Society of Civil Engineering, American Water Works Association and Arizona  
17 Water Association.

18

19 **PURPOSE OF TESTIMONY**

20 **Q. What was your assignment in this rate proceeding?**

21 A. My assignment was to provide Staff's engineering evaluations for the subject William F.  
22 Randall dba Valle Verde Water Company ("Valle Verde") rate proceedings.

1 **Q. What is the purpose of your testimony in this proceeding?**

2 A. To present the findings of Staff's engineering evaluation of the operations for Valle  
3 Verde. The findings are contained in the Engineering Report that I have prepared for this  
4 proceeding. The report is included as Exhibit DMH-1 to this pre-filed testimony.

5  
6 **ENGINEERING REPORT**

7 **Q. Would you briefly describe what was involved in preparing your Engineering Report**  
8 **for this rate proceeding?**

9 A. After reviewing the application for Valle Verde, I physically inspected the water systems  
10 in Valle Verde to evaluate their operation and determine if any plant items were not used  
11 and useful. I contacted ADEQ to determine if the water systems were in compliance with  
12 the Safe Drinking Water Act water quality requirements. I also contacted the Arizona  
13 Department of Water Resources ("ADWR") to determine if the water systems were in  
14 compliance with ADWR's requirements governing water providers and/or community  
15 water systems. After I obtained information from Valle Verde regarding plant  
16 improvements, permits, chemical testing expenses, water usage data and tariff  
17 modifications, I analyzed that information. Based on all the above, I prepared the attached  
18 Engineering Report for Valle Verde.

19  
20 **Q. Please describe the information contained in your Engineering Report for Valle**  
21 **Verde.**

22 A. The Report is divided into three general sections: 1) *Executive Summary*,  
23 2) *Engineering Report Discussion*, and 3) *Engineering Report Exhibits*. *The Engineering*  
24 *Report Discussion* is further divided into eleven subsections: A) Purpose of Report; B)  
25 Location of the Company; C) Description of System; D) Water Usage; E) Non-Account  
26 Water; F) Growth Projection; G) ADEQ Compliance; H) ADWR Compliance; I) ACC

1 compliance; J) Water Testing Expenses; K) Depreciation Rates; and L) Other Issues.  
2 These subsections provide information about the water systems serving Valle Verde.  
3

4 **RECOMMENDATIONS AND CONCLUSIONS**

5 **Q. What are Staff's conclusions and recommendations regarding the operations of Valle**  
6 **Verde?**

7 A. Staff's conclusions and recommendations regarding the Valle Verde's operations are  
8 listed below.  
9

10 **Recommendations:**

11 I. Staff recommends estimated annual water testing costs of \$8,165 for Valle Verde.  
12

13 II. Staff recommends the depreciation rates by individual National Association of Regulatory  
14 Utility Commissioners ("NARUC") category, as delineated in Figure 5 in Report DMH-1.  
15

16 III. Staff recommends continued use of the Company's currently authorized meter and service  
17 line installation charges listed under the columns labeled "Staff Recommendation" in  
18 Table 4 in Report DMH-1.  
19

20 IV. The calculated water loss during the test year in the East System was 17.1 percent and in  
21 the Well No. 10 System water loss was 29 percent. Both systems exceed Staff's  
22 recommended 10 percent threshold. In Decision No. 71899, the Commission ordered the  
23 Company to monitor the water loss for the Valle Verde East and Valle Verde West  
24 Systems and report the losses in its annual reports. If the reported water loss was greater  
25 than 10 percent for either system, the Company was ordered to prepare a report containing  
26 a detailed analysis and plan to reduce water loss to 10 percent or less for that particular

1 system. The Commission further ordered that, if the Company believed that it was not  
2 cost effective to reduce the water loss to less than 10 percent, the Company was ordered to  
3 submit a detailed cost benefit analysis to support its opinion. In no case was the Company  
4 to allow water loss to be greater than 15 percent in either system. The Company failed to  
5 comply with the Commission's order. Therefore, Staff recommends that the Company  
6 file, as a compliance item in this docket, a plan to reduce water loss in the East System, or  
7 a detailed cost benefit analysis if the Company believes that it is not cost effective to  
8 reduce the water loss to less than 10 percent in the East System. Staff further recommends  
9 that any recommended rate increase not become effective until the Company submits for  
10 Staff approval such water loss reduction plan or detailed cost benefit analysis for the East  
11 System.

12  
13 V. According to an ADWR compliance status report, dated August 6, 2013, the Company is  
14 in non-compliance with ADWR requirements governing water providers and/or  
15 community water systems due to water loss being greater than 10% of total use for a large  
16 provider. Staff recommends that the Company file with Docket Control, as a compliance  
17 item in this docket by December 31, 2014, documentation from ADWR indicating that the  
18 Company's water Management Plan Requirement for lost water has been resolved.

19  
20 VI. Staff recommends reclassification of the expenses listed in Table 7 in Report DMH-1.

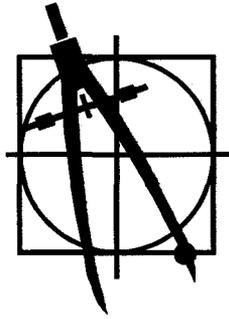
21  
22 VII. Staff recommends that Valle Verde file with Docket Control, as a compliance item in this  
23 docket, no later than 60 days after the effective date of this Decision, an affidavit  
24 confirming that all water tests on Well No. 10 were completed as outlined and affirming  
25 that Valle Verde is in compliance with A.A.C. R14-2-407(A).

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**Conclusions:**

- I. A check of the Commission's Compliance Section database dated December 11, 2013, indicates there is one (1) delinquent compliance item for Valle Verde.
  
- II. Staff received a compliance status report from ADEQ dated August 13, 2013, in which ADEQ stated that both the East System (PWS No. 12-009) and the West System (PWS No. 12-025) have no major deficiencies and are delivering water that meets water quality standards required by 40 CFR 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.
  
- III. Valle Verde has approved Cross Connection, Curtailment, and Best Management Practice tariffs on file with the Commission.
  
- IV. The Valle Verde water systems have adequate production and storage capacities to support the existing customer base and reasonable growth.
  
- V. Staff determined that the plant items listed in Table 6 in Report DMH-1 are not used and useful to the Company's provision of service.
  
- VI. The Company mistakenly listed some water testing expenses in NARUC Account No. 320.1 water treatment plant. Table 5 lists the expenses that were included in Account No. 320.1.
  
- Q. Does this conclude your Direct Testimony?**
- A. Yes, it does.



**Engineering Report  
Valle Verde Water Company,  
Inc.  
Prepared By  
Dorothy Hains, P. E.  
Docket No. W-01431A-13-0265  
(Rates)**

**January 13, 2014**

**EXECUTIVE SUMMARY**

**Recommendations:**

1. Arizona Corporation Commission (“ACC” or “Commission”) Utilities Division Staff (“Staff”) recommends estimated annual water testing costs of \$8,165 for Valle Verde Water Company (“Valle Verde” or “Company”). (See §I and Tables 3A, 3B and 3C for discussion and details.)
2. Staff recommends the depreciation rates by individual National Association of Regulatory Utility Commissioners (“NARUC”) category, as delineated in Figure 5. (See §J and Figure 5 for a discussion and a tabulation of the recommended rates.)
3. Staff recommends continued use of the Company’s currently authorized meter and service line installation charges listed under the columns labeled “Staff Recommendation” in Table 4. (See §K of report for discussion and details.)
4. The calculated water loss during the test year in the East System was 17.1 percent and in the Well No. 10 System water loss was 29 percent. Both systems exceed Staff’s recommended 10 percent threshold. In Decision No. 71899, the Commission ordered the Company to monitor the water loss for the Valle Verde East and Valle Verde West Systems and report the losses in its annual reports. If the reported water loss was greater than 10 percent for either system the Company was ordered to prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less for that particular system. The Commission further ordered that if the Company believed that it was not cost effective to reduce the water loss to less than 10 percent, the Company was ordered to submit a detailed cost benefit analysis to support its opinion. In no case was the Company to allow the water loss to be greater than 15 percent in either system. The Company failed to comply with the Commission’s order. Therefore, Staff recommends that the Company file, as a compliance item in this docket, a plan to reduce water loss in the East System, or a detailed cost benefit analysis if the Company believes that it is not cost effective to reduce the water loss to less than 10 percent in the East System. Staff further recommends that any recommended rate increase not become effective until the

Company submits for Staff approval a water loss reduction plan or a detailed cost benefit analysis for the East System. (See §E for discussion and details.)

