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ARIZONA, COLORADO, MONTANA,
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DISTRICT OF COLUMBIA

May 2, 2011

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

Arizona Corporation Commission
DOCKETED

MAY 2 2011



Re: Goodman Water Company
Docket No. W-02500A-10-0382

To Whom It May Concern:

Enclosed for filing in the above-referenced proceeding are fourteen (14) copies of the prepared Rebuttal Testimony and supporting Exhibits of the following witnesses for Goodman Water Company:

1. James A. Shiner;
2. Thomas J. Bourassa;
3. Mark F. Taylor;
4. Michael J. Naifeh; and,
5. John Ferenchak.

Copies of the enclosed prepared Rebuttal Testimony and Exhibits of the aforesaid Goodman Water Company witnesses will also be electronically transmitted today to all known parties of record.

Thank you for your assistance in docketing the enclosed documents. Please let me know if you have any questions regarding the same.

Sincerely,

Lawrence V. Robertson, Jr.
Lawrence V. Robertson, Jr.

cc: All parties w/enclosures

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AZ CORP COMMISSION
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BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION
OF GOODMAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR (i) A
DETERMINATION OF THE FAIR VALUE
OF ITS UTILITY PLANT AND PROPERTY
AND (ii) AN INCREASE IN ITS WATER
RATES AND CHARGES FOR UTILITY
SERVICE BASED THEREON.

DOCKET NO. W-02500A-10-0382

**REBUTTAL TESTIMONY OF
THOMAS J. BOURASSA
ON BEHALF OF GOODMAN WATER COMPANY
(RATE BASE, INCOME STATEMENT, RATE DESIGN)**

May 2, 2011

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1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY.**

2 **Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A1. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive,
4 Phoenix, Arizona 85029.

5 **Q2. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?**

6 A2. On behalf of the applicant, Goodman Water Company ("GWC" or the
7 "Company").

8
9 **Q3. HAVE YOU PREVIOUSLY SUBMITTED DIRECT TESTIMONY IN THE
10 INSTANT CASE?**

11 A3. Yes, my direct testimony was submitted in support of the initial application in this
12 docket. There were two volumes, one addressing rate base, income statement and
13 rate design, and the other addressing cost of capital.

14
15 **Q4. WHAT IS THE PURPOSE OF THIS REBUTTAL TESTIMONY?**

16 A4. I will provide rebuttal testimony in response to the direct filing by Staff, RUCO
17 and the interveners Mr. Wawrzyniak and Mr. Schoemperlen. More specifically,
18 this first volume of my rebuttal testimony relates to rate base, income statement
19 and rate design for GWC. In a second, separate volume of my testimony, I also
20 present an update to the Company's requested cost of capital as well as provide
21 responses to Staff, RUCO and Mr. Schoemperlen on the cost of capital and rate of
22 return applied to the fair value rate base, and the determination of operating
23 income.

24 **II. SUMMARY OF GWC'S REBUTTAL POSITION**

25 **Q6. WHAT IS THE REVENUE INCREASE THAT THE COMPANY IS**

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PROPOSING IN THIS REBUTTAL TESTIMONY?

A6. The Company is proposing a total revenue requirement of \$857,176 which constitutes an increase in revenues of \$262,717 or 44.19% over adjusted test year revenues.

Q7. HOW DOES THIS COMPARE WITH THE COMPANY'S DIRECT FILING?

A7. In the direct filing, the Company requested a total revenue requirement of \$892,428, which required an increase in revenues of \$292,677, or 51.10%.

Q8. WHY IS THE REQUESTED REVENUE INCREASE LOWER IN GWC'S REBUTTAL FILING?

A8. The Company is recommending a lower rate of return of 10.2 percent based upon an updated cost of capital analysis compared to 11.0 percent in its direct filing. Further, GWC has adopted a number of adjustments recommended by Staff and/or RUCO, as well as proposed a number of adjustments of its own based on known and measurable changes to the test year. The net result of these adjustments is: (1) operating expenses have increased by \$21,647, from \$498,868 in the direct filing to \$520,515 and (2) a net decrease of \$103,485 in rate base from the direct filing of \$2,402,221 to \$2,298,376.

Q9. PLEASE SUMMARIZE THE COMPANY'S REBUTTAL RATE BASE ADJUSTMENTS.

A9. The rebuttal rate base adjustments proposed by the Company are summarized as follows:

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Storage Reservoir Upsizing – As indicated in the Rebuttal Testimony of James A. Shiner, GWC’s President, the Company has proposed to remove the cost of upsizing its 530,000 gallon storage tank from 340,000 gallons to 530,000 gallons (190,000 gallon upsize). The cost of upsizing this storage reservoir was \$72,350. Plant-in-service (“PIS”) is reduced by \$73,250.

Land – The Company proposes to reduce the land cost by \$35,000 based on the Rebuttal Testimony and appraisal of Company witness, Mr. Ferenchak.

Plant Reclassification - The Company proposes to reclassify water treatment equipment costs totaling \$15,947 from account 320 – Water Treatment Plant to account 320.2 – Chemical Solution Feeders. This reclassification adopts Staff’s proposed reclassification.¹ The Company also proposes to reclassify storage reservoir costs totaling \$836,890 from account 330 – Storage Reservoirs and Standpipe to account 330.1 – Storage Tanks (\$384,827) and account 330.2 – Pressure Tanks (\$452,063). This reclassification adopts Staff’s proposed reclassification.² The net impact of both of these plant reclassifications on PIS and rate base is zero.

Accumulated Depreciation – The Company proposes to increase accumulated depreciation (“A/D”) by \$2,510. This adjustment reflects the impacts of a correction of a computational error for 2007 and the removal of A/D related to the removal of the cost of the tank upsizing discussed above.

¹ See Direct Testimony of Gary T. McMurry (“McMurry Dt”) at 5.

² *Id.*

1 Accumulated Deferred Income Taxes – The Company proposes to reduce
2 accumulated deferred income taxes (“ADIT”) by \$5,713 to reflect the Company’s
3 proposed changes to PIS.
4

5 **Q10. WHAT ARE THE PROPOSED REVENUE REQUIREMENTS AND RATE**
6 **INCREASES FOR THE COMPANY, STAFF, RUCO, AND INTERVENERS**
7 **AT THIS STAGE OF THE PROCEEDING?**

8 A10. The proposed revenue requirements and proposed rate increases are as follows:

	<u>Revenue Requirement</u>	<u>Revenue Incr.</u>	<u>% Increase</u>
9 Company-Direct	\$ 864,205	\$ 291,454	50.89%
10 RUCO	\$ 544,110	\$ (36,000)	-6.21%
11 Staff	\$ 700,939	\$ 120,829	20.83%
12 Interveners	\$ 471,641	\$ (101,109) ³	-17.65% ⁴
13 Company Rebuttal	\$ 857,176	\$ 262,717	44.19%
14			
15			

16 **III. RATE BASE**

17 **Q11. WOULD YOU PLEASE IDENTIFY THE PARTIES’ RESPECTIVE RATE**
18 **BASE RECOMMENDATIONS?**

19 A11. Yes, the rate bases proposed by the parties in the case, are as follows:

	<u>OCRB</u>	<u>FVRB</u>
20 Company-Direct	\$ 2,402,221	\$ 2,402,221
21 RUCO	\$ 1,729,190	\$ 1,729,190
22 Staff	\$ 1,739,712	\$ 1,739,712
23		
24		

25 ³ Company proposed direct adjusted test year revenue of \$572,751 minus \$471,641 as shown in
Schoemperlen Table 3.

26 ⁴ \$(101,109) divided by \$572,751.

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Intervenors	\$ 906,756	\$ 906,756
Company Rebuttal	\$ 2,298,376	\$ 2,298,376

A. Plant-in-service.

Q12. WOULD YOU PLEASE DISCUSS THE COMPANY’S PROPOSED ORIGINAL COST RATE BASE, AND IDENTIFY ANY ADJUSTMENTS YOU HAVE ACCEPTED FROM STAFF?

A12. The Company’s rebuttal rate base adjustments to OCRB are detailed on rebuttal schedules B-2, pages 3 through 5. Rebuttal Schedule B-2, page 1 and 2, summarize the Company’s proposed adjustments and the rebuttal OCRB.

Rebuttal B-2 adjustment 1, as summarized on Rebuttal Schedule B-2, page 2, consists of two adjustments labeled as “A” and “B” on Rebuttal Schedule B-2, page 3.

Adjustment A, of rebuttal B-2 adjustment 1, reflects a reclassification of plant costs. The Company proposes to reclassify water treatment equipment costs totaling \$15,947 from account 320 – Water Treatment Plant to account 320.2 – Chemical Solution Feeders. The Company also proposes to reclassify storage reservoir costs totaling \$836,890 from account 330 – Storage Reservoirs and Standpipe to account 330.1 – Storage Tanks (\$384,827) and account 330.2 – Pressure Tanks (\$452,063). Both of these reclassifications reflect the adoption of Staff’s recommended reclassifications.⁵ The net impact of both of these plant reclassifications on PIS and rate base is zero.

Adjustment B reflects a decrease to PIS (Account 330.1 – Storage Tanks) for storage reservoir upsizing costs totaling \$72,350.

⁵ *Id.*

1 Adjustment C reflects a decrease to PIS (Account 3303 – Land and Land
2 Rights) of \$35,000 to reflect the appraisal of the land at the time the land parcels
3 were devoted to public service.

4
5 1. Land

6 **Q13. PLEASE COMMENT ON THE STAFF RECOMMENDED ADJUSTMENT**
7 **TO THE LAND COST.**

8 A13. Staff has reduced the land value by \$369,500 from \$494,159 to 124,659 based
9 upon the Pinal County Assessor’s 2009 full cash value (“FCV”).⁶ The reasons
10 stated by Staff for its adjustment are: 1) the transaction was not recorded at the
11 time the land was “devoted to public service”; 2) the transaction was not at arm’s
12 length and was not recorded in accordance with the NARUC audit guidelines for
13 affiliate transactions; 3) the land appraisal was conducted by an appraiser that was
14 not independent from the Company; and, 4) the appraisal was flawed.⁷

15 With respect to Staff’s first reason, the Company does not dispute the fact
16 that it did not record the land at the time it was devoted to public service. The
17 failure to record the land was the result of an oversight, nothing more. Putting that
18 aside, the FCV proposed by Staff is a 2009 value. If the basis is the value of the
19 land when the land was devoted to public service, then a 2009 FCV is just as much
20 a flawed value as the Company’s 2008 appraisal, since the land was first devoted to
21 public service during the period 2003 to 2007.⁸ In fact, three of the four parcels
22 were placed into service by 2005.⁹

23
24 ⁶ McMurry Dt. at 10.

25 ⁷ McMurry Dt. at 8.

26 ⁸ See Company response to Staff Data Request 4.13.

⁹ *Id.*

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Q14. DOESN'T STAFF ACKNOWLEDGE THAT STAFF PREFERRED TO USE DATA FROM THE 2003 TO 2004 TIME PERIOD BUT THIS DATA WAS NOT AVAILABLE?

A14. Yes.¹⁰ However, using 2009 data does not remedy the problem of valuing the land at the time it was devoted to public service.

Q15. PLEASE CONTINUE.

A15. The FCV is also flawed because using the Pinal County Assessor's assessment of land value is not appropriate for establishing the fair market value of the land. This issue is discussed further in the Rebuttal Testimony of Mr. Michael Naifeh and Mr. John Ferenchak.

With respect to Staff's second reason, that the land transaction was not at arm's length, the Company disagrees with Staff that this justifies using the 2009 FCV as the basis for the land value. There is no question that transactions between related parties require more scrutiny. As Staff states, "[i]n such case, it is not clear whether the price paid for the real estate was truly market value".¹¹ However, whether a transaction is at arm's length alone is not sufficient basis to re-value the transaction as Staff recommends. The Company did seek and obtain an independent appraisal of the land by Mr. Naifeh to answer the question as to whether the transaction recorded at fair market value ("FMV"). The appraisal was provided to Staff in response to Staff data request GTM 7.8. A copy of the appraisal provided in response to GTM 7.8 is attached to Mr. Naifeh's Rebuttal Testimony as Attachment A. Since then, Mr. Ferenchak has prepared a separate

¹⁰ McMurry Dt. at 10.

¹¹ McMurry Dt. at 9.

1 appraisal of land values using the years the land in question was “devoted to public
2 service”. A copy of Mr. Ferenchak’s appraisal is attached to his Rebuttal
3 Testimony as Appendix B. Each of these appraisals supports land values well in
4 excess of Staff’s proposed land values.

5
6 **Q16. WHAT ABOUT STAFF’S RELIANCE ON THE NARUC AUDIT**
7 **GUIDELINES FOR AFFILATE TRANSACTIONS THAT AFFILATE**
8 **TRANSACTION SHOULD BE RECORDED A THE LOWER OF COST OR**
9 **MARKET VALUE?**

10 A16. Let me first state that the NARUC audit guidelines for affiliate transactions to
11 which Staff refers is the NARUC Guidelines for Cost Allocations and Affiliate
12 Transactions (“the Guidelines”). A copy of this document is attached as Rebuttal
13 Exhibit TJB-RB1. This document specifically states the Guidelines are not
14 intended to be rules or regulations prescribing how cost allocations and affiliate
15 transactions are to be handled.¹² Further, the Guidelines also state that the transfer
16 of assets from an affiliate to the utility should be at the lower of prevailing market
17 price or net book value, *except as required by law or regulation.*¹³ In that regard,
18 the Commission rules require that assets be recorded at the cost to the person (or
19 company) *first devoting the asset to public service.*¹⁴ And, the cost is the *cost at*
20 *the time the asset is devoted to public service.*¹⁵

21 It was the Company who first to devoted the land to public service and the
22 cost to GWC is the cost it incurred to acquire the land from E.C. Development.

23
24 ¹² Guidelines at 1.

25 ¹³ *Id.*

26 ¹⁴ See Arizona Administrative Code (“AAC”) R14-2-103(3)(e)

¹⁵ See AAC R-14-2-102(3)(d)

1 Not recognizing the land at the Company's acquisition cost will deprive GWC of
2 the recognition of value of the property it devoted to public service. In other
3 words, it is the equivalent of a taking, which may not lawfully take place without
4 payment of just compensation to the property's owner, namely, the Company.¹⁶ In
5 that regard, the Company's acquisition cost was based upon the 2008 appraisal
6 prepared by Mr. Nafieh.

7
8 **Q17. DOESN'T STAFF DISPUTE WHETHER THE APPRAISAL BY MR.**
9 **NAIFEH WAS IMPARTIAL?**

10 A17. Yes.¹⁷ This is Staff's third reason for restating the land cost. However, the
11 Company strongly disagrees with Staff that Mr. Naifeh's appraisal was not
12 independent. There are several reasons for this. First, Mr. Naifeh had no
13 ownership interest in the property which was being appraised. Second, the indirect
14 mutual interest of Mr. Naifeh and Mr. Sears is de minimis. Mr. Sears had an
15 interest of less than 2 percent in an unrelated entity, PHB Flagstaff Holdings, LLC.
16 in which Mr. Naifeh is a member. PHB Flagstaff Holdings, LLC. did not have
17 interest in the property being appraised. Third, Mr. Naifeh is a well known and
18 respected certified professional appraiser who would not jeopardize his
19 professional reputation and credentials by preparing a dishonest or otherwise
20 substandard appraisal.¹⁸ Fourth, the appraisal was prepared in conformity with the
21 Uniform Standards of Professional Appraisal Practice, the Code of Professional
22 Ethics, and the Standards of Professional Practice of the Appraisal Institute.¹⁹ In

23 ¹⁶ See Fifth Amendment of the United States Constitution made applicable by the Fourteenth
24 Amendment.

25 ¹⁷ McMurry Dt. at 8.

26 ¹⁸ See Rebuttal Testimony of Michael Naifeh ("Naifeh Rb.").

¹⁹ See Certifications on page 39 of Mr. Naifeh's appraisal report. See Naifeh Rebuttal Exhibit B.

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addition to these comments on my part, the Company is also submitting the Rebuttal Testimony of Mr. Naifeh which further rebuts Staff's criticisms of him and his appraisal.

Q18. IS STAFF'S DESCRIPTION OF THE MUTUAL INTEREST OF MR. NAIFEH AND MR. SEARS ACCURATE?

A18. No. Mr. McMurry states the Mr. Naifeh had a 2 percent interest in D&D Investments West, LLC.²⁰ Mr. Naifeh has no interest in D&D Investments West, LLC.

Q19. DO YOU HAVE ANY MORE COMMENTS REGARDING MR. NAIFEH'S APPRAISAL?

A19. No, except that further response to Staff's assertions that Mr. Naifeh's appraisal is not independent or that the appraisal was otherwise flawed is discussed in more detail in the Rebuttal testimony of Mr. Naifeh, as I previously noted.

Q20. WHAT ABOUT STAFF'S FOURTH REASON FOR RESTATING THE LAND VALUE, THAT THE APPRAISAL IS "FLAWED"?

A20. Since Staff has not directly testified to this asserted reason, I assume Staff's unstated fourth reason to be Staff's preceding assertions that Mr. Naifeh's appraisal is not impartial and that the land was not valued as of the date the land was devoted to public service. I make this assumption because Staff has not identified any flaws with respect to Mr. Naifeh's methodology or data.

²⁰ McMurry Dt. at 10.

1 **Q21. ISN'T THE APPROPRIATE "REMEDY" TO STAFF'S CONCERN**
2 **REGARDING THE VALUE OF LAND FOR THE COMPANY TO OBTAIN**
3 **ANOTHER APPRAISAL BY ANOTHER QUALIFIED APPRAISER FOR**
4 **THE TIME THE LAND WAS FIRST DEVOTED TO PUBLIC SERVICE?**

5 A21. Yes. This is exactly what the Company has recently done. The Company has
6 engaged the services of Mr. John Ferenchak. Irrespective of the ultimate
7 conclusion regarding Mr. Naifeh's independence, the second appraisal obtained by
8 the Company should resolve both the issue of independence and the date of
9 valuation. The second appraisal indicates the land value was \$455,000 at the time
10 the land was devoted to public service. This is \$35,000 lower than the value
11 indicated in Mr. Naifeh's appraisal in 2008. The new appraisal is discussed in the
12 Rebuttal Testimony of Mr. Ferenchak.

13
14 **Q22. HAS THE COMPANY ADJUSTED THE LAND COST TO REFLECT THE**
15 **CONCLUSIONS ON MARKET VALUE IN THE NEW APPRAISAL?**

16 A22. Yes. As discussed earlier, the Company has reduced the land cost to reflect the
17 results of Mr. Ferenchak's appraisal.²¹

18
19 **2. Excess Capacity**

20 **Q23. PLEASE COMMENT ON THE STAFF "EXCESS CAPACITY"**
21 **ADJUSTMENTS TO PLANT-IN-SERVICE.**

22 A23. First, as previously indicated, the Company has proposed to remove the cost of
23 upsizing the storage tank at Water Plant No. 3 from its original design of 340,000
24 gallons to 540,000 gallons (190,000 gallon upsize costing \$72,350). The cost of
25

26 ²¹ See Rebuttal Adjustment 1-C on Rebuttal Schedule B-2, page 3.

1 capacity currently reflected in rate base is for a 340,000 gallon storage tank. For
2 the reasons discussed in Mark Taylor's Rebuttal Testimony, the Company believes
3 the decision to design and construct at least 340,000 gallons of capacity at Water
4 Plant No. 3 was both prudent and necessary based on information it possessed at
5 the time it made the decision to proceed with construction. Therefore, the entire
6 cost of the 340,000 storage capacity should be considered used and useful and
7 reflected in rate base.

8
9 **Q24. ON WHAT BASIS DO YOU CONCLUDE THAT THE CONSTRUCTION**
10 **OF 340,000 GALLONS OF STORAGE CAPACITY AT WATER PLANT**
11 **NO. 3 WAS REASONABLE AND PRUDENT?**

12 A24. The circumstances surrounding the decision to design and construct the storage
13 tank are discussed in the Rebuttal Testimony of Mark Taylor and I will not repeat
14 that testimony here. That said, I would point out that the Company's decision to
15 size the storage capacity at the 340,000 gallon level should be evaluated based on
16 facts and surrounding circumstances at the time and the information that was
17 known to the Company.²² The Company was required to make the decision in the
18 2006-2007 time frame, at which time the Company obviously could not have
19 known exactly how many customers it would have in 2009. Instead, the Company
20 evaluated customer growth information then available to it at the time, coupled
21 with previous customer growth, and reasonably assumed such growth would
22 continue for the next several years. In short, in light of Mr. Taylor's testimony,
23 and Mr. Shiner's testimony on the history and development of the Company's
24 system, there should be no question that GWC acted prudently in addressing the
25 needs of its customers and well as meeting the requirements and expectations of

26 ²² See ACC RI4-28103(A)(3)(1).

1 both regulators and good engineering practices.

2
3 **Q25. DO YOU AGREE WITH MR. SCOTT'S ANALYSIS OF CUSTOMER**
4 **GROWTH WITHIN THE NEXT FIVE YEARS?**

5 A25. I do not disagree with Mr. Scott that the Company is projected to have
6 approximately 875 customers by 2014 based upon data from 2004 to 2010.²³ In
7 that regard, Staff's historical practice is to evaluate a utility's capacity requirements
8 using a five-year planning horizon, as measured from the end of the test period.²⁴
9 However, I disagree with the proposition that Mr. Scott's analysis should serve as
10 the basis for determining "excess" capacity.²⁵ Labeling storage capacity as
11 "excess" implies the Company acted imprudently, which it did not. Using data
12 from 2009 and 2010, and arguably 2008, is an after-the-fact analysis, or a form of
13 "Monday morning quarterbacking." This data was not available to the Company at
14 the time the decision was made to construct the Water Plant No. 3 storage facilities
15 back in 2006-2007. As Mr. Taylor points out, using data from 2002 through 2007
16 and a 5-year planning horizon, the projected number of customers through 2012
17 would be over 1,100 customers.²⁶ And, according to Mr. Taylor, based upon the
18 correct design criteria from 2003 through 2008, the projected number of EDU's
19 through 2013 would again be over 1,100 EDU's.²⁷

20
21 **Q26. IS PLANT FOUND TO BE PRUDENTLY CONSTRUCTED ALSO USED**
22

23 ²³ See Direct Testimony of Marlin Scott Jr. ("Scott Dt.") at 4.

24 ²⁴ *Id.* at 4 and 5.

25 ²⁵ *Id.* at 5.

26 ²⁶ See Rebuttal Testimony of Mark Taylor ("Taylor Rb.") at 26.

27 ²⁷ *Id.*

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AND USEFUL?

A26. Yes. It has been the policy of this Commission that plant investment found to be prudent is also deemed to be used and useful. Mr. Steve Olea, Director - Utilities Division, stated the following during an Open Meeting in the recent Gold Canyon rate case:

..[plant investment] can't be prudent and excess. It can't be prudent and not be used and useful. It either is used and useful or it isn't, and if it's not used and useful, then it's not prudent.²⁸

In that regard, the predicate determination is whether construction of the plant in question was a prudent decision as of the time the decision was made. In this instance, the decision was made by GWC clearly was prudent.

Further, the Commission's long-standing practice of including prudently financed plant in rate base is consistent with the Commission's regulations that govern rate proceedings. In those regulations, the term "prudently invested" is defined as follows:

Investments which under ordinary circumstances would be deemed reasonable and not dishonest and obviously wasteful. All investments shall be presumed to have been prudently made, and such presumptions may be set aside only by clear and convincing evidence that such investments were imprudent when viewed in light of all relevant conditions known or which in the exercise of reasonable judgment should have been known, at the time such investments were made.²⁹

²⁸ See June 26 Open Meeting Transcript ("OM Tr.") at 105-06.

²⁹ ACC RI4-28103(A)(3)(l).

1 In my opinion, it would be bad public policy for this Commission to deny
2 recognition of prudent investments. Such a policy would discourage utilities from
3 making investments to proactively address the needs of its customers. Further, it
4 places utilities in the proverbial “catch-22” whereby regulators (ADEQ, ADWR)
5 and sound engineering practices demand certain investments to be made while this
6 Commission only recognizes a portion of that investment. Finally, in this
7 particular instance, there is no “clear and convincing evidence” that the decision to
8 size and construct the 340,000 gallon storage reservoir at Water Plant No. 3 was
9 not prudent.

10
11 **Q27. STAFF IS ALSO RECOMMENDING EXCLUDING COSTS FOR SOME**
12 **TRANSMISSION AND DISTRIBUTION MAINS, LABELING THOSE**
13 **MAINS AS “EXCESS CAPACITY”. CORRECT?**

14 A27. Yes. Staff is recommending excluding \$105,564 of transmission and distribution
15 main costs from plant-in-service.³⁰ Again, the Company disagrees with Staff.
16 These mains were installed with a reasonable expectation of customer growth
17 materializing. Further, as Mr. Taylor and Mr. Shiner discuss in their Rebuttal
18 Testimony, it was prudent to install these mains at the time they were installed in
19 order to avoid underground utility separation problems, unnecessary costs and
20 disruption of public roadways.

21
22 **Q28. WERE THESE MAINS FUNDED BY DEVELOPER ADVANCES IN AID**
23 **OF CONSTRUCTION?**

24 A28. Yes. All the transmission and distribution mains were funded with advances-in-aid

25
26 ³⁰ McMurry Dt. at 13.

1 of construction ("AIAC"). However, I should note that Staff did not make a
2 corresponding downward adjustment to AIAC.
3

4 **Q29. WHY DIDN'T STAFF ADJUST ADVANCES IN AID OF**
5 **CONSTRUCTION?**

6 A29. Based upon Staff responses to Company Data Request 1.1, it appears that Staff did
7 not determine that these mains were funded with AIAC. I should note, that based
8 upon Staff's response to Company Data Request 1.2, Staff does indicate that if it
9 found sufficient evidence that AIAC was used to fund this plant that it would make
10 the appropriate adjustments. Both of the Staff responses are attached hereto at
11 Rebuttal Exhibit TJB-RB2,
12

13 **Q30. WAS SUFFICIENT INFORMATION PROVIDED TO STAFF?**

14 A30. Yes. Two key pieces of evidence were provided to Staff demonstrating that all
15 transmission and distribution mains were funded with AIAC. They include: 1) a
16 summary schedule of line extension agreements and refunds provided in Company
17 response to Staff Data Request 1.3; and, 2) plant cost lead sheets provided in
18 Company response to Staff Data Request 4.2. Copies of these data responses are
19 attached hereto as Rebuttal Exhibit TJB-RB3. A summary of the information
20 contained in these documents is shown below:
21

<u>Plant Description</u>	<u>Reference</u>	<u>LXA Amount</u> <u>(see DR 1.3)</u>	<u>Plant Costs</u> <u>Lead Sheet</u> <u>(see DR 4.2)</u>
Trans. & Dist. Mains	Phase III Lead Sheet		\$ 122,779
Services	Phase III Lead Sheet		\$ 17,266
Hydrants	Phase III Lead Sheet		\$ 36,220
	Total Phase III	\$ 176,290	\$ 176,264
Trans. & Dist. Mains	Phase IV Lead Sheet		\$ 685,094

1	Services	Phase IV Lead Sheet		\$ 143,352
	Hydrants	Phase IV Lead Sheet		\$ 43,205
2		Total Phase IV	\$ 871,651	\$ 871,651
3	Trans. & Dist. Mains	Phase V Lead Sheet		\$ 174,757
	Services	Phase V Lead Sheet		\$ 97,051
4	Hydrants	Phase V Lead Sheet		\$ 35,352
5		Total Phase V	\$ 307,160	\$ 307,160

6 I am sure that upon actual review of this information Staff will address the matter
7 accordingly. Ultimately, if the Commission determines the costs of the mains
8 should be excluded from rate base then AIAC must also be excluded. The net
9 impact on rate base should be zero.

10
11 **Q31. PLEASE COMMENT ON RUCO'S PROPOSED "EXCESS CAPACITY"**
12 **ADJUSTMENTS TO PLANT-IN-SERVICE.**

13 A32. RUCO contends that approximately 43% of all plant is currently not used and
14 useful.³¹ RUCO bases its argument on the ratio between number of customer
15 connections at the end of 2010 (plus a 10 percent annual reserve margin) and the
16 number of customers at full build out.³² As discussed in Mr. Taylor's Rebuttal
17 Testimony, the Company strongly disagrees with RUCO's arithmetic approach and
18 resulting conclusion. Like Mr. Coley, I am not an engineer, but even I can see that
19 the basis of RUCO's recommendation does not reflect the principles of sound
20 engineering design and does not reflect the plant necessary to serve Goodman's
21 customers. Let me explain. Under RUCO's approach, RUCO eliminates 43% of
22 the cost of the 400,000 gallon storage tank at Water Plant No. 1, based on RUCO's
23 theoretical argument as to that capacity which is necessary. Whereas, the two (2)
24 professional engineers in the instant case, Mr. Scott and Mr. Taylor, both agree that

25 ³¹ See Direct Testimony of Timothy J. Coley ("Coley Dt.") at 18-19.

26 ³² *Id.*

1 the required capacity of the system exceeds 400,000 gallons and that the 400,000
2 gallon storage tank at Water Plant No. 1 is required.³³ Even RUCO admits that
3 this storage tank is needed. *See* RUCO response to Goodman Data Request GWC
4 1.15 attached hereto at Rebuttal Exhibit TJB-RB4. RUCO also eliminates 43% of
5 the meter costs even though there are only 649 meters installed at the end of the
6 test year and the fact that there were over 620 active customers at the end of the
7 test year. In other words, RUCO's recommendation only recognizes the cost of
8 about 370 meters (649 X 57%). Again, even RUCO admits that its
9 recommendations reflect less meter costs than are actually required to serve
10 customers. *See* RUCO response to Goodman Data Request GWC 1.16 attached at
11 Rebuttal Exhibit TJB-RB4. A third example is that RUCO eliminates 43% of the
12 cost of the Company's two (2) wells. Whereas, Mr. Scott and Mr. Taylor find that
13 both wells are necessary and used and useful.³⁴

14
15 **Q33. WHY DOES RUCO CONCLUDE THERE IS EXCESS CAPACITY?**

16 A33. RUCO believes the Company over-anticipated GWC's build-out date and
17 constructed plant to serve the projected build out.³⁵ However, Mr. Coley's
18 analysis is an after-the-fact analysis. As previously indicated, the Company acted
19 prudently in building plant based upon what was known at the time the plant design
20 and construction decisions were made. Even RUCO admits that the Company
21 would have had over 1,000 customers by the end of 2010 had the growth that
22 occurred in the 2005-2006 time frame continued.³⁶ Mr. Coley's after-the-fact

23
24 ³³ Scott Dt. at 5; Taylor Rb. at 6, 17-18, 23.

25 ³⁴ Scott Dt. at 4; Taylor Rb. at 5-6, 11-12, 17-18, 23.

26 ³⁵ Coley Dt. at 14.

³⁶ Coley Dt. at 15.

1 analysis, which is simply based upon the number of current customers, ignores any
2 consideration of applicable system engineering and design requirements in meeting
3 fire flow capacity as well as customer usage demands. These requirements are
4 detailed in Mr. Taylor's Rebuttal Testimony.
5

6 **Q34. ON WHAT BASIS DOES RUCO CONCLUDE THAT ONLY A 10%**
7 **RESERVE MARGIN IS NECESSARY?**

8 A34. RUCO asserts that regulatory bodies usually require water and sewer companies to
9 maintain a constant reserve margin of 10%-20% of normal capacity.³⁷ However,
10 when pressed as to the basis for this assertion, RUCO could not cite any
11 authoritative reference. The one reference included in the response related to
12 electric utilities and this document related to peak level of energy use and not
13 planning, engineering, design, and construction criteria to meet expected growth.
14 See RUCO response to Goodman Water Company Data Request 1.10 attached
15 hereto at Rebuttal Exhibit TJB-RB3.
16

17 **Q35. IS IT POSSIBLE TO CONSTRUCT A SYSTEM SUCH THAT FOR EVERY**
18 **YEAR THERE IS ONLY A 10%-20% RESERVE MARGIN?**

19 A35. Given the inability to precisely predict customer growth and customer year-end
20 connections for each year, and the timeline for designing and constructing
21 "backbone" water plant, I seriously question if such finely-tuned engineering
22 would be possible. However, even as a non-engineer I recognize that meeting such
23 constraints on reserve margins would result in a much more costly system. This is
24 because the utility would typically have to build capacity in uneconomical
25

26 ³⁷ Coley Dt. at 19.

1 increments. For example, let's say current capacity plus a reserve 10% margin for
2 Year 1 of a water utility's operation requires a storage tank of 50,000 gallons. The
3 utility buys land and places a 50,000 gallon tank on the site. In year 2, because of
4 customer growth, another 50,000 gallon storage tank is required, assuming
5 continuation of the 10% reserve margin. Because there is no room on the existing
6 storage tank site (to allow room for expansion at the site would violate RUCO's
7 standard on excess capacity), the utility either has to demolish the existing 50,000
8 gallon tank and construct a new 100,000 gallon tank or the utility would need to
9 find additional land and construct a new 50,000 gallon storage tank. Either way, the
10 cost of storage for 100,000 of storage would be much higher -particularly because
11 of the additional engineering and permitting. Whereas, had a 100,000 gallon
12 storage site on that same site been constructed initially, the total cost would have
13 been substantially less.

14
15 **Q35. YOUR EXAMPLE SEEMS A BIT SIMPLISTIC. DOESN'T THE**
16 **CONSTRUCTION OF UTILITY PLANT TYPICALLY REQUIRE**
17 **SIGNIFICANT LEAD TIMES FOR ENGINEERING AND PERMITTING,**
18 **LET ALONE THE TIME TO PHYSICALLY CONSTRUCT THE PLANT?**

19 A35. Yes. In the above example, the utility would have to start planning, engineering
20 and permitting the new storage tank 1-2 years before the storage capacity is
21 needed. And, planning for capacity requires estimates of future customer growth
22 which inevitably turn out to be different than actual growth. Succinctly stated,
23 RUCO's assumed fine-tuning capacity addition approach is not realistic.

24
25 **Q36. PLEASE CONTINUE.**

1 A36. While there may be rare exceptions, it is generally much less costly to build one
2 large storage tank than to build two, or more, smaller storage tanks. The upsize of
3 the Company's 540,000 gallon tank in the instant case is a perfect example. The
4 upsize cost to increase the capacity of the originally planned 340,000 gallon tank
5 by 190,000 gallons to 540,000 was only \$72,350 out of a total cost of over
6 \$370,000. In other words, the cost per gallon on the 340,000 gallon tank was
7 approximately \$0.87 per gallon $((\$370,000 - \$72,350) / 340,000)$ whereas the cost
8 of the 190,000 gallon upsize was approximately \$0.38 per gallon
9 $(\$72,350 / 190,000)$ – far less than half the cost per gallon at the 340,000 gallon
10 capacity level.

11

12 **Q37. HAS RUCO PERFORMED ANY ANALYSIS TO DETERMINE WHAT**
13 **THE COST OF THE COMPANY'S WATER SYSTEM WOULD BE HAD**
14 **THE COMPANY CONSTRUCTED ITS SYSTEM IN ORDER TO PROVIDE**
15 **FOR A 10% TO 20% RESERVE MARGIN EACH YEAR.**

16 A37. No. *See* RUCO response to Goodman Water Company Data Request GWC 1.9
17 attached hereto at Rebuttal Exhibit TJB-RB4. In my opinion, a system constructed
18 by Goodman under those constraints would have cost much more than the
19 Company's currently constructed system. Instead of discussing excess capacity in
20 the instant case, we would be discussing the prudence of that approach, which
21 would be difficult to defend in my opinion.

22

23 **Q38. ARE THE REALITIES OF SOUND PLANNING, ENGINEERING, AND**
24 **SYSTEM DESIGN, AS WELL AS GOOD PUBLIC POLICY, FACTORS**
25 **UNDERLYING THE COMMISSION'S HISTORICAL RELIANCE ON A**

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FIVE YEAR PLANNING HORIZON TO DETERMINE WHETHER THERE IS EXCESS CAPACITY?

A38. I believe so. Amazingly, RUCO believes that its proposal to use a 10% reserve margin will incent utilities to build capacity to meet its customer needs, but offers no tangible evidence to support that theoretical proposition.³⁸

Q39. HOW DO YOU RESPOND TO RUCO'S RELIANCE ON THE RECENT GOLD CANYON RATE CASE TO SUPPORT ITS APPROACH?

A39. I am very familiar with that case, because I was both a consultant and witness for the Company. RUCO's approach and computation of excess capacity in the Gold Canyon rate case (Rehearing Decision 70624, dated November 19, 2008) was not adopted. RUCO contended that over \$2.8 million of plant was excess capacity.³⁹ Instead, the Commission found there was excess capacity of \$1 million.⁴⁰ In my opinion the Gold Canyon rate case (Rehearing Decision 70624, dated November 19, 2008) is an outlier and the Commission's decision was not based upon the credible evidence in that case⁴¹ nor was it good public policy.

Q40. WHY?

A40. First, the Commission appears to have disregarded several key pieces of credible and convincing evidence on capacity including its own Staff's engineering analysis. Second, the finding that there was excess capacity disregarded the Commission's long standing policy of the use of a 5 year planning horizon and

³⁸ Coley Dt. at 26.
³⁹ Decision 69664 at 6.
⁴⁰ Decision 70624 at 9.
⁴¹ Decision 69664 at 5-7; Decision 70624 at 6-8.

1 disregarded its long standing policy that prudent investments should be recognized.
2 Utilities and investors rely on these policies when making investments. Changing
3 the rules of the road in mid-stream as the Commission did with Gold Canyon and
4 its investor increases uncertainty and investment risk and discourages utilities from
5 making necessary improvements to their systems in order to meet the needs of its
6 customers.