5. According to an Arizona Department of Water Resources (“ADWR”) compliance status report dated August 6, 2013, the Company is in non-compliance with ADWR requirements governing water providers and/or community water systems due to water loss being greater than 10% of total use for a large provider. Staff recommends that the Company file with Docket Control, as a compliance item in this docket by December 31, 2014, documentation from ADWR indicating that the Company’s water Management Plan Requirement for lost water has been resolved. (See §H of report for discussion and details.)
6. Staff recommends reclassification of the expenses listed in Table 7. (See §L of report for discussion and details.)
7. Staff recommends that Valle Verde file with Docket Control, as a compliance item in this docket no later than December 31, 2014, an affidavit confirming that all water tests on the Well No. 10 System were completed as outlined in Table 3C and affirming that the Valle Verde Well No. 10 System is in compliance with A.A.C. R14-2-407(A). (See §J of report for discussion and details.)

#### **Conclusions:**

1. A check of the Commission’s Compliance Section database dated December 11, 2013, indicates there is one (1) delinquent compliance item for Valle Verde. (See §I of report for discussion and details.)
2. Staff received a compliance status report from Arizona Department of Environmental Quality (“ADEQ”) dated August 13, 2013, in which ADEQ stated that both the East System (PWS No. 12-009) and the West System (PWS No. 12-025) have no major deficiencies and are delivering water that meets water quality standards required by 40 CFR 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4. (See §G of report for discussion and details.)
3. Valle Verde has approved Cross Connection, Curtailment, and Best Management Practice tariffs on file with the Commission. (See §L of report for discussion and details.)
4. The Valle Verde water systems have adequate production and storage capacities to support the existing customer base and reasonable growth. (See §C of report for discussion and details.)
5. Staff determined that the plant items listed in Table 6 are not used and useful to the Company’s provision of service. (See §L for discussion and details.)
6. The Company mistakenly listed some water testing expenses in NARUC Account No. 320.1 water treatment plant. Table 5 lists the expenses that were included in Account No.

320.1. (See §L for discussion and details.)

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**ENGINEERING REPORT  
VALLE VERDE WATER COMPANY, INC.  
DOCKET NO. W-01431A-13-0265 (RATES)**

**A. PURPOSE OF REPORT**

This report was prepared in response to the application filed by William F. Randall dba Valle Verde Water Company, Inc. ("Valle Verde" or "Company") with the Arizona Corporation Commission ("ACC" or "the Commission") to increase its water rates. The ACC Utilities Division Staff ("Staff") engineering review and analysis of the subject application is presented in this report.

An inspection of the Company's water systems was conducted by Dorothy Hains, Staff Engineer, accompanied by Company Representative, Keith Dojanquez (Southwest Utility Management Inc.'s Manager & Operator) and Vicente Silba (on-site Field Staff for Southwest Utility Management, Inc.) on October 1, 2013.

**B. LOCATION OF THE COMPANY**

The Company is located near the City of Nogales ("City") in Santa Cruz County. Attached Exhibits 1 and 2 detail the location of the service area in relation to other Commission-regulated companies in Santa Cruz County and in the immediate area. The Company serves an area approximately one and one-half square miles in size that includes portions of Sections 13, 24 and 25 of Township 23 South, Range 13 East, portions of Sections 30 and 31 of Township 23 South, Range 14 East and a portion of Section 5 of Township 24 South, Range 14 East.

**C. DESCRIPTION OF SYSTEM**

***I. System Description***

The Company owns and operates two water systems: East System and West System. Arizona Department of Environmental Quality ("ADEQ") assigned Public Water System ("PWS") Identification No.12-009 to the East System and PWS No.12-025 to the West System.

***A. The East System (PWS No. 12-009)***

The East System consists of two wells that have 480 gallons per minute ("GPM") combined capacity, a 500 GPM tetrachloroethylene ("TCE") removal plant, a 190,000 gallon storage tank, two pressure tanks and a distribution system serving approximately 670 metered customers. This system is interconnected with the City water system.

Due to the TCE contamination, Well Nos. 1, 7 and 8 were abandoned in 2009. Well No. 4, an irrigation well, has not produced any water since 2009 and was also abandoned by the Company. A detailed listing of the PWS No. 12-009 water systems facilities is as follows:

**Table 1A Plant Data in Valle Verde – East System (PWS No.12-009)**

**Active Drinking Water Wells**

ADWR No.	Well No.	Year Drilled	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Locations
55-617054	2	1972	16	260	6	30	350	N Grand Ave/ Paseo Verde Dr.
55-617055	3	1971	12	220	3	15	130	Firestone Garden Ave

**Active Storage and Pumping**

Location	Structure or equipment	Capacity
Well No. 3 Site	Firestone Garden Ave Pressure tank	One 7,000 gal
Well No. 2 Site	N Grand Ave/ Paseo Verde Dr. Pressure tank	One 10,000 gal
	Storage Tank	One 190,000 gal Tank (16' height)
	Booster pump station	One 7.5-HP pump

**Active TCE Treatment Plant**

Location	Equipment	Capacity
Well #2 Site	N Grand Ave/ Paseo Verde Dr. Two 11,000 gallon Calgon media vessels	500 GPM

**Distribution Mains in PWS No.12-009 Service Area**

Diameter (inches)	Material	Length (feet)
2	Poly vinyl chloride ("PVC")	4,361
4	PVC	38,391
6	PVC	4,117
6	PVC	1,600
6	PVC	2,350
4	PVC	100
6	Ductile Iron Pipe ("DIP")	189

**Meters in PWS No.12-009 Service Area**

Size (inches)	Quantity
5/8 x 3/4	319
3/4	411
1	38
1 1/2	3
2	10
3 (comp)	5

**Inactive Drinking Water Wells**

ADWR No.	Well No.	Year Drilled	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Year abandoned
55-617053	1	1954	12	105	4	30	320	2009
55-513789	4	1987	12	203	3	10	0	2009
55-801847	7	1933	10	93	4	30	400	2009

**B. The West System (PWS No.12-025)**

The West System consists of two separate well systems: the Well No. 5/Well No. 6 System and the Well No. 10 System.

**i. Well No.5/Well No.6 System**

Well No. 6 was capped and abandoned in 2010. The Well No. 5/Well No. 6 system now consists of only Well No. 5 which has a well production capacity of 350 GPM, an 800,000 gallon storage tank, a booster pump station, two pressure tanks and a distribution system serving approximately 90 metered customers.

Well No. 5 was producing water that exceeded the arsenic standard so the Company recently installed a 6-inch main to interconnect the Company’s East System with Well No. 5 and the West System. Water from the East System which has a low arsenic level is blended with the water produced by Well No. 5 in the 800,000 gallon storage tank serving the West System before the water is delivered to customers.

A Detailed listing of the PWS No. 12-025 water systems facilities is as follows:

**Table 1B Plant Data in Valle Verde – West System (PWS No. 12-025)**

**Active Drinking Water Well**

ADWR No.	Well No.#	Year Drilled	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Locations
55-500951	5	1982	16	400	6	30	300	Del Rey David Blvd.

**Active Storage and Pumping**

Location	Structure or equipment	Capacity
Well No.5 Site	Del Rey David Blvd. Pressure tank	One 5,000 gal
Well No.6 Storage Tank Site	Del Rey David Blvd.near Desert Shadows Middle School Pressure tank	One 10,000 gal
	Del Rey David Blvd.near Desert Shadows Middle School Storage Tank	One 800,000 gal Tank (32’ height)

	Del Rey David Blvd.near Desert Shadows Middle School	Booster pump station	One 40-HP pump, Two 25-HP pumps Two 100-HP pumps
--	--	----------------------	--

**Distribution Mains in PWS No. 12-025 Service Area**

Diameter (inches)	Material	Length (feet)
4	Poly vinyl chloride ("PVC")	1,222
6	PVC	2,913
8	PVC	10,372
12	PVC	1,770
8	PVC	80

Note: Includes distribution mains serving Well No. 10 System.

**Meters in PWS No. 12-0025 Service Area**

Size (inches)	Quantity
3/8 x 3/4	69
3/4	5
1	9
1 1/2	0
2	10
3 (comp)	3
3 (Turbo)	0
4 (comp)	1

**Inactive Drinking Water Well in PWS No. 12-025**

ADWR No.	Well #	Year Drilled	Year capped	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Locations
55-502001	6	1982	2010	16	450	6	N/A	N/A	Del Rey David Blvd.near Desert Shadows Middle School

ii Well No.10 System<sup>1</sup>

This system consists of Well No. 10 which has a 450 GPM production capacity, a 200,000 gallon storage tank, a booster pump station, one pressure tank and a distribution system serving two 2-inch metered connections.