7
8 **Q41. ON PAGE 22 OF MR. COLEY'S TESTIMONY HE ASSERTS THAT THE**
9 **COMPANY'S PLANT-IN-SERVICE BALANCE INCLUDES THE COST OF**
10 **FIRE FLOW UPGRADES TO THE WATER PLANT #4 BOOSTER**
11 **STATION. IS THIS TRUE?**

12 A41. No. Mr. Wawrzyniak makes a similar assertion.⁴² Mr. Coley's and Mr.
13 Wawrzyniak's assertions are simply not true. As Mr. Shiner discusses in his
14 Rebuttal Testimony, the upgrade to the booster station from 1,100 gpm to 1,600
15 gpm was borne by D.R. Horton and the cost is not included in the Company's
16 plant-in-service balance and rate base.

17
18 **Q42. DO YOU HAVE ANY FURTHER COMMENTS REGARDING RUCO'S**
19 **EXCESS CAPACIY ADJUSTMENT?**

20 A42. RUCO has not demonstrated that any specific single piece of plant is in fact excess
21 capacity and not used and useful. See RUCO Response to Goodman Water
22 Company Data Request GWC 1.19 attached here to at Rebuttal Exhibit TJB-RB4.
23 Rather, RUCO uses the shotgun approach and reduces the cost of all plant without
24 consideration as to whether plant is actually necessary and used and useful.

25
26 ⁴² Wawrzyniak Dt. at 5-6.

1 Further, beside the obvious example listed earlier, RUCO has not performed any
2 engineering analysis to support its approach. It is merely based on a made up
3 arithmetic analysis which has no basis in sound planning, engineering, and system
4 design. To the contrary, RUCO's approach appears to simply achieve a significant
5 reduction in the Company's rate base and revenue requirement as a strategic
6 objective, without regard for the actual needs of the Company and its customers.
7

8 **Q43. PLEASE COMMENT ON MR. SCHOEMPERLEN'S PROPOSED "EXCESS**
9 **CAPACITY" ADJUSTMENTS TO RATE BASE.**

10 A43. Based on Mr. Schoemperlen's analysis of unconnected lots for Phase IV B&C and
11 Phase V of the system and "unplanned" capacity, he determined that 85.8 percent
12 of the capacity costs related to the those phases were unused.⁴³ Mr.
13 Schoemperlen's determined the cost of those phases to be equivalent to the 2008
14 plant additions totaling \$1,737,370.⁴⁴ He then removes 85.8 percent of the
15 \$1,737,370 or \$1,490,663 from the Company proposed rate base.⁴⁵
16

17 **Q44. WHAT IS "UNPLANNED" CAPACITY?**

18 A44. I am not sure. According to Mr. Taylor's Rebuttal testimony, the system is based
19 on a master plan and he discusses why and when construction was undertaken and
20 completed on each one of those phases. So I am confused by this term.
21

22 **Q45. WHAT'S WRONG WITH MR. SCHOEMPERLEN'S APPROACH?**

23 A45. Like the RUCO approach, Mr. Schoemperlen's approach ignores prudent system
24

24 ⁴³ See Direct Testimony of James Schoemperlen ("Schoemperlen Dt.") at 21-22.

25 ⁴⁴ Schoemperlen Dt. at 22; See also Schoemperlen Table 3.

26 ⁴⁵ See Schoemperlen Table 3.

1 planning, engineering and design. For example, Mr. Schoemperlen eliminates 85.8
2 percent of the storage tank at Water Plant #3 when even Staff's witness Mr. Scott
3 finds that at least 50 percent of the 530,000 gallons of storage (or 265,000 gallons)
4 is used and useful.⁴⁶ In yet another example, Mr. Schoemperlen removes 85.8 of
5 the booster station at Water plant #3 which was found to be entirely used and
6 useful by Mr. Scott.⁴⁷

7
8 **Q46. WHAT'S ELSE IS WRONG WITH MR. SCHOEMPERLEN'S**
9 **APPROACH?**

10 A46. In his analysis Mr. Schoemperlen appears to have no accommodation of reserve
11 capacity necessary for customer growth. In other words, Mr. Schoemperlen
12 ignores the practicalities of planning, designing, constructing and operating a water
13 system which necessarily requires reserve capacity.

14
15 **Q47. ANYTHING ELSE WRONG?**

16 A47. Assuming Mr. Schoemperlen's approach is appropriate, which it is not, Mr.
17 Schoemperlen incorrectly assumed that the 2008 plant additions comprised the
18 entirety of the Phase IV and V costs. This assumption was incorrect. Land costs
19 from Phase I, II, and III were included in the plant additions for 2008. Further,
20 some of the Phase IV costs were recorded in 2007. Just as important, however, is
21 the fact that over 57 percent of the cost of Phase IV and V was funded with

22
23 ⁴⁶ Remember, the Company has proposed storage capacity of 340,000 gallons by virtue of
24 removing the costs for the 190,000 gallon upsizing of the storage tank. Thus, the used and useful
25 storage capacity of the 340,000 gallons under Staff's approach is approximately 78% (265,000 /
26 340,000). Mr. Schoemperlen's approach would mean that only 14.2% of the storage capacity is
used and useful.

⁴⁷ Mr. Scott does not recommend any disallowance for the booster station and pumping
equipment at Water Plant #3. See Direct Testimony of Marlin Scott Jr.

1 developer AIAC and Mr. Schoemperlen failed to account for this AIAC in his
 2 proposed rate base adjustment. Based upon a full accounting of the costs and
 3 AIAC funding as well as proper ratemaking treatment, Mr. Schoemperlen's
 4 proposed rate base adjustment should be no more than \$741,257 – roughly half of
 5 what he computed, assuming the correctness of his analytical approach, which the
 6 Company does not.

7 Let me explain. The total of the Phase IV and V plant costs is \$2,057,746.
 8 Of this amount \$1,178,810 was funded with developer advances (AIAC). Mr.
 9 Schoemperlen's proposed adjustment to the plant costs is 85.8 percent, so the plant
 10 adjustment and AIAC adjustment would be \$1,765,546 (\$2,057,746 times 85.8%)
 11 and \$1,011,419 (1,178,810 times 85.8%), respectively. The net rate base
 12 adjustment is therefore \$754,127 (\$1,765,746 minus \$1,011,419) and not
 13 \$1,490,663 as Mr. Schoemperlen proposes.

14
 15 **Q48. HAVE YOU PREPARED AN ACCOUNTING OF THE PHASE IV AND**
 16 **PHASE V PLANT COSTS ALONG WITH THE ASSOCIATED AIAC?**

17 A48. Yes. Below is an accounting of the Phase IV and Phase V plant costs including
 18 land for water Plant #3 taken from the Company's work papers:

<u>Phase</u>	<u>Year</u>	<u>Acct</u>	<u>Description</u>	<u>Cost</u>	<u>AIAC</u>	<u>% AIAC</u>
IV	2008	303	Land and Land Rights	\$ 165,000		0.00%
IV	2008	304	Structure & Improv.	\$ 171,506		0.00%
IV	2008	330	Dist. Reserv. & Standpipe	\$ 470,080		0.00%
IV	2007	330	Dist. Reserv. & Standpipe	\$ 72,350		0.00%
IV	2008	331	Trans. and Dist. Mains	\$ 685,094	\$ 685,094	100.00%
IV	2008	333	Services	\$ 143,352	\$ 143,352	100.00%
IV	2008	335	Hydrants	\$ 43,205	\$ 43,205	100.00%
V	2009	331	Trans. and Dist. Mains	\$ 174,756	\$ 174,756	100.00%
V	2009	333	Services	\$ 97,051	\$ 97,051	100.00%
V	2009	335	Hydrants	\$ 35,352	\$ 35,352	100.00%
			Total	\$ 2,057,746	\$1,178,810	57.29%

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Q49. LET'S MOVE ON. PLEASE RESPOND TO MR. COLEY'S TESTIMONY REGARDING A HOOK-UP FEE.

A49. RUCO asserts that if the Company had a hook-up fee ("HUF") in place the overall increase in rates being proposed by the Company would have been mitigated.⁴⁸ While I do not necessarily disagree with Mr. Coley on this point, I do not believe a HUF was, or is, appropriate. Let me explain. Utility companies fund plant investment through one of four forms of capitalization: 1) Investor Equity; 2) Long-term Debt; 3) Advance-in-aid of Construction ("AIAC"); and, 4) Contributions in aid of Construction ("CIAC"). HUF's are a form of CIAC. AIAC and CIAC are forms of zero cost capital and the plant investment funded by AIAC and CIAC receives no recognition when computing the return (earnings) component of the revenue requirement. In other words, there is no rate base recognition of AIAC and CIAC funded plant.

Utilities should strive to maintain a balance between all the sources of capital. Imbalances can have detrimental effects on the long-term financial health of the utility. Higher proportions of zero cost capital (CIAC and AIAC) in a utility's total capitalization do not come without risk. Rate base can become very low and/or even negative over time. With a lower dollar return component in the revenue requirement due to a smaller rate base, a utility has less of an earnings cushion to internally fund needed capital improvements and/or cash flow higher than expected operating expenses. Such events can require curtailed payment of dividends to investors, thereby diminishing the utility's ability to attract new capital. CIAC funded plant receives no depreciation recovery in rates and

⁴⁸ Coley Dt. at 24.

1 therefore no cash flow. And, while AIAC funded plant does receive depreciation
2 recovery, the cash flow from depreciation is used to pay the refunds. Over time,
3 most AIAC reverts to, or becomes, CIAC.

4 In addition, zero cost capital plant eventually wears out and has to be
5 replaced. Utilities cannot always control the timing of when such replacement will
6 be required. Thus, a utility with a relative high proportion of zero cost capital may
7 have the benefit of being less costly to rate payers, but faces increased risks.
8 Ultimately, a balanced approach to capitalization of plant is required.

9 In this particular instance, the Company already has a high proportion of
10 zero cost capital in its total capitalization. In fact, the proportion of zero cost
11 capital in the Company's total capitalization is about 43% (47% of net plant
12 investment). The publicly traded water utilities have on average less than about
13 23% of zero cost capital in their total capitalization⁴⁹ – nearly one half the
14 proportion in GWC's capitalization. So, the proportion of zero cost capital in
15 GWC's total capitalization is already high to begin with compared to the publicly
16 traded water utilities. In my experience, smaller water utilities tend to rely more
17 heavily on zero cost capital because of their lack of access to the capital markets to
18 their inability attract capital. However, this does not mean that their higher
19 reliance on zero cost capital is financially healthy.

20 Finally, HUF's are designed to recover only a portion of backbone plant
21 infrastructure costs such as wells, storage tanks, water treatment equipment, etc.
22 Typically, the proportion of the costs that a HUF covers is about 30-40 percent.
23 The underlying reasons for this have been enumerated above. In my opinion, the
24 existence of a HUF, would have made only a small difference in the instant case.

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26 ⁴⁹ Based upon data from the 2010 10K's for the Water Proxy Group.

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Q50. PLEASE EXPLAIN.

A50. Assuming the Company had applied for and been authorized a HUF as early as the beginning of 2007, based upon the backbone infrastructure additions for 2007 through 2009 (about \$900,000 excluding land) and a full build out capacity of 1,288 equivalent 5/8x3/4 inch metered customers, the HUF would likely have been no more than \$470 for an equivalent 5/8 inch metered customer.

Q51. HAVE YOU PREPARED A COMPUTATION OF THE \$450 HUF BASED UPON THE TYPICAL APPROACH TO DESIGNING A HUF?

A51. Yes. Attached hereto as Rebuttal Exhibit TJB-RB5 is a schedule showing the HUF computation.

Q52. PLEASE CONTINUE.

A53. By the end of the test year (2009), Goodman would have collected approximately \$64,390 in HUF's (137 customers added from 2007 to 2009 x HUF of \$470). The impact on the revenue requirement would have been a total reduction of less than \$13,000 (HUF collections \$64,390 x rate of return of 10.2% x tax factor of 1.6286 plus depreciation computed as \$64,390 times 3.5 percent) which is less than 5 percent of the Company's requested increase and about 1.5 percent of the Company's required revenue requirement.

Q54. HOW WOULD THE HUF IMPACT THE PROPORTION OF ZERO COST CAPITAL IN TOTAL CAPITALIZATION FOR GOODMAN IN THE FUTURE?

1 A54. It would increase the proportion of zero cost capital. When the Company grows to
2 full build out, it will have collected approximately \$379,300 in HUF's (1,291
3 equivalent 5/8 inch metered customers at full build out – 484 customers at the end
4 of 2006 x HUF of \$470) adding another \$379,300 to CIAC (zero cost capital). The
5 HUF additions to zero cost capital would undoubtedly result in an increase in the
6 proportion of zero cost capital in GWC's total capitalization, which as I have
7 already testified would not be financially healthy. Of course, all this assumes that a
8 HUF would have been approved by this Commission in the first place.

9
10 **Q55. DID THE COMPANY PREVIOUSLY APPLY FOR A HUF AT THE**
11 **DIRECTION OF THE COMMISSION?**

12 A56. Yes. The Company applied for a HUF in 2007.⁵⁰ However, Staff did not
13 recommend approval of the HUF.⁵¹ Part of the reason was the high proportion of
14 zero cost capital in Goodman's total capitalization. The other reason is the
15 proposed project costs would not benefit the entire system. A copy of email
16 correspondence between the Company and Staff citing both of these as reasons is
17 attached hereto at Rebuttal Exhibit TJB-RB6.

18
19 **Q57. DOES THE HIGHER PROPORTION OF ZERO COST CAPITAL IN**
20 **GWC'S TOTAL CAPITALIZATION RESULT IN A LOWER RATE**
21 **IMPACT COMPARED TO THE PUBLICLY TRADED UTILITIES?**

22 A57. Yes. By virtue of GWC's reliance on a high proportion of zero cost capital to fund
23 plant, ultimately the impact on rate payers per \$100 of plant investment recognized
24 in rate base is less than the publicly traded water utilities in the sample water utility

25 ⁵⁰ See Docket No. W-02500A-06-0281

26 ⁵¹ *Id.*

1 group (“Water Proxy Group”) used in my cost of capital analysis. I will discuss
2 this in more detail in my Rebuttal Cost of Capital Testimony. For now, the
3 analysis shows that the impact on the revenue requirement from recognized rate
4 base investment for my Water Proxy Group is \$9.92 while that for GWC is \$8.99 –
5 over 10 percent higher for the Water Proxy Group. This analysis shows that
6 GWC’s capitalization mix of AIAC, CIAC, equity and debt is more than
7 appropriate.

8 **B. Accumulated Depreciation.**

9 **Q58. PLEASE EXPLAIN YOUR ADJUSTMENTS TO ACCUMULATED**
10 **DEPRECIATION.**

11 A58. Rebuttal B-2 adjustment 2, as summarized on Rebuttal Schedule B-2, page 2,
12 consists of three adjustments labeled as “A”, “B”, and “C” on Rebuttal Schedule B-
13 2, page 4.

14 Adjustment A reclassifies accumulated depreciation related to the plant
15 reclassification discussed earlier. As with the plant reclassification, the net
16 adjustment to accumulated depreciation is zero.

17 Adjustment B reduces accumulated depreciation by \$4,015 which is the
18 accumulated depreciation related to the \$72,350 upsizing of the Water Plant No. 3
19 storage tank discussed earlier.

20 Adjustment C increases accumulated depreciation by \$6,533 which is a
21 correction to the accumulated depreciation balance in the Company’s initial filing.
22 The error was identified by RUCO.⁵²

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24 **Q59. PLEASE COMMENT ON STAFF’S ADJUSTMENTS TO ACCUMULATED**

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26 ⁵² See Direct Testimony of Timothy J. Coley (“Coley Dt.”) at X.

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DEPRECIATION.

A59. Staff's accumulated depreciation reflects Staff's recommended plant adjustments. Assuming Staff's recommendations are adopted, the only disagreement I would have at this time is that the adjustment to plant for the \$14,600 shown in Mr. Scotts Table E-1 was reflected in Staff's A/D computation in 2008, but this plant was placed into service in 2002. At the very least, the adjustment should be reflected in 2006, the year after the end of the last test year. In that regard, it should be noted the \$14,600 of plant (12 inch main from Edwin Road to the end of the line) was found to be used and useful in the Company's prior rate case.

Q60. PLEASE COMMENT ON RUCO'S ADJUSTMENTS TO ACCUMULATED DEPRECIATION.

A60. RUCO's adjustment to A/D reflects RUCO recommended reduction to plant-in-service. Like its recommendation to reduce plant-in-service based upon RUCO's excess capacity adjustment, RUCO's adjustment to A/D is flawed.

Q61. DOES EITHER STAFF OR RUCO RECOMMEND THAT DEPRECIATION BE DEFERRED ON THE PLANT THEY DEEM EXCESS CAPACITY?

A61. No. If the Commission were to adopt the recommendation of either Staff or RUCO for excess capacity, the Commission should authorize an accounting order relating to deferred depreciation expense for future recovery.

C. Advances-in-aid of Construction ("AIAC").

Q62. DOES THE COMPANY PROPOSE ANY ADJUSTMENTS TO ADVANCES-

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IN-AID OF CONSTRUCTION?

A62. No. None of the Company's proposed adjustments to plant-in-service were funded with advances-in-aid of construction.

Q63. HAS STAFF PROPOSED ANY ADJUSTMENTS TO ADVANCES-IN-AID OF CONSTRUCTION?

A63. No. However, as I testified earlier, the transmission and distribution mains Staff seeks to eliminate from plant-in-service were funded with AIAC. Accordingly, Staff's recommendations are incomplete and will result in a mismatch between rate base and revenues and expenses if not corrected.

D. Accumulated Deferred Income Taxes ("ADITs").

Q64. HAS THE COMPANY PROPOSED A REBUTTAL ADJUSTMENT TO DEFERRED INCOME TAXES?

A64. Yes. In rebuttal B-2 adjustment 5, as shown on Schedule B-2, page 2, the Company's ADIT is decreased by \$5,713 from \$335,342 in its direct filing to \$129,629. The decrease reflects the Company's rebuttal proposed changes to PIS, accumulated depreciation, and AIAC. The details of the Company's rebuttal proposed ADIT adjustment is shown on Schedule B-2, page 7.

Q65. HAS STAFF PROPOSED ANY CHANGES TO THE COMPANY'S PROPOSED ACCUMLATED DEFERRED INCOME TAXES?

A65. No. However, since Staff has recommended changes to the Company's PIS balance, Staff should have made appropriate changes to accumulated deferred income taxes ("ADIT"). I have computed the ADIT balance based on the Staff

1 recommendations and Staff's ADIT balance should be reduced by approximately
2 \$47,349 to \$87,994 from \$135,342.

3
4 **Q66. HAVE YOU PREPARED AN ACCUMULATED DEFERRED INCOME**
5 **TAX COMPUTATION REFLECTING STAFF'S PROPOSED**
6 **DISALLOWANCES TO PLANT_IN_SERVICE?**

7 A66. Yes. Please see the computation of Staff's ADIT balance attached hereto at
8 Rebuttal Exhibit TJB-RB7.

9
10 **Q67. PLEASE COMMENT ON RUCO'S PROPOSED ACCUMMULATED**
11 **DEFERRED INCOME TAX BALANCE.**

12 A67. RUCO has attempted to compute an ADIT balance based upon its
13 recommendations. However, RUCO's tax basis of plant and AIAC balance used in
14 RUCO's computation of ADIT are incorrect.

15
16 **Q68. PLEASE EXPLAIN.**

17 A68. With respect to the tax basis of plant in RUCO's computation, RUCO has adjusted
18 the book plant-in-service balance but has not made corresponding adjustments to
19 the tax basis of plant. This creates a mismatch between book and tax. RUCO uses
20 the Company's proposed tax basis of plant from the Company's initial filing of
21 \$2,268,902.⁵³ The correct tax basis of plant based on RUCO's recommendations is
22 \$1,165,726. Based on the correct balance for the tax basis of plant, the fixed asset
23 component of RUCO's computation should not be an asset of \$130,449⁵⁴, but a
24 liability of \$209,521.

25 ⁵³ See RUCO Schedule TJC-7.

26 ⁵⁴ *Id.*

1 With respect to the AIAC balance, RUCO uses the Company's unadjusted
2 balance of \$2,101,905 in the AIAC component computation. RUCO's adjusted
3 balance of AIAC per its recommendations is \$1,195,540⁵⁵, not \$2,101,905. The
4 result of this error is to overstate the computed asset component.

5 I have computed the ADIT balance based on the RUCO recommendations
6 and RUCO's ADIT balance should be a net ADIT liability of \$99,053 and not a net
7 ADIT asset of \$324,952. Please see the computation of RUCO's ADIT balance
8 attached hereto at Rebuttal Exhibit TJB-RB8.

9
10 **IV. INCOME STATEMENT**

11 **Q69. WOULD YOU PLEASE DISCUSS THE COMPANY'S PROPOSED**
12 **REBUTTAL ADJUSTMENTS TO REVENUES AND EXPENSES AND**
13 **IDENTIFY ANY ADJUSTMENTS YOU HAVE ACCEPTED FROM STAFF**
14 **AND/OR RUCO?**

15 A69. The Company's proposed rebuttal adjustments are detailed on Rebuttal Schedule
16 C-2, pages 1-8. The rebuttal income statement with adjustments is summarized on
17 Rebuttal Schedule C-1, page 1-2.

18 Rebuttal adjustment 1 increases depreciation and amortization expense.
19 Depreciation and amortization expense is higher due to the impacts of the
20 Company's proposed rebuttal adjustments to plant-in-service.

21 Rebuttal adjustment number 2 adjusts property tax expense to reflect the
22 rebuttal adjusted revenues.

23 Rebuttal adjustment number 3 increases annual rate case expense. The
24 Company is proposing total rate case expense of \$160,000 amortized over 4 years.

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26 ⁵⁵ *Id.*

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Compare this to the \$80,000 amortized over 4 years the Company proposed in its initial filing.

Q70. WHY IS THE COMPANY PROPOSING A SUBSTANTIAL INCREASE TO RATE CASE EXPENSE?

A70. Because there have been significant changes to the anticipated level of activity in this rate case. First, RUCO has intervened in this case which was not anticipated. In my experience, RUCO typically does not get involved in Class C and smaller company rate cases. Whatever the reason RUCO chose to intervene in the instant case RUCO's intervention has and will cause a significant increase in costs. Second, there are major differences between the parties with respect to rate base and revenue requirement at this stage of the proceeding that are unlikely to be resolved by hearing.

Q71. WHAT IS THE COST OF THE RATE CASE THIS FAR?

A71. Not including the preparation of the Company's rebuttal testimony, schedules and exhibits, the Company has incurred more than \$84,000 of rate case expense through the end of March 2010. This amount does not include the preparation of the Company's rebuttal filing. We still have two more rounds of testimony (rebuttal and surrebuttal), a hearing, post hearing briefing, and an Open Meeting. As a consequence, the Company believes total rate case expense could approach \$200,000, but it is requesting recognition of only \$160,000 in order to mitigate the magnitude of the rate increase.

Q72. WHAT DO STAFF AND RUCO PROPOSE FOR RATE CASE EXPENSE?

1 A72. At this stage, both Staff and RUCO have adopted the Company's initial request of
2 \$80,000 normalized over 4 years or \$20,000 for the test year.

3
4 **Q73. PLEASE CONTINUE WITH YOUR DISCUSSION OF THE COMPANY'S**
5 **REVENUE AND EXPENSE ADJUSTMENTS.**

6 A73. Rebuttal adjustment 4 revises the Company initial revenue annualization proposal.
7 The revision is based upon a revised bill count.

8
9 **Q74. PLEASE EXPLAIN THE REASONS FOR THE CHANGE IN THE BILL**
10 **COUNT.**

11 A74. Since its initial filing, the Company discovered deficiencies in its original bill
12 count. There are two primary reasons for the deficiencies. First, the original bill
13 count information did not contain bill counts for zero usage. This deficiency
14 understated the bill counts. Second, the original bill count information did not
15 account for pro-rated bills. Pro-rated bills are those where the billed party at a
16 location changed during the month. The original bill count counted a billed party
17 change at a location in a month as 2 bills rather than 1. For example, DR Horton
18 may have been the billed party at a location until the home was sold and transferred
19 to the new home owner. Technically, there were two bills during the month.
20 However, the bill count should only reflect the equivalent of 1 bill otherwise the
21 bill count will reflect two full monthly minimums. This deficiency overstated the
22 bill counts.

23 The aforementioned deficiencies have an impact on the Company's revenue
24 annualization because the revenue annualization computes annual revenues based
25 upon the year-end customer count. Some of the year-end customer costs were too

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1 low and as a result the computed annual revenues were understated. In addition to
2 the correcting these deficiencies, some of the annualization computations were
3 incorrect. These computational errors have been corrected.
4

5 **Q75. WHAT IS THE CHANGE IN THE COMPANY'S REVENUE**
6 **ANNUALIZATION PROPOSAL?**

7 A75. The Company is now proposing a revenue annualization of \$14,349 compared to
8 its initial recommendation of \$(7,359).⁵⁶
9

10 **Q76. HAVE YOU PROVIDED STAFF AND RUCO WITH THE REVISED BILL**
11 **COUNT?**

12 A76. Yes. A copy of the revised by count was provided in response to RUCO Data
13 Request 3.01.
14

15 **Q77. WHAT ARE STAFF'S AND RUCO'S RECOMMENDATIONS WITH**
16 **RESPECT TO THE COMPANY'S INITIAL REVENUE**
17 **ANNUALIZATION?**

18 A77. Both Staff and RUCO have eliminated the Company's revenue annualization
19 proposal.⁵⁷ Staff and/or RUCO may revise their recommendations in the future so
20 I will not further address either party's direct testimony on this subject at this time.
21

22 **Q78. PLEASE CONTINUE WITH YOUR DISCUSSION OF THE COMPANY'S**
23 **PROPOSED REVENUE AND EXPENSE ADJUSTMENTS.**

24 A78. Rebuttal adjustment 5 increases water testing expense by \$1,568 to the level

25 ⁵⁶ See Rebuttal Schedule C-2, page 5.

26 ⁵⁷ Coley Dt. at 33; McMurry Dt. at 15.

1 recommended by Staff.⁵⁸

2 Rebuttal adjustment 6 adjusts purchased power based on the Company's
3 revised revenue annualization.

4 Rebuttal adjustment 7 synchronizes interest expense with the Company's
5 rebuttal proposed rate base.

6 Rebuttal Adjustment 8 computes income taxes based upon the Company
7 proposed rebuttal revenue and expense.

8
9 **Q79. HAVE YOU CHANGED YOUR APPROACH TO COMPUTING THE TEST**
10 **YEAR ADJUSTED INCOME TAXES?**

11 A79. Yes. I have adopted Staff's method of computing the adjusted test year income
12 taxes and computation of the gross-up factor primarily to eliminate issues of
13 comparability of the test year level of adjusted operating expenses and adjusted
14 operating income.

15 **A. Remaining Revenue and Expense Issues.**

16
17 **Q80. PLEASE COMMENT ON RUCO'S PROPOSAL TO REDUCE SALARIES**
18 **AND WAGES.**

19 A80. RUCO proposes to reduce salaries and wages by \$4,986 from \$40,000 to \$35,014
20 based upon wages and salaries authorized in the Company's prior case, as adjusted
21 for inflation during the period September 30, 2005 to June 30, 2010.⁵⁹ Mr. Coley's
22 analysis is flawed for several reasons. First, Mr. Sears' salary is a fraction of the
23 salary commanded by top water utility executives such as him, who earn on
24

25 ⁵⁸ McMurry Dt. at 15.

26 ⁵⁹ Coley Dt. at 34.

1 average over \$118,000 to \$153,000 annually.⁶⁰ Accordingly, the Company's
2 proposed \$40,000 annual salary is very reasonable. If GWC were to hire someone
3 other than Mr. Sears to perform the same duties as Mr. Sears, the annual
4 compensation required would be much higher. In my opinion, the value of Mr.
5 Sears's services to GWC is no less than \$40,000 annually and rate payers are
6 getting a bargain.

7 Second, new rates will be in effect sometime in the later part of 2010
8 through the Company's next rate case which may be 3 to 4 years from now, say
9 2013 or 2014. Yet, Mr. Coley does not allow for inflation beyond June 2010. We
10 are now well into 2011 and rates will not be set until the latter part of this year. I
11 find it difficult to understand Mr. Coley's statement that his recommendation
12 sustains the same buying power of Mr. Sears.⁶¹ Further, Mr. Sears did not receive
13 annual pay increases even though as the Company grew he was spending more
14 time on Company business. As Mr. Shiner notes in his Rebuttal Testimony, Mr.
15 Sears' responsibilities and time devoted to Company matters increased between
16 2005 and 2009.

17
18 **Q81. DOES THE FACT THAT MR. SEARS IS A SHAREHOLDER IN THE**
19 **COMPANY HAVE ANY BEARING ON THE PROPOSED \$40,000 OF**
20 **COMPENSATION?**

21 A82. No. But, Mr. Coley seems to think so.⁶² Mr. Sears's compensation reflects the
22 value of the services he provides to the Company. Mr. Coley appears to suggest
23 that the dividend payment made to shareholders (Mr. Sears and Mr. Shiner) in

24 ⁶⁰ Water Utility Compensation Survey 2009, American Water Works Association, page 19.

25 ⁶¹ Coley Dt. at 34.

26 ⁶² Coley Dt. at 36.

1 2009 should be treated as compensation for services. This view is incorrect.
2 Investors are compensated for the risks of their investments. If Mr. Sears were not
3 an employee he would still have the opportunity to receive a dividend as an
4 investor. Further, the dividend paid in 2009 amounts to a one year yield dividend
5 yield of far less than the annual dividend yield of the publicly traded water utilities.
6 If, for example, we assume GWC had the same market-to-book ratio of the
7 publicly traded water companies the dividend yield would be equivalent to 2.2%.
8 The publicly traded utilities currently pay a dividend yield of 3.3% and have an
9 expected dividend yield of over 3.5%.⁶³ But, the 2009 dividend payment reflects
10 only part of the investment history of Mr. Sears and Mr. Shiner. More
11 specifically, GWC has not previously paid a dividend and may not be able to pay
12 dividends in the future. Averaged over the 9 years (since 2001), the average
13 dividend equates to \$9,000 per year. In present value terms using a discount rate of
14 10% the 2009 \$90,000 dividend payment is equivalent to about \$58,000. Putting
15 aside the question of what is adequate compensation for Mr. Sears for his services,
16 in my opinion he and Mr. Shiner are not being adequately compensated for their
17 investment in GWC.

18
19 **Q83. PLEASE COMMENT ON RUCO'S PROPOSAL TO REDUCE OUTSIDE**
20 **SERVICES.**

21 A83. RUCO proposes to reduce the contractual services costs of Mr. Shiner by \$2,493
22 from \$20,000 to \$17,507 based upon Mr. Shiner original \$16,000 fee adjusted for
23 inflation during the period September 30, 2005 to June 30, 2010.⁶⁴ RUCO's
24 proposal suffers from the same flaws as RUCO's proposal to reduce salaries and

25 ⁶³ See Rebuttal Schedule D-4.8,

26 ⁶⁴ Coley Dt. at 34.

1 wages for Mr. Sears. Moreover, as Mr. Shiner's Rebuttal Testimony indicates, his
 2 responsibilities and time devoted to the Company also increased between 2005 and
 3 2009. The Company proposed annual fees for Mr. Shiner of \$20,000 is more than
 4 reasonable and should be adopted.

5
 6 **V. RATE DESIGN**

7 **Q84. WHAT ARE THE COMPANY'S REBUTTAL PROPOSED RATES?**

8 A84. The rebuttal proposed rates are listed below.

9 All Classes

10 Meter	11 Monthly	12 Gallons included
13 <u>Size</u>	14 <u>Minimum</u>	15 <u>in Monthly Minimum</u>
16 5/8	17 \$ 52.20	18 0
19 3/4	\$ 78.30	0
1 1/2	\$ 130.50	0
2	\$ 261.01	0
3	\$ 417.61	0
4	\$ 835.22	0
6	\$1,305.04	0
	\$2,610.07	0

20 The commodity charges and tiers by meter size are:

21 Residential, Commercial and Irrigation Class

22 Meter	23 Charge	
24 <u>Size</u>	25 <u>Tier (gallons)</u>	
	26 <u>per 1,000 gallons</u>	
5/8x3/4 Residential	1 to 4,000	\$ 6.28
	4,001 to 10,000	\$11.27

1		Over 10,000	\$13.41
2	3/4 Residential	1 to 6,000	\$ 6.28
3		6,001 to 9,000	\$11.27
4		Over 9,000	\$13.41
5	1 Residential	1 to 10,000	\$ 6.30
6		10,001 to 25,000	\$11.27
7		Over 25,000	\$13.41
8	5/8x3/4 and 3/4		
9	Commercial, Irrigation	1 to 10,000	\$11.27
10		Over 10,000	\$13.41
11	1 Commercial, Irrigation	1 to 25,000	\$11.27
12		Over 25,000	\$13.41
13	1 1/2 Res., Com., Irr.	1 to 50,000	\$11.27
14		Over 50,000	\$13.41
15	2 Res., Com., Irr.	1 to 80,000	\$11.27
16		Over 80,000	\$13.41
17	3 Res., Com., Irr.	1 to 160,000	\$11.27
18		Over 160,000	\$13.41
19	4 Res., Com., Irr.	1 to 250,000	\$11.27
20		Over 250,000	\$13.41
21	6 Res., Com., Irr.	1 to 500,000	\$11.27
22		Over 500,000	\$13.41
23	<u>Standpipe (Construction)</u>		
24	All Meter Sizes	All gallons	\$13.41
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Q85. WHAT IS THE IMPACT OF THE COMPANY'S REBUTTAL PROPOSED RATES ON AN AVERAGE 5/8x3/4 INCH METERED RESIDENTIAL CUSTOMER?

A85. The present monthly bill for a 5/8x3/4 inch metered residential customer using an average of 5,520 gallons is \$66.98. The proposed monthly bill for a 5/8x3/4 inch metered residential customer using an average of 5,520 gallons would be \$94.46, an increase of \$27.47 or 41.01 percent compared to the present rates.

1 **Q86. WHAT IS THE IMPACT OF THE COMPANY'S REBUTTAL PROPOSED**
2 **RATES ON AN AVERAGE 3/4 INCH METERED RESIDENTIAL**
3 **CUSTOMER?**

4 A86. The present monthly bill for a 3/4 inch metered residential customer using an
5 average of 6,028 gallons is \$91.08. The proposed monthly bill for a 5/8 inch
6 metered residential customer using an average of 6,028 gallons would be \$126.28,
7 an increase of \$35.19 or 38.64 percent compared to the present rates.
8

9 **Q87. PLEASE COMMENT ON THE STAFF PROPOSED RATE DESIGN.**

10 A87. Like the Company, Staff is proposing an inverted three tier design for the smaller
11 metered residential customers (5/8 inch and 3/4 inch) and an inverted two tier design
12 for the small commercial metered customers (5/8 inch and 3/4 inch), as well as 1
13 inch and larger metered customers (all classes), with the exception of 1 inch
14 residential and construction water. The break-over points are the same for both
15 Staff and the Company. In terms of revenue recovery from the monthly
16 minimums, the Staff rate design is similar to the Company's, although the
17 Company shifts more revenue recovery to the commodity rates than does Staff's.
18 Under the Staff rate design approximately 56.8% of revenues are recovered from
19 the monthly minimums whereas under the Company proposed rate design
20 approximately 53.3% of revenues are recovered from the monthly minimums. In
21 terms of revenue recovery from the month minimum and the first tier commodity
22 rates, Staff's rate design recovers approximately 75% from the monthly minimum
23 and first tier commodity rate while the Company's rate design recovers
24 approximately 73.9%.
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1 **Q88. PLEASE COMMENT ON THE RUCO PROPOSED RATE DESIGN.**

2 A88. Like the Company, RUCO is proposing an inverted three tier design for the smaller
3 metered residential customers (5/8 inch and 3/4 inch) and an inverted two tier design
4 for the small commercial metered customers (5/8 inch and 3/4 inch), as well as 1
5 inch and larger metered customers (all classes), with the exception of 1 inch
6 residential and construction water. The break-over points are the same for both
7 RUCO and the Company. In terms of revenue recovery from the monthly
8 minimums, the RUCO rate design is similar to the Company's although the
9 Company shifts more revenue recovery to the commodity rates than does RUCO's.
10 Under the RUCO rate design approximately 56% of revenues are recovered from
11 the monthly minimums, whereas under the Company proposed rate design
12 approximately 53.3% of revenues are recovered from the monthly minimums. In
13 terms of revenue recovery from the month minimum and the first tier commodity
14 rates, RUCO's rate design recovers approximately 77.5% from the monthly
15 minimum and first tier commodity rate while the Company's rate design recovers
16 approximately 73.9%.

17
18 **Q89. HAVE YOU PREPARED SCHEDULES SHOWING THE REVENUE**
19 **RECOVERY FROM THE MONTHLY MINIMUMS AND THE**
20 **COMMODITY RATES UNDETR THE COMPANY'S, STAFF'S, AND**
21 **RUCO'S PROPOSED RATE DESIGNS?**

22 A89. Yes. Attached hereto at Rebuttal Exhibit TJB-RB9 are schedules showing the
23 revenues recovered from the monthly minimums and commodity rates for all of the
24 parties rate designs.