1. While the Well No.10 System is not physically connected to PWS No. 12-025, ADEQ considers it to be part of the West System.

**Table 1C Plant Data in Valle Verde (in Well No. 10 System)**

**Active Drinking Water Well**

ADWR No.	Well No.	Year Drilled	Casing Size (inches)	Well Depth (ft)	Well Meter Size (inches)	Pump (HP)	Pump Yield (GPM)	Locations
55-500951	10	2001	12	450	6	30	450	Northwest of 672 W Frontage Rd, Nogales

**Active Storage and Pumping**

Location	Structure or equipment	Capacity
Well No.10 Site Northwest of 672 W Frontage Rd, Nogales	Pressure tank	One 5,000 gal
Northwest of 672 W Frontage Rd, Nogales	Storage Tank	One 200,000 gal Tank (24' height)
Northwest of 672 W Frontage Rd, Nogales	Booster pump station	Three 30-HP pumps Two 15-HP pumps

**Meters in Well #10 Service Area**

Size (inches)	Quantity
2	2

Exhibits 3A, 3B, 3C and 3D are schematic drawings of the water systems.

**II. System Analysis**

**A. The East System (PWS No.12-009)**

The water system's current source capacity of 680 GPM and storage capacity of 190,000 gallons are adequate to serve the present customer base and reasonable growth.

**B. The West System (PWS No.12-025)**

**i. Well No.5/Well No. 6 System**

The water system's current source capacity of 350 GPM and storage capacity of 800,000 gallons are adequate to serve the present customer base and reasonable growth.

**ii Well No.10 System**

Staff requested monthly water usage data for the Well No. 10 System but the Company did not provide the monthly water usage data requested.<sup>2</sup> Instead, the Company responded, "in 2012,

<sup>2</sup> Per Staff Data Request No. DH4.7.

Well No. 10 pumped 784,490 gallons and sold 557,100 gallons.” Based on the Company’s Response, Staff recommends that the Company monitor and report the water use data for the Well No. 10 System in future annual reports (see further discussion and recommendation in Section E below).

**D. WATER USAGE**

*A. The East System (PWS No. 12-009)*

Table 2A summarizes water usage in the East System service area. Exhibit 4A is a graph that shows water consumption data in gallons per day (“GPD”) per connection for East System during the test year.

**Table 2A Water Usage in Valle Verde – East System CC&N Area**

Month	Number of Customers	Water Sold (in gallons)	Water pumped (in gallons)	Water purchased (in gallons)	Daily Average (in gpd/customer)
Jan 12	674	4,090,000	4,267,000	0	196
Feb 12	658	3,812,000	5,213,000	0	207
Mar 12	673	4,316,000	4,994,000	0	207
Apr 12	673	3,942,000	4,526,000	0	196
May 12	684	4,284,000	4,827,000	0	202
Jun 12	672	4,849,000	6,832,000	0	241
Jul 12	680	4,350,000	3,755,000	0	206
Aug 12	674	4,807,000	3,122,000	0	230
Sep 12	671	4,172,000	7,847,000	0	207
Oct 12	669	4,333,000	7,011,000	0	209
Nov 12	672	4,540,000	4,793,000	0	225
Dec 12	672	4,275,000	5,246,000	0	205
total		51,770,000	62,433,000	0	
Average					211

Based on information provided by the Company, during the test year the East System experienced an overall daily average use of 211 GPD per customer, a high use of 230 GPD per customer, and a low use of 196 GPD per customer. The highest total monthly use occurred in August when a total of 4,807,000 gallons were sold to 674 customers. The lowest total monthly use occurred in February when 3,812,000 gallons were sold to 658 customers.

*B. The West System (PWS No. 12-025)*

Table 2B summarizes water usage in the West System service area. Exhibit 4B is a graph that shows water consumption data in GPD per connection for the West System during the test year.

**Table 2B Water Usage in Valle Verde - West System CC&N Area**

Month	Number of Customers	Water Sold (in gallons)	Water pumped (in gallons)	Water purchased (in gallons)	Daily Average (in gpd/customer)
Jan 12	84	1,970,000	1,386,000	0	757
Feb 12	89	1,889,000	2,533,000	0	758
Mar 12	89	1,736,000	1,907,000	0	629
Apr 12	89	2,567,000	2,685,000	0	961
May 12	90	2,983,000	3,232,000	0	1,069
Jun 12	91	5,057,000	5,222,000	0	1,852
Jul 12	91	3,464,000	4,689,000	0	1,228
Aug 12	91	3,608,000	2,698,000	0	1,279
Sep 12	90	1,775,000	1,802,000	0	657
Oct 12	91	1,684,000	1,862,000	0	597
Nov 12	91	2,682,000	2,361,000	0	982
Dec 12	91	2,262,000	2,361,000	0	802
total		31,677,000	32,738,000	0	
Average					964

Based on information provided by the Company, during the test year the West System experienced an overall daily average use of 964 GPD per customer, a high use of 1,852 GPD per customer, and a low use of 629 GPD per customer. The highest total monthly use occurred in June when 5,057,000 gallons were sold to 91 customers. The lowest total monthly use occurred in October when 1,684,000 gallons were sold to 91 customers.

**E. NON-ACCOUNT WATER**

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between the water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing, etc.

**A. The East System (PWS No. 12-009) & Well No. 10 System**

The calculated water loss during the test year in the East System was 17.1 percent and in the Well No. 10 System water loss was 29 percent. Both systems exceed Staff's recommended 10 percent threshold. The Company acknowledged that it had experienced high water loss but could not identify what caused the high water loss during the test year.

In Decision No. 71899, the Commission ordered the Company to monitor the water loss for both systems and report the losses in its annual reports. If the reported water loss was greater than 10 percent for the East System and/or the West System, the Company was ordered to prepare a report containing a detailed analysis and plan to reduce water loss to 10 percent or less for that particular system. The Commission further ordered that if the Company believed that it was not cost effective to reduce the water loss to less than 10 percent, the Company was ordered to submit a detailed cost benefit analysis to support its opinion. In no case was the Company to

allow the water loss to be greater than 15 percent in either the East System or the West System. The Company failed to comply with the Commission's order. Therefore, Staff recommends that the Company file, as a compliance item in this docket, a plan to reduce water loss in the East System, or a detailed cost benefit analysis if the Company believes that it is not cost effective to reduce the water loss to less than 10 percent in the East System. Staff further recommends that any recommended rate increase not become effective until the Company submits for Staff approval a water loss reduction plan or a detailed cost benefit analysis for the East System.

*B. The West System (PWS No. 12-025)*

The calculated water loss during the test year in the West System was 3.2 percent which is within acceptable limits.

**F. GROWTH PROJECTION**

For the past five years, this Company has experienced a flat growth rate in both the East and West Systems. Prior to the economic downturn the Company had an average growth rate of only three customers per year. Future growth is hard to predict since it will depend on what happens with the economy but it is expected to be minimal.

**G. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ") COMPLIANCE**

Staff received a compliance status report from ADEQ dated August 13, 2013, in which ADEQ stated that both the East System (PWS No. 12-009) and the West System (PWS No. 12-025) have no major deficiencies and are delivering water that meets water quality standards required by 40 CFR 141 (National Primary Drinking Water Regulations) and Arizona Administrative Code, Title 18, Chapter 4.

**H. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR") COMPLIANCE**

The Company is located in the Santa Cruz Active Management Area. According to an ADWR compliance status report dated August 6, 2013, the Company is in non-compliance with ADWR requirements governing water providers and/or community water systems due to water loss greater than 10% of total use for a large provider. Staff recommends that the Company file with Docket Control, as a compliance item in this docket by December 31, 2014, a letter from ADWR indicating that the Company's water use and monitoring requirements have been resolved.

**I. ACC COMPLIANCE**

A check of the Commission’s Compliance Section database dated December 11, 2013, indicates there is one (1) delinquent compliance item for Valle Verde. See Section E Non-Account Water for specifics on the delinquent compliance issue.

**J. WATER TESTING EXPENSES**

The Company reported its water testing expense at \$7,584 for the test year. Staff has reviewed the Company’s reported expense amount and has recalculated these expenses and recommends that Staff’s water testing expense of \$8,165 be adopted for this proceeding.

Valle Verde is subject to mandatory participation in the ADEQ Monitoring Assistance Program (“MAP”). Staff calculated the testing costs based on the following assumptions:

1. MAP will do baseline testing on everything except copper, lead, bacteria, and disinfection by-products.
2. The estimated water testing expenses represent a minimum cost based on no “hits” other than lead and copper, and assume compositing of well samples. If any constituents were found, then the testing costs would dramatically increase. ADEQ testing is performed in 3-year compliance cycles. Therefore, monitoring costs are estimated for a 3-year compliance period and then presented on an annualized basis.
3. MAP fees were calculated from the ADEQ MAP invoice for calendar year 2012.

Tables 3A, 3B and 3C show the estimated annual monitoring expense, based on participation in the MAP program.

**Table 3A Water Testing Cost (Valle Verde - East)**

Monitoring – 2 wells & 2 POED (Tests per 3 years, unless noted.)	Cost per test	No. of tests per three year period	Total cost per three year period	Annual Cost
Bacteriological – monthly	\$25	72	\$1,800	\$600
Inorganics – Priority Pollutants	\$300	MAP	MAP	MAP
Radiochemical – (1/ 4 yr)	\$60	MAP	MAP	MAP
Phase II and V:				
IOC’s, SOC’s, VOC’s	\$2,805	MAP	MAP	MAP
Nitrites	\$25	MAP	MAP	MAP

Nitrates – annual	\$25	MAP	MAP	MAP
Asbestos – per 9 years	\$180	2½	MAP	MAP
Lead & Copper – annual*	\$45	10	\$450	\$150
TTHM/HHAs	\$360	3	\$1,080	\$360
Maximum chlorine residual levels	\$0	72	\$1,440	\$0
VOC	\$175	48	\$8,400	\$2,800
MAP Fee				\$2,115.82
<b>Total</b>				<b>\$6,026</b>

**Table 3B Water Testing Cost (Valle Verde - West)**

Monitoring – 1 wells & 1 POED (Tests per 3 years, unless noted.)	Cost per test	No. of tests per three year period	Total cost per three year period	Annual Cost
Bacteriological – monthly	\$25	36	\$900	\$300
Inorganics – Priority Pollutants	\$300	MAP	MAP	MAP
Radiochemical – (1/ 4 yr)	\$60	MAP	MAP	MAP
Phase II and V:				
IOC's, SOC's, VOC's	\$2,805	MAP	MAP	MAP
Nitrites	\$25	MAP	MAP	MAP
Nitrates – annual	\$25	MAP	MAP	MAP
Asbestos – per 9 years	\$180	2½	MAP	MAP
Lead & Copper – annual*	\$45	5	\$225	\$75
TTHM/HHAs	\$360	3	\$1,080	\$360
Maximum chlorine residual levels	\$0	72	\$0	\$0
MAP Fee				\$494.15
<b>Total</b>				<b>\$1,229</b>

Because Well No. 10 is not interconnected to the rest of West System and it is a water supply for one customer with two 2-inch meters, Staff believes that the Company should test the water quality to assure the water meets the standards of the Safe Drinking Water Act.

**Table 3C Water Testing Cost (Well No. 10 System)**

Monitoring	Cost per test	No. of tests per year	Annual Cost
Bacteriological – monthly	\$25	12	\$300
Nitrites – annual	\$25	1	\$25
Lead & Copper – annual*	\$45	5	\$225
TTHM/HHAs	\$360	1	\$360
Maximum chlorine residual levels	\$0	12	\$0
<b>Total</b>			<b>\$910</b>

Total recommended annual water testing cost for Valle Verde is \$8,165 (total of \$6,026; \$1,229 and \$910).

Staff recommends that Valle Verde file with Docket Control, as a compliance item in this docket no later than December 31, 2014, an affidavit confirming that all water tests on Well No. 10 System were completed as outlined in Table 3C above and affirming that Valle Verde Well No. 10 System is in compliance with A.A.C. R14-2-407(A).

**K. DEPRECIATION RATES**

Staff has developed typical and customary depreciation rates within the range of anticipated equipment life. These rates are presented in Figure 5 and should be used to calculate the annual depreciation expense for the Company. Staff recommends the depreciation rates by individual National Association of Regulatory Utility Commissioners (“NARUC”) category, as delineated in Figure 5.

**L. OTHER ISSUES**

*I. Service Line and Meter Installation Charges*

The Company is proposing to revise its meter and service line installation charges. These charges are refundable advances and the Company’s proposed charges are within Staff’s experience of what are reasonable and customary charges. Staff recommends continued use of the Company’s currently authorized meter and service line installation charges listed under the columns labeled “Staff Recommendation” in Table 4.

**Table 4 Service Line and Meter Installation Charges (Valle Verde)**

Meter Size	Current Service Line Charges (Decision #71899)	Current Meter & Charges (Decision #71899)	Current Total Meter & Service Line Installation Charges (Decision #71899)	Proposed Service Line installation Charge	Proposed Meter installation Charge	Proposed Total Cost	Staff Recommended (Service Line installation charge)	Staff Recommended (Meter charges)	Staff Recommended total charges
5/8 x 3/4-inch	\$445	\$155	\$600	\$445	\$155	\$600	\$445	\$155	\$600
3/4-inch	\$445	\$255	\$700	\$445	\$255	\$700	\$445	\$255	\$700
1-inch	\$495	\$315	\$810	\$495	\$315	\$810	\$495	\$315	\$810
1½-inch	\$550	\$525	\$1,075	\$550	\$525	\$1,075	\$550	\$525	\$1,075
2-inch (Turbine)	\$830	\$1,045	\$1,875	\$830	\$1,045	\$1,875	\$830	\$1,045	\$1,875
2-inch (Compound)	\$830	\$1,890	\$2,720	\$830	\$1,890	\$2,720	\$830	\$1,890	\$2,720
3-inch (Turbine)	\$1,045	\$1,670	\$2,715	\$1,045	\$1,670	\$2,715	\$1,045	\$1,670	\$2,715
3-inch (Compound)	\$1,165	\$2,545	\$3,710	\$1,165	\$2,545	\$3,710	\$1,165	\$2,545	\$3,710
4-inch (Turbine)	\$1,490	\$1,737	\$3,227	\$1,490	\$2,670	\$4,160	\$1,490	\$2,670	\$4,160
4-inch (Compound)	\$1,670	\$3,645	\$5,315	\$1,670	\$3,645	\$5,315	\$1,670	\$3,645	\$5,315
6-inch (Turbine)	\$2,210	\$3,766	\$5,976	\$2,210	\$5,025	\$7,235	\$2,210	\$5,025	\$7,235
6-inch (Compound)	\$2,330	\$6,920	\$9,250	\$2,330	\$6,920	\$9,250	\$2,330	\$6,920	\$9,250
Over 6-inch	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost

*II. Corrections to Reflect Expense Items Inadvertently Capitalized*

The Company mistakenly listed some water testing expenses in NARUC Account No. 320.1 water treatment plant. Table 5 lists the expenses that were included in Account No. 320.1.

**Table 5 List of Capitalized Expenses**

Year (invoice received)	Amount (\$)	NARUC Account	Invoice	Vendor	Reasons
2008	1,157.5	320.1 (Water Treatment Plant)		Turner Lab	Expense was for water quality test not capital improvement
<b>total</b>	<b>1,157.5</b>				
2009	350	320.1 (Water Treatment Plant)	812437	Turner Lab	Expense was for water quality test not capital improvement
2009	875		901004		
2009	875	320.1 (Water Treatment Plant)	901003	Turner Lab	Expense was for water quality test not capital improvement
2009	1,157.5		811157,		

			811309, 811294, 812001, 901685		
2009	350	320.1 (Water Treatment Plant)	902615	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09C0435	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	09C0264	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09C0561	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	902695	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09D0690	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	810463	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09D0690	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09D0393	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09D0696	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09C0788	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	09D0099	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09D0437	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	09E0721	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	09F0103	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09F0579	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09F0758	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09F0863	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	09G0304	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09G0548	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09G0671	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09E0866	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09I0467	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09I0754	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	09J0233	Turner Lab	Expense was for water quality test not capital improvement