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1 **Q90. IS THERE ANY DISAGREEMENT BETWEEN THE STAFF AND THE**
2 **COMPANY REGARDING SERVICE LINE AND METER INSTALLATION**
3 **CHARGES?**

4 A90. No.

5
6 **Q91. IS THERE ANY DISAGREEMENT BETWEEN THE STAFF AND THE**
7 **COMPANY REGARDING MISCELLANEOUS CHARGES?**

8 A91. No. The Company has agrees with Staff to eliminate the turn on/off charge⁶⁵, the
9 Company agrees with Staff's proposal to eliminate the after-hours service charges
10 for establishment and reconnection but increase the after-hours charge for all
11 services to \$50 which would apply to both the establishment fee and the
12 reconnection fee.⁶⁶

13
14 **Q92. IS IT PROPER TO SET RATES AT LEVELS SIMILAR TO OTHER**
15 **WATER SYSTEMS IN THE SURROUNDING AREA AND/OR IN THE**
16 **STATE OF ARIZONA?**

17 A92. No. Rates are, and must be, established using proper ratemaking cost of service
18 principles which necessarily involves an analysis of the costs required to serve each
19 utility's customers. Each system has its own unique characteristics and underlying
20 facts and circumstances which have an impact on the cost of service. GWC's
21 water system, for example, is constructed on a topography that is has appreciable
22 elevation changes in its territory which typically means higher construction costs.
23 GWC's system is also a relatively new system and construction costs for newer
24 systems are generally higher. Further, GWC is relatively small compared to many

25 ⁶⁵ McMurry Dt. at 25.

26 ⁶⁶ McMurry Dt. at 26-27.

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systems and has not yet achieved economies of scale like many larger systems.

Q93. ON PAGE 10 OF HIS TESTIMONY, MR. WAWRZYNIAK COMPARES GWC'S PROPOSED RATES WITH RATES OF WATER SYSTEMS IN THE SURROUNDING AREA. PLEASE COMMENT.

A93. Keeping in mind that each one of the systems Mr. Wawrzyniak cites has its own unique set of facts and circumstances surrounding its operations, financing, and plant requirements, let's briefly take a look at these utilities. Lago Del Oro Water Company ("Lago Del Oro") is a much older and much larger system with over 6,400 customers. We do not know the nature of the plant and equipment required to serve its customers, but this utility has not filed a rate case in at least 15+ years and it would be reasonable to question whether Lago Del Oro's current rates reflect the current cost of service to its customers.

Ridgeview Utility Company ("Ridgeview") has not yet filed its first rate case so its current rates are still based upon the rates set in its initial CC&N application and decision. Initial rates are based upon projections which inevitably turn out to be different from actual experience. Again, it would be reasonable to question whether Ridgeview's current rates reflect the current cost of service to its customers.

Arizona Water Company ("Arizona Water") is one of the largest water utilities in Arizona with over 60,000 customers. I am not sure what rates are being shown for Arizona Water as it has numerous divisions across the State and possibly in the surrounding area.

Los Cerros Water Company ("Los Cerros") is an older system and its last rate case was in 1997. Like both Lago Del Oro and Ridgeview, its current rates

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may not reflect its current cost of service.

Oro Valley Water Company ("Oro Valley") is owned and operated by the Town of Oro Valley. It is an older system and the result of the Town's acquisition of two pre-existing systems in 1995. It is also a fairly large system. But, just as important, Oro Valley is not subject to income taxes or property taxes which happened to be fairly significant components of the cost of service for private for-profit systems.

Q94. PLEASE COMMENT ON MR. SCHOEMPLERLEN'S TESTIMONY REGARDING THE COST OF SERVICE.

A94. As stated in the AWWA M-1 Manual ("M-1 Manual"):

In providing adequate water service to its customers, every water utility must receive sufficient total revenue to ensure the proper operation and maintenance (O&M), development and perpetuation of the system, and maintenance of the utility's financial integrity.⁶⁷

As discussed throughout my testimony as well as in the Rebuttal Testimony of Mr, Taylor and Mr. Shiner, the system has been prudently constructed and financed, and has and is prudently managed. The revenue requirement (or cost of service) requested in the instant case meets the requirements set forth in the M-1 Manual. All utilities have some level of reserve capacity to meet customer growth and must plan and operate the utility for long-term success. That long-term success ultimately benefits utility rate payers by their access to safe, reliable, and adequate service for the long-term. Not recognizing prudent investment and the full cost of

⁶⁷ AWWA M-1 Manual at 1.

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service in rates will not only place utilities in jeopardy but their rate payers as well.

Q92. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?

A92. Yes. Although my silence on any issue not discussed herein does not necessarily constitute agreement with Staff, RUCO, Mr. Wawrzyniak or Mr. Schoemperlen as to matters or arguments I have not addressed.

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(RATE BASE, INCOME STATEMENT,
RATE DESIGN)**

May 2, 2011

EXHIBIT TJB-RB1

Guidelines for Cost Allocations and Affiliate Transactions:

The following Guidelines for Cost Allocations and Affiliate Transactions (Guidelines) are intended to provide guidance to jurisdictional regulatory authorities and regulated utilities and their affiliates in the development of procedures and recording of transactions for services and products between a regulated entity and affiliates. The prevailing premise of these Guidelines is that allocation methods should not result in subsidization of non-regulated services or products by regulated entities unless authorized by the jurisdictional regulatory authority. These Guidelines are not intended to be rules or regulations prescribing how cost allocations and affiliate transactions are to be handled. They are intended to provide a framework for regulated entities and regulatory authorities in the development of their own policies and procedures for cost allocations and affiliated transactions. Variation in regulatory environment may justify different cost allocation methods than those embodied in the Guidelines.

The Guidelines acknowledge and reference the use of several different practices and methods. It is intended that there be latitude in the application of these guidelines, subject to regulatory oversight. The implementation and compliance with these cost allocations and affiliate transaction guidelines, by regulated utilities under the authority of jurisdictional regulatory commissions, is subject to Federal and state law. Each state or Federal regulatory commission may have unique situations and circumstances that govern affiliate transactions, cost allocations, and/or service or product pricing standards. For example, The Public Utility Holding Company Act of 1935 requires registered holding company systems to price "at cost" the sale of goods and services and the undertaking of construction contracts between affiliate companies.

The Guidelines were developed by the NARUC Staff Subcommittee on Accounts in compliance with the Resolution passed on March 3, 1998 entitled "Resolution Regarding Cost Allocation for the Energy Industry" which directed the Staff Subcommittee on Accounts together with the Staff Subcommittees on Strategic Issues and Gas to prepare for NARUC's consideration, "Guidelines for Energy Cost Allocations." In addition, input was requested from other industry parties. Various levels of input were obtained in the development of the Guidelines from the Edison Electric Institute, American Gas Association, Securities and Exchange Commission, the Federal Energy Regulatory Commission, Rural Utilities Service and the National Rural Electric Cooperatives Association as well as staff of various state public utility commissions.

In some instances, non-structural safeguards as contained in these guidelines may not be sufficient to prevent market power problems in strategic markets such as the generation market. Problems arise when a firm has the ability to raise prices above market for a sustained period and/or impede output of a product or service. Such concerns have led some states to develop codes of conduct to govern relationships between the regulated utility and its non-regulated affiliates. Consideration should be given to any "unique" advantages an incumbent utility would have over competitors in an emerging market such as the retail energy market. A code of conduct should be used in conjunction with guidelines on cost allocations and affiliate transactions.

A. DEFINITIONS

1. Affiliates - companies that are related to each other due to common ownership or control.
2. Attestation Engagement - one in which a certified public accountant who is in the practice of public accounting is contracted to issue a written communication that expresses a conclusion about the reliability of a written assertion that is the responsibility of another party.

3. Cost Allocation Manual (CAM) - an indexed compilation and documentation of a company's cost allocation policies and related procedures.
4. Cost Allocations - the methods or ratios used to apportion costs. A cost allocator can be based on the origin of costs, as in the case of cost drivers; cost-causative linkage of an indirect nature; or one or more overall factors (also known as general allocators).
5. Common Costs - costs associated with services or products that are of joint benefit between regulated and non-regulated business units.
6. Cost Driver - a measurable event or quantity which influences the level of costs incurred and which can be directly traced to the origin of the costs themselves.
7. Direct Costs - costs which can be specifically identified with a particular service or product.
8. Fully Allocated costs - the sum of the direct costs plus an appropriate share of indirect costs.
9. Incremental pricing - pricing services or products on a basis of only the additional costs added by their operations while one or more pre-existing services or products support the fixed costs.
10. Indirect Costs - costs that cannot be identified with a particular service or product. This includes but not limited to overhead costs, administrative and general, and taxes.
11. Non-regulated - that which is not subject to regulation by regulatory authorities.
12. Prevailing Market Pricing - a generally accepted market value that can be substantiated by clearly comparable transactions, auction or appraisal.
13. Regulated - that which is subject to regulation by regulatory authorities.
14. Subsidization - the recovery of costs from one class of customers or business unit that are attributable to another.

B. COST ALLOCATION PRINCIPLES

The following allocation principles should be used whenever products or services are provided between a regulated utility and its non-regulated affiliate or division.

1. To the maximum extent practicable, in consideration of administrative costs, costs should be collected and classified on a direct basis for each asset, service or product provided.
2. The general method for charging indirect costs should be on a fully allocated cost basis. Under appropriate circumstances, regulatory authorities may consider incremental cost, prevailing market pricing or other methods for allocating costs and pricing transactions among affiliates.
3. To the extent possible, all direct and allocated costs between regulated and non-regulated services and products should be traceable on the books of the applicable regulated utility to the applicable Uniform System of Accounts. Documentation should be made available to the appropriate regulatory authority upon request regarding transactions between the regulated utility and its affiliates.
4. The allocation methods should apply to the regulated entity's affiliates in order to prevent

subsidization from, and ensure equitable cost sharing among the regulated entity and its affiliates, and vice versa.

5. All costs should be classified to services or products which, by their very nature, are either regulated, non-regulated, or common to both.

6. The primary cost driver of common costs, or a relevant proxy in the absence of a primary cost driver, should be identified and used to allocate the cost between regulated and non-regulated services or products.

7. The indirect costs of each business unit, including the allocated costs of shared services, should be spread to the services or products to which they relate using relevant cost allocators.

C. COST ALLOCATION MANUAL (NOT TARIFFED)

Each entity that provides both regulated and non-regulated services or products should maintain a cost allocation manual (CAM) or its equivalent and notify the jurisdictional regulatory authorities of the CAM's existence. The determination of what, if any, information should be held confidential should be based on the statutes and rules of the regulatory agency that requires the information. Any entity required to provide notification of a CAM(s) should make arrangements as necessary and appropriate to ensure competitively sensitive information derived therefrom be kept confidential by the regulator. At a minimum, the CAM should contain the following:

1. An organization chart of the holding company, depicting all affiliates, and regulated entities.
2. A description of all assets, services and products provided to and from the regulated entity and each of its affiliates.
3. A description of all assets, services and products provided by the regulated entity to non-affiliates.
4. A description of the cost allocators and methods used by the regulated entity and the cost allocators and methods used by its affiliates related to the regulated services and products provided to the regulated entity.

D. AFFILIATE TRANSACTIONS (NOT TARIFFED)

The affiliate transactions pricing guidelines are based on two assumptions. First, affiliate transactions raise the concern of self-dealing where market forces do not necessarily drive prices. Second, utilities have a natural business incentive to shift costs from non-regulated competitive operations to regulated monopoly operations since recovery is more certain with captive ratepayers. Too much flexibility will lead to subsidization. However, if the affiliate transaction pricing guidelines are too rigid, economic transactions may be discouraged.

The objective of the affiliate transactions' guidelines is to lessen the possibility of subsidization in order to protect monopoly ratepayers and to help establish and preserve competition in the electric generation and the electric and gas supply markets. It provides ample flexibility to accommodate exceptions where the outcome is in the best interest of the utility, its ratepayers and competition. As with any transactions, the burden of proof for any exception from

the general rule rests with the proponent of the exception.

1. Generally, the price for services, products and the use of assets provided by a regulated entity to its non-regulated affiliates should be at the higher of fully allocated costs or prevailing market prices. Under appropriate circumstances, prices could be based on incremental cost, or other pricing mechanisms as determined by the regulator.

2. Generally, the price for services, products and the use of assets provided by a non-regulated affiliate to a regulated affiliate should be at the lower of fully allocated cost or prevailing market prices. Under appropriate circumstances, prices could be based on incremental cost, or other pricing mechanisms as determined by the regulator.

3. Generally, transfer of a capital asset from the utility to its non-regulated affiliate should be at the greater of prevailing market price or net book value, except as otherwise required by law or regulation. Generally, transfer of assets from an affiliate to the utility should be at the lower of prevailing market price or net book value, except as otherwise required by law or regulation. To determine prevailing market value, an appraisal should be required at certain value thresholds as determined by regulators.

4. Entities should maintain all information underlying affiliate transactions with the affiliated utility for a minimum of three years, or as required by law or regulation.

E. AUDIT REQUIREMENTS

1. An audit trail should exist with respect to all transactions between the regulated entity and its affiliates that relate to regulated services and products. The regulator should have complete access to all affiliate records necessary to ensure that cost allocations and affiliate transactions are conducted in accordance with the guidelines. Regulators should have complete access to affiliate records, consistent with state statutes, to ensure that the regulator has access to all relevant information necessary to evaluate whether subsidization exists. The auditors, not the audited utilities, should determine what information is relevant for a particular audit objective. Limitations on access would compromise the audit process and impair audit independence.

2. Each regulated entity's cost allocation documentation should be made available to the company's internal auditors for periodic review of the allocation policy and process and to any jurisdictional regulatory authority when appropriate and upon request.

3. Any jurisdictional regulatory authority may request an independent attestation engagement of the CAM. The cost of any independent attestation engagement associated with the CAM, should be shared between regulated and non-regulated operations consistent with the allocation of similar common costs.

4. Any audit of the CAM should not otherwise limit or restrict the authority of state regulatory authorities to have access to the books and records of and audit the operations of jurisdictional utilities.

5. Any entity required to provide access to its books and records should make arrangements as necessary and appropriate to ensure that competitively sensitive information derived therefrom be kept confidential by the regulator.

F. REPORTING REQUIREMENTS

1. The regulated entity should report annually the dollar amount of non-tariffed transactions

associated with the provision of each service or product and the use or sale of each asset for the following:

- a. Those provided to each non-regulated affiliate.
 - b. Those received from each non-regulated affiliate.
 - c. Those provided to non-affiliated entities.
2. Any additional information needed to assure compliance with these Guidelines, such as cost of service data necessary to evaluate subsidization issues, should be provided.

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(RATE BASE, INCOME STATEMENT,
RATE DESIGN)**

May 2, 2011

EXHIBIT TJB-RB2

**STAFF'S RESPONSES TO GOODMAN WATER COMPANY'S
FIRST SET OF DATA REQUESTS TO
ARIZONA CORPORATION COMMISSION UTILITY DIVISION STAFF
DOCKET NO. W-02500A-10-0382
April 25, 2011**

GWC - 1.1 Excess Capacity Adjustment, Transmission and Distribution Mains – Please explain why Staff did not make a corresponding adjustment to advances-in-aid of construction (“AIAC”) for its “excess capacity” adjustments to account 331 – Transmission and Distribution Mains.

RESPONSE:

The question misstates Staff’s testimony. Staff adjusted transmission and distribution mains to remove plant that was deemed not used or useful, not due to excess capacity. Staff made no adjustment to AIAC because it made no association between AIAC and the disallowed plant.

RESPONDENT: Gary T. McMurry, Public Utilities Analyst IV

GWC - 1.2 Advances-in-aid of Construction (“AIAC”) – If the transmission and distribution mains, identified as being “excess capacity” by Staff and removed from plant-in-service, had been funded through one or more refundable line extension agreement(s), would it be appropriate to make a corresponding adjustment to AIAC? If not, why not?

RESPONSE:

Legitimate ratemaking reasons exist for AIAC to either follow or not follow the rate base treatment of the plant that it funded. In this case, if Staff were presented with sufficient support showing that AIAC funded all or a portion of the transmission and distribution mains disallowed as not used and useful, Staff would not oppose excluding an appropriately calculated portion of AIAC from the calculation of rate base. An appropriate calculation would recognize the proportions of AIAC, contributions-in-aid-of-construction and investor-provided capital used to fund the plant and the ratio of disallowed plant to plant cost for each disallowed plant component.

RESPONDENT: Gary T. McMurry, Public Utilities Analyst IV

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(RATE BASE, INCOME STATEMENT,
RATE DESIGN)**

May 2, 2011

EXHIBIT TJB-RB3

GOODMAN WATER COMPANY
SUMMARY OF LINE EXTENSION AGREEMENT REFUNDS
5/5/10 9:45 AM

PHASE I LOTS 1-218	PHASE II LOTS 219-377	PHASE III LOTS 378-477 & LOTS 1001-1017	PHASE IV LOTS 478-728477 & Eagle Crest Ranch Blvd Phase 4A, 4B & 4C	PHASE V LOTS 729-920 Eagle Crest Ranch Phase 5
02/28/02	04/14/04	08/03/05	08/31/06	03/07/08
09/01/02	11/01/04	02/01/06	03/01/07	10/01/08
09/01/12	11/01/14	02/01/13	03/01/12	10/01/13
\$ 600,000.00	\$ 294,752.83	\$ 176,290.38	\$ 871,551.05	\$ 307,160.14
LXA Amount:	\$ 253,746.34	\$ 163,326.51	\$ 862,916.34	\$ 306,712.40
LXA Balance:	\$	\$	\$	\$

LXA Date:
Eligibility Begins:
LXA Expires:
LXA Amount:
LXA Balance:

Refund Date	Refund Period	Total Refund
09/19/03	07/01/02 - 06/30/03	\$ 2,220.22
10/01/04	07/01/03 - 06/30/04	\$ 6,816.88
08/13/05	07/01/04 - 06/30/05	\$ 9,407.15
08/13/06	07/01/05 - 06/30/06	\$ 9,640.82
08/15/07	07/01/06 - 06/30/07	\$ 12,216.95
08/15/08	07/01/07 - 06/30/08	\$ 21,726.03
08/15/09	07/01/08-06/30/09	\$ 22,768.39
TOTALS BY PHASE:		\$ 84,796.44
		\$ 2,220.22
		\$ 6,816.88
		\$ 12,005.06
		\$ 16,326.25
		\$ 22,003.55
		\$ 42,989.65
		\$ 45,587.64
		\$ 147,949.25

NOTES:

- Sales:
Phase 1: Bulk water sales are excluded from amounts eligible for refunds.
Line Extension Agreement Dated February 28, 2002. Phase 1 eligible for refunds the earlier of the first month after 180 days from agreement date (September 1, 2002 and terminating September 1, 2012), or upon acceptance of facilities.
Refund amount is 10% of eligible sales for 10 years.
Maximum refund is 90% of total LXA amount
Line Extension Agreement Dated April 14, 2004. Phase 2 eligible for refunds the earlier of the first month after 180 days from agreement date (November 1, 2004 and terminating November 1, 2014), or upon acceptance of facilities.
Refund amount is 10% of eligible sales for 10 years.
Maximum refund is 90% of total LXA amount
Line Extension Agreement Dated August 3, 2005. Phase 3 eligible for refunds the earlier of the first month after 180 days from agreement date (February 1, 2006 and terminating February 1, 2031), or upon acceptance of facilities.
Refund amount is 5% of eligible sales for 25 years.
Maximum refund is 90% of total LXA amount
Line Extension Agreement Dated August 31, 2006. Phase 4 eligible for refunds the earlier of the first month after 180 days from agreement date (March 1, 2007 and terminating March 1, 2032), or upon acceptance of facilities.
Refund amount is 5% of eligible sales for 25 years.
Maximum refund is 90% of total LXA amount
Line Extension Agreement Dated March 6, 2008. Phase 5 eligible for refunds the first month after 180 days from agreement date (October 2008), or upon acceptance of facilities, whichever is earlier.
Refund amount is 5% of eligible sales for 25 years.
Maximum refund is 100% of total LXA amount.

GOODMAN WATER COMPANY
 PHASE III
 COSTS ALLOCATION

PLANT & EQUIPMENT ACCOUNT ALLOCATION

	ACTUAL	SALES TAX	TOTAL	TRANSMISSION & DISTRIBUTION					OTHER PLANT & MISC EQUIPMENT
				MAINS	SERVICES	HYDRANTS	STRUCTURES & IMPROVEMENTS		
BORDERLAND - WATER - PHASE 3 A *									
8" CL 200 C-900 WATERMAIN	46,449.05	2,214.04	48,663.09	48,663.09					
6" CL 200 C-900 WATERMAIN	5,129.40	244.50	5,373.90	5,373.90					
8" DIP CL-350	2,180.00	103.91	2,283.91	2,283.91					
8" VALVE	4,260.00	203.06	4,463.06	4,463.06					
6" VALVE	2,575.00	122.74	2,697.74	2,697.74					
2" MODIFIED DRAIN VALVE ASSEMBLY	1,400.00	66.73	1,466.73	1,466.73					
2" DRAIN VALVE ASSEMBLY	540.00	25.74	565.74	565.74					
3/4" AIR RELEASE VALVE ASSEMBLY	1,390.00	66.26	1,456.26	1,456.26					
FIRE HYDRANT	7,840.00	373.70	8,213.70	8,213.70					
3/4" SINGLE SERVICE	3,030.00	144.43	3,174.43	3,174.43					
1" DOUBLE SERVICE	15,080.00	718.80	15,798.80	15,798.80					
CONNECT TO EXISTING	2,250.00	107.25	2,357.25	2,357.25					
TOTAL - WATER PHASE 3A	92,123.45	4,391.16	96,514.61	96,514.61					
BORDERLAND - WATER - PHASE 3 B *									
8" CL 200 C-900 WATERMAIN	35,550.00	1,525.10	37,075.10	37,075.10					
8" VALVE	2,130.00	91.38	2,221.38	2,221.38					
6" VALVE	1,545.00	66.28	1,611.28	1,611.28					
2" MODIFIED DRAIN VALVE ASSEMBLY	1,400.00	60.06	1,460.06	1,460.06					
FIRE HYDRANT	5,880.00	252.25	6,132.25	6,132.25					
3/4" SINGLE SERVICE	5,150.00	220.94	5,370.94	5,370.94					
1" DOUBLE SERVICE	10,080.00	432.43	10,512.43	10,512.43					
CONNECT TO EXISTING	1,200.00	51.48	1,251.48	1,251.48					
TOTAL - WATER PHASE 3B	62,935.00	2,699.92	65,634.92	65,634.92					
BORDERLAND - UTILITIES *									
UTILITY TRENCH - PHASE 3A (25%)	5,437.50	233.27	5,670.77	5,670.77					
UTILITY TRENCH - PHASE 3B (25%)	3,225.00	138.35	3,363.35	3,363.35					
TOTAL - UTILITIES	8,662.50	371.62	9,034.12	9,034.12					
TOTAL - BORDERLAND COSTS	163,720.95	7,462.70	171,183.65	171,183.65					
* BORDERLAND INVOICE #6156 DATED 04/20/05									
INTERACTIVE CONTROL; PROJ. 04415									
JANCA EXCAVATION; INV 05-97			118,637.31	118,637.31					
			1,173.45	1,173.45					
RICHARD CANNERY ENGINEERING									
INV 4109-1			7,800.00	7,800.00					
INV 4109-2			3,968.00	3,968.00					
SMYTH'S STEEL; INV 1101			350.00	350.00					
TOTAL HARD COSTS			\$ 303,112.41	\$ 303,112.41					
TOTAL - WATER PHASE 3A									
			\$ 112,946.98	\$ 112,946.98					
TOTAL - WATER PHASE 3B									
			\$ 15,883.37	\$ 15,883.37					
TOTAL - UTILITIES									
			\$ 9,034.12	\$ 9,034.12					
TOTAL - BORDERLAND COSTS									
			\$ 33,319.18	\$ 33,319.18					
TOTAL HARD COSTS									
			\$ 1,173.45	\$ 1,173.45					
TOTAL HARD COSTS									
			\$ 139,789.43	\$ 139,789.43					

WESTLAND INVOICES

INV 29202055	1,567.81
INV 29202056	4,766.16
INV 29202057	1,924.90
INV 29202059	4,641.66
INV 29202061	1,745.58
INV 29202062	362.50
INV 29202063	309.50
INV 29202065	1,703.05
INV 29202066	794.32
INV 29202067	431.25
INV 29210009	372.75
INV 29210010	138.00
INV 29210011	1,843.21
INV 29210012	906.40
TOTAL WESTLAND	<u>21,507.09</u>

GOODMAN WATER CO

REVIEW FEES	4,878.00
TOTAL SOFT COSTS	<u>\$ 26,385.09</u>

COST ALLOCATION SUMMARY

	TOTAL	TRANSMISSION & DISTRIBUTION MAINS	SERVICES	HYDRANTS	STRUCTURES & IMPROVEMENTS	OTHER PLANT & MISC EQUIPMENT
HARD COSTS	\$ 303,112.41	\$ 112,946.98	\$ 15,883.37	\$ 33,319.18	\$ 1,173.45	\$ 139,769.43
HARD COSTS %	100%	37.3%	5.2%	11.0%	0.4%	46.1%
% SHARE OF SOFT COST	\$ 26,385.09	\$ 9,831.72	\$ 1,382.60	\$ 2,900.34	\$ 102.15	\$ 12,168.28
TOTAL COST ALLOCATION	\$ 329,497.50	\$ 122,778.70	\$ 17,265.97	\$ 36,219.52	\$ 1,275.60	\$ 151,957.71

GOODMAN WATER COMPANY
 PHASE IV
 COSTS ALLOCATION

PLANT & EQUIPMENT ACCOUNT ALLOCATION

	ACTUAL	SALES TAX	TOTAL	TRANSMISSION & DISTRIBUTION LINES	SERVICES	HYDRAULICS	STRUCTURES & IMPROVEMENTS	RESERVOIRS & STORAGE TANKS	ELECTRIC PUMPING EQUIPMENT	OTHER PLANT & MISC EQUIPMENT
BORDERLAND - WATER - PHASE 4A										
12" CL 200 C-900 WATERMAIN	255,880.50	10,977.27	266,857.77	266,857.77						
8" CL 200 C-900 WATERMAIN	151,536.00	6,500.89	158,036.89	158,036.89						
6" CL 200 C-900 WATERMAIN	4,364.80	188.11	4,572.91	4,572.91						
12" VALVE	13,455.00	577.22	14,032.22	14,032.22						
8" VALVE	15,485.00	664.31	16,149.31	16,149.31						
6" VALVE	7,200.00	308.88	7,508.88	7,508.88						
2" DRAIN VALVE ASSEMBLY	8,040.00	344.92	8,384.92	8,384.92						
FIRE HYDRANT	21,725.00	932.00	22,657.00	22,657.00						
1" SINGLE SERVICE	27,170.00	1,165.59	28,335.59	28,335.59						
3/4" SINGLE SERVICE	10,620.00	455.60	11,075.60	11,075.60						
1" DOUBLE SERVICE	38,160.00	1,637.06	39,797.06	39,797.06						
CONNECT TO EXISTING	4,020.00	172.46	4,192.46	4,192.46						
TOTAL - WATER PHASE 4A	557,676.30	23,924.31	581,600.61	479,735.36	79,208.25	22,657.00	-	-	-	-
BORDERLAND - WATER - PHASE 4C										
12" CL 200 C-900 WATERMAIN	30,478.50	1,307.52	31,786.02	31,786.02						
8" CL 200 C-900 WATERMAIN	56,925.00	2,442.08	59,367.08	59,367.08						
6" CL 200 C-900 WATERMAIN	32,760.00	1,405.40	34,165.40	34,165.40						
12" VALVE	1,540.00	65.07	1,605.07	1,605.07						
8" VALVE	3,320.00	142.43	3,462.43	3,462.43						
6" VALVE	4,305.00	184.68	4,489.68	4,489.68						
2" DRAIN VALVE ASSEMBLY	3,350.00	143.72	3,493.72	3,493.72						
FIRE HYDRANT	9,875.00	423.64	10,298.64	10,298.64						
2" IRRIGATION SERVICE	1,525.00	65.42	1,590.42	1,590.42						
3/4" SINGLE SERVICE	9,150.00	392.54	9,542.54	9,542.54						
1" DOUBLE SERVICE	33,970.00	1,457.31	35,427.31	35,427.31						
CONNECT TO EXISTING	2,010.00	86.23	2,096.23	2,096.23						
TOTAL - WATER PHASE 4C	189,208.50	8,117.04	197,325.54	140,466.63	46,560.27	10,298.64	-	-	-	-
BORDERLAND - CHANGE ORDERS										
#9	5,770.00	247.54	6,017.54					6,017.54		
#10	50,024.55	2,146.05	52,170.60	33,017.74	10,913.95	8,238.91				
TOTAL - CHANGE ORDERS	55,794.55	2,393.60	58,188.15	33,017.74	10,913.95	8,238.91				
TOTAL - BORDERLAND COSTS										
	802,679.35	34,434.95	837,114.30	653,219.73	136,682.47	41,194.55				
SMYTHE STEEL										
SITE WORK	34,325.00	1,472.54	35,797.54						35,797.54	
5,000 GALLON HYDRO-PNEUMATIC TANK	30,000.00	1,287.00	31,287.00						31,287.00	
AIR COMPRESSOR	7,500.00	321.75	7,821.75						7,821.75	
SITE PIPING	60,950.00	2,614.76	63,564.76						63,564.76	
1,200 GPM BOOSTER STATION	101,000.00	4,332.90	105,332.90						105,332.90	
ELECTRICAL EQUIPMENT	138,000.00	5,920.20	143,920.20						143,920.20	
MASONRY WALLS	81,000.00	3,474.90	84,474.90						84,474.90	
STORAGE SHED	4,000.00	171.60	4,171.60						4,171.60	
ROCK RIP-RAP	58,500.00	2,509.65	61,009.65						61,009.65	
14' GATE	7,500.00	321.75	7,821.75						7,821.75	
12' ACCESS ROAD	5,800.00	248.82	6,048.82						6,048.82	
CONSTRUCTION WATER	2,500.00	107.25	2,607.25						2,607.25	
3-10,000 RESERVOIR	285,500.00	12,247.95	297,747.95						297,747.95	

GOODMAN WATER COMPANY
 PHASE IV
 COSTS ALLOCATION

PLANT & EQUIPMENT ACCOUNT ALLOCATION

TRANSMISSION & DISTRIBUTION LINES	SERVICES	HYDRANTS	STRUCTURES & IMPROVEMENTS	RESERVOIRS & STORAGE TANKS	ELECTRIC PUMPING EQUIPMENT	OTHER PLANT & MISC EQUIPMENT
-	-	-	163,526.72	438,826.25	249,253.10	-
653,219.73	136,682.47	41,194.55	163,526.72	517,193.79	249,253.10	-

ACTUAL	SALES TAX	TOTAL
816,575.00	35,031.07	851,606.07

69,373.86	2,976.14	72,350.00
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1,688,628.21	72,442.16	1,761,070.36
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TOTAL SMYTHE STEEL

EAGLE CREST WEST, LLC
 UPSIZE RESERVOIR

TOTAL HARD COSTS

SOFT COSTS

WESTLAND INVOICES

WATER SYSTEM SUPPORT

WATER PLAN REVIEW

ONSITE WATER INSPECTION SERVICES

INV 29202071	298.75
INV 29202072	263.70
INV 29210012	906.40
INV 29210013	445.75
INV 29210014	553.50
INV 29210015	234.50
INV 29210016	96.75
INV 29210017	152.50
INV 29210018	187.75
INV 29210019	202.50
INV 29210020	82.00
INV 29212012	72.75
INV 29219001	3,420.00
INV 29219002	190.00
INV 29219003	190.00
INV 29220001	8,250.00
INV 29220002	4,812.50
INV 29220003	687.50
INV 29221001	1,112.50
INV 29221002	2,225.00
INV 29221003	2,225.00
INV 29221004	1,112.50
INV 29221005	1,112.50
INV 29221006	2,225.00
INV 29221007	2,225.00
INV 29221008	2,225.00
INV 29221009	3,337.50
INV 29221010	8,590.00
TOTAL WESTLAND	47,436.65

OPW ENGINEERING INVOICES

OFFSITE DESIGN

INV 11579	400.00
INV 11681	500.00
INV 11787	1,300.00
INV 11862	900.00
INV 12203	400.00
INV 12301	500.00

GOODMAN WATER COMPANY
 PHASE IV
 COSTS ALLOCATION

PLANT & EQUIPMENT ACCOUNT ALLOCATION

	ACTUAL	SALES TAX	TOTAL	TRANSMISSION & DISTRIBUTION MAINS	SERVICES	HYDRAULICS	STRUCTURES & IMPROVEMENTS	RESERVOIRS & STORAGE TANKS	ELECTRIC PUMPING EQUIPMENT	OTHER PLANT & MISC EQUIPMENT
INV 12606			350.00							
INV 12611			750.00							
STAKING										
INV 13029			500.00							
INV 13124			2,800.00							
INV 13144			900.00							
INV 13209			5,200.00							
INV 13326			800.00							
INV 13601			157.50							
INV 13667			405.00							
INV 13726			787.50							
INV 13796			105.00							
PHASE 4 DESIGN										
INV 11478			750.37							
INV 11578			600.00							
INV 11682			950.73							
INV 11786			3,067.73							
INV 11861			1,241.49							
INV 11924			221.59							
INV 12012			39.14							
INV 12111			55.54							
INV 12201			447.14							
INV 12271			5,911.59							
INV 12300			262.32							
INV 12361			532.90							
INV 12456			3,258.76							
INV 12538			752.07							
INV 12600			1,382.92							
INV 12712			789.80							
INV 12773			515.68							
INV 12828			432.78							
INV 12902			291.06							
INV 12928			39.11							
INV 13967			198.84							
TOTAL OPW ENGINEERING			38,496.56							
TOTAL SOFT COSTS			\$ 85,933.41							

TOTAL OPW ENGINEERING

TOTAL SOFT COSTS

	TRANSMISSION & DISTRIBUTION MAINS	SERVICES	HYDRAULICS	STRUCTURES & IMPROVEMENTS	RESERVOIRS & STORAGE TANKS	ELECTRIC PUMPING EQUIPMENT	OTHER PLANT & MISC EQUIPMENT
TOTAL	\$ 653,219.73	\$ 136,682.47	\$ 41,194.55	\$ 163,526.72	\$ 517,193.79	\$ 249,253.10	\$ -
HARD COSTS	37.09%	7.76%	2.34%	9.29%	29.37%	14.15%	0.00%
HARD COSTS %	100%						
% SHARE OF SOFT COST	\$ 31,874.59	\$ 6,669.57	\$ 2,010.13	\$ 7,979.47	\$ 25,237.05	\$ 12,162.59	\$ 0.0%
TOTAL COST ALLOCATION	\$ 685,094.32	\$ 143,352.04	\$ 43,204.68	\$ 171,506.19	\$ 542,430.84	\$ 261,415.69	\$ 0.0%

COST ALLOCATION SUMMARY

HARD COSTS

HARD COSTS %

% SHARE OF SOFT COST

TOTAL COST ALLOCATION

470086.54 - 2/2008
 72350.00 - 12/2007
 542430.84

GOODMAN WATER COMPANY
 PHASE V
 COSTS ALLOCATION

PLANT & EQUIPMENT ACCOUNT ALLOCATION

	ACTUAL	SALES TAX	TOTAL	TRANSMISSION & DISTRIBUTION MAINS	SERVICES	HYDRANTS
BORDERLAND - WATER - PHASE 5						
8" CL 200 C-900 WATERMAIN	129,985.50	5,576.38	135,561.88	135,561.88	-	-
6" CL 200 C-900 WATERMAIN	-	-	-	-	-	-
8" VALVE	13,200.00	566.28	13,766.28	13,766.28	-	-
6" VALVE	-	-	-	-	-	-
2" DRAIN VALVE ASSEMBLY	-	-	-	-	-	-
FIRE HYDRANT	30,680.00	1,316.17	31,996.17	-	-	31,996.17
3/4" AIR RELEASE VALVE	3,525.00	151.22	3,676.22	3,676.22	-	-
1" IRRIGATION SERVICE	-	-	-	-	-	-
3/4" SINGLE SERVICE	27,195.00	1,166.67	28,361.67	-	28,361.67	-
1" SINGLE SERVICE	46,250.00	1,984.13	48,234.13	-	48,234.13	-
1" DOUBLE SERVICE	10,780.00	462.46	11,242.46	-	11,242.46	-
CONNECT TO EXISTING	4,950.00	212.36	5,162.36	5,162.36	-	-
TOTAL - WATER PHASE 5	266,565.50	11,435.66	278,001.17	158,166.74	87,838.26	31,996.17
				000		
				000		
BORDERLAND - WATER - OFFSITE/ECR BLVD						
12" CL 200 C-900 WATERMAIN	-	-	-	-	-	-
8" CL 200 C-900 WATERMAIN	-	-	-	-	-	-
12" VALVE	-	-	-	-	-	-
8" VALVE	-	-	-	-	-	-
DRAIN VALVE ASSEMBLY	-	-	-	-	-	-
1" AIR RELEASE VALVE	-	-	-	-	-	-
CONNECT TO EXISTING	-	-	-	-	-	-
TOTAL - WATER PHASE 5	-	-	-	-	-	-
TOTAL - BORDERLAND COSTS	266,565.50	11,435.66	278,001.17	158,166.74	87,838.26	31,996.17

TOTAL HARD COSTS \$ 278,001.17 \$ 158,166.74 \$ 87,838.26 \$ 31,996.17 0.00

GOODMAN WATER COMPANY
 PHASE V
 COSTS ALLOCATION

PLANT & EQUIPMENT ACCOUNT ALLOCATION

TRANSMISSION &
 DISTRIBUTION MAINS SERVICES HYDRANTS

ACTUAL SALES TAX TOTAL

WESTLAND INVOICES - PROJECT 0292.10

INV 29210018	255.00		
INV 29210019	111.50		
INV 29210020	542.87		
INV 29210021	405.00		
INV 29210022	80.10		
TOTAL WESTLAND - REVIEW FEES	<u>1,394.47</u>		

WESTLAND INVOICES - PROJECT 0282.23

INV 29223001	4,500.00		
INV 29223002	1,800.00		
INV 29223003	900.00		
INV 29223004	900.00		
INV 29223005	900.00		
INV 29223006	2,700.00		
INV 29223007	900.00		
TOTAL WESTLAND - INSPECTION FEES	<u>12,600.00</u>		

OPW ENGINEERING INVOICES - PROJECT 92004-500

INV 11863	330.00		
INV 11925	240.00		
INV 12043	120.00		
INV 12107	2,640.00		
INV 12202 (Add service/M. Wadlington)	1,440.00		
INV 12329	1,445.00		
INV 12389	850.00		
INV 12537	600.00		
INV 12605	200.00		
INV 12829	200.00		
INV 12927	100.00		
INV 13968	107.00		
INV 14028	367.50		
TOTAL OPW ENGINEERING - DESIGN	<u>8,679.50</u>		
50% of Preliminary Water & Sewer & 100% of Final Onsite Water = 1250+6940 = 8,190			

OPW ENGINEERING INVOICES - PROJECT 92004-CS-500

INV 13254	385.00		
INV 14028	5,100.00		
INV 14240	1,000.00		
TOTAL OPW ENGINEERING - STAKING	<u>6,485.00</u>		

TOTAL SOFT COSTS

\$ 29,158.97

GOODMAN WATER COMPANY
 PHASE V
 COSTS ALLOCATION

PLANT & EQUIPMENT ACCOUNT ALLOCATION

	ACTUAL	SALES TAX	TOTAL	TRANSMISSION & DISTRIBUTION MAINS	SERVICES	HYDRANTS
HARD COSTS	\$	278,001.17		\$ 158,166.74	\$ 87,838.26	\$ 31,996.17
HARD COSTS %		100%		56.9%	31.6%	11.5%
% SHARE OF SOFT COST	\$	29,158.97		\$ 16,589.78	\$ 9,213.17	\$ 3,356.01
TOTAL COST ALLOCATION	\$	307,160.14		\$ 174,756.52	\$ 97,051.43	\$ 35,352.18

COST ALLOCATION SUMMARY

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(RATE BASE, INCOME STATEMENT,
RATE DESIGN)**

May 2, 2011

EXHIBIT TJB-RB4

RUCO'S RESPONSES TO
INTERVENOR WAWRZYNIAK/SCHOEMPERLEN
FIRST SET OF DATA REQUESTS
(DOCKET NO. W-02500A-10-0382)

GWC – 1.9 “Excess Capacity” – Please provide a cost estimate of the cost of the Company’s system had Goodman Water Company constructed its system to provide for a 10%-20% margin of reserve at the end of each year.

Response: Timothy J. Coley

RUCO did not perform such a cost estimate analysis to account for a 10 to 20 percent margin of reserve at the end of each year. However, as a Company reaches build-out, the margin of reserve should be enough to meet peak demand and fire flow requirements demanded.

RUCO'S RESPONSES TO
INTERVENOR WAWRZYNIAK/SCHOEMPERLEN
FIRST SET OF DATA REQUESTS
(DOCKET NO. W-02500A-10-0382)

GWC – 1.10 “Excess Capacity” – Please provide authoritative written reference(s) to support Mr. Coley’s statement that “regulatory bodies usually require water and sewer companies and producers [of] transmission facilities to maintain a constant reserve of 10-20% of normal capacity as insurance against breakdowns in part of the system or sudden increases in demand”. Where possible, please provide specific citations to regulatory decisions, treatises, articles, etc.

Response: Timothy J. Coley

RUCO has no authoritative written reference(s), and not speaking as an engineer (See RUCO’s response in GWC 1.24), it is my general experience that all utilities are required to have a varying level of reserve margin that exceeds the peak usage. For example, wastewater utilities are required to file for permitting additional capacity when 80 percent of the plant’s total capacity has been reached. The electric utilities are required to have reserve margins over peak usage, which vary from state to state. Also, please see the attached documentation. The same holds for water utilities (i.e. fire flow) and the need to have capacity to serve existing and some level of future customer growth.

RESPONSE TO GWC 1.10

[Show](#)

Energy Dictionary



reserve margin, reserve capacity

A measure of available capacity over and above the capacity needed to meet normal peak demand levels. Reserve margin and reserve capacity are synonymous. For a producer of energy, it refers to the capacity of a producer to generate more energy than the system normally requires. For a transmission company, it refers to the capacity of the transmission infrastructure to handle additional energy transport if demand levels rise beyond expected peak levels.

Regulatory bodies usually require producers and transmission facilities to maintain a constant reserve margin of 10-20% of normal capacity as insurance against breakdowns in part of the system or sudden increases in energy demand.

See also:

[system reserve](#), [operating reserve](#), [required system reserve](#), [capacity](#), [peak demand](#), [transmission](#), [TRANSCO](#)

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RUCO'S RESPONSES TO
INTERVENOR WAWRZYNIAK/SCHOEMPERLEN
FIRST SET OF DATA REQUESTS
(DOCKET NO. W-02500A-10-0382)

GWC – 1.15 Storage Capacity – Does RUCO agree or disagree with the Staff engineering analysis and conclusions that “the entire 400,000 gallon storage tank is needed because both wells pump into this tank and this tank serves as the chlorine contact chamber. In addition, this tank serves as the main storage for fire flow protection of a majority of the water system.” If not, please explain why not. If RUCO agrees with the Staff engineering analysis and conclusions, please explain why RUCO only recognizes 56.88% of the cost of the 400,000 gallons storage tank.

Response: Timothy J. Coley

RUCO agrees with the Staff engineering analysis and conclusions that “the entire 400,000 gallon storage tank is needed because both wells pump into that tank and the tank serves as the chlorine contact chamber. In addition, the tank serves as the main storage for fire flow protection of a majority of the water system. RUCO will be recommending a revised excess storage capacity adjustment in surrebuttal testimony that reflects this recognition.

RUCO'S RESPONSES TO
INTERVENOR WAWRZYNIAK/SCHOEMPERLEN
FIRST SET OF DATA REQUESTS
(DOCKET NO. W-02500A-10-0382)

GWC – 1.16 Meters – If there are approximately 649 meters at a total cost of \$94,263 at the end of the test year, please explain why RUCO proposes to only allow 56.88% of the cost or \$53,616 for ratemaking purposes (see Schedule TJC-5, page 1 of 1)? Doesn't this imply there are only 363 meters needed to serve the year-end number of customers of over 620 customers? If not, please explain.

Response: Timothy J. Coley

RUCO agrees with the Company that the adjustment implies there are only 363 meters needed to serve the year-end number of customers of over 620 customers. RUCO's surrebuttal schedules will reflect that recognition.

RUCO'S RESPONSES TO
INTERVENOR WAWRZYNIAK/SCHOEMPERLEN
FIRST SET OF DATA REQUESTS
(DOCKET NO. W-02500A-10-0382)

GWC – 1.19 Admit or Deny – Admit that in its Direct Testimony in this case, RUCO did not specifically identify (by plant category, account or facility) any Goodman Water Company property, plant, and/or equipment that constituted “excess capacity”. If RUCO denies, please provide the details of such property, plant, and/or equipment that RUCO identified and any associated analysis upon which the “excess capacity” determinations were made.

Response: Timothy J. Coley

Admit.

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(RATE BASE, INCOME STATEMENT,
RATE DESIGN)**

May 2, 2011

EXHIBIT TJB-RB5

Goodman Water Company
Computation of Off-Site Facilities Hook-up Fee (HUF)

Exhibit

Line
No.

1			
2	<u>Off-Site (backbone) Capital Expenditures</u>		
3	Construction Requirement (Based on actual costs 2007-2009)	\$	900,000
4			
5			
6			
7	Total [1]	\$	900,000

8

9 Anticipated Customer Growth¹ 740

10

11 Computation of Equivalent 5/8 Inch Meters

	Portion of Anticipated Growth	Projected Growth	Meter Flow Factor	Equivalent 5/8 Inch Meters	
12					
13					
14	<u>Meter Size</u>				
15	5/8 Inch	98.92%	732	1.0	732
16	3/4 Inch	0.00%		1.5	-
17	1 Inch	0.54%	4	2.5	10
18	1 1/2 Inch	0.00%		5.0	-
19	2 Inch	0.54%	4	8.0	32
20	3 inch	0.00%		16.0	-
21	4 Inch	0.00%		25.0	-
22	6 Inch	0.00%		30.0	-
23		100.00%	740		774
24	Total Equivalent 5/8 Inch Meters [2]				774

25			
26	Construction Costs Expected to be Funded by HUF (Percent times [1] equals [3])	40%	\$ 360,000
27			
28	HUF for Equivalent 5/8 Inch Metered Customer (rounded down) ([3] divided by [2] equals [4])	\$	470
29			

30 Proposed Off-site Facilities Hook-up Fees by Meter Size

31					
32	<u>Meter Size</u>				
33	5/8 Inch	\$	470		[4]
34	3/4 Inch	\$	705		Scaled on 5/8 meter flow
35	1 Inch	\$	1,175		Scaled on 5/8 meter flow
36	1 1/2 Inch	\$	2,350		Scaled on 5/8 meter flow
37	2 Inch	\$	3,760		Scaled on 5/8 meter flow
38	3 inch	\$	7,520		Scaled on 5/8 meter flow
39	4 Inch	\$	11,750		Scaled on 5/8 meter flow
40	6 Inch	\$	14,100		Scaled on 5/8 meter flow
41					

42 ¹ Buildout of current certificated area is 958 5/8 inch customers. There were 484 5/8 inch customers at end of 2006. Expected additions
 43 for 70 acres of commercial property within the existing CC&N is 258 - 5/8 inch metered customers, 4 - 1 inch metered customers,
 44 and 4 - 2 inch metered customers.

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(RATE BASE, INCOME STATEMENT,
RATE DESIGN)**

May 2, 2011

EXHIBIT TJB-RB6

Jackie Ziliox

From: McNulty, Michael [MMcNulty@lrlaw.com]
Sent: Tuesday, October 28, 2008 3:00 PM
To: Jim Shiner; Jackie Ziliox
Cc: McNulty, Michael
Subject: FW: Goodman Water Company cost projections

-- Rote case

Jim:
Here's where things stand. See below.
You may recall that the ACC Commissioners insisted that we apply for a hook-up fee in the first place. I don't know if it is worth trying to push this string, but Kara may know more about their thinking.
Michael

-----Original Message-----
From: Marlin Scott Jr [mailto:MScottJr@azcc.gov]
Sent: Tuesday, October 28, 2008 2:38 PM
To: McNulty, Michael
Subject: RE: Goodman Water Company cost projections

Hi Michael,
Sorry to get back with you late, I was out of state at a conference and just got back today. Anyway, here's the update:

Commission Staff was proposing to deny the hook-up fee tariff because;
1) the majority of the Water Plant #3 plant facilities did not benefit the entire system, resulting in reduction of the plant cost, and 2) the high ratio of current AIAC and CIAC to the total capital. Based on these conclusions, Staff believed that Goodman Water Company was not a good candidate for a hook-up fee.

I will check with other Staff member that were assigned to this case to see if this is still the case and will get back with you.

Thanks.
Marlin

Marlin Scott, Jr.
Utilities Engineer
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
Phone: 602.542.7272
Email: mscottjr@azcc.gov

-----Original Message-----
From: McNulty, Michael [mailto:MMcNulty@lrlaw.com]
Sent: Monday, October 20, 2008 1:01 PM
To: Marlin Scott Jr
Cc: McNulty, Michael
Subject: FW: Goodman Water Company cost projections

Marlin:

In tracking back the email traffic on this, the last piece of correspondence I could find is ten months old. See below. Has the company's filing become official?

Thanks
Michael McNulty

0243.08

-----Original Message-----

From: kristen whatley [mailto:kwhatley@westlandresources.com]
Sent: Thursday, January 17, 2008 10:34 AM
To: McNulty, Michael
Subject: RE: Goodman Water Company cost projections

Hi Mike,

Yes, I would be the right person to talk with. I will give him a call.

Thanks,

Kristen

Kristen L. Whatley, P.E.
WestLand Resources, Inc.
4001 E. Paradise Falls Drive
Tucson, AZ 85712
Phone: 520-206-9585
Fax: 520-206-9518

-----Original Message-----

From: McNulty, Michael [mailto:MMcNulty@lrlaw.com]
Sent: Thursday, January 17, 2008 10:24 AM
To: kristen whatley
Cc: Jackie Ziliox
Subject: FW: Goodman Water Company cost projections

Kristen:

Are you the right person to talk with Marlin Scott?

Thnx

Michael

-----Original Message-----

From: Marlin Scott Jr [mailto:MScottJr@azcc.gov]
Sent: Thursday, January 17, 2008 9:02 AM
To: McNulty, Michael
Subject: RE: Goodman Water Company cost projections

Michael,

Thanks for the map. Now that I can vision the Water Plant #3 location, I would like to speak to someone who could tell me the operation of Water Plant #3, i.e., will storage at this site benefit the entire water system or only a portion of the water system?

Thanks.

~Marlin

Marlin Scott, Jr.
Utilities Engineer
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
Phone: 602.542.7272
Email: mscottjr@azcc.gov

-----Original Message-----

From: McNulty, Michael [mailto:MMcNulty@lrlaw.com]
Sent: Wednesday, January 16, 2008 3:35 PM
To: Marlin Scott Jr
Cc: Jackie Ziliox; McNulty, Michael

Subject: RE: Goodman Water Company cost projections

Marlin:

I think that the attached .pdf, prepared by Westland Resources, contains what you're looking for.

Michael

-----Original Message-----

From: Marlin Scott Jr [mailto:MScottJr@azcc.gov]

Sent: Wednesday, January 09, 2008 4:02 PM

To: McNulty, Michael

Subject: RE: Goodman Water Company cost projections

Michael,

One more request. Is it possible to provide me a subdivision map showing the location of the Water Plant No. 3 site with reference to the J-Zone and K-Zone as described below. Thanks.

Marlin Scott, Jr.
Utilities Engineer
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
Phone: 602.542.7272
Email: mscottjr@azcc.gov

For more information about Lewis and Roca LLP, please go to www.lewisandroca.com.

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Shaunna Lee-Rice

From: Lori Miller
Sent: Thursday, August 02, 2007 3:31 PM
To: Shaunna Lee-Rice
Cc: Marlin Scott Jr
Subject: REQUEST FOR ADMINISTRATIVE CLOSURE - 07-0452

Docket No. W-02500A-07-0452 was issued a new matter number in error. After Staff's review of the filing made on July 31, 2007, it was determined that this filing is actually a compliance filing to Decision No. 69404 (Docket No. W-02500A-06-0281). Therefore, 07-0452 should be administratively closed and placed in 06-0281 as a compliance matter.

Should you have any questions, please let me know.

Thank you,

--Lori Miller
Arizona Corporation Commission
Utilities Division
Programs & Projects Specialist II

Arizona Corporation Commission
DOCKETED
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DOCKET CONTROL

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BEFORE THE ARIZONA CORPORATION COMMISSION

MIKE GLEASON
Chairman

WILLIAM A. MUNDELL
Commissioner

JEFF HATCH-MILLER
Commissioner

KRISTIN K. MAYES
Commissioner

GARY PIERCE
Commissioner

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2007 JUL 31 P 3:47
AZ CORP COMMISSION
DOCKET CONTROL

IN THE MATTER OF THE APPLICATION OF)
GOODMAN WATER COMPANY FOR)
REVIEW AND APPROVAL OF PROPOSED)
HOOK-UP FEE TARIFF)

DOCKET NO. W-02500A-07-
APPLICATION

In compliance with Decision No. 69404, dated April 16, 2007, Goodman Water Company ("Goodman") submits for Staff's review this proposed Hook-Up Fee Tariff. The proposed Hook-Up Fee Tariff and related hook-up fees would be applicable to new customer connections to Goodman's system. The capital expenditures related to the proposed hook-up fees pertain to Goodman's construction requirements for the 2008-2011 time period. The anticipated new customer growth during this period is 724 new customer connections. The off-site facilities in question include a well #3 and related equipment and engineering. The proportion of anticipated construction costs proposed to be funded by the proposed hook-up fees is 40%.

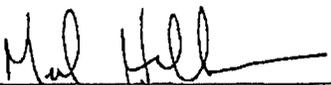
Attached to this Application as Exhibit "A" is a schedule setting forth the assumptions and estimated future capital expenditures upon which the proposed hook-up fees are based. Exhibit

1 "A" also sets forth by meter size the amount of proposed hook-up fee applicable to each meter
2 size, as well as the or percentage of anticipated new growth each meter size represents. Attached
3 to this Application as Exhibit "B" is a copy of a proposed Hook-Up Fee Tariff.

4 Goodman Water Company requests that the Commission review the proposed Hook-Up
5 Fee Tariff and hook-up fees which are the subject of this Application and issue an order approving
6 the tariff and related hook-up fees.

7
8 RESPECTFULLY SUBMITTED this 31st day of July, 2007.

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By: 
Michael McNulty
Michael Hallam
Lewis and Roca LLP
One South Church Avenue
Suite 700
Tucson, Arizona 85701-1611
Phone: (520) 629-4453
Fax: (520) 879-4732

Attorneys for Goodman Water Company

ORIGINAL and thirteen (13)
copies of the foregoing filed this
31st day of July, 2007, with:

Arizona Corporation Commission
Docket Control – Utilities Division
1200 W. Washington Street
Phoenix, Arizona 85007

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COPY of the foregoing hand-delivered
this 31st day of July, 2007, to:

Jane L. Rodda, Administrative Law Judge
Hearing Division
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Christopher C. Kempley, Chief Counsel
Legal Division
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Ernest G. Johnson, Director
Utilities Division
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Jayne Williams

EXHIBIT A

Goodman Water Company
Computation of Off-Site Facilities Hook-up Fee (HUF)

Exhibit A

Line No.								
1								
2	<u>Off-Site Capital Expenditure Requirements 2008-2011</u>							
3	Well # 3 and related equipment including engineering and contingency				\$		940,000	
4								
5								
6								
7	Total [1]						<u>\$ 940,000</u>	
8								
9	Anticipated Customer Growth ¹ <u>724</u>							
10								
11	<u>Computation of Equivalent 5/8 Inch Meters</u>							
12					Meter			
13		Portion of	Projected		Flow		Equivalent	
14	<u>Meter Size</u>	<u>Anticipated Growth</u>	<u>Growth</u>		<u>Factor</u>		<u>5/8 Inch Meters</u>	
15	5/8 Inch	98.90%	716		1.0		716	
16	3/4 Inch	0.00%			1.5		-	
17	1 Inch	0.55%	4		2.5		10	
18	1 1/2 Inch	0.00%			5.0		-	
19	2 Inch	0.55%	4		8.0		32	
20	3 inch	0.00%			16.0		-	
21	4 Inch	0.00%			25.0		-	
22	6 Inch	0.00%			30.0		-	
23		<u>100.00%</u>	<u>724</u>				<u>758</u>	
24	Total Equivalent 5/8 Inch Meters [2]							758
25								
26	Construction Costs Expected to be Funded by HUF (Percent times [1] equals [3])				40%	\$	376,000	
27								
28	HUF for Equivalent 5/8 Inch Metered Customer (rounded down) ([3] divided by [2] equals [4])					\$	500	
29								
30	<u>Proposed Off-site Facilities Hook-up Fees by Meter Size</u>							
31								
32	<u>Meter Size</u>							
33	5/8 Inch	\$	500 [4]					
34	3/4 Inch	\$	750 Scaled on 5/8 meter flow					
35	1 Inch	\$	1,250 Scaled on 5/8 meter flow					
36	1 1/2 Inch	\$	2,500 Scaled on 5/8 meter flow					
37	2 Inch	\$	4,000 Scaled on 5/8 meter flow					
38	3 inch	\$	8,000 Scaled on 5/8 meter flow					
39	4 Inch	\$	12,500 Scaled on 5/8 meter flow					
40	6 Inch	\$	15,000 Scaled on 5/8 meter flow					
41								

¹ Buildout of current certificated area is 958 customers. There are currently 500 customers. Expected additions for 70 acres of commercial property within the existing CC&N is 258 - 5/8 inch metered customers, 4 - 1 inch metered customers, and 4 - 2 inch metered customers.

EXHIBIT B

TARIFF SCHEDULE

Utility: Goodman Water Company

Tariff Sheet No.: Page 1 of 3

Docket No.: W-02500A-07

Decision No.: _____

Phone No.: _____

Effective: _____

OFF-SITE WATER FACILITIES HOOK-UP FEE

I. Purpose and Applicability

The purpose of the Off-Site Hook-Up Fees payable to Goodman Water Company ("Company") pursuant to this tariff is to equitably apportion the costs of constructing additional facilities to provide water production, storage and appropriate pressure among all new Service Connections.

These fees are applicable to all new Service Connections established after the effective date of this tariff. The fees are one-time charges and are payable as a condition to the Company's establishment of service, as more particularly provided below.

II. Definitions

Unless the context otherwise requires, the definitions set forth in R14-2-401 of the Arizona Corporation Commission's ("Commission") rules and regulations governing water utilities shall apply in interpreting this tariff schedule.

"Applicant" means any party entering into an agreement with Company for the installation of water facilities to serve new service connections.

"Company" means Goodman Water Company.

"Main Extension Agreement" means any agreement in which an Applicant agrees to advance the costs of the installation of water facilities to the Company to serve new service connections, or install water facilities to serve new service connections and transfer ownership of such water facilities to the Company, which agreement shall require the approval of the Commission (same as line extension agreement).

"Off-Site Facilities" means wells, storage tanks and related appurtenances necessary for proper water system operation, including engineering and design costs. Off-Site Facilities may also include booster pumps, pressure tanks, transmission mains and related appurtenances necessary for proper water system operation, if these facilities are not for the exclusive use of an Applicant and these facilities will benefit the entire water system.

"Service Connection" means and includes all service connections for single-family residential, commercial, industrial, or other uses, regardless of meter size.

TARIFF SCHEDULE

Utility: Goodman Water Company
 Docket No.: W-02500A-07
 Phone No.: _____

Tariff Sheet No.: Page 2 of 3
 Decision No.: _____
 Effective: _____

III. Off-Site Hook-Up Charges

Each new Service Connection shall pay the total off-site facilities hookup fee, derived from the following table:

OFF-SITE FACILITIES HOOKUP FEE TABLE	
Meter Size	Total Fee
5/8"	\$500
3/4"	\$750
1"	\$1250
1 1/2 "	\$2500
2"	\$4000
3"	\$8000
4"	\$12,500
6" or larger	\$15,000

IV. Terms and Conditions

- (A) Assessment of One Time Hook-Up Charge: The hook-up fee may be assessed only once per Service Connection, or lot within a platted subdivision (similar to meter and service line installation charges). However, this provision does not exempt from the hook-up fee, any newly created parcel(s) which are the result of further subdivision of a lot or land parcel and which do not have a Service Connection.

- (B) Use of Off-Site Hook-Up Fee: Hook-Up Fees may only be used to pay for the capital items of Off-Site Facilities or for repayment of loans obtained for installation of Off-Site Facilities. Off-Site Hook-Up Fees shall not be used for repairs, maintenance, plant replacements, or operational purposes.

- (C) Time of Payment:
 - (1) In the event that an Applicant is required to enter into a Main Extension Agreement, whereby the Applicant agrees to advance the costs of installing mains, valves, fittings, hydrants and other on-site improvements in order to extend service in accordance with R-14-2-406(B), payment of the fee(s) required hereunder shall be made by the Applicant within 15 calendar days after receipt of notification from the Company that the Utilities Division of the Commission has approved the Main Extension Agreement in accordance with R14-2-406(M).

TARIFF SCHEDULE

Utility: Goodman Water Company

Tariff Sheet No.: Page 3 of 3

Docket No.: W-02500A-07

Decision No.: _____

Phone No.: _____

Effective: _____

- (2) In the event that an Applicant is not required to enter into a Main Extension Agreement, the fee(s) hereunder shall be due and payable at the time the meter and service line installation fee is due and payable.
- (D) Failure to Pay Charges; Delinquent Payments: Under no circumstances will the Company set a meter or otherwise allow service to be established if the Applicant has not paid in full all charges as provided by this Off-Site Hook-Up Fee Tariff.
- (E) Off-Site Hook-Up Fee Non-refundable: The amounts collected by the Company pursuant to the Off-Site Hook-Up Fee Tariff shall be non-refundable contributions in aid of construction.
- (F) Use of Charges Received: All funds collected by the Company as off-site hook-up fees, shall be deposited into a separate interest bearing trust account and used solely for the purposes of paying for the costs of Off-Site Facilities, including repayment of loans obtained for the installation of Off-Site Facilities that will benefit the entire water system.
- (G) Off-Site Hook-Up Fees In Addition to Other Charges: The Off-Site Hook-Up Fees shall be in addition to any costs associated with a Main Extension Agreement for on-site facilities, and are in addition to the amounts to be advanced pursuant to charges authorized under other sections of this tariff.
- (H) Disposition of Excess Funds: After all necessary and desirable Off-Site Facilities are constructed utilizing funds collected pursuant to the Off-Site Hook-Up Fee Tariff or the Off-Site Hook-Up Fee Tariff has been terminated by order of the Commission, any funds remaining in the trust shall be refunded. The manner of the refund shall be determined by the Commission at the time a refund becomes necessary.
- (I) Fire Flow Requirements: In the event an Applicant for service has fire flow requirements that require the construction or installation of additional facilities whose costs are beyond the scope of those facilities costs provided for in the Company's current fees and charges, the Company may require the Applicant to install (as a non-refundable contribution) such additional facilities as are required to meet those fire flow requirements, in addition to the Off-Site Hook-Up Fee.

Goodman Water Company
Test Year Ended December 31, 2009
Staff Corrected ADIT Computation

Line No.	Accumulated Deferred Income Tax as of December 31, 2009	Adjusted Book Value	Tax Value	Probability of Realization of Future Tax Benefit	Deductible TD (Taxable TD) Expected to be Realized	Tax Rate ⁵	Future Tax Asset Current	Future Tax Asset Non Current	Future Tax Liability Current	Future Tax Liability Non Current
6	Plant-in-Service	\$ 4,793,648 ¹								
7	Accum. Deprec.	(733,602) ¹								
8	CIAC	(1,397,439) ³								
9	Fixed Assets	\$ 2,662,607	\$ 1,831,020 ²	100.0%	\$ (831,587)	37.8%				(314,460)
10	AIAC		1,996,341 ⁴	30.0%	\$ 598,902 ⁴	37.8%	\$ 226,472			
11	Tax Benefits from O.L. Carry Forward.			100.0%	\$ -	37.8%	\$ -			
14	ADIT Net Asset (Liability) per Rebuttal						\$ -	\$ 226,472	\$ -	\$ (314,460)
16	ADIT Asset (Liability) per Direct									
18	Adjustment to DJT									
14	ADIT Net Asset (Liability) per Rebuttal						\$ (87,989)			
16	ADIT Asset (Liability) per Direct						\$ (135,342)			
18	Adjustment to DJT						\$ (47,354)			
Footnotes - See page 5.1										

Goodman Water Company
Test Year Ended December 31, 2009
Original Cost Rate Base Proforma Adjustments
RUCO Corrected ADIT Calculation

Line No.	Accumulated Deferred Income Tax as of December 31, 2009		Adjusted Book Value	Tax Value	Probability of Realization of Future Tax Benefit	Deductible TD (Taxable TD) Expected to be Realized	Tax Rate ⁵	Future Tax Asset Current	Future Tax Asset Non Current	Future Tax Liability Current	Future Tax Liability Non Current
1	Plant-in-Service	\$	3,102,039 ¹								
2	Accum. Deprec.		(419,172) ¹								
3	CIAC		(836,878) ³								
4	Fixed Assets	\$	1,845,989	\$ 1,165,726 ²	100.0%	\$ (680,263)	30.8%		-		(209,521)
5	AIAC			1,195,540 ⁴	30.0%	\$ 358,662 ⁴	30.8%	\$	110,468		
6	Tax Benefits from O.L. Carry Forward.				100.0%	\$ -	30.8%	\$	-		
7	ADIT Net Asset (Liability) per Rebuttal							\$	110,468	\$	(209,521)
8	ADIT Asset (Liability) per Direct							\$	-	\$	(209,521)
9	Adjustment to DJT							\$	-	\$	(209,521)
10								\$	(99,053)		
11								\$	(135,342)		
12								\$	(36,289)		
13											
14											
15											
16											
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Footnotes - See page 5.1

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(RATE BASE, INCOME STATEMENT,
RATE DESIGN)**

May 2, 2011

EXHIBIT TJB-RB9

Goodman Water Company
Revenue Breakdown Summary
Present Rates

Exhibit
Page 1

		Present	Commodity	Commodity	Commodity	Total
		Monthly	Commodity	Commodity	Commodity	
		Mins	First Tier	Second Tier	Third Tier	
5/8x3/4 Inch	Residential	\$ 268,941	\$ 83,954	\$ 61,951	\$ 24,582	\$ 439,428
3/4 Inch	Residential	\$ 65,326	\$ 13,156	\$ 11,843	\$ 6,410	\$ 96,735
1 Inch	Residential	\$ 3,798	\$ 1,471	\$ 738	\$ -	\$ 6,007
Subtotal		\$ 338,064	\$ 98,582	\$ 74,532	\$ 30,993	\$ 542,171
		58.00%	16.91%	12.79%	5.32%	93.01%
1 Inch	Commercial	\$ 3,798	\$ 3,635	\$ 13,685	\$ -	\$ 21,118
1 1/2 Inch	Commercial	\$ 2,538	\$ 35	\$ -	\$ -	\$ 2,573
2 Inch	Commercial	\$ 8,152	\$ 3,909	\$ 4,991	\$ -	\$ 17,052
Subtotal		\$ 14,488	\$ 7,580	\$ 18,676	\$ -	\$ 40,744
		2.49%	1.30%	3.20%	0.00%	6.99%
Construction/Standpipe		\$ -	\$ -	\$ -	\$ -	\$ -
		0.00%	0.00%	0.00%	0.00%	0.00%
TOTALS		\$ 352,553	\$ 106,162	\$ 93,208	\$ 30,993	\$ 582,915
Percent of Total		60.48%	18.21%	15.99%	5.32%	100.00%
Cummulative %		60.48%	78.69%	94.68%	100.00%	

Goodman Water Company
Revenue Breakdown Summary
Company Proposed Rates

Exhibit
Page 2

		Present	Commodity	Commodity	Commodity	Total
		Monthly	First Tier	Second Tier	Third Tier	
		<u>Mins</u>	<u>First Tier</u>	<u>Second Tier</u>	<u>Third Tier</u>	<u>Total</u>
5/8x3/4 Inch	Residential	\$ 332,680	\$ 133,498	\$ 118,135	\$ 46,350	\$ 630,662
3/4 Inch	Residential	\$ 80,808	\$ 20,920	\$ 22,584	\$ 12,087	\$ 136,398
1 Inch	Residential	\$ 4,698	\$ 2,806	\$ 1,392	\$ -	\$ 8,895
Subtotal		\$ 418,185	\$ 157,224	\$ 142,110	\$ 58,436	\$ 775,956
		52.09%	19.58%	17.70%	7.28%	96.65%
1 Inch	Commercial	\$ 4,698	\$ 6,931	\$ 25,803	\$ -	\$ 37,432
1 1/2 Inch	Commercial	\$ 3,132	\$ 68	\$ -	\$ -	\$ 3,200
2 Inch	Commercial	\$ 10,023	\$ 7,455	\$ 9,410	\$ -	\$ 26,887
Subtotal		\$ 17,853	\$ 14,454	\$ 35,213	\$ -	\$ 67,519
		2.22%	1.80%	4.39%	0.00%	8.41%
Construction/Standpipe		\$ -	\$ -	\$ -	\$ -	\$ -
		0.00%	0.00%	0.00%	0.00%	0.00%
TOTALS		\$ 428,208	\$ 164,679	\$ 151,520	\$ 58,436	\$ 802,843
Percent of Total		53.34%	20.51%	18.87%	7.28%	100.00%
Cummulative %		53.34%	73.85%	92.72%	100.00%	

Goodman Water Company - Staff Proof
 Revenue Breakdown Summary
 Metered Revenues - Staff Proposed Rates

Exhibit
 Page 3

		Present	Commodity	Commodity	Commodity	Total
		Monthly	Commodity	Commodity	Commodity	
		Mins	First Tier	Second Tier	Third Tier	
5/8x3/4 Inch	Residential	\$ 300,248	\$ 94,708	\$ 93,500	\$ 38,032	\$ 526,488
3/4 Inch	Residential	\$ 64,241	\$ 12,630	\$ 15,504	\$ 9,918	\$ 102,293
1 Inch	Residential	\$ 4,998	\$ 3,083	\$ 1,199	\$ -	\$ 9,280
Subtotal		\$ 369,487	\$ 110,421	\$ 110,203	\$ 47,949	\$ 638,061
		55.45%	16.57%	16.54%	7.20%	95.75%
1 Inch	Commercial	\$ 3,570	\$ 4,320	\$ 17,916	\$ -	\$ 25,806
1 1/2 Inch	Commercial	\$ 2,856	\$ 54	\$ -	\$ -	\$ 2,910
2 Inch	Commercial	\$ 9,120	\$ 5,954	\$ 7,721	\$ -	\$ 22,794
Subtotal		\$ 15,546	\$ 10,328	\$ 25,637	\$ -	\$ 51,511
		2.33%	1.55%	3.85%	0.00%	7.73%
Construction/Standpipe		\$ -	\$ 5,502	\$ -	\$ -	\$ 5,502
		0.00%	0.83%	0.00%	0.00%	0.83%
TOTALS		\$ 378,607	\$ 121,876	\$ 117,924	\$ 47,949	\$ 666,357
Percent of Total		56.82%	18.29%	17.70%	7.20%	100.00%
Cummulative %		56.82%	75.11%	92.80%	100.00%	

Goodman Water Company - RUCO Proof
Revenue Breakdown Summary
RUCO Proposed Rates

Exhibit
Page 4

		Present	Commodity	Commodity	Commodity	Total
		Monthly	Commodity	Commodity	Commodity	
		Mins	First Tier	Second Tier	Third Tier	
5/8x3/4 Inch	Residential	\$ 243,991	\$ 94,708	\$ 70,125	\$ 28,005	\$ 436,829
3/4 Inch	Residential	\$ 52,168	\$ 12,630	\$ 11,628	\$ 7,303	\$ 83,729
1 Inch	Residential	\$ 4,053	\$ 2,312	\$ 883	\$ -	\$ 7,248
Subtotal		\$ 300,212	\$ 109,650	\$ 82,636	\$ 35,308	\$ 527,806
		54.64%	19.96%	15.04%	6.43%	96.07%
1 Inch	Commercial	\$ 2,895	\$ 3,240	\$ 13,193	\$ -	\$ 19,328
1 1/2 Inch	Commercial	\$ 2,316	\$ 41	\$ -	\$ -	\$ 2,357
2 Inch	Commercial	\$ 7,411	\$ 4,465	\$ 5,685	\$ -	\$ 17,562
Subtotal		\$ 12,622	\$ 7,746	\$ 18,878	\$ -	\$ 39,246
		2.30%	1.41%	3.44%	0.00%	7.14%
Construction/Standpipe		\$ -	\$ 4,051	\$ -	\$ -	\$ 4,051
		0.00%	0.74%	0.00%	0.00%	0.74%
TOTALS		\$ 307,623	\$ 118,167	\$ 88,322	\$ 35,308	\$ 549,419
Percent of Total		55.99%	21.51%	16.08%	6.43%	100.00%
Cummulative %		55.99%	77.50%	93.57%	100.00%	

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(RATE BASE, INCOME STATEMENT,
RATE DESIGN)**

May 2, 2011

SCHEDULES

Goodman Water Company
 Test Year Ended December 31, 2009
 Computation of Increase in Gross Revenue
 Requirements As Adjusted

Exhibit
 Rebuttal Schedule A-1
 Page 1
 Witness: Bourassa

Line
No.