2009	175	320.1 (Water Treatment Plant)	09J0423	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09J0730	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	09K0170	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09K0534	Turner Lab	Expense was for water quality test not capital improvement
2009	350	320.1 (Water Treatment Plant)	09K0170	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09L0472	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09L0347	Turner Lab	Expense was for water quality test not capital improvement
2009	175	320.1 (Water Treatment Plant)	09K0680	Turner Lab	Expense was for water quality test not capital improvement
<b>Total</b>	<b>10,257.5</b>				
2010	350	320.1 (Water Treatment Plant)	09L0092	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10A0502	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10A0108	Turner Lab	Expense was for water quality test not capital improvement
2010	350	320.1 (Water Treatment Plant)	10A0502	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10B0713	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10B0489	Turner Lab	Expense was for water quality test not capital improvement
2010	350	320.1 (Water Treatment Plant)	10B0327	Turner Lab	Expense was for water quality test not capital improvement
2010	525	320.1 (Water Treatment Plant)	10C0397	Turner Lab	Expense was for water quality test not capital improvement
2010	350	320.1 (Water Treatment Plant)	10C0584	Turner Lab	Expense was for water quality test not capital improvement
2010	350	320.1 (Water Treatment Plant)	10C0446	Turner Lab	Expense was for water quality test not capital improvement
2010	350	320.1 (Water Treatment Plant)	10C0709	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10C0306	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10D0260	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10D0279	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10F0419	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10G0703	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10H0424	Turner Lab	Expense was for water quality test not capital improvement
2010	175	320.1 (Water Treatment Plant)	10H0121	Turner Lab	Expense was for water quality test not capital improvement

2010	1,575	320.1 (Water Treatment Plant)	10F0095, 10F0096, 10F0535, 10F0610, 10F07, 10G0331, 10G0607	Turner Lab	Expense was for water quality test not capital improvement
2010	1,400	320.1 (Water Treatment Plant)	10J1027, 10I0670, 10I0404, 10G0396, 10I0102	Turner Lab	Expense was for water quality test not capital improvement
2010	1,050	320.1 (Water Treatment Plant)	10J1029, 10J0539, 10J0482, 10J0747, 10K0348	Turner Lab	Expense was for water quality test not capital improvement
2010	875	320.1 (Water Treatment Plant)	10K0590, 10K0613, 10K0678, 10L0301, 10L030	Turner Lab	Expense was for water quality test not capital improvement
<b>Total</b>	<b>9,450</b>				
2011	1,050	320.1 (Water Treatment Plant)	10L0461, 10L0560, 10L0645, 11A0148, 11A014	Turner Lab	Expense was for water quality test not capital improvement
2011	1,050	320.1 (Water Treatment Plant)	11C0636, 11C0465, 11B0424, 11B0401, 11B0077, 11B0078	Turner Lab	Expense was for water quality test not capital improvement
2011	525	320.1 (Water Treatment Plant)	11C0636, 11D0330, 11D0332	Turner Lab	Expense was for water quality test not capital improvement
2011	1,225	320.1 (Water Treatment Plant)	11D0332, 11D0330, 11D0381, 11D0614, 11D0613, 11E0084, 11E0085	Turner Lab	Expense was for water quality test not capital improvement
2011	875	320.1 (Water Treatment Plant)	11B0583, 11C0244, 11C0281, 11C0283, 11E0321	Turner Lab	Expense was for water quality test not capital improvement
2011	350	320.1 (Water Treatment Plant)	11E0656, 11E0526	Turner Lab	Expense was for water quality test not capital improvement
2011	875	320.1 (Water Treatment Plant)	11F0095, 11F0092,	Turner Lab	Expense was for water quality test not capital improvement

			11F0095, 11F0092, 11F023		
2011	175	320.1 (Water Treatment Plant)	11F0508	Turner Lab	Expense was for water quality test not capital improvement
2011	875	320.1 (Water Treatment Plant)	11G0299, 11G0298, 11G0620, 11G0786, 11G0796	Turner Lab	Expense was for water quality test not capital improvement
2011	875	320.1 (Water Treatment Plant)	11H0423, 11H0424, 11H0503, 11I0109, 11I0110	Turner Lab	Expense was for water quality test not capital improvement
<b>Total</b>	<b>7,875</b>				
<b>Total</b>	<b>28,740</b>				

*III. Not Used and Useful Plant Items*

Based on its field inspection, Staff determined that the plant items listed in Table 6 are not used and useful to the Company's provision of service.

**Table 6 Not Used and Useful Plant Items**

Year (invoice received)	Amount (\$)	NARUC Account	Invoice	Vendor	Reasons
2009	5,448	307 (Wells & Springs)	N/A	D & M Well Service	Service was for Well #6 which was capped in 2010
2009	375	311 (pumping equipment)	7143	Jim's Electric, Inc.	Service was for Well #6 which was capped in 2010
2009	1,435	331 (Transmission lines & Distribution lines)	3469	Southwestern Utilities Management	Expenses were for line connection between Well #2 and Well #4; both Well #2 and #4 were demolished in 2010.
<b>Total</b>	<b>7,258</b>				

*IV. Reclassification*

The plant items listed in Table 7 should be reclassified for accounting purposes as recommended by Staff.

**Table 7 Reclassification**

Year	Amounts (\$)	NARUC Acct (Valle Verde Proposed)	NARUC Acct (Staff Recommended)	Reasons
2009	15,837.87	320.1 (Treatment Plant)	311 (Pumping Equipment)	Expenses were for well pump in Well #2.
2009	300	307 (Wells & Springs)	311 (Pumping Equipment)	Expenses were for well pump in Well #2.
2009	15,837.87	307 (Wells & Springs)	311 (Pumping Equipment)	Expenses were for replacing well pump motor in Well #2.
2009	1,120.07	311 (pumping equipment)	330.1 (Storage Tank)	Expenses were for control on storage tank in Well #6 site.
2008	1,582.29	311 (pumping equipment)	320.1 (treatment Plant)	Equipment was for TCE removal plant
2011	719.10	311 (pumping equipment)	330.1 (Storage Tank)	Expenses were for control in storage tank in Well #10 site.
2011	650	333 (Services)	311 (Pumping Equipment)	Because the work was for repair pump

*V. Curtailment Tariff*

The Company has an approved Curtailment Tariff on file with the Commission.

*VI. Cross Connection or Backflow Prevention Tariff*

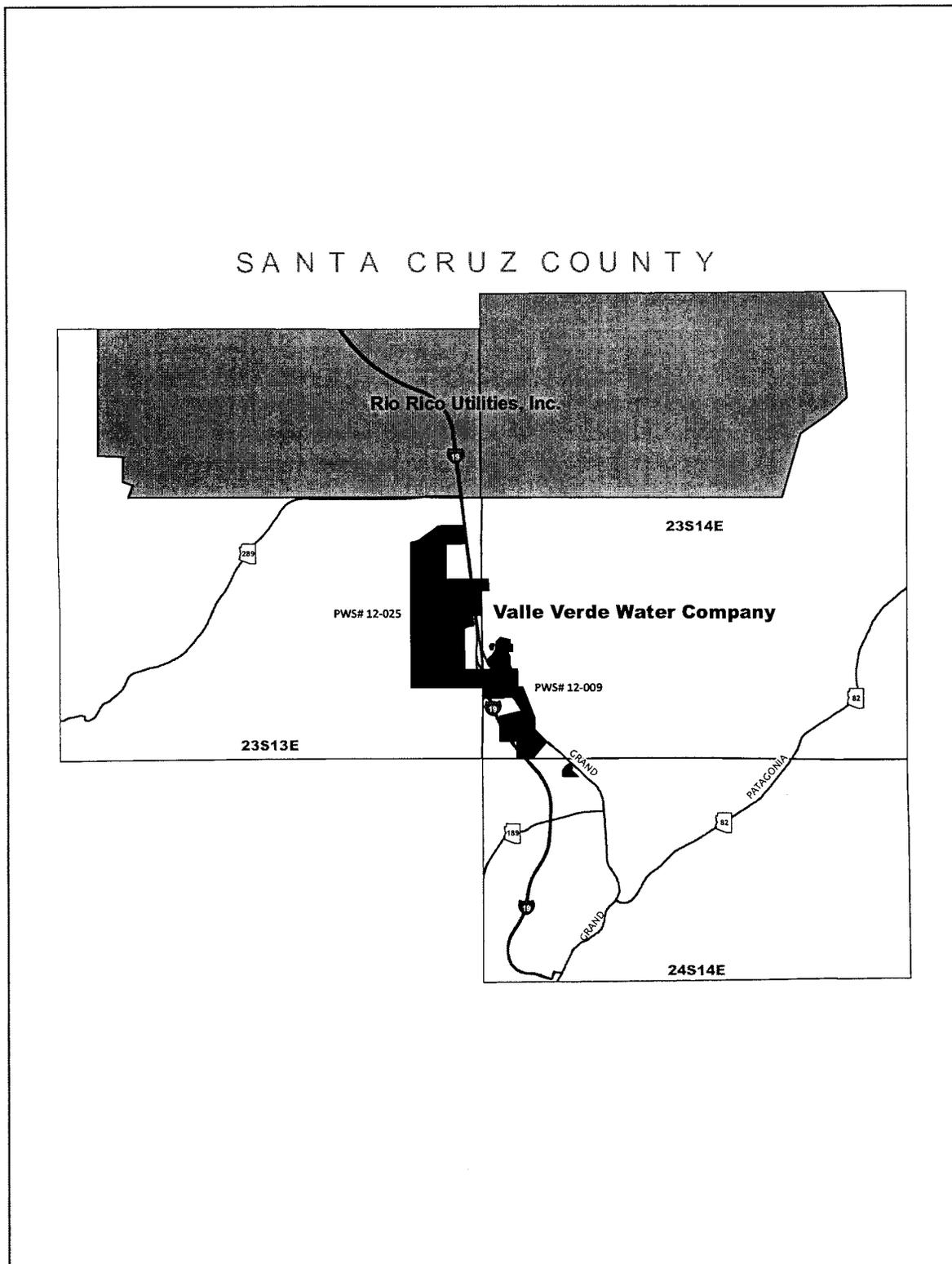
The Company has an approved Cross Connection & Backflow Tariff on file with the Commission.

*VII. Best Management Practices ("BMPs") Tariff*

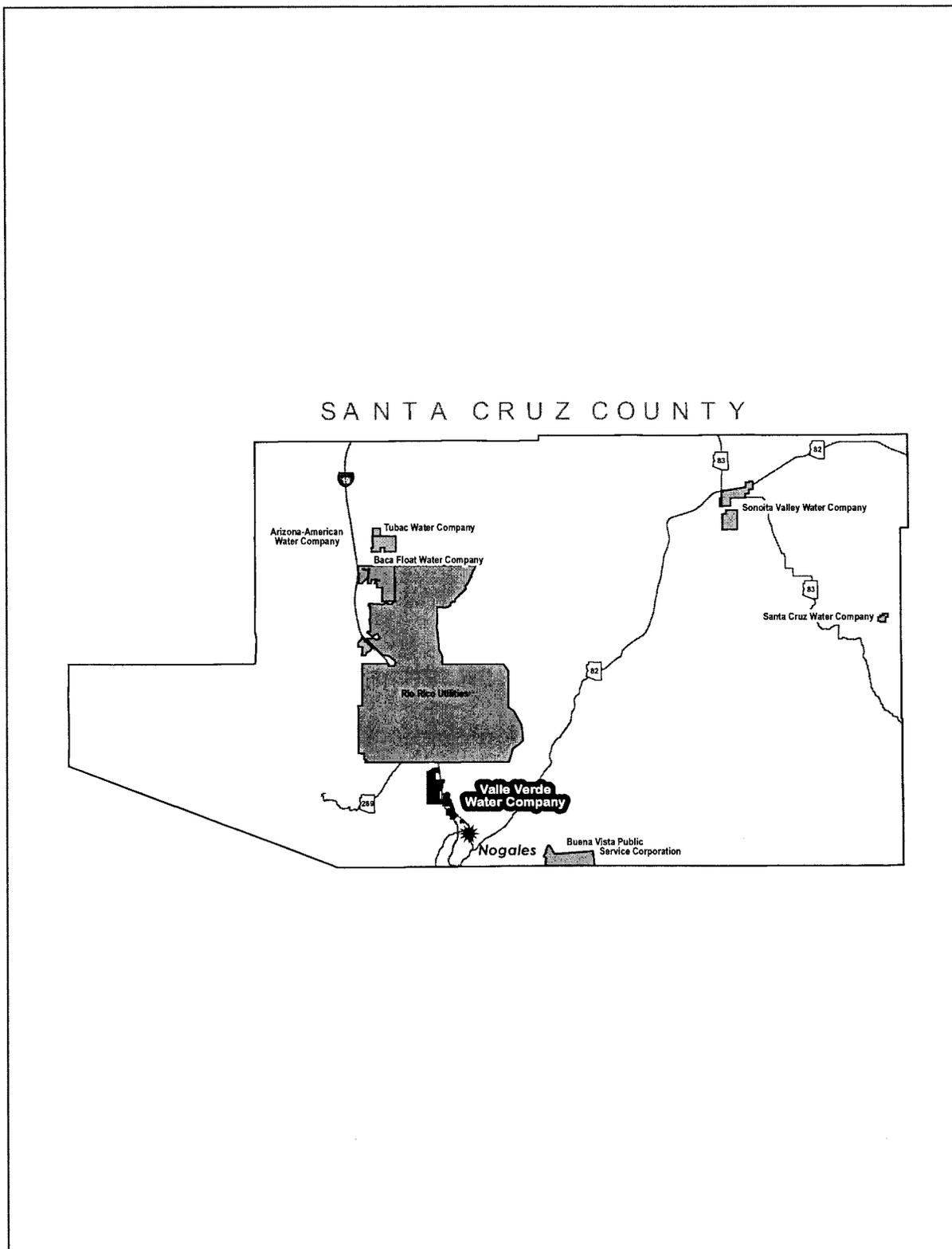
The Company has five approved BMP Tariffs on file with the Commission.

**FIGURE 1**

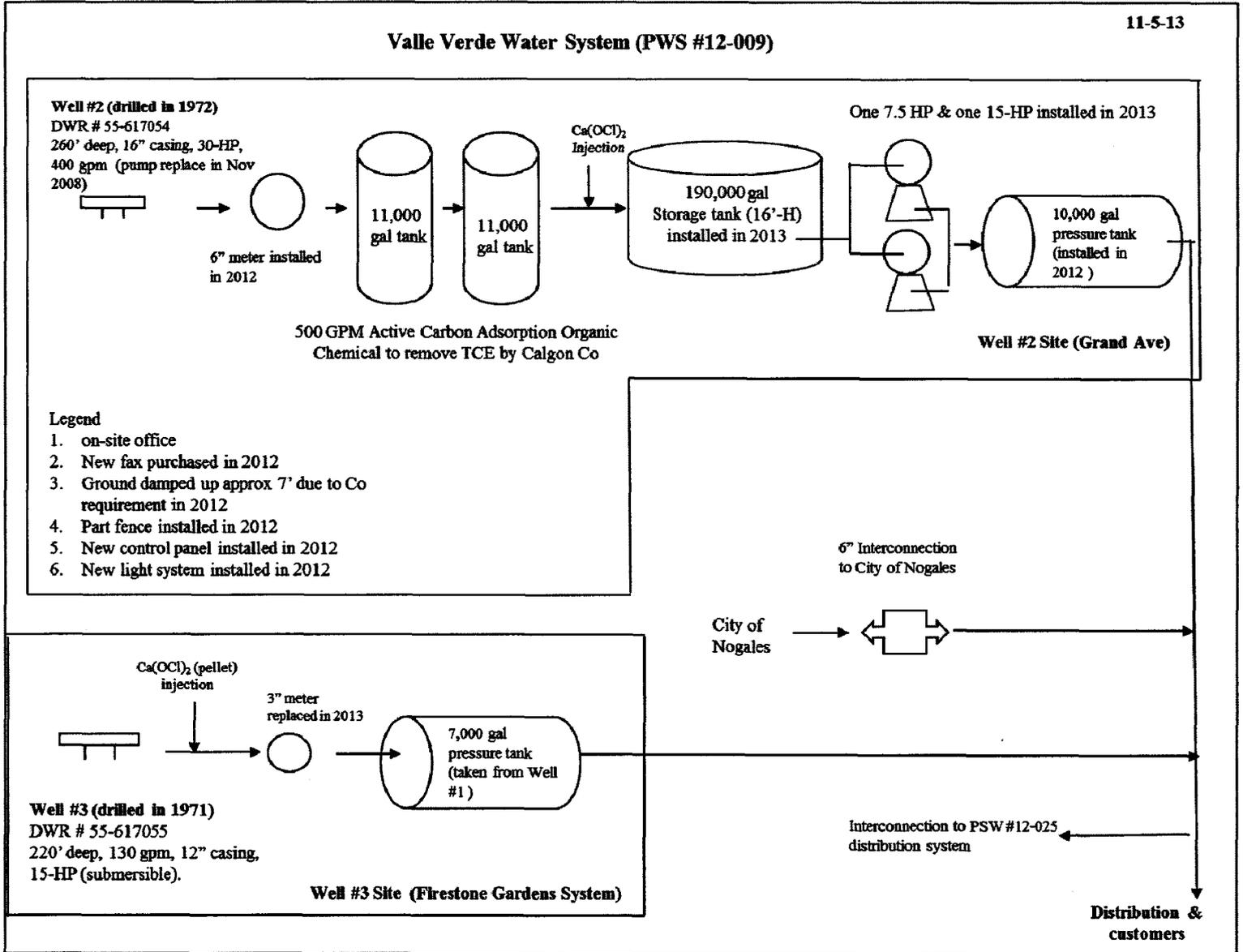
**VALLE VERDE Certificate Service Area**