1	Fair Value Rate Base	\$ 2,298,376
2		
3	Adjusted Operating Income	73,944
4		
5	Current Rate of Return	3.22%
6		
7	Required Operating Income	\$ 227,309
8		
9	Required Rate of Return on Fair Value Rate Base	9.89%
10		
11	Operating Income Deficiency	\$ 153,366
12		
13	Gross Revenue Conversion Factor	1.7130
14		
15	Increase in Gross Revenue Requirement	\$ 262,717
16		
17		
18	Adjusted Test Year Revenues	\$ 594,459
19	Increase in Gross Revenue Revenue Requirement	\$ 262,717
20	Proposed Revenue Requirement	\$ 857,176
21	% Increase	44.19%
22		

Customer Classification	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
(Residential Commercial, Irrigation)				
5/8x3/4 Inch Residential	\$ 435,860	\$ 625,588	\$ 189,728	43.53%
3/4 Inch Residential	84,711	119,680	34,969	41.28%
1 Inch Residential	7,230	10,803	3,572	49.41%
1 Inch Commercial	\$ 17,582	\$ 31,159	13,577	77.22%
1 1/2 Inch Commercial	2,573	3,200	626	24.33%
2 Inch Commercial	17,052	26,887	9,835	57.67%
Construction/Standpipe	\$ 3,556	\$ 6,705	3,149	88.55%
Revenue Annualization	\$ 14,349	\$ 19,454	5,104	35.57%
Subtotal	\$ 582,915	\$ 843,475	\$ 260,560	44.70%
Other Water Revenues	13,738	13,738	-	0.00%
Reconciling Amount	(2,193)	(36)	2,157	-98.36%
			-	0.00%
Total of Water Revenues	\$ 594,460	\$ 857,177	\$ 262,717	44.19%

SUPPORTING SCHEDULES:

- 47 B-1
- 48 C-1
- 49 C-3
- 50 H-1

Goodman Water Company
 Test Year Ended December 31, 2009
 Summary of Rate Base

Exhibit
 Rebuttal Schedule B-1
 Page 1
 Witness: Bourassa

Line No.		<u>Original Cost</u> <u>Rate base</u>	<u>Fair Value</u> <u>Rate Base</u>
1			
2	Gross Utility Plant in Service	\$ 5,346,411	\$ 5,346,411
3	Less: Accumulated Depreciation	733,716	733,716
4			
5	Net Utility Plant in Service	\$ 4,612,695	\$ 4,612,695
6			
7	<u>Less:</u>		
8	Advances in Aid of		
9	Construction	2,101,905	2,101,905
10	Contributions in Aid of		
11	Construction - Net of amortization	-	-
12	Customer Meter Deposits	83,087	83,087
13	Deferred Income Taxes & Credits	129,327	129,327
14	Investment tax Credits	-	-
15			
16			
17	<u>Plus:</u>		
18	Unamortized Finance		
19	Charges	-	-
20	Deferred Tax Assets	-	-
21	Allowance for Working Capital	-	-
22			
23			
24	Total Rate Base	<u>\$ 2,298,376</u>	<u>\$ 2,298,376</u>
25			
26			
27			
28	<u>SUPPORTING SCHEDULES:</u>		
29	B-2		
30	B-3		
31	B-5		
32			
33			

Goodman Water Company
 Test Year Ended December 31, 2009
 Original Cost Rate Base Proforma Adjustments

Exhibit
 Rebuttal Schedule B-2
 Page 1
 Witness: Bourassa

Line No.		Adjusted at end of <u>Test Year</u>	Proforma Adjustments <u>Amount</u>	Rebuttal Adjusted at end of <u>Test Year</u>
1	Gross Utility			
2	Plant in Service	\$ 5,453,761	(107,350)	\$ 5,346,411
3				
4	Less:			
5	Accumulated			
6	Depreciation	731,205	2,510	733,716
7				
8				
9	Net Utility Plant			
10	in Service	\$ 4,722,556		\$ 4,612,695
11				
12	Less:			
13	Advances in Aid of			
14	Construction	2,101,905	-	2,101,905
15				
16	Contributions in Aid of			
17	Construction - Net	-	-	-
18				
19	Service Line and Meter Installation Chgs	83,087		83,087
20	Accumulated Deferred Income Tax	135,342	(6,016)	129,327
21				-
22				-
23				
24	Plus:			
25	Unamortized Finance			
26	Charges	-		-
27	Prepayments	-		-
28	Materials and Supplies			-
29	Working capital	-	-	-
30				-
31				
32	Total	\$ 2,402,221		\$ 2,298,376

36 SUPPORTING SCHEDULES:
 37 B-2, pages 2

36 RECAP SCHEDULES:
 37 B-1

38
 39
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 45

Goodman Water Company
 Test Year Ended December 31, 2009
 Original Cost Rate Base Proforma Adjustments

Exhibit
 Rebuttal Schedule B-2
 Page 2
 Witness: Bourassa

Line No.	Adjusted at end of Test Year	Proforma Adjustments			Rebuttal Adjusted at end of Test Year
		1 Plant-in-Service	2 Accumulated Depreciation	3 Accumulated Deferred Income Taxes	
1	\$ 5,453,761	(107,350)			\$ 5,346,411
2					
3					
4					
5					
6	731,205		2,510		733,716
7					
8					
9					
10	\$ 4,722,556	(107,350)	(2,510)	\$ -	\$ 4,612,695
11					
12					
13					
14	2,101,905				2,101,905
15					
16					
17					
18					
19					
20					
21	83,087				83,087
22	135,342		(6,016)		129,327
23					
24					
25					
26					
27					
28					
29					
30					
31					
32	\$ 2,402,221	(107,350)	(2,510)	\$ 6,016	\$ 2,298,376
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					

SUPPORTING SCHEDULES:
 B-2, pages 3-5

Line No.	Plant-in-Service	Adjusted Original Cost	A Plant Reclassification	B Remove Cost of Tank Oversizing	C Land	D Intentionally Left Blank	Rebuttal Adjusted Original Cost
1	Plant-in-Service	127,103					127,103
2							
3	Acct.						
4	No. Description						
5	301 Organization Cost	-					-
6	302 Franchise Cost	494,159			(35,000)		459,159
7	303 Land and Land Rights	182,570					182,570
8	304 Structures and Improvements	-					-
9	305 Collecting and Impounding Res.	-					-
10	306 Lake River and Other Intakes	-					-
11	307 Wells and Springs	386,591					386,591
12	308 Infiltration Galleries and Tunnels	-					-
13	309 Supply Mains	-					-
14	310 Power Generation Equipment	-					-
15	311 Electric Pumping Equipment	968,652					968,652
16	320 Water Treatment Equipment	15,947	(15,947)				0
17	320.1 Water Treatment Plant	-					-
18	320.2 Chemical Solution Feeders	-	15,947				15,947
19	330 Dist. Reservoirs & Standpipe	836,890	(836,890)				0
20	330.1 Storage tanks	-	384,827	(72,350)			312,477
21	330.2 Pressure Tanks	-	452,063				452,063
22	331 Trans. and Dist. Mains	1,611,321					1,611,321
23	333 Services	386,947					386,947
24	334 Meters	94,263					94,263
25	335 Hydrants	161,737					161,737
26	336 Backflow Prevention Devices	-					-
27	339 Other Plant and Misc. Equip.	187,582					187,582
28	340 Office Furniture and Fixtures	-					-
29	340.1 Computers and Software	-					-
30	341 Transportation Equipment	-					-
31	342 Stores Equipment	-					-
32	343 Tools and Work Equipment	-					-
33	344 Laboratory Equipment	-					-
34	345 Power Operated Equipment	-					-
35	346 Communications Equipment	-					-
36	347 Miscellaneous Equipment	-					-
37	348 Other Tangible Plant	-					-
38							
39	TOTALS	\$ 5,453,761	\$ -	\$ (72,350)	\$ (35,000)	\$ -	\$ 5,346,411
40							
41	Plant-in-Service per Books						\$ 5,453,761
42							
43	Increase (decrease) in Plant-in-Service						\$ (107,350)
44							
45	Adjustment to Plant-in-Service						\$ (107,350)
46							

SUPPORTING SCHEDULES

47 B-2, pages 3.1-3.3

48 B-2, pages 3.4-3.11

Goodman Water Company
Test Year Ended December 31, 2009
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1 - A

Exhibit
Rebuttal Schedule B-2
Page 3.1
Witness: Bourassa

Line		
<u>No.</u>		
1		
2	<u>Plant Reclassification</u>	
3		
4	320 - Water Treatment Equipment	\$ (15,947)
5	320.2 - Chlorine Solution Feeders	\$ 15,947
6		
7	330 - Distribution Reservoirs and Standpipe	\$ (836,890)
8	330.1 - Storage Tanks	\$ 384,827
9	330.2 - Pressure Tanks	\$ 452,063
10		
11		
12		
13		
14		
15	Net adjustment to plant-in-service	<u>\$ -</u>
16		
17		
18	<u>SUPPORTING SCHEDULES</u>	
19	Staff Schedule GTM-6	
20	Staff Schedule GTM-7	

Goodman Water Company
Test Year Ended December 31, 2009
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1 - B

Exhibit
Rebuttal Schedule B-2
Page 3.2
Witness: Bourassa

Line

No.

1			
2	<u>Remove costs of 190,000 gallon upsizing to 530,000 gallon storage reservoir</u>		
3			
4			
5	330.1 - Storage Tanks	2007 190,000 gallon upsize cost	\$ 72,350
6			
7			
8			
9	Adjustment to 330.1 - Storage Tanks		<u>\$ (72,350)</u>
10			
11			
12			
13			
14	<u>Reference</u>		
15	See Testimony		
16			
17			
18			
19			
20			

Goodman Water Company
Test Year Ended December 31, 2009
Original Cost Rate Base Proforma Adjustments
Adjustment Number 1 - C

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Witness: Bourassa

Line

No.

1			
2	<u>Adjustment to Land</u>		
3			
4	303 - Land and Land Rights	based on new appraisal	\$ 459,159
5	303 - Land and Land Rights	recorded at end of Test Year	\$ 494,159
6			<u>\$ (35,000)</u>
7			
8			
9	Adjustment to 303 - Land and Land Rights		<u>\$ (35,000)</u>
10			
11			
12			
13			
14	<u>Reference</u>		
15	See Testimony		
16			
17			
18			
19			
20			

Goodman Water Company
 Plant Additions and Retirements

Exhibit
 Rebuttal Schedule B-2
 Page 3.4
 Witness: Bourassa

Account No.	Description	Deprec. Rate	Deprec. After 4/16/2007 Rate	Decision 69404 9/30/2005	Accum. Depr.	Oct-Dec 2005 Plant Additions	Oct-Dec 2005 Plant Adjustments	Oct-Dec 2005 Adjusted Plant	Oct-Dec 2005 Retirements	Dec 2005 Plant Balance	Oct-Dec 2005 Depr.
301	Organization Cost	0.00%	0.00%	104,528	-	1,500	-	1,500	-	106,028	-
302	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-	-
303	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-	-
304	Structures and Improvements	2.50%	3.33%	9,788	306	1,276	-	1,276	-	11,064	65
305	Collecting and Impounding Res.	2.50%	2.50%	-	-	-	-	-	-	-	-
306	Lake River and Other Intakes	2.50%	2.50%	-	-	-	-	-	-	-	-
307	Wells and Springs	2.50%	3.33%	386,591	17,925	-	-	-	-	386,591	2,416
308	Infiltration Galleries and Tunnels	2.50%	6.67%	-	-	-	-	-	-	-	-
309	Supply Mains	2.50%	2.00%	-	-	-	-	-	-	-	-
310	Power Generation Equipment	2.50%	5.00%	-	-	-	-	-	-	-	-
311	Electric Pumping Equipment	2.50%	12.50%	686,993	35,041	-	-	-	-	686,993	4,294
320	Water Treatment Equipment	2.50%	3.33%	11,054	345	-	-	-	-	11,054	69
320.1	Water Treatment Plant	2.50%	3.33%	-	-	-	-	-	-	-	-
320.2	Chemical Solution Feeders	2.50%	20.00%	-	-	-	-	-	-	-	-
330	Dist. Reservoirs & Standpipe	2.50%	2.22%	294,460	15,489	-	-	-	-	294,460	1,840
330.1	Storage tanks	2.50%	2.22%	-	-	-	-	-	-	-	-
330.2	Pressure Tanks	2.50%	5.00%	-	-	-	-	-	-	-	-
331	Trans. and Dist. Mains	2.50%	2.00%	628,673	29,324	122,779	-	122,779	-	751,451	4,313
333	Services	2.50%	3.33%	129,274	5,679	17,266	-	17,266	-	146,540	862
334	Meters	2.50%	8.33%	67,497	2,310	270	-	270	-	67,767	423
335	Hydrants	2.50%	2.00%	46,955	2,090	36,220	-	36,220	-	83,174	407
336	Backflow Prevention Devices	2.50%	6.67%	-	-	-	-	-	-	-	-
339	Other Plant and Misc. Equip.	2.50%	6.67%	-	-	152,473	-	152,473	-	152,473	476
340	Office Furniture and Fixtures	2.50%	6.67%	-	-	-	-	-	-	-	-
340.1	Computers and Software	2.50%	20.00%	-	-	-	-	-	-	-	-
341	Transportation Equipment	2.50%	20.00%	-	-	-	-	-	-	-	-
342	Stores Equipment	2.50%	4.00%	-	-	-	-	-	-	-	-
343	Tools and Work Equipment	2.50%	5.00%	-	-	-	-	-	-	-	-
344	Laboratory Equipment	2.50%	10.00%	-	-	-	-	-	-	-	-
345	Power Operated Equipment	2.50%	5.00%	-	-	-	-	-	-	-	-
346	Communications Equipment	2.50%	10.00%	-	-	-	-	-	-	-	-
347	Miscellaneous Equipment	2.50%	10.00%	-	-	-	-	-	-	-	-
348	Other Tangible Plant	2.50%	10.00%	-	-	-	-	-	-	-	-
	Rounding				2						

TOTAL WATER PLANT											
				2,365,813	108,509	331,783	-	331,783	-	2,697,594	15,165

Account No.	Description	Deprec. Rate	Deprec. After 4/16/2007 Rate	2006 Plant Additions	2006 Plant Adjustments	2006 Adjusted Plant	2006 Plant Retirements	2006 Plant Balance	2006 Deprec.
301	Organization Cost	0.00%	0.00%	4,920		4,920		110,948	-
302	Franchise Cost	0.00%	0.00%						-
303	Land and Land Rights	0.00%	0.00%						-
304	Structures and Improvements	2.50%	2.50%					11,064	277
305	Collecting and Impounding Res.	2.50%	2.50%						-
306	Lake River and Other Intakes	2.50%	2.50%						-
307	Wells and Springs	2.50%	2.50%					386,581	9,665
308	Infiltration Galleries and Tunnels	2.50%	2.50%						-
309	Supply Mains	2.50%	2.50%						-
310	Power Generation Equipment	2.50%	2.50%						-
311	Electric Pumping Equipment	2.50%	2.50%					686,993	17,175
320	Water Treatment Equipment	2.50%	2.50%	266		266		11,319	280
320.1	Water Treatment Plant	2.50%	2.50%						-
320.2	Chemical Solution Feeders	2.50%	2.50%						-
330	Dist. Reservoirs & Standpipe	2.50%	2.22%						-
330.1	Storage tanks	2.50%	2.22%					294,460	7,361
330.2	Pressure Tanks	2.50%	5.00%						-
331	Trans. and Dist. Mains	2.50%	2.00%					751,451	18,786
333	Services	2.50%	3.33%	3		3		146,543	3,664
334	Meters	2.50%	8.33%	270		270		68,037	1,698
335	Hydrants	2.50%	2.00%	5		5		83,180	2,079
336	Backflow Prevention Devices	2.50%	6.67%						-
339	Other Plant and Misc. Equip.	2.50%	6.67%	13,245		13,245		165,718	3,977
340	Office Furniture and Fixtures	2.50%	6.67%						-
340.1	Computers and Software	2.50%	20.00%						-
341	Transportation Equipment	2.50%	20.00%						-
342	Stores Equipment	2.50%	4.00%						-
343	Tools and Work Equipment	2.50%	5.00%						-
344	Laboratory Equipment	2.50%	10.00%						-
345	Power Operated Equipment	2.50%	5.00%						-
346	Communications Equipment	2.50%	10.00%						-
347	Miscellaneous Equipment	2.50%	10.00%						-
348	Other Tangible Plant	2.50%	10.00%						-
	Rounding								
	TOTAL WATER PLANT			18,709	-	18,709	-	2,716,303	64,962

Goodman Water Company
Plant Additions and Retirements

Exhibit
Rebuttal Schedule B-2
Page 3.6
Witness: Bourassa

Account No.	Description	Deprec. Rate After 4/16/2007	2007 Plant Additions	2007 Plant Adjustments ¹	2007 Adjusted Plant Additions	2007 Plant Retirements	2007 Plant Balance	2007 Deprec.
301	Organization Cost	0.00%	6,539	-	6,539	-	117,487	-
302	Franchise Cost	0.00%	-	-	-	-	-	-
303	Land and Land Rights	0.00%	-	-	-	-	-	-
304	Structures and Improvements	3.33%	-	-	-	-	11,064	342
305	Collecting and Impounding Res.	2.50%	-	-	-	-	-	-
306	Lake River and Other Intakes	2.50%	-	-	-	-	-	-
307	Wells and Springs	3.33%	-	-	-	-	386,591	11,938
308	Infiltration Galleries and Tunnels	6.67%	-	-	-	-	-	-
309	Supply Mains	2.50%	-	-	-	-	-	-
310	Power Generation Equipment	5.00%	-	-	-	-	-	-
311	Electric Pumping Equipment	12.50%	2,963	-	2,963	-	689,955	65,979
320	Water Treatment Equipment	2.50%	4,628	-	4,628	-	15,947	421
320.1	Water Treatment Plant	2.50%	-	-	-	-	-	-
320.2	Chemical Solution Feeders	2.50%	-	-	-	-	-	-
330	Dist. Reservoirs & Standpipe	2.50%	72,350	-	72,350	-	366,810	7,610
330.1	Storage tanks	2.50%	-	-	-	-	-	-
330.2	Pressure Tanks	2.22%	-	-	-	-	-	-
331	Trans. and Dist. Mains	5.00%	-	-	-	-	-	-
332	Services	2.00%	685,094	-	685,094	-	1,436,546	23,475
333	Services	2.50%	143,352	-	143,352	-	289,895	6,738
334	Meters	3.33%	18,359	-	18,359	(6,580)	79,816	4,901
335	Hydrants	2.50%	43,205	-	43,205	-	126,384	2,248
336	Backflow Prevention Devices	2.00%	-	-	-	-	-	-
339	Other Plant and Misc. Equip.	6.67%	759	-	759	-	166,477	9,059
340	Office Furniture and Fixtures	6.67%	-	-	-	-	-	-
340.1	Computers and Software	2.50%	-	-	-	-	-	-
341	Transportation Equipment	20.00%	-	-	-	-	-	-
342	Stores Equipment	2.50%	-	-	-	-	-	-
343	Tools and Work Equipment	4.00%	-	-	-	-	-	-
344	Laboratory Equipment	2.50%	-	-	-	-	-	-
345	Power Operated Equipment	10.00%	-	-	-	-	-	-
346	Communications Equipment	5.00%	-	-	-	-	-	-
347	Miscellaneous Equipment	2.50%	-	-	-	-	-	-
348	Other Tangible Plant	2.50%	-	-	-	-	-	-
	Rounding	10.00%	-	-	-	-	-	-
	TOTAL WATER PLANT		977,249	-	977,249	(6,580)	3,686,972	132,711

Account No.	Description	Deprec. Rate	2008 Plant Additions	2008 Plant Adjustments	2008 Adjusted Additions	2008 Plant Retirements	2008 Plant Balance	2008 Deprec.
		After 4/16/2007	Rate	Rate	Rate	Rate	Rate	Rate
301	Organization Cost	0.00%	9,616	-	9,616	-	127,103	-
302	Franchise Cost	0.00%	-	-	-	-	-	-
303	Land and Land Rights	0.00%	494,159	-	494,159	-	494,159	-
304	Structures and Improvements	3.33%	171,506	-	171,506	-	182,570	3,224
305	Collecting and Impounding Res.	2.50%	-	-	-	-	-	-
306	Lake River and Other Intakes	2.50%	-	-	-	-	-	-
307	Wells and Springs	2.50%	-	-	-	-	386,591	12,873
308	Infiltration Galleries and Tunnels	2.50%	-	-	-	-	-	-
309	Supply Mains	2.50%	-	-	-	-	-	-
310	Power Generation Equipment	5.00%	-	-	-	-	-	-
311	Electric Pumping Equipment	12.50%	275,541	-	275,541	-	965,496	103,466
320	Water Treatment Equipment	3.33%	-	-	-	-	15,947	531
320.1	Water Treatment Plant	3.33%	-	-	-	-	-	-
320.2	Chemical Solution Feeders	20.00%	-	-	-	-	-	-
330	Dist. Reservoirs & Standpipe	2.50%	470,081	-	470,081	-	836,890	13,361
330.1	Storage tanks	2.22%	-	-	-	-	-	-
330.2	Pressure Tanks	2.22%	-	-	-	-	-	-
331	Trans. and Dist. Mains	5.00%	-	-	-	-	-	-
333	Services	2.50%	174,757	-	174,757	-	1,611,302	30,478
334	Meters	2.50%	97,051	-	97,051	-	386,947	11,269
335	Hydrants	8.33%	9,299	-	9,299	-	89,115	7,036
336	Backflow Prevention Devices	2.00%	35,352	-	35,352	-	161,737	2,881
339	Other Plant and Misc. Equip.	6.67%	-	-	-	-	166,477	11,104
340	Office Furniture and Fixtures	6.67%	-	-	-	-	-	-
340.1	Computers and Software	20.00%	-	-	-	-	-	-
341	Transportation Equipment	20.00%	-	-	-	-	-	-
342	Stores Equipment	4.00%	-	-	-	-	-	-
343	Tools and Work Equipment	5.00%	-	-	-	-	-	-
344	Laboratory Equipment	10.00%	-	-	-	-	-	-
345	Power Operated Equipment	5.00%	-	-	-	-	-	-
346	Communications Equipment	10.00%	-	-	-	-	-	-
347	Miscellaneous Equipment	2.50%	-	-	-	-	-	-
348	Other Tangible Plant	10.00%	-	-	-	-	-	-
	Rounding	2.50%	-	-	-	-	-	-
TOTAL WATER PLANT			1,737,362	-	1,737,362	-	5,424,334	196,224

Account No.	Description	Deprec. Rate	2009 Plant Additions	2009 Plant Adjustments	2009 Adjusted Plant	2009 Plant Retirements	2009 Plant Reclass	2009 Plant Balance	2009 A/D Reclass	2009 A/D	2009 Deprec.
		After 4/16/2007 Rate				Plant	Plant	Plant	Plant	Plant	Plant
301	Organization Cost	0.00%	-	-	-	-	-	127,103	-	-	-
302	Franchise Cost	0.00%	-	-	-	-	-	-	-	-	-
303	Land and Land Rights	0.00%	-	-	-	-	-	484,159	-	-	-
304	Structures and Improvements	2.50%	-	-	-	-	-	182,570	-	-	6,080
305	Collecting and Impounding Res.	2.50%	-	-	-	-	-	-	-	-	-
306	Lake River and Other Intakes	2.50%	-	-	-	-	-	-	-	-	-
307	Wells and Springs	2.50%	-	-	-	-	-	386,591	-	-	12,873
308	Infiltration Galleries and Tunnels	2.50%	-	-	-	-	-	-	-	-	-
309	Supply Mains	2.50%	-	-	-	-	-	-	-	-	-
310	Power Generation Equipment	2.50%	-	-	-	-	-	-	-	-	-
311	Electric Pumping Equipment	2.50%	3,155	-	3,155	-	-	968,652	(2,177)	-	120,884
320	Water Treatment Equipment	2.50%	-	-	-	-	-	0	-	-	531
320.1	Water Treatment Plant	2.50%	-	-	-	-	-	-	-	-	-
320.2	Chemical Solution Feeders	2.50%	-	-	-	-	-	-	-	-	-
330	Dist. Reservoirs & Standpipe	2.22%	-	-	-	-	-	15,947	2,177	-	-
330.1	Storage tanks	2.22%	-	-	-	-	-	(836,890)	(64,241)	-	18,579
330.2	Pressure Tanks	2.50%	-	-	-	-	-	384,827	29,540	(4,015)	-
331	Trans. and Dist. Mains	2.50%	18	-	18	-	-	452,063	34,701	-	-
333	Services	2.50%	-	-	-	-	-	1,611,321	-	-	32,226
334	Meters	2.50%	5,148	-	5,148	-	-	386,947	-	-	12,885
335	Hydrants	2.50%	-	-	-	-	-	94,263	-	-	7,638
336	Backflow Prevention Devices	2.50%	-	-	-	-	-	161,737	-	-	3,235
339	Other Plant and Misc. Equip.	2.50%	-	-	-	-	-	-	-	-	-
340	Office Furniture and Fixtures	2.50%	-	-	-	-	-	-	-	-	-
340.1	Computers and Software	2.50%	21,105	-	21,105	-	-	187,582	-	-	11,808
341	Transportation Equipment	2.50%	-	-	-	-	-	-	-	-	-
342	Stores Equipment	2.50%	-	-	-	-	-	-	-	-	-
343	Tools and Work Equipment	2.50%	-	-	-	-	-	-	-	-	-
344	Laboratory Equipment	2.50%	-	-	-	-	-	-	-	-	-
345	Power Operated Equipment	2.50%	-	-	-	-	-	-	-	-	-
346	Communications Equipment	2.50%	-	-	-	-	-	-	-	-	-
347	Miscellaneous Equipment	2.50%	-	-	-	-	-	-	-	-	-
348	Other Tangible Plant	2.50%	-	-	-	-	-	-	-	-	-
	Rounding		-	-	-	-	-	-	-	-	-
	TOTAL WATER PLANT		29,426	-	29,426	-	-	5,381,411	-	(4,015)	226,739

TOTAL WATER PLANT

Goodman Water Company
 Plant Additions and Retirements

Exhibit
 Rebuttal Schedule B-2
 Page 3.9
 Witness: Bourassa

Account No.	Description	Deprec. Rate	After 4/16/2007 Rate	Year End Accumulated Depreciation by Account					Dec. 2009	
				2005		2006		2007		
				Sept 30	Dec.	Dec.	Dec.	Dec.		Dec.
301	Organization Cost	0.00%	0.00%	-	-	-	-	-	-	-
302	Franchise Cost	0.00%	0.00%	-	-	-	-	-	-	-
303	Land and Land Rights	0.00%	0.00%	-	-	-	-	-	-	-
304	Structures and Improvements	3.33%	2.50%	306	371	648	989	4,213	10,293	-
305	Collecting and Impounding Res.	2.50%	2.50%	-	-	-	-	-	-	-
306	Lake River and Other Intakes	2.50%	2.50%	-	-	-	-	-	-	-
307	Wells and Springs	2.50%	2.50%	17,925	20,341	30,006	41,944	54,817	67,691	-
308	Infiltration Galleries and Tunnels	2.50%	2.50%	-	-	-	-	-	-	-
309	Supply Mains	2.50%	2.00%	-	-	-	-	-	-	-
310	Power Generation Equipment	2.50%	5.00%	-	-	-	-	-	-	-
311	Electric Pumping Equipment	2.50%	12.50%	35,041	39,335	56,510	122,488	225,954	346,838	-
320	Water Treatment Plant	2.50%	3.33%	345	414	694	1,115	1,646	(0)	-
320.1	Water Treatment Plant	2.50%	3.33%	-	-	-	-	-	-	-
320.2	Chemical Solution Feeders	2.50%	20.00%	-	-	-	-	-	-	2,177
330	Dist. Reservoirs & Standpipe	2.50%	2.22%	15,489	17,329	24,691	32,301	45,662	0	-
330.1	Storage tanks	2.50%	2.22%	-	-	-	-	-	-	25,525
330.2	Pressure Tanks	2.50%	5.00%	-	-	-	-	-	-	34,701
331	Trans. and Dist. Mains	2.50%	2.00%	29,324	33,637	52,423	75,899	106,377	138,603	-
333	Services	2.50%	3.33%	5,679	6,541	10,204	16,943	26,212	41,098	-
334	Meters	2.50%	8.33%	2,310	2,733	4,430	2,752	9,788	17,425	-
335	Hydrants	2.50%	2.00%	2,090	2,497	4,576	6,825	9,706	12,940	-
336	Backflow Prevention Devices	2.50%	6.67%	-	-	-	-	-	-	-
339	Other Plant and Misc. Equip.	2.50%	6.67%	-	476	4,454	13,512	24,616	36,424	-
340	Office Furniture and Fixtures	2.50%	6.67%	-	-	-	-	-	-	-
340.1	Computers and Software	2.50%	20.00%	-	-	-	-	-	-	-
341	Transportation Equipment	2.50%	20.00%	-	-	-	-	-	-	-
342	Stores Equipment	2.50%	4.00%	-	-	-	-	-	-	-
343	Tools and Work Equipment	2.50%	5.00%	-	-	-	-	-	-	-
344	Laboratory Equipment	2.50%	10.00%	-	-	-	-	-	-	-
345	Power Operated Equipment	2.50%	5.00%	-	-	-	-	-	-	-
346	Communications Equipment	2.50%	10.00%	-	-	-	-	-	-	-
347	Miscellaneous Equipment	2.50%	10.00%	-	-	-	-	-	-	-
348	Other Tangible Plant	2.50%	10.00%	-	-	-	-	-	-	-
	Rounding			-	-	-	-	-	-	-
TOTAL WATER PLANT				108,509	123,674	188,636	314,767	510,991	733,716	

Goodman Water Company
Plant Reconciliation to Prior Rate Case

Exhibit
Rebuttal Schedule B-2
Page 3.10

Line No.	Account No.	Description	Balance Per Company Per 2005 Filing Before Adj.	Company Rate Case Adjustments ¹	Staff Rate Case Adjustments ²	Intentionally Left Blank	Per Decision 69404 Prior Case Adjusted Plant
6	301	Organization Cost	104,528				104,528
7	302	Franchise Cost	-				-
8	303	Land and Land Rights	-				-
9	304	Structures and Improvements	9,788				9,788
10	305	Collecting and Impounding Res.	-				-
11	306	Lake River and Other Intakes	-				-
12	307	Wells and Springs	386,591				386,591
13	308	Infiltration Galleries and Tunnels	-				-
14	309	Supply Mains	-				-
15	310	Power Generation Equipment	-				-
16	311	Electric Pumping Equipment	686,993				686,993
17	320	Water Treatment Equipment	11,054				11,054
18	320.1	Water Treatment Plants	-				-
19	320.2	Chemical Solution Feeders	-				-
20	330	Distribution Reservoirs & Standpipe	294,460				294,460
21	330.1	Storage tanks	-				-
22	330.2	Pressure Tanks	-				-
23	331	Transmission and Distribution Mains	-		17,325		-
24	333	Services	611,348				628,673
25	334	Meters	129,274				129,274
26	335	Hydrants	56,742	10,755			67,497
27	336	Backflow Prevention Devices	46,955				46,955
28	339	Other Plant and Miscellaneous Equipment	-				-
29	340	Office Furniture and Fixtures	-				-
30	340.1	Computers and Software	-				-
31	341	Transportation Equipment	-				-
32	342	Stores Equipment	-				-
33	343	Tools and Work Equipment	-				-
34	344	Laboratory Equipment	-				-
35	345	Power Operated Equipment	-				-
36	346	Communications Equipment	-				-
37	347	Miscellaneous Equipment	-				-
38	348	Other Tangible Plant	-				-
39		Rounding	-				-
40		TOTAL	2,337,731	10,755	17,325	-	2,365,813
41							2

¹ Company proposed reclassified outside services expense to capital.

² Staff proposed reclassified outside services expense to capital.

Goodman Water Company
A/D Reconciliation to Prior Rate Case

Exhibit
Rebuttal Schedule B-2
Page 3.11

Line No.	Account No.	Description	Balance Per Company Per 2005 Filing Before Adj.	Intentionally Left Blank	Intentionally Left Blank	Per Decision 69404 Prior Case Adjusted A/D	Intentionally Left Blank	Initial Balance
5	301	Organization Cost				-		-
6	302	Franchise Cost				-		-
7	303	Land and Land Rights				-		-
8	304	Structures and Improvements	306			306		306
9	305	Collecting and Impounding Res.				-		-
10	306	Lake River and Other Intakes				-		-
11	307	Wells and Springs	17,925			17,925		17,925
12	308	Infiltration Galleries and Tunnels				-		-
13	309	Supply Mains				-		-
14	310	Power Generation Equipment				-		-
15	311	Electric Pumping Equipment	35,041			35,041		35,041
16	320	Water Treatment Equipment	345			345		345
17	320.1	Water Treatment Plants				-		-
18	320.2	Chemical Solution Feeders				-		-
19	330	Distribution Reservoirs & Standpipe	15,489			15,489		15,489
20	330.1	Storage tanks				-		-
21	330.2	Pressure Tanks				-		-
22	331	Transmission and Distribution Mains	29,324			29,324		29,324
23	333	Services	5,679			5,679		5,679
24	334	Meters	2,310			2,310		2,310
25	335	Hydrants	2,090			2,090		2,090
26	336	Backflow Prevention Devices				-		-
27	339	Other Plant and Misc. Equip.				-		-
28	340	Office Furniture and Fixtures				-		-
29	340.1	Computers and Software				-		-
30	341	Transportation Equipment				-		-
31	342	Stores Equipment				-		-
32	343	Tools and Work Equipment				-		-
33	344	Laboratory Equipment				-		-
34	345	Power Operated Equipment				-		-
35	346	Communications Equipment				-		-
36	347	Miscellaneous Equipment				-		-
37	348	Other Tangible Plant				-		-
38		Rounding	2			2		2
40		TOTAL	108,511	-	-	108,511	-	108,511

Line No.	Plant-in-Service	Acct. No.	Description	Adjusted Accum. Depr.	A Reclassify A/D Related to Plant Reclassification	B Remove A/D Related to Storage Tank Upsizing	C Difference to Computed Balance	D Intentionally Left Blank	Rebuttal Adjusted Accum. Depr.
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									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
			TOTALS	\$ 731,198	\$ -	\$ (4,015)	\$ 6,533	\$ -	\$ 733,716
			Accumulated Depreciation per Books						\$ 731,205
			Increase (decrease) in Accumulated Depreciation						\$ 2,510
			Adjustment to Accumulated Depreciation						\$ 2,510

Goodman Water Company
Test Year Ended December 31, 2009
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2 - A

Exhibit
Rebuttal Schedule B-2
Page 4.1
Witness: Bourassa

Line No.		
1		
2	<u>A/D Reclassification</u>	
3		
4	320 - Water Treatment Equipment	\$ (2,167)
5	320.2 - Chlorine Solution Feeders	\$ 2,167
6		
7	330 - Distribution Reservoirs and Standpipe	\$ (64,318)
8	330.1 - Storage Tanks	\$ 29,575
9	330.2 - Pressure Tanks	\$ 34,743
10		
11		
12		
13		
14		
15	Net adjustment to plant-in-service	<u>\$ -</u>
16		
17		
18	<u>SUPPORTING SCHEDULES</u>	
19	Staff Schedule GTM-6	
20	Staff Schedule GTM-7	

Goodman Water Company
Test Year Ended December 31, 2009
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2 - B

Exhibit
Rebuttal Schedule B-2
Page 4.2
Witness: Bourassa

Line

No.

1			
2	<u>Remove A/D related to 190,000 gallon upsizing of 530,000 gallon storage reservoir</u>		
3			
4			
5	330.1 - Storage Tanks	2007 190,000 gallon upsize cost	\$ 72,350
6	Depreciation rate		2.22%
7	Years (half year convention 2007-2009)		2.5
8			
9	Accumulated Depreciation (A/D)		<u>\$ 4,015</u>
10			
11	Adjustment to A/D 330.1 - Storage Tanks		<u>\$ (4,015)</u>
12			
13			
14			
15			
16			
17			
18			
19			
20			

Goodman Water Company
Test Year Ended December 31, 2009
Original Cost Rate Base Proforma Adjustments
Adjustment Number 2 - C

Exhibit
Rebuttal Schedule B-2
Page 4.3
Witness: Bourassa

Line

No.