**FIGURE 2**  
**LOCATION OF VALLE VERDE SERVICE AREA**



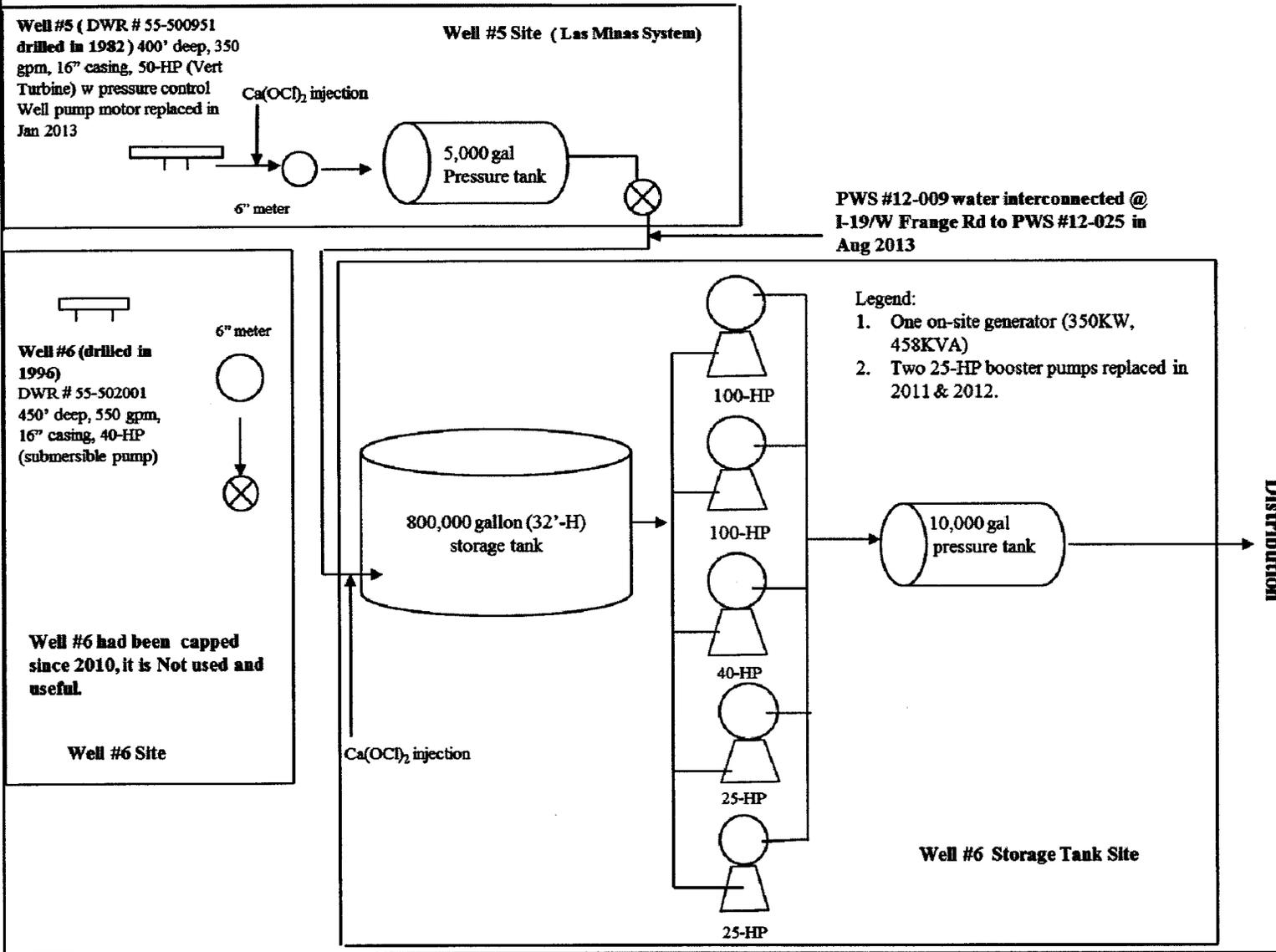
**FIGURE 3A SYSTEMATIC DRAWING**



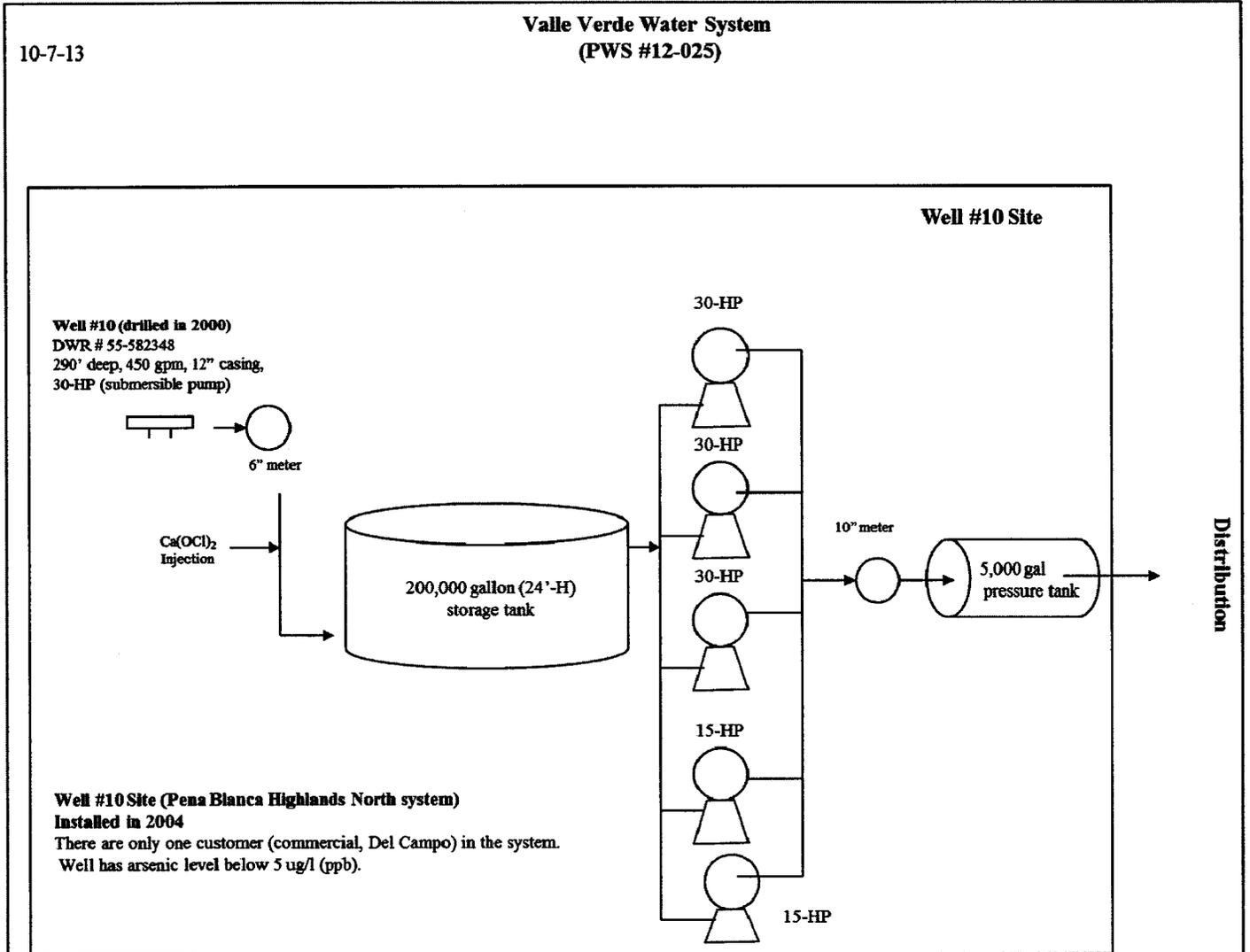
**FIGURE 3B SYSTEMATIC DRAWING**

**Valle Verde Water System (PWS #12-025)**

10-8-13

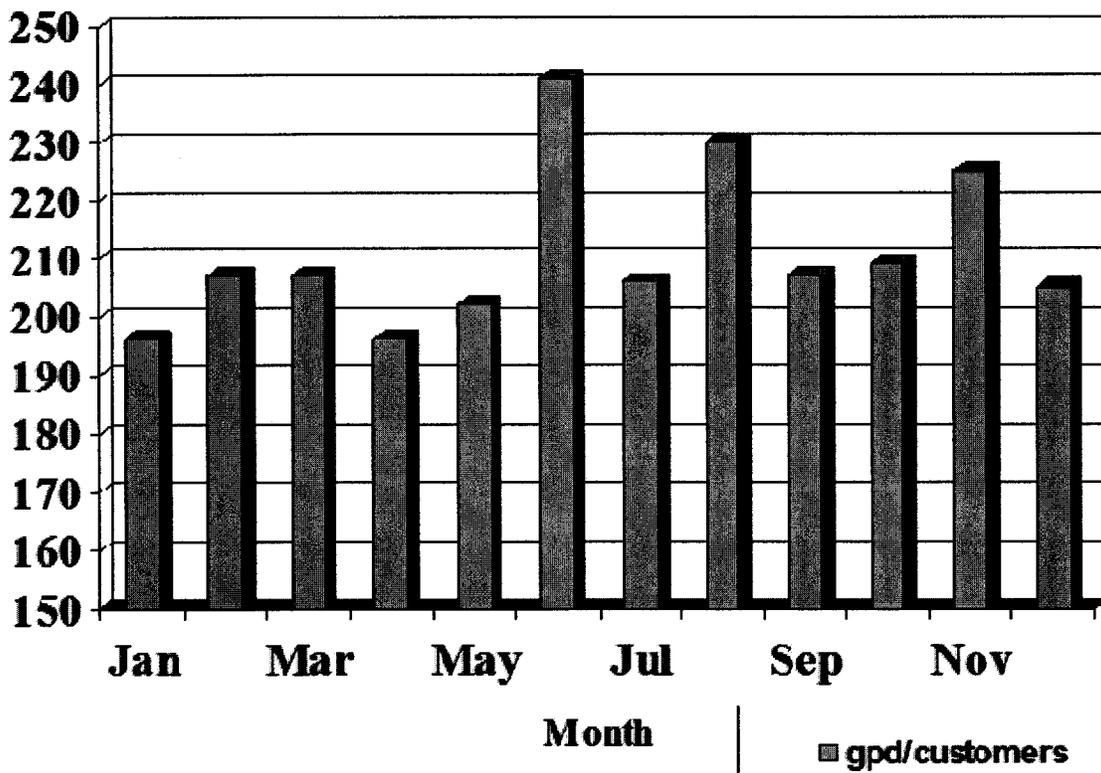


**FIGURE 3C SYSTEMATIC DRAWING**



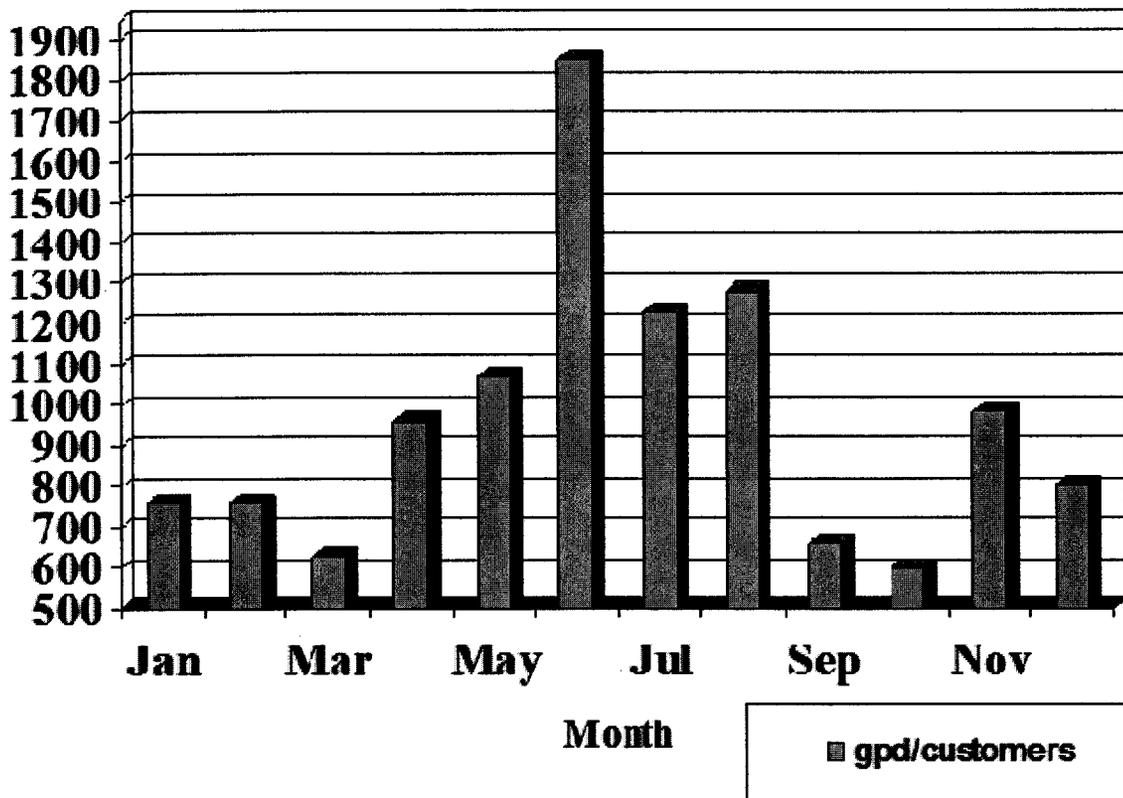
**FIGURE 4A WATER USAGE IN VALLE VERDE SERVICE AREA**

**During Test Year (Jan 2012 - Dec 2012) Water Usage In Valle Verde Water (PWS #12-009) CC&N Area**



**FIGURE 4B WATER USAGE IN VALLE VERDE SERVICE AREA**

**During Test Year (Jan 2012 - Dec 2012) Water Usage In Valle Verde Water (PWS #12-025) CC&N Area**



**FIGURE 5**

**Depreciation Rates (Valle Verde Water)**

Acct. No.	Depreciable Plant	Decision # 71899 (approved rate %)	Company proposed	Staff Recommended Rate (%)
301	Organization	N/A	0.00	0.00
302	Franchises	N/A	0.00	0.00
304	Structures & Improvements	3.33	3.33	3.33
305	Collecting & Impounding Reservoirs	2.50	N/A	2.50
306	Lake, River, Canal Intakes	2.50	N/A	2.50
307	Wells & Springs	3.33	3.33	3.33
308	Infiltration Galleries	6.67	N/A	6.67