1			
2	<u>Remove A/D related to 190,000 gallon upsizing of 530,000 gallon storage reservoir</u>		
3			
4			
5	330.1 - Storage Tanks	2007 190,000 gallon upsize cost	\$ 72,350
6	Depreciation rate		2.22%
7	Years (half year convention 2007-2009)		2.5
8			
9	Accumulated Depreciation (A/D)		<u>\$ 4,015</u>
10			
11	Adjustment to A/D 330.1 - Storage Tanks		<u>\$ (4,015)</u>
12			
13			
14			
15			
16			
17			
18			
19			
20			

Goodman Water Company
 Test Year Ended December 31, 2009
 Computation of Working Capital

Exhibit
 Schedule B-5
 Page 1
 Witness: Bourassa

Line			
<u>No.</u>			
1	Cash Working Capital (1/8 of Allowance		
2	Operation and Maintenance Expense)	\$	27,668
3	Pumping Power (1/24 of Pumping Power)		1,152
4	Purchased Water (1/24 of Purchased Water)		-
5			
6			
7			
8			
9	Total Working Capital Allowance	<u>\$</u>	<u>28,820</u>
10			
11			
12	Working Capital Requested	<u>\$</u>	<u>-</u>
13			
14			
15	<u>SUPPORTING SCHEDULES:</u>		<u>RECAP SCHEDULES:</u>
16	C-1		B-1
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

Total Operating Expense	520,515
Less:	
Income Tax	10,120
Property Tax	19,935
Depreciation	241,474
Purchased Water	-
Pumping Power	<u>27,642</u>
Allowable Expenses	<u>221,344</u>
1/8 of allowable expenses	<u>27,668</u>

Goodman Water Company
 Test Year Ended December 31, 2009
 Income Statement

Exhibit
 Rebuttal Schedule C-1
 Page 1
 Witness: Bourassa

Line No.		Test Year Book Results	Adjustment	Test Year Adjusted Results	Proposed Rate Increase	Adjusted with Rate Increase
1	Revenues					
2	Metered Water Revenues	\$ 559,013	\$ 21,708	\$ 580,721	\$ 262,717	\$ 843,439
3	Unmetered Water Revenues	-	-	-		-
4	Other Water Revenues	13,738	-	13,738		13,738
5		<u>\$ 572,751</u>	<u>\$ 21,708</u>	<u>\$ 594,459</u>	<u>\$ 262,717</u>	<u>\$ 857,176</u>
6	Operating Expenses					
7	Salaries and Wages	\$ 40,000	-	\$ 40,000		\$ 40,000
8	Purchased Water	-	-	-		-
9	Purchased Power	27,066	577	27,642		27,642
10	Chemicals	-	-	-		-
11	Repairs and Maintenance	7,746	-	7,746		7,746
12	Office Supplies and Expense	14,855	-	14,855		14,855
13	Outside Services	102,925	-	102,925		102,925
14	Water Testing	1,215	1,568	2,783		2,783
15	Rents	-	-	-		-
16	Transportation Expenses	-	-	-		-
17	Insurance - General Liability	9,669	-	9,669		9,669
18	Insurance - Health and Life	-	-	-		-
19	Regulatory Commission Expense - Rate Case	20,000	20,000	40,000		40,000
20	Miscellaneous Expense	378	-	378		378
21	Depreciation Expense	227,855	13,620	241,474		241,474
22	Taxes Other Than Income	2,988	-	2,988		2,988
23	Property Taxes	21,299	(1,364)	19,935	2,953	22,888
24	Income Tax	22,873	(12,754)	10,120	106,399	116,518
25		-	-	-		-
26	Total Operating Expenses	<u>\$ 498,868</u>	<u>\$ 21,647</u>	<u>\$ 520,515</u>	<u>\$ 109,351</u>	<u>\$ 629,867</u>
27	Operating Income	<u>\$ 73,883</u>	<u>\$ 61</u>	<u>\$ 73,944</u>	<u>\$ 153,366</u>	<u>\$ 227,309</u>
28	Other Income (Expense)					
29	Interest Income	-	-	-		-
30	Other income	-	-	-		-
31	Interest Expense	(37,309)	1,613	(35,696)		(35,696)
32	Other Expense	-	-	-		-
33		-	-	-		-
34	Total Other Income (Expense)	<u>\$ (37,309)</u>	<u>\$ 1,613</u>	<u>\$ (35,696)</u>	<u>\$ -</u>	<u>\$ (35,696)</u>
35	Net Profit (Loss)	<u>\$ 36,574</u>	<u>\$ 1,674</u>	<u>\$ 38,247</u>	<u>\$ 153,366</u>	<u>\$ 191,613</u>
36						
37	<u>SUPPORTING SCHEDULES:</u>				<u>RECAP SCHEDULES:</u>	
38	C-1, page 2				A-1	
39	E-2					

Goodman Water Company
 Test Year Ended December 31, 2009
 Income Statement

Exhibit
 Rebuttal Schedule C-1
 Page 2
 Witness: Bourassa

Line No.	1	2	3	4	5	6	7	8	Rebuttal Test Year Adjusted Results	Proposed Rate Increase	Rebuttal Adjusted with Rate Increase
	Depreciation	Property Taxes	Rate Case Expense	Revenue Annualization	Water Testing	Annualize Purchased Power	Interest Synch.	Income tax			
1	Revenues										
2	Metered Water Revenues			\$ 21,708					\$ 580,721	\$ 262,717	\$ 843,439
3	Unmetered Water Revenues										
4	Other Water Revenues								13,738		13,738
5		\$ 572,751	\$ -	\$ 21,708	\$ -	\$ -	\$ -	\$ -	\$ 594,459	\$ 262,717	\$ 857,176
6	Operating Expenses										
7	Salaries and Wages								\$ 40,000	\$ -	\$ 40,000
8	Purchased Water										
9	Purchased Power					577			27,642		27,642
10	Chemicals										
11	Repairs and Maintenance								7,746		7,746
12	Office Supplies and Expense								14,855		14,855
13	Contractual Services								102,925		102,925
14	Water Testing				1,568				2,783		2,783
15	Rents										
16	Transportation Expenses										
17	Insurance - General Liability								9,669		9,669
18	Insurance - Health and Life										
19	Reg. Comm. Exp. - Rate Case		20,000						40,000		40,000
20	Miscellaneous Expense								378		378
21	Depreciation Expense	13,620							241,474		241,474
22	Taxes Other Than Income								2,988		2,988
23	Property Taxes		(1,364)						19,935	2,953	22,888
24	Income Tax							(12,754)	10,120	106,399	116,519
25											
26	Total Operating Expenses	\$ 498,868	\$ (1,364)	\$ 20,000	\$ -	\$ 577	\$ -	\$ (12,754)	\$ 520,515	\$ 109,351	\$ 629,867
27	Operating Income	\$ 73,883	\$ (13,620)	\$ (20,000)	\$ 21,708	\$ (577)	\$ -	\$ 12,754	\$ 73,944	\$ 153,366	\$ 227,309
28	Other Income (Expense)										
29	Interest Income										
30	Other Income										
31	Interest Expense										
32	Other Expense	(37,309)					1,613		(35,696)		(35,696)
33											
34	Total Other Income (Expense)	\$ (37,309)	\$ -	\$ -	\$ -	\$ -	\$ 1,613	\$ -	\$ (35,696)	\$ -	\$ (35,696)
35	Net Profit (Loss)	\$ 36,574	\$ (13,620)	\$ (20,000)	\$ 21,708	\$ (577)	\$ 1,613	\$ 12,754	\$ 38,247	\$ 153,366	\$ 191,613

RECAP SCHEDULES:
 C-1, page 1

SUPPORTING SCHEDULES:
 C-2
 E-2

Goodman Water Company
 Test Year Ended December 31, 2009
 Adjustments to Revenues and Expenses
 Adjustment Number 1

Exhibit
 Rebuttal Schedule C-2
 Page 2
 Witness: Bourassa

Line No.	Acct.	Description	Adjusted Original Cost	Proposed Rates	Depreciation Expense
1		<u>Depreciation Expense</u>			
2					
3					
4					
5	301	Organization Cost	127,103	0.00%	-
6	302	Franchise Cost	-	0.00%	-
7	303	Land and Land Rights	459,159	0.00%	-
8	304	Structures and Improvements	182,570	3.33%	6,080
9	305	Collecting and Impounding Res.	-	2.50%	-
10	306	Lake River and Other Intakes	-	2.50%	-
11	307	Wells and Springs	386,591	3.33%	12,873
12	308	Infiltration Galleries and Tunnels	-	6.67%	-
13	309	Supply Mains	-	2.00%	-
14	310	Power Generation Equipment	-	5.00%	-
15	311	Electric Pumping Equipment	968,652	12.50%	121,081
16	320	Water Treatment Equipment	0	3.33%	0
17	320.1	Water Treatment Plant	-	3.33%	-
18	320.2	Chemical Solution Feeders	15,947	20.00%	3,189
19	330	Dist. Reservoirs & Standpipe	0	2.22%	0
20	330.1	Storage tanks	312,477	2.22%	6,937
21	330.2	Pressure Tanks	452,063	5.00%	22,603
22	331	Trans. and Dist. Mains	1,611,321	2.00%	32,226
23	333	Services	386,947	3.33%	12,885
24	334	Meters	94,263	8.33%	7,852
25	335	Hydrants	161,737	2.00%	3,235
26	336	Backflow Prevention Devices	-	6.67%	-
27	339	Other Plant and Misc. Equip.	187,582	6.67%	12,512
28	340	Office Furniture and Fixtures	-	6.67%	-
29	340.1	Computers and Software	-	20.00%	-
30	341	Transportation Equipment	-	20.00%	-
31	342	Stores Equipment	-	4.00%	-
32	343	Tools and Work Equipment	-	5.00%	-
33	344	Laboratory Equipment	-	10.00%	-
34	345	Power Operated Equipment	-	5.00%	-
35	346	Communications Equipment	-	10.00%	-
36	347	Miscellaneous Equipment	-	10.00%	-
37	348	Other Tangible Plant	-	10.00%	-
38					
39		TOTALS	\$ 5,346,411		\$ 241,474
40					
41					
42		Less: Amortization of Contributions	\$ -	4.5166%	\$ -
43					
44					
45					
46		Total Depreciation Expense			\$ 241,474
47					
48		Adjusted Test Year Depreciation Expense			227,855
49					
50		Increase (decrease) in Depreciation Expense			13,620
51					
52		Adjustment to Revenues and/or Expenses			\$ 13,620
53					
54		<u>SUPPORTING SCHEDULE</u>			
55		B-2, page 3			
56					

Goodman Water Company
 Test Year Ended December 31, 2009
 Adjustment to Revenues and Expenses
 Adjustment Number 2

Exhibit
 Rebuttal Schedule C-2
 Page 3
 Witness: Bourassa

PROPERTY TAX EXPENSE

Line No.	DESCRIPTION	Test Year as Adjusted	Test Year at Proposed Rates
1	Company Adjusted Test Year Revenues - 2007	\$ 594,459	\$ 594,459
2	Weight Factor	<u>2</u>	<u>2</u>
3	Subtotal (Line 1 * Line 2)	1,188,918	1,188,918
4	Company Recommended Revenue	594,459	857,176
5	Subtotal (Line 4 + Line 5)	1,783,377	2,046,095
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	594,459	682,032
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	1,188,918	1,364,063
10	Plus: 10% of CWIP - 2005	-	13,454
11	Less: Net Book Value of Licensed Vehicles	-	-
12	Full Cash Value (Line 9 + Line 10 - Line 11)	1,188,918	1,377,517
13	Assessment Ratio	21.0%	21.0%
14	Assessment Value (Line 12 * Line 13)	249,673	289,279
15	Composite Property Tax Rate - Obtained from ADOR	7.4558%	7.4558%
16	Test Year Adjusted Property Tax Expense (Line 14 * Line 15)	\$ 18,615	\$ 21,568
17	Tax on Parcels	<u>1,320</u>	<u>1,320</u>
18	Total Property Taxes (Line 16 + Line 17)	\$ 19,935	
19	Adjusted Test Year Property Taxes per Direct	\$ 21,299	
20	Adjustment to Test Year Property Taxes (Line 18 - Line 19)	<u>\$ (1,364)</u>	
21			
22	Property Tax on Company Recommended Revenue (Line 16 + Line 17)		\$ 22,888
23	Company Test Year Adjusted Property Tax Expense (Line 18)		\$ 19,935
24	Increase in Property Tax Due to Increase in Revenue Requirement		<u>\$ 2,953</u>
25			
26	Increase in Property Tax Due to Increase in Revenue Requirement (Line 24)		\$ 2,953
27	Increase in Revenue Requirement		\$ 262,717
28	Increase in Property Tax Per Dollar Increase in Revenue (Line 26 / Line 27)		1.12399%
29			
30	<u>REFERENCES:</u>		
31	Line 15: Composite Tax Rate obtained from Arizona Department of Revenue		
32	Line 19: Schedule C-1, Line 23		
33			
34			

Goodman Water Company
Test Year Ended December 31, 2009
ADJUSTMENTS TO REVENUES AND/OR EXPENSES
Adjustment Number 3

Exhibit
Rebuttal Schedule C-2
Page 4
Witness: Bourassa

Line No.			
1	<u>Rate Case Expense</u>		
2			
3	Estimated Rate Case Expense	\$	160,000
4			
5	Estimated Amortization Period in Years		4
6			
7	Annual Rate Case Expense	<u>\$</u>	<u>40,000</u>
8			
9	Annual Rate Case Expense per Direct	\$	20,000
10			
11	Increase(decrease) Rate Case Expense	<u>\$</u>	<u>20,000</u>
12			
13	Adjustment to Revenue and/or Expense	<u>\$</u>	<u>20,000</u>
14			
15			
16			
17			
18			
19			
20			

Goodman Water Company
Test Year Ended December 31, 2009
Adjustment to Revenues and Expenses
Adjustment Number 4

Exhibit
Rebuttal Schedule C-2
Page 5
Witness: Bourassa

Line
No.

1	<u>Revenue Annualization</u>	
2		
3		
4	Rebuttal Revenue Annualization	\$ 14,349
5	Revenue Annualization per Direct	<u>(7,359)</u>
6		
7	Total Revenue from Annualization	<u>\$ 21,708</u>
8		
9		
10	Adjustment to Revenue and/or Expense	<u>\$ 21,708</u>
11		
12	<u>SUPPORTING SCHEDULES</u>	
13	Rebuttal C-2 pages 5.1 to 5.7	
14	H-1	
15		
16		
17		
18		
19		

Goodman Water Company
 Residential 5/8x3/4 Inch Meter
 Revenue Annualization to Year End Customers:
 Test Year Ended December 31, 2009

Exhibit
 Schedule
 Page 5.1
 Witness: Bourassa

Line No.	Month of Jan	Month of Feb	Month of Mar	Month of Apr	Month of May	Month of Jun	Month of Jul
1	531	531	531	531	531	531	531
2	531	528	526	524	529	526	524
3	-	3	5	7	2	5	7
4	\$ 62.13	\$ 61.06	\$ 63.87	\$ 65.89	\$ 70.92	\$ 71.27	\$ 71.12
5	\$ -	\$ 183	\$ 319	\$ 461	\$ 142	\$ 356	\$ 498
6							
7	-	3	5	7	2	5	7
8	\$ 85.20	\$ 83.16	\$ 88.52	\$ 92.36	\$ 101.96	\$ 102.63	\$ 102.34
9	\$ -	\$ 249	\$ 443	\$ 647	\$ 204	\$ 513	\$ 716
10	-	13,553	24,964	37,341	12,372	31,229	43,540
11							
12							
13							
14							
15	Year End Number of Customers	531	531	531	531	531	531
16	Actual Customers	522	524	527	528	531	531
17	Increase in Number of Customers/Bills	9	7	4	3	-	52
18	Average Revenue / Present Rates	\$ 71.35	\$ 66.04	\$ 73.55	\$ 70.01	\$ 57.21	\$ 52
19	Revenue Annualization / Present Rates	\$ 642	\$ 462	\$ 294	\$ 210	\$ -	\$ 3,568
20							
21	Increase in Number of Customers	9	7	4	3	-	-
22	Average Revenue / Proposed Rates	\$ 102.79	\$ 92.65	\$ 106.97	\$ 100.23	\$ 76.07	\$ 5,074
23	Revenue Annualization / Proposed Rates	\$ 642	\$ 462	\$ 294	\$ 210	\$ -	\$ 301,472
24	Additional Gallons to be Produced	56,332	37,522	26,522	18,098	-	-

Goodman Water Company
 Revenue Annualization to Year End Customers:
 Test Year Ended December 31, 2009

Residential 3/4 Inch Meter
 Exhibit Schedule
 Page 5.2
 Witness: Bourassa

Line No.	Month of Jan	Month of Feb	Month of Mar	Month of Apr	Month of May	Month of Jun	Month of Jul
1	86	86	86	86	86	86	86
2	69	70	71	71	70	70	71
3	17	16	15	15	16	16	15
4	\$ 83.90	\$ 87.33	\$ 86.01	\$ 89.67	\$ 98.01	\$ 94.43	\$ 98.37
5	\$ 1,426	\$ 1,397	\$ 1,290	\$ 1,345	\$ 1,568	\$ 1,511	\$ 1,476
6							
7	17	16	15	15	16	16	15
8	\$ 112.58	\$ 119.13	\$ 116.61	\$ 123.59	\$ 139.49	\$ 132.65	\$ 140.18
9	\$ 1,914	\$ 1,906	\$ 1,749	\$ 1,854	\$ 2,232	\$ 2,122	\$ 2,103
10	\$ 81,805	\$ 86,294	\$ 77,543	\$ 86,838	\$ 115,208	\$ 105,494	\$ 108,916

Line No.	Month of Aug	Month of Sep	Month of Oct	Month of Nov	Month of Dec	Total Year
15	86	86	86	86	86	
16	75	80	82	86	86	
17	11	6	4	-	-	131
18	\$ 98.09	\$ 90.55	\$ 97.12	\$ 91.58	\$ 79.03	
19	\$ 1,079	\$ 543	\$ 388	\$ -	\$ -	\$ 12,024
20						
21	11	6	4	-	-	
22	\$ 139.65	\$ 125.27	\$ 137.79	\$ 127.22	\$ 103.32	
23	\$ 1,079	\$ 543	\$ 388	\$ -	\$ -	\$ 16,719
24	\$ 79,352	\$ 35,628	\$ 28,197	\$ -	\$ -	\$ 805,274

Goodman Water Company

Residential 1 Inch Meter

Exhibit
Schedule
Page 5.3

Revenue Annualization to Year End Customers:
Test Year Ended December 31, 2009

Witness: Bourassa

Line No.	Month of Jan	Month of Feb	Month of Mar	Month of Apr	Month of May	Month of Jun	Month of Jul
1	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3
3	-	-	-	(1)	(2)	(2)	(1)
4	\$ 141.95	\$ 143.92	\$ 145.89	\$ 171.99	\$ 256.96	\$ 178.79	\$ 179.38
5	\$ -	\$ -	\$ -	\$ (172)	\$ (514)	\$ (358)	\$ (179)
6	-	-	-	(1)	(2)	(2)	(1)
7	\$ 200.01	\$ 203.76	\$ 207.52	\$ 257.29	\$ 418.94	\$ 270.25	\$ 271.38
8	\$ -	\$ -	\$ -	\$ (257)	\$ (838)	\$ (541)	\$ (271)
9	-	-	-	(11,251)	(50,201)	(24,801)	(12,501)

Line No.	Month of Aug	Month of Sep	Month of Oct	Month of Nov	Month of Dec	Total Year
15	3	3	3	3	3	3
16	3	3	3	3	3	3
17	-	-	-	-	-	(6)
18	\$ 141.95	\$ 155.74	\$ 159.68	\$ 153.77	\$ 134.07	\$ (1,223)
19	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,907)
20	-	-	-	-	-	(98,753)
21	\$ 200.01	\$ 226.30	\$ 233.82	\$ 222.55	\$ 184.98	\$ (1,907)
22	\$ -	\$ -	\$ -	\$ -	\$ -	(98,753)
23	-	-	-	-	-	-
24	-	-	-	-	-	-

Goodman Water Company

Revenue Annualization to Year End Customers:
 Test Year Ended December 31, 2009

Commercial 1.5 Inch Meter

Exhibit
 Schedule
 Page 5.5

Witness: Bourassa

Line No.	Month of Jan	Month of Feb	Month of Mar	Month of Apr	Month of May	Month of Jun	Month of Jul
1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1
3	Year End Number of Customers	211.50	211.50	211.50	211.50	211.50	211.50
4	Increase in Number of Customers/Bills	\$ 211.50	\$ 211.50	\$ 211.50	\$ 211.50	\$ 211.50	\$ 211.50
5	Average Revenue / Present Rates	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Revenue Annualization / Present Rates	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

7	Increase in Number of Customers	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Average Revenue / Proposed Rates	\$ 261.01	\$ 261.01	\$ 261.01	\$ 261.01	\$ 261.01	\$ 261.01
9	Revenue Annualization / Proposed Rates	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Additional Gallons to be Produced	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Line No.	Month of Aug	Month of Sep	Month of Oct	Month of Nov	Month of Dec	Total Year
15	1	1	1	1	1	1
16	1	1	1	1	1	1
17	Year End Number of Customers	211.50	211.50	211.50	211.50	211.50
18	Increase in Number of Customers/Bills	\$ 211.50	\$ 211.50	\$ 211.50	\$ 211.50	\$ 211.50
19	Average Revenue / Present Rates	\$ -	\$ -	\$ -	\$ -	\$ -
20	Revenue Annualization / Present Rates	\$ -	\$ -	\$ -	\$ -	\$ -

21	Increase in Number of Customers	\$ -	\$ -	\$ -	\$ -	\$ -
22	Average Revenue / Proposed Rates	\$ 261.01	\$ 261.01	\$ 261.01	\$ 261.01	\$ 261.01
23	Revenue Annualization / Proposed Rates	\$ -	\$ -	\$ -	\$ -	\$ -
24	Additional Gallons to be Produced	\$ -	\$ -	\$ -	\$ -	\$ -

Goodman Water Company

Commerical 2 Inch Meter

Exhibit

Schedule

Page 5.6

Witness: Bourassa

Revenue Annualization to Year End Customers:
Test Year Ended December 31, 2009

Line No.	Month of Jan	Month of Feb	Month of Mar	Month of Apr	Month of May	Month of Jun	Month of Jul
1	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2
3	2	2	2	2	2	2	2
4	2	2	2	2	2	2	2
5	2	2	2	2	2	2	2
6	2	2	2	2	2	2	2
7	2	2	2	2	2	2	2
8	2	2	2	2	2	2	2
9	2	2	2	2	2	2	2
10	2	2	2	2	2	2	2
11	2	2	2	2	2	2	2
12	2	2	2	2	2	2	2
13	2	2	2	2	2	2	2
14	2	2	2	2	2	2	2
15	2	2	2	2	2	2	2
16	2	2	2	2	2	2	2
17	2	2	2	2	2	2	2
18	2	2	2	2	2	2	2
19	2	2	2	2	2	2	2
20	2	2	2	2	2	2	2
21	2	2	2	2	2	2	2
22	2	2	2	2	2	2	2
23	2	2	2	2	2	2	2
24	2	2	2	2	2	2	2

\$	623.41	\$ 680.29	\$ 712.28	\$ 690.95	\$ 733.61	\$ 599.72	\$ 680.29
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	958.27	\$ 1,065.52	\$ 1,125.85	\$ 1,085.63	\$ 1,166.06	\$ 913.49	\$ 1,065.52
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Month of Aug	Month of Sep	Month of Oct	Month of Nov	Month of Dec	Total Year
2	2	2	2	2	2
2	2	2	2	2	2
2	2	2	2	2	2
\$	816.44	\$ 542.10	\$ 339.68	\$ 1,638.71	\$ 339.68
\$	-	\$ -	\$ -	\$ -	\$ -
\$	1,322.23	\$ 803.60	\$ 417.61	\$ 2,872.61	\$ 417.61
\$	-	\$ -	\$ -	\$ -	\$ -
\$	-	\$ -	\$ -	\$ -	\$ -

Goodman Water Company
Test Year Ended December 31, 2009
Adjustment to Revenues and Expenses
Adjustment Number 5

Exhibit
Rebuttal Schedule C-2
Page 6
Witness: Bourassa

Line

No.

1	<u>Water Testing Expense</u>		
2			
3			
4	Staff Recommended Water Testing Expense	\$	2,783
5	Adjusted Test Year Water Testing Expense per Direct		<u>1,215</u>
6			
7			
8	Total	\$	<u><u>1,568</u></u>
9			
10			
11	Adjustment to Revenue and/or Expense	\$	<u><u>1,568</u></u>
12			
13			
14			
15			
16			
17			
18			
19			
20			

Goodman Water Company
Test Year Ended December 31, 2001
Adjustment to Revenues and Expenses
Adjustment Number 6

Exhibit
Rebuttal Schedule C-2
Page 7
Witness: Bourassa

Line No.			
1	<u>Annualize power cost for additional gallons from annualization of revenues</u>		
2			
3	Additional gallons from annualization (in 1,000's) per Rebuttal		939
4	Cost per 1,000 gallons	\$	0.6145
5			
6	Additional Test Year Power Costs per Rebuttal	\$	577
7			
8	Additional gallons from annualization (in 1,000's) per Direct		-
9	Cost per 1,000 gallons	\$	0.6145
10			
11	Additional Test Year Power Costs per Direct	\$	-
12			
13	Increase (decrease) in additional power costs from revenue annualization	\$	577
14			
15			
15	Adjustment to Revenue and/or Expense	\$	<u>577</u>
16			
17			
18			
19			
20			
21			

Goodman Water Company
 Test Year Ended December 31, 2009
 Adjustment to Revenues and Expenses
 Adjustment Number 7

Exhibit
 Rebuttal Schedule C-2
 Page 8
 Witness: Bourassa

Line
No.

1	<u>Interest Synchronization</u>		
2			
3			
4	Fair Value Rate Base	\$ 2,298,376	
5	Weighted Cost of Debt	1.55%	
6	Interest Expense		\$ 35,696
7			
8	Test Year Interest Expense		<u>\$ 37,309</u>
9			
10	Increase (decrease) in Interest Expense		(1,613)
11			
12			
13			
14	Adjustment to Revenue and/or Expense		<u><u>\$ 1,613</u></u>
15			
16			

17 <u>Weighted Cost of Debt Computation</u>			
18			Weighted
19		<u>Amount</u>	<u>Percent</u>
20	Debt	\$ 507,451	18.27%
21	Equity	<u>\$ 2,269,765</u>	<u>81.73%</u>
22	Total	\$ 2,777,216	100.00%
23			
24			
25			
26			
27			
28			
29			
30			

	<u>Cost</u>	<u>Cost</u>
8.50%	1.55%	
10.20%	<u>8.34%</u>	
	9.89%	

Goodman Water Company
 Test Year Ended December 31, 2009
 Adjustment to Revenues and/or Expenses
 Adjustment Number 8

Exhibit
 Rebuttal Schedule C-2
 Page 9
 Witness: Bourassa

Line No.		<u>Test Year Adjusted Results</u>	<u>Adjusted with Rate Increase</u>	
1	<u>Income Tax Computation</u>			
2				
3				
4				
5				
6				
7				
8				
9	Taxable Income	\$ 48,367	\$ 308,131	
10				
11				
12				
13	Income Before Taxes	<u>\$ 48,367</u>	<u>\$ 308,131</u>	
14				
15	Arizona Income Before Taxes	\$ 48,367	\$ 308,131	
16				
17	Less Arizona Income Tax	<u>\$ 3,370</u>	<u>\$ 21,471</u>	
18	Rate = 6.97%			
19	Arizona Taxable Income	\$ 44,997	\$ 286,661	
20				
21	Arizona Income Taxes	\$ 3,370	\$ 21,471	
22				
23	Federal Income Before Taxes	\$ 48,367	\$ 308,131	
24				
25	Less Arizona Income Taxes	<u>\$ 3,370</u>	<u>\$ 21,471</u>	
26				
27	Federal Taxable Income	<u>\$ 44,997</u>	<u>\$ 286,661</u>	
28				
29				
30				
31	FEDERAL INCOME TAXES:			
32	15% BRACKET	\$ 6,750	\$ 7,500	
33	25% BRACKET	\$ -	\$ 6,250	
34	34% BRACKET	\$ -	\$ 8,500	Federal
35	39% BRACKET	\$ -	\$ 72,798	Effective
36	34% BRACKET	\$ -	\$ -	Tax
37		Rate	Rate	
38	Federal Income Taxes	<u>\$ 6,750</u> 13.95%	<u>\$ 95,048</u> 30.85%	
39				
40				
41	Total Income Tax	<u>\$ 10,120</u>	<u>\$ 116,518</u>	
42				
43	Overall Tax Rate	<u>20.92%</u>	<u>37.81%</u>	
44				
45	Income Tax	\$ 10,120	\$ 116,518	
46	Test Year Income tax Expense	22,873	10,120	
47	Adjustment to Income Tax Expense	<u>\$ (12,754)</u>	<u>\$ 106,399</u>	

Goodman Water Company
Test Year Ended December 31, 2009
Computation of Gross Revenue Conversion Factor

Exhibit
Rebuttal Schedule C-3
Page 1
Witness: Bourassa

Line		Percentage of Incremental Gross Revenues
<u>No.</u>	<u>Description</u>	
1	Combined Federal and State Effective Income Tax Rate	40.96%
2		
3	Property Taxes	<u>0.66%</u>
4		
5		
6	Total Tax Percentage	41.62%
7		
8	Operating Income % = 100% - Tax Percentage	58.38%
9		
10		
11		
12		
13	<u>1</u> = Gross Revenue Conversion Factor	
14	Operating Income %	1.7130
15		
16	<u>SUPPORTING SCHEDULES:</u>	<u>RECAP SCHEDULES:</u>
17	C-3, page 2	A-1
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		

GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)	(E)	(F)
<u>Calculation of Gross Revenue Conversion Factor:</u>							
1	Revenue	100.0000%					
2	Uncollectible Factor (Line 11)	0.0000%					
3	Revenues (L1 - L2)	100.0000%					
4	Combined Federal and State Income Tax and Property Tax Rate (Line 23)	41.6233%					
5	Subtotal (L3 - L4)	58.3767%					
6	Revenue Conversion Factor (L1 / L5)	1.713011					
<u>Calculation of Uncollectible Factor:</u>							
7	Unity	100.0000%					
8	Combined Federal and State Tax Rate (Line 17)	40.9597%					
9	One Minus Combined Income Tax Rate (L7 - L8)	59.0403%					
10	Uncollectible Rate	0.0000%					
11	Uncollectible Factor (L9 * L10)		0.0000%				
<u>Calculation of Effective Tax Rate:</u>							
12	Operating Income Before Taxes (Arizona Taxable Income)	100.0000%					
13	Arizona State Income Tax Rate	6.9680%					
14	Federal Taxable Income (L12 - L13)	93.0320%					
15	Applicable Federal Income Tax Rate (Line 44)	36.5376%					
16	Effective Federal Income Tax Rate (L14 x L15)	33.9917%					
17	Combined Federal and State Income Tax Rate (L13 + L16)		40.9597%				
<u>Calculation of Effective Property Tax Factor</u>							
18	Unity	100.0000%					
19	Combined Federal and State Income Tax Rate (L17)	40.9597%					
20	One Minus Combined Income Tax Rate (L18-L19)	59.0403%					
21	Property Tax Factor (GTM-14, L24)	1.1240%					
22	Effective Property Tax Factor (L20*L21)		0.6636%				
23	Combined Federal and State Income Tax and Property Tax Rate (L17+L22)			41.6233%			
24	Required Operating Income (Schedule GWB-1, Line 5)	\$ 227,309					
25	Adjusted Test Year Operating Income (Loss) (Schedule GWB-10, Line 42)	\$ 73,944					
26	Required Increase in Operating Income (L24 - L25)		\$ 153,366				
27	Income Taxes on Recommended Revenue (Col. (F), L52)	\$ 116,519					
28	Income Taxes on Test Year Revenue (Col. (C), L52)	\$ 10,120					
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ 106,399				
30	Recommended Revenue Requirement (Schedule GWB-1, Line 10)	\$ 857,176					
31	Uncollectible Rate (Line 10)	0.0000%					
32	Uncollectible Expense on Recommended Revenue (L24 * L25)	\$ -					
33	Adjusted Test Year Uncollectible Expense	\$ -					
34	Required Increase in Revenue to Provide for Uncollectible Exp.		\$ -				
35	Property Tax with Recommended Revenue (GTM-15, 20)	\$ 22,888					
36	Property Tax on Test Year Revenue (GTM-15, Col A, L16)	\$ 19,935					
37	Increase in Property Tax Due to Increase in Revenue (L35-L36)		\$ 2,953				
38	Total Required Increase in Revenue (L26 + L29 + L37)		\$ 262,718				

	(A)	(B)	(C)	(D)	(E)	(F)
<u>Calculation of Income Tax:</u>						
39	Revenue (Sch GWB-9, Col.(C) L5, GWB-1, Col. (D), L9)	\$ 594,459	\$ 594,459		\$ 857,176	\$ 857,176
40	Operating Expenses Excluding Income Taxes	\$ 510,396	\$ 510,396		\$ 513,349	\$ 513,349
41	Synchronized Interest (L47)		\$ 35,696	\$ -	\$ 35,696	\$ 35,696
42	Arizona Taxable Income (L30 - L31 - L32)	\$ 84,063	\$ 48,367	\$ -	\$ 308,132	\$ 308,132
43	Arizona State Income Tax Rate		6.9680%	6.9680%	6.9680%	6.9680%
44	Arizona Income Tax (L33 x L34)	\$ 3,370	\$ 3,370	\$ -	\$ 21,471	\$ 21,471
45	Federal Taxable Income (L33 - L35)	\$ 80,693	\$ 44,997	\$ -	\$ 286,662	\$ 286,662
46	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ 6,750	\$ 6,750	\$ -	\$ 7,500	\$ 7,500
47	Federal Tax on Second Income Bracket (\$50,001 - \$75,000) @ 25%	\$ -	\$ -	\$ -	\$ 6,250	\$ 6,250
48	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ -	\$ -	\$ -	\$ 8,500	\$ 8,500
49	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ -	\$ -	\$ -	\$ 72,798	\$ 72,798
50	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ -	\$ -	\$ -	\$ -	\$ -
51	Total Federal Income Tax	\$ 6,750	\$ 6,750	\$ -	\$ 95,048	\$ 95,048
52	Combined Federal and State Income Tax (L35 + L42)	\$ 10,120	\$ 10,120	\$ -	\$ 116,519	\$ 116,519
53	COMBINED Applicable Federal Income Tax Rate [Col. (D), L51 - Col. (A), L51] / [Col. (D), L45 - Col. (A), L45]		20.92%		42.8699%	
54	WATER Applicable Federal Income Tax Rate [Col. (E), L51 - Col. (B), L51] / [Col. (E), L45 - Col. (B), L45]					36.5376%
55						

<u>Calculation of Interest Synchronization:</u>		
56	Rate Base (Schedule GWB-3, Col. (C), Line 18)	\$ 2,298,376
57	Weighted Average Cost of Debt	1.5531%
58	Synchronized Interest (L45 X L46)	\$ 35,696

Goodman Water Company
 Analysis of Revenue by Detailed Class
 Test Year Ended December 31, 2009

Exhibit
 Rebuttal Schedule H-2
 Page 1
 Witness: Bourassa

Line No.	Customer Classification and/or Meter Size	(a) Average Number of Customers at 12/31/2009	Average Bill		Proposed Increase		Percent of Customers	
			Average Consumption	Present Rates	Proposed Rates	Dollar Amount		Percent Amount
1	5/8x3/4 Inch Residential	527	\$ 5,520	\$ 66.98	\$ 94.46	\$ 27.47	41.01%	86.21%
2	3/4 Inch Residential	75	6,028	91.08	126.28	35.19	38.64%	12.29%
3	1 Inch Residential	4	10,750	169.04	251.66	82.62	48.88%	0.57%
4								
5								
6	1 Inch Commercial	3	70,291	578.27	1,024.76	446.48	77.21%	0.41%
7	1 1/2 Inch Commercial	1	500	214.46	266.64	52.19	24.33%	0.16%
8	2 Inch Commercial	2	56,809	689.59	1,083.06	393.47	57.06%	0.33%
9								
10	Construction/Standpipe	0	250,080	1,778.07	3,352.52	1,574.45	88.55%	0.03%
11								
12								
13								
14								
15	Totals							
16								
17	Actual Year End Number of Customers:	611						
18		626						
19								
20								
21								
22								

100.00%

Goodman Water Company
 Analysis of Revenue by Detailed Class
 Test Year Ended December 31, 2009

Line No.	Customer Classification and/or Meter Size	(a) Average Number of Customers at 12/31/2009	Median Bill		Proposed Increase		Percent of Customers
			Present Rates	Proposed Rates	Dollar Amount	Percent Amount	
1	5/8x3/4 Inch Residential	527	60.96 \$	82.96 \$	22.01	36.10%	86.21%
2	3/4 Inch Residential	75	82.06	109.06	27.01	32.91%	12.29%
3	1 Inch Residential	4	146.87	209.39	62.52	42.57%	0.57%
4							
5							
6	1 Inch Commercial	3	405.56 \$	699.11 \$	293.55	72.38%	0.41%
7	1 1/2 Inch Commercial	1	211.50	261.01	49.51	23.41%	0.16%
8	2 Inch Commercial	2	537.67	795.15	257.48	47.89%	0.33%
9							
10	Construction/Standpipe	0	1,778.07 \$	3,352.52 \$	1,574.45	88.55%	0.03%
11							
12							
13							
14	Totals	611					100.00%
15							
16	Actual Year End Number of Customers:	626					
17							
18							
19							
20							
21							

Goodman Water Company
 Test Year Ended December 31, 2009
 Present and Proposed Rates

Line No.	Commodity Rates (All Classes)	(Per 1,000 gallons)	
		Present Rate	Proposed Rate
1	1 Inch Meter		
2	1.5 Inch Meter		
3	2 Inch Meter		
4	3 Inch Meter		
5	4 Inch Meter		
6	6 Inch Meter		
7	Construction/Standpipe		
8	Block		
9	1 gallons to 22,500 gallons	\$ 5.91	\$ 11.27
10	over 22,500 gallons	\$ 7.11	\$ 13.41
11	1 gallons to 34,000 gallons	\$ 5.91	\$ 11.27
12	over 34,000 gallons	\$ 7.11	\$ 13.41
13	1 gallons to 45,000 gallons	\$ 5.91	\$ 11.27
14	over 45,000 gallons	\$ 7.11	\$ 13.41
15	1 gallons to 68,000 gallons	\$ 5.91	\$ 11.27
16	over 68,000 gallons	\$ 7.11	\$ 13.41
17	1 gallons to 90,000 gallons	\$ 5.91	\$ 11.27
18	over 90,000 gallons	\$ 7.11	\$ 13.41
19	1 gallons to 135,000 gallons	\$ 5.91	\$ 11.27
20	over 135,000 gallons	\$ 7.11	\$ 13.41
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39	NT = No Tariff		

Goodman Water Company
 Present and Proposed Rates
 Test Year Ended December 31, 2009

Line No.	Meter and Service Line Charges ¹	Present Meter Installation Charge	Present Service Line Charge	Total Present Charge	Proposed Service Line Charge	Proposed Meter Installation Charge	Total Proposed Charge
7	5/8 x 3/4 Inch		\$ 225.00	\$ 225.00	\$ 385.00	\$ 135.00	\$ 520.00
8	3/4 Inch		270.00	270.00	415.00	205.00	620.00
9	1 Inch		300.00	300.00	465.00	265.00	730.00
10	1 1/2 Inch		425.00	425.00	520.00	475.00	995.00
11	2 Inch Turbo		550.00	550.00	800.00	995.00	1,795.00
12	2 Inch, Compound		550.00	550.00	800.00	1,840.00	2,640.00
13	3 Inch Turbo		750.00	750.00	1,015.00	1,620.00	2,635.00
14	3 Inch, compound		750.00	750.00	1,135.00	2,495.00	3,630.00
15	4 Inch Turbo		1,375.00	1,375.00	1,430.00	2,570.00	4,000.00
16	4 Inch, compound		1,375.00	1,375.00	1,610.00	3,545.00	5,155.00
17	6 Inch Turbo		2,800.00	2,800.00	2,150.00	4,925.00	7,075.00
18	6 Inch, compound		2,800.00	2,800.00	2,270.00	6,820.00	9,090.00

¹ Based on ACC Staff Engineering Memo dated February 21, 2008

Other Charges:

	Current Rates	Proposed Rates
Establishment	\$ 50.00	\$ 50.00
Establishment (After Hours)	\$ 75.00	NT
Reconnection (Delinquent)	\$ 75.00	\$ 75.00
Reconnection (After hours)	\$ 50.00	NT
Meter Test	\$ 20.00	\$ 20.00
Deposit	PER RULE	PER RULE
Deposit Interest	PER RULE	6.00%
Re-establishment (Within 12 months)	PER RULE	PER RULE
NSF Check	\$ 15.00	\$ 15.00
Deferred Payment, per month	1.5%	1.5%
Meter Re-read	\$ 20.00	\$ 20.00
Late Charge	1.5%	1.5%
Customer requested Meter Test	\$ 20.00	\$ 20.00
After hours service charge	\$ 10.00	\$ 50.00
Turn-on/off (at customer request)	NT	NT
Moving Customer Meter (at customer request)	NT	Cost

Establishment (R14-2-403.D.1)
Establishment (After Hours) (R14-2-403.D.2)
Meter Test (R14-2-408.F)
Deposit (R14-2-403.B)
Deposit Interest (R14-2-403.B.3)
Re-establishment (R14-2-403.D.1)
NSF Check (R14-2-409.F.1)
Deferred Payment (R14-2-409.G.6)
Meter Re-read (R14-2-408.C.2)
Moving Meter (R14-2-405.B)

(a) \$ 5.00 minimum or 1.5% of unpaid balance whichever is greater.

Goodman Water Company
Bill Comparison of Present and Proposed Rates
Residential 5/8x3/4 Inch Meter
Customer Classification
Test Year Ended December 31, 2009
(Excludes all Revenue Related Taxes)

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase	
-	\$ 42.20	\$ 52.20	\$ 10.00	23.70%	
1,000	46.15	58.48	12.33	26.72%	
2,000	50.10	64.76	14.66	29.27%	
3,000	54.05	71.04	16.99	31.44%	
4,000	58.00	77.33	19.33	33.32%	
5,000	63.91	88.60	24.69	38.62%	
6,000	69.82	99.87	30.05	43.03%	
7,000	75.73	111.13	35.40	46.75%	
8,000	81.64	122.40	40.76	49.93%	
9,000	87.55	133.67	46.12	52.68%	
10,000	94.66	147.08	52.42	55.38%	
12,000	108.88	173.89	65.01	59.71%	
14,000	123.10	200.70	77.60	63.04%	
16,000	137.32	227.52	90.20	65.68%	
18,000	151.54	254.33	102.79	67.83%	
20,000	165.76	281.14	115.38	69.61%	
25,000	201.31	348.17	146.86	72.95%	
30,000	236.86	415.20	178.34	75.29%	
35,000	272.41	482.23	209.82	77.02%	
40,000	307.96	549.25	241.29	78.35%	
45,000	343.51	616.28	272.77	79.41%	
50,000	379.06	683.31	304.25	80.26%	
60,000	450.16	817.37	367.21	81.57%	
70,000	521.26	951.43	430.17	82.52%	
80,000	592.36	1,085.49	493.13	83.25%	
90,000	663.46	1,219.54	556.08	83.82%	
100,000	734.56	1,353.60	619.04	84.27%	
Average Usage	5,520	\$ 66.98	\$ 94.46	\$ 27.47	41.01%
Median Usage	4,500	\$ 60.96	\$ 82.96	\$ 22.01	36.10%

Present Rates:
Monthly Minimum: \$ 42.20
Gallons in Minimum: -
Charge Per 1,000 Gallons
Up to 4,000 \$ 3.95
Over 9,000 \$ 5.91
Over 9,000 \$ 7.11

Proposed Rates:
Monthly Minimum: \$ 52.20
Gallons in Minimum: -
Charge Per 1,000 Gallons
Up to 4,000 \$ 6.28
Up to 9,000 \$ 11.27
Over 9,000 \$ 13.41

Bill Comparison of Present and Proposed Rates
 Residential 3/4 Inch Meter
 Customer Classification
 Test Year Ended December 31, 2009
 (Excludes all Revenue Related Taxes)

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase	Present Rates:
-	\$ 63.30	\$ 78.30	\$ 15.00	23.70%	Monthly Minimum: \$ 63.30
1,000	67.25	84.58	17.33	25.77%	Gallons in Minimum Charge Per 1,000 Gallons -
2,000	71.20	90.86	19.66	27.62%	Up to 4,000 \$ 3.95
3,000	75.15	97.15	22.00	29.27%	Over 9,000 \$ 5.91
4,000	79.10	103.43	24.33	30.75%	Over 9,000 \$ 7.11
5,000	85.01	114.70	29.69	34.92%	
6,000	90.92	125.97	35.05	38.55%	
7,000	96.83	137.24	40.41	41.73%	
8,000	102.74	148.51	45.77	44.54%	
9,000	108.65	159.78	51.13	47.05%	
10,000	115.76	173.18	57.42	49.60%	
12,000	129.98	199.99	70.01	53.86%	
14,000	144.20	226.80	82.60	57.28%	
16,000	158.42	253.62	95.20	60.09%	
18,000	172.64	280.43	107.79	62.43%	
20,000	186.86	307.24	120.38	64.42%	
25,000	222.41	374.27	151.86	68.28%	
30,000	257.96	441.30	183.34	71.07%	
35,000	293.51	508.33	214.82	73.19%	
40,000	329.06	575.35	246.29	74.85%	
45,000	364.61	642.38	277.77	76.18%	
50,000	400.16	709.41	309.25	77.28%	
60,000	471.26	843.47	372.21	78.98%	
70,000	542.36	977.53	435.17	80.24%	
80,000	613.46	1,111.59	498.13	81.20%	
90,000	684.56	1,245.64	561.08	81.96%	
100,000	755.66	1,379.70	624.04	82.58%	
Average Usage	91.08	\$ 126.28	\$ 35.19	38.64%	
Median Usage	4,500	\$ 82.06	\$ 109.06	\$ 27.01	78.30
					6.28
					11.27
					13.41

Proposed Rates:
 Monthly Minimum: \$ 78.30
 Gallons in Minimum Charge Per 1,000 Gallons -
 Up to 4,000 \$ 6.28
 Up to 9,000 \$ 11.27
 Over 9,000 \$ 13.41

Goodman Water Company
 Bill Comparison of Present and Proposed Rates
 Residential 1 Inch Meter
 Customer Classification
 Test Year Ended December 31, 2009
 (Excludes all Revenue Related Taxes)

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 105.50	\$ 130.50	\$ 25.00	23.70%
1,000	111.41	141.77	\$ 30.36	27.25%
2,000	117.32	153.04	\$ 35.72	30.45%
3,000	123.23	164.31	\$ 41.08	33.34%
4,000	129.14	175.58	\$ 46.44	35.96%
5,000	135.05	186.85	\$ 51.80	38.36%
6,000	140.96	198.12	\$ 57.16	40.55%
7,000	146.87	209.39	\$ 62.52	42.57%
8,000	152.78	220.66	\$ 67.88	44.43%
9,000	158.69	231.93	\$ 73.24	46.15%
10,000	164.60	243.20	\$ 78.60	47.75%
12,000	176.42	265.74	\$ 89.32	50.63%
14,000	188.24	288.28	\$ 100.04	53.15%
16,000	200.06	310.82	\$ 110.76	55.36%
18,000	211.88	333.36	\$ 121.48	57.33%
20,000	223.70	355.90	\$ 132.20	59.10%
25,000	256.25	417.59	\$ 161.34	62.96%
30,000	291.80	484.62	\$ 192.82	66.08%
35,000	327.35	551.65	\$ 224.30	68.52%
40,000	362.90	618.68	\$ 255.78	70.48%
45,000	398.45	685.70	\$ 287.25	72.09%
50,000	434.00	752.73	\$ 318.73	73.44%
60,000	505.10	886.79	\$ 381.69	75.57%
70,000	576.20	1,020.85	\$ 444.65	77.17%
80,000	647.30	1,154.91	\$ 507.61	78.42%
90,000	718.40	1,288.97	\$ 570.57	79.42%
100,000	789.50	1,423.02	\$ 633.52	80.24%
Average Usage				
10,750	\$ 169.04	\$ 251.66	\$ 82.62	48.88%
Median Usage				
7,000	\$ 146.87	\$ 209.39	\$ 62.52	42.57%

Present Rates:
 Monthly Minimum: \$ 105.50
 Gallons in Minimum -
 Charge Per 1,000 Gallons
 Up to 22,500 \$ 5.91
 Over 22,500 \$ 7.11

Proposed Rates:
 Monthly Minimum: \$ 130.50
 Gallons in Minimum -
 Charge Per 1,000 Gallons
 Up to 22,500 \$ 11.27
 Over 22,500 \$ 13.41

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 105.50	\$ 130.50	\$ 25.00	23.70%
1,000	111.41	141.77	\$ 30.36	27.25%
2,000	117.32	153.04	\$ 35.72	30.45%
3,000	123.23	164.31	\$ 41.08	33.34%
4,000	129.14	175.58	\$ 46.44	35.96%
5,000	135.05	186.85	\$ 51.80	38.36%
6,000	140.96	198.12	\$ 57.16	40.55%
7,000	146.87	209.39	\$ 62.52	42.57%
8,000	152.78	220.66	\$ 67.88	44.43%
9,000	158.69	231.93	\$ 73.24	46.15%
10,000	164.60	243.20	\$ 78.60	47.75%
12,000	176.42	265.74	\$ 89.32	50.63%
14,000	188.24	288.28	\$ 100.04	53.15%
16,000	200.06	310.82	\$ 110.76	55.36%
18,000	211.88	333.36	\$ 121.48	57.33%
20,000	223.70	355.90	\$ 132.20	59.10%
25,000	256.25	417.59	\$ 161.34	62.96%
30,000	291.80	484.62	\$ 192.82	66.08%
35,000	327.35	551.65	\$ 224.30	68.52%
40,000	362.90	618.68	\$ 255.78	70.48%
45,000	398.45	685.70	\$ 287.25	72.09%
50,000	434.00	752.73	\$ 318.73	73.44%
60,000	505.10	886.79	\$ 381.69	75.57%
70,000	576.20	1,020.85	\$ 444.65	77.17%
80,000	647.30	1,154.91	\$ 507.61	78.42%
90,000	718.40	1,288.97	\$ 570.57	79.42%
100,000	789.50	1,423.02	\$ 633.52	80.24%
Average Usage	70,291	\$ 1,024.76	\$ 446.48	77.21%
Median Usage	46,000	\$ 699.11	\$ 293.55	72.38%

Present Rates:
 Monthly Minimum: \$ 105.50
 Gallons in Minimum -
 Charge Per 1,000 Gallons
 Up to 22,500 \$ 5.91
 Over 22,500 \$ 7.11

Proposed Rates:
 Monthly Minimum: \$ 130.50
 Gallons in Minimum -
 Charge Per 1,000 Gallons
 Up to 22,500 \$ 11.27
 Over 22,500 \$ 13.41

Goodman Water Company
 Exhibit
 Schedule H-4
 Bill Comparison of Present and Proposed Rates
 Commercial 1.5 Inch Meter Page 5
 Customer Classification
 Witness: Bourassa
 Test Year Ended December 31, 2009

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase	Present Rates:
-	\$ 211.50	\$ 261.01	\$ 49.51	23.41%	Monthly Minimum: \$ 211.50
1,000	217.41	272.28	\$ 54.87	25.24%	Gallons in Minimum -
2,000	223.32	283.55	\$ 60.23	26.97%	Charge Per 1,000 Gallons 34,000 \$ 5.91
3,000	229.23	294.82	\$ 65.59	28.61%	Up to 34,000 \$ 7.11
4,000	235.14	306.09	\$ 70.95	30.17%	Over
5,000	241.05	317.36	\$ 76.31	31.66%	
6,000	246.96	328.63	\$ 81.67	33.07%	
7,000	252.87	339.90	\$ 87.03	34.42%	
8,000	258.78	351.17	\$ 92.39	35.70%	
9,000	264.69	362.44	\$ 97.75	36.93%	
10,000	270.60	373.71	\$ 103.11	38.10%	
12,000	282.42	396.24	\$ 113.82	40.30%	
14,000	294.24	418.78	\$ 124.54	42.33%	
16,000	306.06	441.32	\$ 135.26	44.20%	
18,000	317.88	463.86	\$ 145.98	45.92%	
20,000	329.70	486.40	\$ 156.70	47.53%	
25,000	359.25	542.75	\$ 183.50	51.08%	
30,000	388.80	599.10	\$ 210.30	54.09%	
35,000	419.55	657.59	\$ 238.04	56.74%	
40,000	455.10	724.62	\$ 269.52	59.22%	
45,000	490.65	791.64	\$ 300.99	61.35%	
50,000	526.20	858.67	\$ 332.47	63.18%	
60,000	597.30	992.73	\$ 395.43	66.20%	
70,000	668.40	1,126.79	\$ 458.39	68.58%	
80,000	739.50	1,260.85	\$ 521.35	70.50%	
90,000	810.60	1,394.91	\$ 584.31	72.08%	
100,000	881.70	1,528.96	\$ 647.26	73.41%	
Average Usage					
500	\$ 214.46	\$ 266.64	\$ 52.19	24.33%	
Median Usage					
-	\$ 211.50	\$ 261.01	\$ 49.51	23.41%	
					Proposed Rates:
					Monthly Minimum: \$ 261.01
					Gallons in Minimum -
					Charge Per 1,000 Gallons 34,000 \$ 11.27
					Up to 34,000 \$ 13.41
					Over

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
-	\$ 339.68	\$ 417.61	\$ 77.93	22.94%
1,000	345.59	428.88	\$ 83.29	24.10%
2,000	351.50	440.15	\$ 88.65	25.22%
3,000	357.41	451.42	\$ 94.01	26.30%
4,000	363.32	462.69	\$ 99.37	27.35%
5,000	369.23	473.96	\$ 104.73	28.36%
6,000	375.14	485.23	\$ 110.09	29.35%
7,000	381.05	496.50	\$ 115.45	30.30%
8,000	386.96	507.77	\$ 120.81	31.22%
9,000	392.87	519.04	\$ 126.17	32.11%
10,000	398.78	530.31	\$ 131.53	32.98%
12,000	410.60	552.85	\$ 142.25	34.64%
14,000	422.42	575.39	\$ 152.97	36.21%
16,000	434.24	597.93	\$ 163.69	37.70%
18,000	446.06	620.47	\$ 174.41	39.10%
20,000	457.88	643.01	\$ 185.13	40.43%
25,000	487.43	699.36	\$ 211.93	43.48%
30,000	516.98	755.71	\$ 238.73	46.18%
35,000	546.53	812.05	\$ 265.52	48.58%
40,000	576.08	868.40	\$ 292.32	50.74%
45,000	605.63	924.75	\$ 319.12	52.69%
50,000	641.18	991.78	\$ 350.60	54.68%
60,000	712.28	1,125.84	\$ 413.56	58.06%
70,000	783.38	1,259.90	\$ 476.52	60.83%
80,000	854.48	1,393.96	\$ 539.48	63.13%
90,000	925.58	1,528.01	\$ 602.43	65.09%
100,000	996.68	1,662.07	\$ 665.39	66.76%
Average Usage	56,809	\$ 1,083.06	\$ 393.47	57.06%
Median Usage	33,500	\$ 795.15	\$ 257.48	47.89%

Present Rates:
 Monthly Minimum: \$ 339.68
 Gallons in Minimum -
 Charge Per 1,000 Gallons
 Up to 45,000 \$ 5.91
 Over 45,000 \$ 7.11

Proposed Rates:
 Monthly Minimum: \$ 417.61
 Gallons in Minimum -
 Charge Per 1,000 Gallons
 Up to 45,000 \$ 11.27
 Over 45,000 \$ 13.41

Goodman Water Company
 Bill Comparison of Present and Proposed Rates
 Construction Water
 Customer Classification
 Test Year Ended December 31, 2009
 (Excludes all Revenue Related Taxes)

Usage	Present Bill	Proposed Bill	Dollar Increase	Percent Increase
1,000	7.11	13.41	6.30	88.55%
2,000	14.22	26.81	12.59	88.55%
3,000	21.33	40.22	18.89	88.55%
4,000	28.44	53.62	25.18	88.55%
5,000	35.55	67.03	31.48	88.55%
6,000	42.66	80.43	37.77	88.55%
7,000	49.77	93.84	44.07	88.55%
8,000	56.88	107.25	50.37	88.55%
9,000	63.99	120.65	56.66	88.55%
10,000	71.10	134.06	62.96	88.55%
12,000	85.32	160.87	75.55	88.55%
14,000	99.54	187.68	88.14	88.55%
16,000	113.76	214.49	100.73	88.55%
18,000	127.98	241.30	113.32	88.55%
20,000	142.20	268.12	125.92	88.55%
25,000	177.75	335.15	157.40	88.55%
30,000	213.30	402.17	188.87	88.55%
35,000	248.85	469.20	220.35	88.55%
40,000	284.40	536.23	251.83	88.55%
45,000	319.95	603.26	283.31	88.55%
50,000	355.50	670.29	314.79	88.55%
60,000	426.60	804.35	377.75	88.55%
70,000	497.70	938.41	440.71	88.55%
80,000	568.80	1,072.46	503.66	88.55%
90,000	639.90	1,206.52	566.62	88.55%
100,000	711.00	1,340.58	629.58	88.55%
Average Usage	\$ 1,778.07	\$ 3,352.52	\$ 1,574.45	88.55%
Median Usage	\$ 1,778.07	\$ 3,352.52	\$ 1,574.45	88.55%

Present Rates:
 Monthly Minimum: \$ -
 Gallons in Minimum: -
 Charge Per 1,000 Gallons: \$ 7.11
 All Gallons

Proposed Rates:
 Monthly Minimum: \$ -
 Gallons in Minimum: -
 Charge Per 1,000 Gallons: \$ 13.41
 All Gallons

1 LAWRENCE V. ROBERTSON, JR.
Attorney At Law
2 P.O. Box 1448
Tubac, Arizona 85646
3 (520) 398-0411
4 Attorney for Applicant

5
6 **BEFORE THE ARIZONA CORPORATION COMMISSION**

7
8 IN THE MATTER OF THE APPLICATION
9 OF GOODMAN WATER COMPANY, AN
ARIZONA CORPORATION, FOR (i) A
10 DETERMINATION OF THE FAIR VALUE
OF ITS UTILITY PLANT AND PROPERTY
11 AND (ii) AN INCREASE IN ITS WATER
12 RATES AND CHARGES FOR UTILITY
SERVICE BASED THEREON.

DOCKET NO. W-02500A-10-0382

13
14
15
16
17 **REBUTTAL TESTIMONY OF**

18 **THOMAS J. BOURASSA**

19
20 **ON BEHALF OF GOODMAN WATER COMPANY**

21 **(COST OF CAPITAL)**

22
23 **May 2, 2011**
24
25
26

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1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY.**

2 **Q1. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A1. My name is Thomas J. Bourassa. My business address is 139 W. Wood Drive,
4 Phoenix, Arizona 85029.

5 **Q2. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS CASE?**

6 A2. I am testifying on behalf of the applicant, Goodman Water Company ("GWC" or
7 the "Company").
8

9 **Q3. ARE YOU THE SAME THOMAS J. BOURASSA THAT FILED DIRECT**
10 **TESTIMONY IN THIS DOCKET?**

11 A3. Yes, my direct testimony was presented in two volumes. My background
12 information and qualifications are set forth in the rate base and revenue
13 requirement volume of my direct testimony.
14

15 **Q4. DID YOU ALSO PREPARE REBUTTAL TESTIMONY ON THOSE ISSUES**
16 **IN THIS DOCKET?**

17 A4. Yes, my rebuttal testimony on rate base, income statement, revenue requirement
18 and rate design is being filed in a separate volume at the same time as this
19 testimony.
20

21 **I. SUMMARY OF REBUTTAL TESTIMONY AND THE PROPOSED COST**
22 **OF CAPITAL FOR THE COMPANY**

23 **A. Summary of Company's Rebuttal Recommendation**

24 **Q5. WHAT IS THE PURPOSE OF THIS VOLUME OF YOUR REBUTTAL**
25 **TESTIMONY?**

26 A5. I will provide updates of my cost of capital analysis and recommended rate of

1 return using more recent financial data. I also will provide rebuttal as appropriate
2 to the direct testimony of Staff witness Juan Manrique, RUCO witness William
3 Rigsby, and Intervener witness Mr. Schoemperlen.

4
5 **Q6. HOW HAS THE INDICATED RETURN ON EQUITY CHANGED SINCE**
6 **THE DIRECT FILING WAS MADE LAST JUNE?**

7 A6. The cost of equity has decreased somewhat, as indicated by the Discounted Cash
8 Flow (“DCF”) model and the Capital Asset Pricing Model (“CAPM”). The table
9 below summarizes the results of my updated analysis using those models:

10

<u>Method</u>	<u>Low</u>	<u>High</u>	<u>Midpoint</u>
11 Range DCF Constant Growth Estimates	8.7%	9.5%	9.1%
12 Range of CAPM Estimates	<u>10.2%</u>	<u>13.4%</u>	<u>11.8%</u>
13 Average of DCF and CAPM midpoint			
14 estimates	<u>9.4%</u>	<u>11.4%</u>	<u>10.3%</u>
15 Financial Risk Adjustment	-0.7%	-0.7%	-0.7%
16 Specific Company Risk Premium	<u>1.0%</u>	<u>1.0%</u>	<u>1.0%</u>
17 Indicated Cost of Equity	9.7%	11.7%	10.7%

18
19 The schedules containing my updated cost of capital analysis are attached to this
20 rebuttal testimony. Also attached six rebuttal exhibits, which is discussed below.

21 While my updated cost of capital analysis indicates a 10.7 percent return on
22 equity, I am recommending a cost of equity at the lower end of the range indicated.
23 My recommendation of a 10.2 percent ROE balances my judgment about the
24 degree of financial and business risk associated with an investment in GWC as well
25 as consideration of the current economic environment and the Company’s desire to
26 help reduce the impact on rate payers.

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Q7. HAVE YOU UPDATED YOUR COST OF EQUITY ESTIMATE FOR GWC USING DUFF&PHELPS SIZE STUDY DATA?

A7. Yes. Please see Rebuttal Exhibit TJB-COC-RB1. I have included cost of equity estimates for the water sample companies. These estimates have been adjusted for leverage (financial risk) differences between the companies in the size portfolios contained in the study and the water sample companies and GWC. Further, like the Build-up Method cost of equity estimate using the *Morningstar* data, the cost of equity estimates includes a water industry risk premium adjustment.¹ Based on various measures of size the results are as follows²:

<u>Stock Symbol</u>	<u>Company</u>	<u>Cost of Equity</u>
AWR	American States Water Co.	12.26%
WTR	Aqua America	10.39%
CWT	California Water Services Group	12.52%
CTWS	Connecticut Water Services	13.97%
MSEX	Middlesex Water Company	13.39%
SJW	SJW Corp.	13.47%
	Average	12.67%
	Goodman Water Company	18.20%

The updated 12.67 percent average for the water utility sample is in the range of my CAPM estimates. My CAPM estimate of 11.8 percent (mid-point) for the sample water utilities and my overall recommendation of 10.2 percent for GWC is

¹ Note that the risk premium for the water utility industry is negative indicating that water utilities are less risky than the market as a whole.

² See Exhibit TJB-COC-DT1, Table 7.

1 very conservative compared to the analysis based upon the Duff and Phelps Study
2 data. It also shows that my size premium used in my cost of capital analysis of
3 100 basis points is likely far too low and should be much higher. Even accounting
4 for differences in financial risk due to differences in the capital structures, the
5 indicated cost of equity for GWC based on the *Duff & Phelps* study is over 553
6 basis points higher than the sample water companies.
7

8 **Q8. HAVE YOU CHANGED THE ANALYSIS?**

9 A8. Yes. The 2011 Duff and Phelps Study improved the method of computing
10 unlevered risk premia and added smoothed unlevered risk premia. These
11 improvements eliminated a step from direct analysis by allowing me to compute
12 the unlevered risk premia for the sample water utilities and GWC directly rather
13 than first computing the levered risk premia and then unlevering the risk premia.
14

15 **Q9. YOU ACCOUNTED FOR THE FACT THAT THE WATER UTILITY**
16 **INDUSTRY IS LESS RISKY THAN THE MARKET?**

17 A9. Yes. Based on the industry data, each of above estimates are based on the Duff and
18 Phelps Study is adjusted downward for the water utility industry risk. As shown in
19 Table 5 of Rebuttal Exhibit TJB-COC-RB1, the appropriate downward financial
20 risk adjustment is approximately 300 basis points.
21

22 **Q10. WHAT WAS THE ASSUMED GENERAL MARKET RISK PREMIUM**
23 **YOU ASSSUMED IN YOUR SIZE STUDY?**

24 A10. 4.4 percent, as shown in Table 5 of Rebuttal Exhibit TJB-COC-RB1. The general
25 market risk premium is based upon equity risk premiums from 1963 to 2010. The
26 long-horizon equity risk premia as determined by Morningstar is 6.7 percent.

1 Morningstar's long-horizon equity risk premium is based upon equity risk premia
2 from 1926 to 2010.

3
4 **Q8. IN YOUR DIRECT TESTMONY YOU ESTIMATED A SIZE PREMIUM**
5 **DIFFERENCE BETWEEN GWC AND THE PUBLICLY TRADED WATER**
6 **UTILITIES OF ONLY 90 BASIS POINTS. WHY IS THE REBUTTAL**
7 **DIFFERENCE MUCH HIGHER?**

8 A8. Because I found a computation error in my direct analysis. When this error is
9 corrected the difference is 486 basis points, not 90 basis points, between GWC and
10 the average of the publicly traded water utilities.

11
12 **Q9. PLEASE SUMMARIZE YOUR RECOMMENDED REBUTTAL COST OF**
13 **DEBT AND EQUITY, AND YOUR RECOMMENDED REBUTTAL RATE**
14 **OF RETURN ON RATE BASE.**

15 A9. The Company's recommended capital structure consists of approximately 18.3
16 percent debt and 81.7 percent common equity as shown on Rebuttal Schedule D-1.
17 Based on my updated cost of capital analysis, I am recommending a cost of equity
18 of 10.2 percent. Based on my 10.2 percent recommended cost of equity and an 8.5
19 percent cost of debt, the Company's weighted average cost of capital ("WACC") is
20 9.89 percent, as shown on Rebuttal Schedule D-1.

21
22 **Q10. WHY IS YOUR COST OF EQUITY RECOMMENDATION LOWER IN**
23 **YOU REBUTTAL THAN IN YOUR DIRECT TESTIMONY?**

24 A10. My lower cost of equity recommendation is the result of a combination of number
25 of factors. These include: 1) lower consensus estimates of long-term interest rates
26

1 which are used in my CAPM estimates; 2) lower estimates of growth for the water
2 utility stocks used in my DCF model; and 3) a lower estimate of the current market
3 risk premium used in my current market risk premium CAPM estimate. These
4 changes have all been impacted by the change in the economic and market
5 conditions and forward-looking expectations of both the economy and the water
6 utility industry.

7
8 **Q11. HOW HAVE ECONOMIC CONDITIONS CHANGED SINCE YOU**
9 **PREPARED YOUR COST OF CAPITAL ANALYSIS IN AUGUST 2010?**

10 A11. During the past seven months, both the economy and the financial markets have
11 improved. The unemployment rate has dropped to 9.5 percent to 9.2 percent. The
12 economy (real GDP) grew by an annualized rate of 3.1 percent in the fourth quarter
13 of 2010 compared to 1.7 percent in the third quarter of 2010. The real GDP growth
14 for the first quarter of 2010 was recently reported by at an annualized rate of only
15 1.8 percent lower than the expected 3.1 percent . For the rest of 2010, the
16 economy is expected to grow at a modest 3.0 percent to 3.5 percent. Economists
17 do continue to express concerns over the federal deficits and the high federal debt,
18 rising oil prices and food prices, and sluggish housing starts and existing home
19 sales, which are all risks to future economic growth.

20
21 **Q12. HOW HAS THE ANALYSTS OUTLOOK FOR THE WATER UTILITY**
22 **INDUSTRY CHANGED SINCE YOU PREPARED YOUR COST OF**
23 **CAPITAL ANALYSIS IN AUGUST 2010?**

24 A12. The outlook for the Water Utility Industry hasn't changed much other than the
25 recent earnings reports were disappointing. *Value Line* continues the theme that
26 despite a more business friendly regulatory environment for the water utility

1 companies, the Water Utility Industry has lost any luster from a growth
2 perspective. Further, *Value Line* believes there are better options for investors
3 looking to add income producing stocks to their portfolios. They suggest that the
4 average Electric Utility stock generates better income. *Value Line* also identifies
5 concerns over infrastructure costs to replace rapidly decaying infrastructures while
6 at the same time most in this group are strapped for cash. The additional shares or
7 debt offerings from financing these costs are likely to increase financial risk and/or
8 dilute shareholder gains moving ahead.³

9
10 **B. Summary of the Staff, RUCO, and Schoemperlen Recommendations.**

11 **Q13. PLEASE SUMMARIZE THE RESPECTIVE RECOMMENDATIONS OF**
12 **STAFF, RUCO, AND SCHOEMPERLEN FOR THE RATE OF RETURN**
13 **ON FAIR VALUE RATE BASE.**

14 **A13.** Staff is recommending a capital structure consisting of 18.4 percent debt and 81.6
15 percent equity.⁴ Staff determined a cost of equity of 9.1 percent based on the
16 average cost of equity produced by its DCF and CAPM models.⁵ Staff did not
17 consider firm size and firm-specific risks in its analysis. Staff also determined the
18 cost of debt to be 8.5 percent.⁶ Based on its 18.4 percent debt and 81.6 percent
19 equity capital structure, Staff determined the WACC for GWC to be 9.0 percent.⁷

20 RUCO also did not consider firm-size and firm-specific risks other than
21 financial risk. RUCO determined its recommended cost of equity of 9.0 percent
22

23 ³ *Value Line*, April 21, 2011.

24 ⁴ See Direct Testimony of Juan C. Manrique (“Manrique Dt.”) at 33.

25 ⁵ *Id.*

26 ⁶ *Id.*

⁷ *Id.*

1 based on the results its DCF and CAPM methods.⁸ But, RUCO also recommends a
2 hypothetical capital structure of 40 percent debt and 60 percent equity and a
3 hypothetical cost of debt of 6.13%.⁹ Based on its hypothetical 40 percent debt and
4 60 percent equity capital structure, RUCO determined the WACC for GWC to be
5 7.85 percent.¹⁰ The hypothetical capital structure and hypothetical debt results in an
6 effective overall return on equity of only 6.6 percent. This return is clearly
7 inadequate and does not meet the just and reasonable standards as set out in *Hope*
8 and *Bluefield*.¹¹

9 Mr. Schoemperlen recommends a cost of equity of 8.0 percent.¹² Like
10 RUCO, Mr. Schoemperlen recommends a hypothetical capital structure of 40
11 percent debt and 60 percent equity. Mr. Schoemperlen recommends a cost of debt
12 of 5.82 percent which is comprised of 18.3 percent debt at a cost of 8.5 percent and
13 20.6 percent debt at a cost of 3.68 percent. Based on his hypothetical 40 percent
14 debt and 60 percent equity capital structure, Mr. Schoemperlen determined the
15 WACC for GWC to be 7.16 percent.¹³ The hypothetical capital structure and
16 hypothetical debt results in an effective overall return on equity of only 5.87
17 percent under Mr. Schoemperlen's approach. Like RUCO's low effective return
18 on equity, the 5.87 is clearly inadequate and does not meet the just and reasonable
19 standards as set out in *Hope* and *Bluefield*.

20
21 **Q14. PLEASE SUMMARIZE THE PARTIES RESPECTIVE COST OF EQUITY**

22 ⁸ See Direct Testimony of William A. Rigsby Dt. ("Rigsby Dt.") at 7.

23 ⁹ *Id.*

24 ¹⁰ *Id.*

25 ¹¹ Bourassa Dt. at 13-24.

26 ¹² See Direct Testimony of James Schoemperlen ("Schoemperlen Dt.") at 30.

¹³ *Id.*

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ESTIMATES AND RECOMMENDATIONS.

A14. The respective parties' cost of equity recommendations are summarized below:

<u>Party</u>	<u>DCF</u>	<u>CAPM</u>	<u>Average</u>	<u>Recommended</u>
GWC	9.8%	12.6%	10.7%	10.2%
Staff	9.0%	9.1%	9.1%	9.1%
RUCO	9.2%	5.85%	7.52%	9.0%
Intervener – Schoemperlen				8.0%

Q15. THE COST OF EQUITY RECOMMENDATION OF RUCO DIFFERS SIGNIFICANTLY FROM THE ESTIMATES PRODUCED BY RUCO'S DCF MODEL AND CAPM MODEL. PLEASE COMMENT.

A15. RUCO proposes a cost of capital of 9.0 percent, even though RUCO's models produce an indicated cost of equity of 7.52 percent. This would make sense if RUCO intends to recognize GWC's smaller size, lack of liquidity and other firm-specific risks. The explanation given by Mr. Rigsby for his higher recommendation was that he believed the 9.0 percent would cover any investor concerns regarding any unique business risk associated with GWC.¹⁴

Q16. DESPITE MR. RIGSBY'S RECOMMENDATION OF 9.0 PERCENT, MR. RIGSBY'S PROPOSED A HYPOTHETICAL CAPITAL STRUCTURE FOR GWC WHICH RESULTS IN AN EFFECTIVE RATE OF RETURN ON EQUITY OF 6.6 PERCENT LESS THAN MR. RIGSBY'S COST OF EQUITY ESTIMATE OF 7.52 PERCENT. PLEASE COMMENT.

A16. I will discuss RUCO's effective rate of return on equity of 6.6 percent later in my

¹⁴ Rigsby Dt. at 52.

1 testimony. For now, the average of Mr. Rigsby's DCF and CAPM estimates,
2 which are based on data for large, publicly traded utilities, is 7.52 percent. Even
3 though Mr. Rigsby appears to generous in recommending a 9.0 percent return, Mr.
4 Rigsby is effectively providing a return to the equity holders of GWC that is less
5 than the cost of equity indicated by his models. It is apparent that RUCO has
6 manipulated the Company's capital structure and the cost of debt in order to
7 ultimately provide a 6.6 percent return on equity. This sleight-of-hand should be
8 seen by the Commission as an obvious manipulation of models, consistent with
9 RUCO's "results-oriented" rate making methodologies as noted by this
10 Commission in Decision No. 69164.¹⁵

11
12 **Q17. MR. BOURASSA, YOU AREN'T DISCOURAGING RUCO FROM**
13 **SUGGESTING A HIGHER ROE THAN ITS MODELS INDICATE, ARE**
14 **YOU?**

15 A17. Absolutely not, but it is hard to take comfort from RUCO making it seem like they
16 are being generous by offering a higher ROE than their model indicates, when in
17 fact they are simply being confiscatory and manipulating cost of capital theory. It is
18 a "wolf in sheep's clothing" approach. Mr. Rigsby should instead use reasonable
19 comparators, apply the models as they are meant to be applied, and then make his
20 upward adjustments for company specific risk as necessary.

21
22 **Q18. MR. SCHOEMPERLEN HAS RECOMMENDED AN EQUITY RETURN OF**
23 **8.0 PERCENT, HOWEVER, MR. SHOEMPERLEN ALSO PROPOSES A**
24 **HYPOTHETICAL CAPITAL STRUCTURE FOR GWC WHICH RESULTS**

25
26 ¹⁵ *Black Mountain Sewer Corporation*, Decision No. 69164 (Dec. 5, 2006) at 19-20.

1 **IN AN EFFECTIVE RATE OF RETURN ON EQUITY OF 5.87 PERCENT;**
2 **LESS THAN MR. SHOEMPLERLEN'S COST OF EQUITY ESTIMATE OF**
3 **8.0 PERCENT. PLEASE COMMENT.**

4 A18. I will discuss Mr. Schoemperlen's effective rate of return on equity of 5.87 percent
5 later in my testimony. For now I simply observe that, like RUCO, Mr.
6 Schoemperlen's recommendations are results-oriented and should be rejected.