309	Raw Water Supply Mains	2.00	N/A	2.00
310	Power Generation Equipment	5.00	N/A	5.00
311	Pumping Equipment	12.5	12.5	12.5
320	Water Treatment Equipment		0.00	
320.1	Water Treatment Plants	3.33	3.33	3.33
320.2	Solution Chemical Feeders	20.0	20.00	20.0
320.4	Water Treatment Plant (media) – TCE removal plant	5.00		5.00
330	Distribution Reservoirs & Standpipes		0.00	
330.1	Storage Tanks	2.22	2.22	2.22
330.2	Pressure Tanks	5.00	5.00	5.00
331	Transmission & Distribution Mains	2.00	2.00	2.00
333	Services	3.33	3.33	3.33
334	Meters	8.33	8.33	8.33
335	Hydrants	2.00	2.00	2.00
336	Backflow Prevention Devices	6.67	N/A	6.67
339	Other Plant & Misc Equipment	6.67	2.00	6.67
340	Office Furniture & Equipment	6.67	6.67	6.67
340.1	Computers & Software	20.00	20.00	20.00
341	Transportation Equipment	20.00	20.00	20.00
342	Stores Equipment	4.00	N/A	4.00
343	Tools, Shop & Garage Equipment	5.00	5.00	5.00
344	Laboratory Equipment	10.00	N/A	10.00
345	Power Operated Equipment	5.00	5.00	5.00
346	Communication Equipment	10.00	N/A	10.00
347	Miscellaneous Equipment	10.00	N/A	10.00
348	Other Tangible Plant	----	10.00	10.00