7
8 **Q19. HOW DO THE PARTIES' RECOMMENDATIONS COMPARE TO**
9 **OTHER FORECASTS OF COMMON EQUITY RETURNS?**

10 A19. *Value Line*, a reputable publication that has been used by the Company, Staff, and
11 RUCO cost of capital witnesses, publishes forecasts of returns on common equity
12 for larger publicly traded companies. These water utilities are included in my
13 sample group and in Staff's sample group. *Value Line* (April 22, 2011) projects the
14 following returns on equity for those utilities:

15	American States Water	12.5%
16	Aqua America	13.0%
17	California Water	10.0%
18	SJW Corp.	<u>7.5%</u>
19	Average	10.8%

20 Just as important, the currently authorized ROE's for the sample water utility
21 companies as reported by AUS Utility Reports (April 2011) average 10.14 percent
22 and are as follows:

24	American States Water	10.20%
25	Aqua America	10.33%
26	California Water	10.20%

1	Connecticut Water	9.75%
2	Middlesex Water	10.15%
3	SJW Corp.	<u>10.20%</u>
4	Average	10.14%

5 In addition, all of the sample water utilities are significantly larger than GWC. As
6 I have discussed it is well documented that investment risk increases as the firm
7 size decreases, all else remaining constant.¹⁶ AUS Utility Reports (April 2011)
8 reports the following information for these utilities (in millions of dollars):

9		<u>Net Plant</u>	<u>Revenue</u>
10	American States Water	\$ 855.0	\$ 400.8
11	Aqua America	\$3,469.3	\$ 726.1
12	California Water	\$1,270.2	\$ 460.4
13	Connecticut Water	\$ 344.2	\$ 68.1
14	Middlesex Water	\$ 398.7	\$ 102.7
15	SJW Corp.	<u>\$ 692.4</u>	<u>\$ 215.6</u>
16	Average	\$1,171.6	\$ 329.0

17 The average net plant for these utilities are over 248 times that of GWC and the
18 average total revenues are over 574 times that of GWC. Moreover, most of these
19 utilities operate in jurisdictions such as California and Pennsylvania that use
20 projected or partially projected test years, and authorize surcharges and other cost
21 recovery mechanisms which allow the recovery of increases in costs outside a
22 general rate case. Therefore, not only because of size, for which the empirical data
23 from Duff and Phelps and Ibbotson among others support, these large publicly
24 traded utilities are less risky than GWC.

25
26 ¹⁶ Bourassa Dt. at 39-40.

1 The foregoing data on expected book returns, authorized returns, and
2 measures of size provides an unbiased indication that the Staff, RUCO, and Mr.
3 Schoemperlen recommendations for GWC are simply too low and should not be
4 adopted by the Commission.

5
6 **Q20. THE COMMISSION AUTHORIZED SAHUARITA WATER COMPANY A**
7 **10.3 PERCENT RETURN ON EQUITY IN ITS RECENT RATE CASE.**
8 **PLEASE COMMENT.**

9 A20. The Commission recently authorized Sahuarita Water Company (“SWC”) a 10.3
10 percent return on equity in Decision 72117 (February 11, 2011).¹⁷ SWC is nearly 5
11 times the size of GWC in terms of net plant and over 4.4 times the size of GWC in
12 terms of revenues. Further, its rates will be in effect roughly during the same time
13 frame as Goodman Water Company. The Company cannot compete for capital
14 with such low recommendations by the other parties not only with respect to SWC
15 but with respect to the large publicly traded water utility companies.

16
17 **Q21. WERE YOU SURPRIZED BY STAFF’S RECOMMENDATION OF 9.1**
18 **PERCENT?**

19 A21. Yes. Given the recently authorized 10.3 percent return on equity Staff
20 recommended in the Sahuarita Water rate case. I realize that Staff’s cost of capital
21 analysis for Sahuarita Water Company was performed back in 2010, but it seemed
22 to me to be very low. Since Staff prepared its cost of capital analysis, Value Line
23 has published new reports for the water utility industry for April 21, 2011. I
24 therefore updated the Staff models to April 21, 2011. Based on the updated Staff
25

26 ¹⁷ Decision 72177 (February 11, 2011) at 30.

1 models, the current indicated cost of equity is at least 9.6 percent.
2

3 **II. REBUTTAL TO STAFF'S COST OF CAPITAL ANALYSIS, TESTIMONY**
4 **AND RECOMMENDATIONS**

5
6 **A. Updates to Staff's Models**

7 **Q22. HAVE YOU UPDATED THE STAFF MODELS AS OF APRIL 22, 2011?**

8 A22. Yes. The indicated cost of equity is 9.6 percent. While I believe that 9.6
9 percent is still too low, the 9.6 percent is 50 basis points higher than Staff's analysis from
10 January 2011. I have attached the results of an updated analysis using the Staff models at
11 Rebuttal Exhibit TJB-COC-RB2.
12

13 **B. Rebuttal to Staff's Criticisms of Analysts' Estimates of Growth**

14 **Q22. MR. MANRIQUE CRITICIZES YOU FOR GIVING MORE WEIGHT TO**
15 **ANALYSTS' ESTIMATES THAN TO HISTORICAL GROWTH RATES.**
16 **HOW DO YOU RESPOND?**

17 A22. First, it is important to note that Mr. Manrique does not reject analyst estimates of
18 growth; he just disagrees with the amount of weight I gave these estimates.¹⁸ Staff
19 gives 50 percent weight to analysts' estimates and 50 percent weight to historical
20 growth data. So the dispute between Mr. Manrique and me comes down to
21 something between 50 percent and my "greater" emphasis. In my direct testimony
22 I explained why a weight greater than 50 percent should be given to analysts'
23 estimates.¹⁹
24

25 ¹⁸ Manrique Dt. at 38.

26 ¹⁹ See Direct Testimony of Thomas J. Bourassa – Cost of Capital ("Bourassa COC Dt.") at 29-32.

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Q23. WHAT ABOUT MR. MANRIQUE'S ASSERTION THAT ANALYSTS' ESTIMATES ARE "OVERLY OPTIMISTIC"?

A23. I refer back to my direct testimony at page 28. Gordon, Gordon, and Gould conducted a study and found analyst forecasts of growth outperformed three measures of historical growth. They explain that this result should be expected because analysts would consider historical data in making future projections. In their own formal study, the authors concluded:

We have compared the accuracy of four methods for estimating the growth component of the discounted cash flow yield on a share: past growth in earnings (KEGR), past growth in dividends (KDGR), past retention growth rate (KBRG), and forecasts of growth by security analysts (KFRG). ... For our sample of utility shares, KFRG performed well, with KBRG, KDGR, and KEGR following in that order, and with KEGR a distant fourth....

Before closing, we have three observations to make. First, the superior performance by KFRG should come as no surprise. All four estimates of growth rely upon past data, but in the case of KFRG a larger body of past data is used, filtered through a group of security analysts who adjust for abnormalities that are not considered relevant for future growth....²⁰

As I have testified, to the extent that past results provide useful indications of future growth prospects, analysts' forecasts of growth would already incorporate that information.²¹ In addition, a stock's current price already reflects known historic information on that company, including its past dividend and earnings history.²² If investors rely on analysts' growth rate forecasts, those are the relevant

²⁰ David A. Gordon, Myron J. Gordon and Lawrence I. Gould, "Choice Among Methods of Estimating Share Yield," *Journal of Portfolio Management* (Spring 1989) 50-55.

²¹ Bourassa COC Dt. at 30.

²² *Id.*

1 forecasts for determining equity costs.
2

3 **Q24. HAS MR. MANRIQUE OFFERED ANY EVIDENCE THAT INVESTORS**
4 **DO NOT RELY ON ANALYST ESTIMATES?**

5 A24. No. Nor Does Mr. Manrique does not offer any evidence on the extent investors
6 rely on historical growth or on analyst estimates of future growth. Mr. Manrique
7 offers no quantitative or conceptual argument to rebut the conclusions of Gordon,
8 Gordon, and Gould, and offers no evidence that any of the measures of past growth
9 he has used – historical EPS, historical DPS, historical sustainable growth –
10 provides a better forecast of future growth for utilities than analysts’ estimates of
11 growth. Mr. Manrique is using Staff’s inputs into the DCF model mechanically
12 without considering the reasons for using those inputs. Unfortunately, Staff’s
13 inputs gives less weight to the best estimate of future growth in in an effort to drive
14 down the cost of equity.
15

16 **Q25. DOESN'T MR. MANRIQUE'S TESTIMONY ON PAGE 38 REFERENCING**
17 **PROFESSOR GORDON'S REMARKS AT THE 30TH ANNUAL FORUM OF**
18 **THE SOCIETY OF UTILITY AND REGULATORY FINANCIAL**
19 **ANALYSTS CONTRADICT WHAT THE AUTHORS HAVE**
20 **CONCLUDED?**

21 A25. No. In the quoted remarks, Professor Gordon does not say anything about past
22 growth rates. There is no guidance on which past growth rates (EPS, DPS, or book
23 value) should be used, if any, or what weight past growth rates should be given
24 when estimating the growth rate in the DCF model. That is the issue. Mr.
25 Manrique agrees that “Professor Gordon would temper the typically higher
26

1 analysts' growth rates with the typically lower GNP growth rate."²³ I am sure Mr.
2 Manrique would also agree that I have tempered my estimate by considering past
3 growth rates that are well below the long-term GNP (or GDP) growth rate.²⁴
4

5 **Q26. DOES MR. MANRIQUE ADMIT THAT ANALYST ESTIMATES**
6 **CONSIDER PAST GROWTH RATES?**

7 A26. Yes.²⁵ He also states that investors rely "to some extent on past growth as well."²⁶
8 That is true, but he does not demonstrate the extent to which investors rely on past
9 growth rates – he simply states that they are considered. Again, if analysts'
10 estimates already consider past growth, then Staff vastly overstates the impact of
11 past growth rates in its DCF model. It is, basically, a type of "double-counting"
12 that produces extremely low results.
13

14 **Q27. DO YOU HAVE FURTHER REBUTTAL TO MR. MANRIQUE'S**
15 **"OVERLY OPTIMISTIC" TESTIMONY?**

16 A27. Yes. For my second specific response to the assertion that analysts' estimates are
17 "overly optimistic," I point to *Value Line*. *Value Line* is in the business of selling
18 information to investors, and all of the parties have relied on Value Line in their
19 cost of equity estimates. *Value Line* has every incentive to provide accurate
20 forecasts to encourage investors to continue to subscribe to its publications. Value
21 Line does not sell stock and has no incentive to bias upward its buy/sell
22 recommendations and estimates of future growth. *Zacks* and *Morningstar* provide

23 ²³ Manrique Dt. at 39.

24 ²⁴ See Rebuttal Schedule D.4-4, column 5. The average of historical growth rates is 4.45%. The
long-term GDP growth rate is 6.6% as shown on Staff's Schedule JCM-9.

25 ²⁵ Manrique at 38.

26 ²⁶ *Id.*

1 similar investment services. Neither markets stock – they sell information, which
2 won't be purchased if it is inaccurate or biased. *Yahoo Finance* is a free service,
3 but it does not earn commissions from the sales of stock. In sum, Mr. Manrique's
4 testimony is simply wrong. None of these services has any reason to provide
5 inaccurate information to its users. But, more importantly, whether the estimates
6 by *Value Line*, *Morningstar*, *Zacks*, or *Yahoo Finance* turn out to be inaccurate is
7 irrelevant. The importance of analyst estimates is that they reflect widely held
8 investor expectations.

9
10 **Q28. DO YOU HAVE ANY FURTHER COMMENTS ON THE TOPIC OF**
11 **STAFF'S DCF GROWTH ESTIMATES, MR. BOURASSA?**

12 A28. Yes. I am attaching a copy of document filed with the public utilities commission
13 in a 2005 California rate case at Rebuttal Exhibit TJB-COC-RB3. This document
14 was prepared by Mr. Gary Hayes, a witness for San Diego and Electric Company.
15 It lists a number of sources that further contradict Mr. Manrique's claim that
16 analysts typically make upwardly biased forecasts of growth.

17 Additionally, to further support the use of analyst forecasts of growth, Dr.
18 Morin states:

19 Because of the dominance of institutional investors and their
20 influence on individual investors, analysts' forecasts of long-
21 run growth rates provide a sound basis for estimating required
22 returns. Financial analysts exert a strong influence on the
23 expectations of many investors who do not possess the
24 resources to make their own forecasts, that is, they are a cause
25 of g. *The accuracy of these forecasts in the sense of whether*
26 *they turn out to be correct is not at issue here, as long as they*
reflect widely held expectations. As long as the forecasts are
typical and/or influential in that they are consistent with
current stock price levels, they are relevant. The use of
analysts' forecasts in the DCF model is sometimes denounced
on the grounds that it is difficult to forecast earnings and
dividends for only one year, let alone for longer time periods.
This objection is unfounded, however, because it is present

1 *investor expectations that are being priced; it is the consensus*
2 *forecast that is embedded in price and therefore, in required*
3 *return, and not the future as it will turn out to be.*²⁷

4 Dr. Myron Gordon, the same Professor Gordon Mr. Manrique quotes in his
5 testimony as the “father” of the standard regulatory version of the DCF model
6 utilized by Mr. Manrique and myself in the instant case, has also recognized the
7 significance of analysts’ forecasts of growth in EPS in a speech he gave in March
8 1990 before the Institute for Quantitative Research and Finance. He said:

9 We have seen that earnings and growth estimates by security
10 analysts were found by Malkiel and Cragg to be superior to
11 data obtained from financial statements for the explanation of
12 variation in price among common stocks. ... *Estimates by*
13 *security analysts available from sources such as IBES are*
14 *far superior to the data available to Malkiel and Cragg.* Eq
15 (7) is not as elegant as Eq (4), but it has a good deal more
16 intuitive appeal. It says that investors buy earnings, but what
17 they will pay for a dollar of earnings increases with the extent
18 to which the earnings are reflected in the dividend or in
19 appreciation through growth.²⁸ (*emphasis added*)

20 Professor Gordon recognized that total return is largely affected by the terminal
21 price, which is mostly affected by earnings (hence the common use of
22 price/earnings multiples in evaluating stock prices).

23 As noted by Dr. Gordon, studies performed by Cragg and Malkiel
24 demonstrate that analysts’ forecasts are superior to historical growth rate
25 extrapolations. These studies show that:

26 Efficient market hypotheses suggest that valuation should reflect the
information available to investors. Insofar as analysts’ forecasts are
more precise than other types we should therefore expect their
differences from other measures to be reflected in the market. It is

²⁷ Roger A. Morin. *New Regulatory Finance* (2006) 298 (emphasis added).

²⁸ Gordon, Myron J., “Pricing of Common Stocks”, Seminar (March 27, 1990) at 12-13.

1 therefore noteworthy that our regression results do support the
2 hypothesis that analysts' forecasts are needed even when calculated
3 growth rates are available. As we noted when we described the data,
4 *security analysts do not use simple mechanical methods to obtain*
5 *their evaluations of companies.* The growth-rate figures we
6 obtained were distilled from careful examination of all aspects of the
7 companies' records, evaluation of contingencies to which they might
8 be subject, and whatever information about their prospects the
9 analysts could glean from the companies themselves from other
10 sources. *It is therefore notable that the results of their efforts are*
11 *found to be so much more relevant to the valuation than the*
12 *various simpler and more "objective" alternatives that we tried.*²⁹
13 (emphasis added)

14 Vander Weide and Carleton further note:

15 [O]ur studies affirm the superiority of analyst's forecasts over simple
16 historical growth extrapolations in the stock price formation process.
17 Indirectly, this finding lends support to the use of valuation models
18 whose input includes expected growth rates.³⁰

19 **Q29. THAT'S A LOT OF EXPERT COMMENTARY, BUT WHAT DOES IT ALL**
20 **MEAN IN THIS CASE?**

21 A29. It means that the level of accuracy of analysts' forecasts is an after-the-fact
22 evaluation with little relevance to the issues at hand here. What really matters is
23 that analysts' forecasts strongly influence investors and hence the market prices
24 they are willing to pay for stocks. Therefore, they should play a prominent role in
25 a proper equity cost determination. Staff, however, has failed to give these
26 forecasts sufficient weight in its analysis. Even Mr. Dreman, who Mr. Manrique
relies on³¹, admits that:

27 ²⁹ John G. Cragg and Burton G. Malkiel, "Expectations and the Structure of Share Prices"
28 *National Bureau of Economic Research* (University of Chicago Press, 1982) Chapter 4.

29 ³⁰ James H. Vander Weide and Willard T. Carleton, "Investor Growth Expectations: Analysts vs.
30 History" (*The Journal of Portfolio Management*, Spring 1988) 78-82.

31 ³¹ Manrique Dt. at 36.

1 We have also seen that in spite of high error rates being
2 recognized for decades, neither analysts nor investors who
3 religiously depend on them have altered their methods in any
4 way.³²

5 This is my point. If investors rely on analysts' growth rate forecasts, those
6 forecasts should be used to determine the cost of equity, proportionate to investor
7 reliance, and not in a manner that depresses the import of that reliance. Analysts'
8 growth rates influence the prices investors will pay for stocks and thus impact the
9 dividend yields. The dividend yields change until the sum of the dividend yield
10 plus the growth rate equals investors' perceived cost of equity. Had the growth
11 forecasts been lower – as Mr. Manrique suggests they should be – the stock prices
12 would be lower and dividend yields would be higher, but there would not
13 necessarily be any difference in the ultimate estimate of the cost of equity.

14
15 **Q30. HOW DO YOU RESPOND TO MR. MANRIQUE'S REFERENCE TO**
16 **PROFESSOR JEREMY SIEGEL?**

17 A30. Mr. Manrique's reliance on the quote from Jeremy Siegel that "dividends and not
18 earnings are meaningful" is puzzling.³³ The DCF model assumes, among other
19 things, that a firm will have a stable dividend payout policy and a stable return on
20 the book value of its stock. Thus, it is assumed that the stock's price, its book
21 value, dividends paid, and earnings all grow at the same rate. While it is
22 appropriate to make such assumptions for forecasting purposes, these assumptions
23 are frequently violated when examining historical data. As it turns out, the

24
25 ³² David Dreman, *Contrarian Investment Strategies: The Next Generation* 115-116 (Simon &
Schuster 1998).

26 ³³ Manrique Dt. at 39-40.

1 historical growth in the stock price, book value, dividends, and earnings for the
2 water utility industry has not been the same.³⁴ Estimates of long-term growth rates
3 should take this into account. Furthermore, I have not used earnings in my DCF
4 model; I used earnings growth as a proxy for growth. Earnings generate the funds
5 used to pay dividends. Growth in earnings provides more cash flows from which
6 dividends are paid. As a consequence, earnings growth is obviously extremely
7 important to investors, and is therefore an entirely appropriate proxy for growth in
8 the DCF model.

9 Of course, I would also note that I don't disagree with Professor Siegel that
10 the price of a stock is always equal to the present value of all future cash flows. In
11 that regard, I am sure Professor Siegel would agree that future cash flows would
12 not only include dividends but the future sales price of the stock. I would also add
13 that an investment in the stock of a publicly traded utility is much more liquid than
14 an investment in GWC. If investors are unhappy with the return provided by a
15 publicly traded stock they can sell the stock within minutes. Whereas, an
16 investment in GWC does not provide the same level of liquidity. This lack of
17 liquidity creates additional investment risk.

18
19 **Q31. DO YOU HAVE ANY FURTHER RESPONSE TO MR. MANRIQUE**
20 **REGARDING THE ISSUE OF USING ANALYSTS' FORECASTS AND**
21 **THE APPROPRIATE WEIGHT THEY SHOULD BE GIVEN?**

22 A31. Yes, I have one more comment. I find Mr. Manrique's reliance on a quotation
23 from Dr. Burton G. Malkiel is somewhat confusing. Dr. Malkiel is the Chemical
24 Bank Chairman's Professor of Economics at Princeton University and author of the
25

26 ³⁴ See Rebuttal Schedule D.4-3 and Rebuttal Schedule D.4-4.

1 widely read national bestseller book on investing entitled, "A Random Walk Down
2 Wall Street." Mr. Manrique quotes Dr. Malkiel's apparent criticism of analysts'
3 estimates. Yet, in November 2002, Professor Malkiel affirmed his belief in the
4 superiority of analysts' earnings forecasts when he testified before the South
5 Carolina PUC:

6
7 With all the publicity given to tainted analysts' forecasts and
8 investigations instituted by the New York Attorney General,
9 the National Association of Securities Dealers, and the
10 Securities & Exchange Commission, I believe the upward
11 bias that existed in the late 1990s has indeed diminished. In
12 summary, I believe that current analysts' forecasts are more
13 reliable than they were during the late 1990s. *Therefore,*
14 *analysts' forecasts remain the proper tool to use in*
15 *performing a Gordon Model DCF analysis.*³⁵ (emphasis
16 added)

17 I believe that Dr. Malkiel's testimony should eliminate any disagreement on this
18 issue.

19 **C. Firm Specific Risk**

20 **Q32. IS MR. MANRIQUE CORRECT THAT PRIOR COMMISSION**
21 **DECISIONS DID NOT FIND A FIRM SIZE PHENOMENON FOR**
22 **REGULATED UTILITIES?**

23 A32. Yes, Mr. Manrique is correct, although the Commission's failure to recognize that
24 small firms are riskier than large firms - despite an abundance of empirical
25 financial evidence indicating otherwise - is another reason why it is more risky for
26 smaller utilities to do business in Arizona. Frankly, I am astonished that the
Commission does not recognize what the rest of the financial world already does.

³⁵ See Rebuttal testimony of Dr. Burton G. Malkiel, South Carolina Electric and Gas Co., Docket No. 2002-223-E, pp. 16-17 (emphasis added).

1 This head-in-the-sand mentality is both frustrating and disturbing. Putting that
2 aside, there are many reasons why smaller utilities are more risk than larger
3 utilities. I have discussed these reasons extensively in my direct testimony and will
4 not repeat that testimony here.³⁶ The simple fact is that a rational investor is not
5 going to view an equity investment in GWC as having the same risk as the
6 purchase of publicly traded stock in a substantially larger utility such as Aqua
7 America, American States Water or California Water Service.

8 The bottom line is that if the differences in risk between small utilities like
9 GWC and the large, publicly traded water utilities used to estimate the cost of
10 equity are ignored, GWC's equity cost will be understated and unreasonable.

11
12 **Q33. IS FIRM SIZE A UNIQUE RISK?**

13 A33. No. The firm size is a systematic risk factor.³⁷ We know that based on empirical
14 financial data that the firm size phenomenon is real. Moreover, we know that the
15 capital asset pricing model is incomplete and does not fully account for the higher
16 returns on small company stocks. In other words, the higher risks associated with
17 smaller firms is not fully accounted for by beta.

18 With respect to the relationship between firm size and return, *Morningstar* states³⁸:

19
20 One of the most remarkable discoveries of modern finance is
21 that of a relationship between firm size and return. The
22 relationship cuts across the entire size spectrum but is most
23 evident among smaller companies which have higher returns
24 than larger ones. Many studies have looked at the effect of
25 firm size and return...

24 ³⁶ Bourassa COC Dt. at 15-21.

25 ³⁷ Shannon P. Pratt and Roger J. Grabowski. *Cost of Capital: Applications and Examples, Fourth Edition*. John Wiley and Sons, 2010. p. 56.

26 ³⁸ Morningstar, *Ibbotson SBBi 2010 Valuation Yearbook*, at 85.

1 With respect to the CAPM, *Morningstar* states³⁹:

2
3 The firm size phenomenon is remarkable in several ways.
4 First, the greater risk of small stocks does not, in the context of
5 the capital asset pricing model (CAPM), fully account for their
6 higher returns over the long term. In the CAPM only
7 systematic, or beta risk, is rewarded; small company stocks
8 have had returns in excess of those implied by their betas.

7 **Q34. DO INVESTORS CONSIDER SMALL FIRM RISKS AS WELL AS**
8 **REGULATORY RISKS?**

9 A34. Of course. Contrary to Mr. Manrique's assertions, the investment related to such
10 factors as firm size and Arizona's regulatory environment are important to
11 investors. These risks are not captured by the market data of the water utility proxy
12 group Staff uses to estimate the cost of equity for GWC. None of the utilities in
13 Staff's water proxy group are of comparable size to GWC.⁴⁰ In fact, GWC is but a
14 small fraction of the size of the water utilities in Staff's proxy group. And none of
15 the water utilities in Staff's water proxy group operate exclusively in Arizona and
16 are subject to this jurisdiction's regulatory requirements and policies.⁴¹

17
18 **Q35. HOW DO YOU RESPOND TO MR. MANRIQUE'S ASSERTION THAT**
19 **THE ARIZONA REGULATORY ENVIRONMENT IS NO LESS**
20 **FAVORABLE THAN THE REGULATORY ENVIRONMENTS FACED BY**
21 **THE SAMPLE UTILITIES?**

22 A35. I disagree with him. Mr. Manrique testifies that the regulatory environment in
23 Arizona has many "attractive attributes," including the ability to seek accounting

24 ³⁹ Morningstar at 89.

25 ⁴⁰ Bourassa COC Dt. at 17.

26 ⁴¹ *Id.* at 16-22.

1 orders, the recognition of known and measurable changes, the wide use of hook-up
2 fees, and regulatory responsiveness, such as the approval of arsenic recovery
3 mechanisms and arsenic remedial surcharge mechanisms.⁴² I will address each of
4 the alleged “attractive attributes” Mr. Manrique has identified.
5

6 **Q36. LET’S START WITH ACCOUNTING ORDERS. ARE ACCOUNTING**
7 **ORDERS AN “ATTRACTIVE ATTRIBUTE” OF REGULATION IN**
8 **ARIZONA?**

9 A36. No. I have no reason to believe that regulatory mechanisms similar to accounting
10 orders are not available to any of the sample water utilities in the regulatory
11 jurisdictions in which they operate. Therefore, accounting orders do not make
12 Arizona attractive to investors relative to other investments. Besides, the nature of
13 accounting orders limits their attractiveness.
14

15 **Q37. WHAT DO YOU MEAN?**

16 A37. In Arizona, accounting orders are narrowly tailored for specific circumstances and
17 generally only allow utilities to track certain, specified costs. No rate recovery is
18 authorized or assured by such orders. Rather, accounting orders issued by this
19 Commission postpone consideration of any cost recovery until a future rate case.
20

21 **Q38. WHAT ABOUT THE RECOGNITION OF “KNOWN AND**
22 **MEASURABLE” CHANGES?**

23 A38. Again, this is not a regulatory attribute unique to Arizona. In fact, I am not aware
24 of any jurisdictions that utilize an historic test year where adjustments based on
25

26 ⁴² Manrique Dt. at 41.

1 known and measurable changes cannot be made to either the test year rate base or
2 to test year revenue and expenses in order to make the test year a more “normal”
3 representation of the costs of service during the period in which the rates will be in
4 effect. Arguably, the failure to allow such changes would be unlawful.

5 In contrast, California, in which three of the six sample water companies
6 (American States, California Water, and SJW Corp.) primarily operate, uses future
7 test years in setting rates. Under that state’s rate making system, future expenses
8 can be increased to reflect expected changes including projected inflation, revenues
9 can be adjusted to reflect expected future erosion of revenues from water
10 conservation, and future expected capital investment can be recognized in rate
11 base. This regulatory approach is more attractive to investors than the simple
12 recognition of known and measurable changes to an historical test year.

13 Moreover, California allows adjuster mechanisms that permit utilities to
14 recover increases in purchased power and purchased water costs due to increases
15 rates charged by power and water providers. More recently, in connection with
16 implementing conservation-oriented rate structures, California has authorized water
17 revenue adjustment mechanisms to be implemented in order to offset revenue
18 erosion due to conservation. In some cases, California allows utilities to file for
19 adjustment mechanisms when unexpected significant capital investment has to be
20 made. By allowing revenues to change between rate cases to match known
21 increases in investment and operating expenses, utilities are given a reasonable
22 chance to earn their authorized return.

23 In contrast, adjuster mechanisms for purchased water and purchased power
24 have been uniformly opposed by Staff over the past decade, and they have denied
25 by the Commission.⁴³ And, I don’t believe that I have ever seen a revenue

26 ⁴³ See, e.g. *Chaparral City Water Company*, Decision 68176 (Sept. 30, 2005); *Arizona Water*

1 conservation adjustment adopted by the Commission for an Arizona water utility
2 with inverted-tier rates designed to encourage water conservation.
3

4 **Q39. DIDN'T THE COMMISSION PROVIDE ARSENIC COST RECOVERY**
5 **MECHANISMS IN THE PAST?**

6 A39. To some extent. But generally these mechanisms have only for allowed recovery
7 of debt service costs not capital and depreciation. That was beneficial, particularly
8 for utilities that could not cash flow the debt service without this mechanism in
9 place. However, these mechanisms did not include recovery of increases in
10 operating and maintenance costs associated with the arsenic facilities. And, the
11 Commission has made it clear that such mechanisms were special cases intended to
12 address extraordinary circumstances, and their approval did not establish a
13 precedent for adjuster mechanisms in general. Thus, while approval of the ACRMs
14 was certainly helpful to the water utilities that obtained them, they do not make
15 Arizona's regulatory environment more attractive to investors than other
16 jurisdictions, which routinely authorize cost recovery mechanisms.
17

18 **Q40. ARE THERE ANY OTHER "ATTRACTIVE ATTRIBUTES" THAT MAKE**
19 **OTHER JURISDICTIONS ATTRACTIVE RELATIVE TO ARIZONA?**

20 A40. Yes. For instance, as I discussed in my direct testimony, in many states in which
21 Aqua America operates, utilities are permitted to implement surcharges to recover
22 additional depreciation and capital costs outside the context of a rate case.⁴⁴ Aqua
23 America also operates in jurisdictions that allow utilities to implement rates before
24

25 *Company (Eastern Group)*, Decision No. 66849 (March 19, 2004).

26 ⁴⁴ Bourassa COC Dt at 19-20.

1 a final decision in a rate case.⁴⁵ In addition, in certain states in which Aqua
2 America operates, utilities are allowed surcharges to reflect changes in certain costs
3 until such time as the costs are incorporated into base rates.⁴⁶ Pennsylvania allows
4 water utilities to collect a distribution system improvement charge (“DISC”) for the
5 replacement of mains, storage tanks and other distribution system infrastructure.
6 Similarly, Middlesex operates utilities in Delaware, which also allows for the
7 implementation of a DISC for the recovery of depreciation and capital costs outside
8 the context of a rate case. Delaware also allows plant expected to be constructed
9 within three years from the end of the test period to be included in rate base. These
10 attributes are attractive to investors, and none of them are available in Arizona.

11
12 **Q41. HOW DO YOU RESPOND TO MR. MANRIQUE’S TESTIMONY ON**
13 **PAGE 41 THAT INVESTORS CONTINUE TO ACQUIRE ARIZONA**
14 **UTILITIES AND INVEST CAPITAL IN ARIZONA SO THERE IS NO**
15 **REASON TO BELIEVE CAPITAL INVESTED IN ARIZONA IS AT A**
16 **DISADVANTAGE?**

17 A41. I am aware of several Arizona utilities⁴⁷ who have expressed concerns over their
18 ability to attract capital in Arizona. Two prominent publicly traded companies
19 have abandoned Arizona; American Water Works recently sold Arizona-American
20 Water Company and American States Water recently sold Chaparral City Water
21 Company. The concerns over capital attraction are directly related to the returns
22 provided and the regulatory environment in Arizona. But that isn’t the point. We

23
24 ⁴⁵ *Id.*

25 ⁴⁶ *Id.*

26 ⁴⁷ e.g. Arizona-American Water Company, Arizona Water Company, American States Water Company, Algonquin Power & Utilities Corp.

1 are attempting to develop a fair and reasonable return on invested capital and,
2 ultimately, rate of return on rate base. The Commission has broad discretion, and
3 may choose to use historic test years with limited out-of-period adjustments, refuse
4 to approve adjuster mechanisms for water and wastewater utilities, and impose
5 inverted-tier water rates without considering the impact on the utility's revenues.
6 But if it does choose to adopt these policies, it cannot also ignore the impact on
7 investment risk. The criteria established by the Supreme Court in decisions such as
8 *Bluefield Water Works* apply in Arizona too.

9
10 **Q42. ARE YOU AWARE OF ANY STUDIES THAT SUPPORT YOUR**
11 **TESTIMONY THAT ARIZONA IS NOT AN ATTRACTIVE**
12 **REGULATORY ENVIRONMENT?**

13 A42. Yes. Standard and Poor's, for example, issued a report in November 2008 that
14 ranked Arizona among the least credit supportive regulatory environments.⁴⁸ A
15 more recent example is the Janney Capital Markets ("Janney") ranking of water
16 utility regulation and valuation which places Arizona at the bottom of the list. A
17 copy of the Janney report is attached at Rebuttal Exhibit TJB-COC-RB4. Investors
18 do recognize the overall effect of the unfavorable regulatory environment here in
19 Arizona.

20
21 **Q43. IS THERE A WAY TO PRECISELY QUANTIFY THE EFFECT OF THESE**
22 **ADDITIONAL RISKS (OTHER THAN FIRM SIZE) ON THE RETURN**
23 **REQUIRED BY AN INVESTOR?**

24 A43. No. But that does not justify ignoring the differences between the sample utilities

25 ⁴⁸ Assessing U.S. Utility Regulatory Environments, Rating Directs, Standard and Poor's
26 (November 7, 2008).

1 and GWC, as Staff proposes.
2

3 **Q44. HAVE YOU USED A COMPANY SPECIFIC RISK PREMIUM IN YOUR**
4 **COST OF CAPITAL ANALYSIS?**

5 A44. No. I have only considered firm-size which is not a unique risk but a risk that is
6 reflected in the market for small firms.⁴⁹
7

8 **Q45. PLEASE RESPOND TO MR. MANRIQUE'S TESTIMONY ON PAGE 42**
9 **THAT REGULATORY RISK IS A FIRM-SPECIFIC RISK AND**
10 **INVESTORS CANNOT EXPECT TO BE COMPENSATED FOR FIRM-**
11 **SPECIFIC RISKS.**

12 A45. As I already testified, firm size is not a firm-specific risk. I will also say that
13 business risk, which is priced by the market, is also not firm-specific. We develop
14 proxy groups for the water utility industry based on this premise. But, to assume
15 the business risk of the large publicly traded water utilities is the same as that for
16 GWC is nonsense. Never-the-less Mr. Manrique's assertion is undermined by the
17 fact that the *Bluefield* standard requires the return on equity be commensurate with
18 returns on enterprises with comparable risks (the "comparable earning standard").
19 The impact of the various factors on investment risk that I have discussed
20 throughout my testimony, such as small size, construction risk, regulatory risk, lack
21 of diversification, small customer base, liquidity risk, etc., are factors which make
22 GWC more risky and therefore not comparable to the large publicly traded water
23 companies.

24 Mr. Manrique does not dispute the data contained in Morningstar or Duff
25

26 ⁴⁹ Pratt at 56.

1 and Phelps supporting small company risk premiums.⁵⁰ It also stands to reason that
2 GWC would have higher beta than the sample water companies.⁵¹ Mr. Manrique
3 admits that smaller companies tend to have higher betas than larger companies due
4 to larger variations in earnings and thus making smaller companies more risky.⁵²
5 Yet, Mr. Manrique blindly accepts that the average beta of the much larger publicly
6 traded water utilities as the beta for GWC.

7
8 **Q46. ON PAGE 42 OF HIS TESTIMONY MR. MANRIQUE STATES THAT**
9 **THERE IS NO ACCEPTED ANALYSIS THAT DEMONSTRATES THAT**
10 **UTILITIES ARE SUBJECT TO THE SAME SIZE DEPENDENT BETAS AS**
11 **THE MARKET. PLEASE RESPOND.**

12 A46. I find it ironic that Mr. Manrique essentially admits that the Staff's often cited
13 Annie Wong study⁵³ does not prove that a firm size effect does not exist in the
14 regulated utility industry. It would appear that the Commission's reliance in the
15 Black Mountain Sewer Company rate case⁵⁴ on Staff's unequivocal assertion that
16 the firm size phenomenon does not exist for regulated utilities was unwarranted.⁵⁵
17 That said, Mr. Manrique's dismissal of the fact that smaller companies are more
18 risky than larger companies with respect to utilities defies the empirical financial
19 evidence and rational investor behavior. In Mr. Manrique's world, the evidence
20 and rational investor behavior cease to exist for utility investments. Risks that

21 ⁵⁰ Small company risk premiums are the risk premiums not explained by the higher betas for
22 small companies.

23 ⁵¹ Bourassa COC Dt. at 31-32.

24 ⁵² Manrique Dt. at 42.

25 ⁵³ Wong, Annie. "Utility Stocks and the Size Effect: An Empirical Analysis." *Journal of the*
26 *Midwest Finance Association*. 1993. Pp. 95-101.

⁵⁴ See Docket No. SW-02361A-08-0609.

⁵⁵ Manrique Dt. at 42-43.

1 would obviously be considered by any rational investor such as liquidity risk and
2 other risks of small business investments are simply ignored by Mr. Manrique.
3 Would a rational investor really regard an equity investment in GWC as presenting
4 less risk than an equity investment in Aqua America or in Connecticut Water
5 Services, which have AA- and A bond ratings, respectively? The answer is a
6 resounding "no".
7

8 **Q47. PLEASE RESPOND TO MR. MANRIQUE'S TESTIMONY ON PAGE 40**
9 **REGARDING YOUR USE OF A 5-YEAR TIME PERIOD TO MEASURE**
10 **HISTORICAL GROWTH RATES.**

11 A47. Mr. Manrique criticizes my use of 5 years of historical data to estimate growth. I
12 can provide similar criticism of Mr. Manrique's decision to use 10 years of
13 historical data. A 10-year period includes one period of economic expansion and
14 two periods of economic recession. I believe a 5-year historical time period is more
15 appropriate because it includes one recent period of economic expansion and one
16 period of economic recession. Regardless of the time period, however, past growth
17 rates can be misleading because past growth rates may reflect changes in relevant
18 variables that may not be expected to continue in the future. Value Line reports
19 both 5- and 10-year historical growth in earnings, dividends, book value, cash flow,
20 and revenues. Long-term analysts' forecasts are reported for 5-year periods. This
21 information would not be reported unless it represented value to investors, whether
22 for informational, forecasting, or analytical purposes.
23

24 **Q46. WOULD IT HAVE MATTERED IF YOU USED 10-YEAR HISTORICAL**
25 **DATA IN YOUR ANALYSIS?**

26 A46. For all practical purposes, my 5-year and 10-year estimates of growth as well as

1 my overall cost of equity in the instant case would have been about the same.

2
3 **III. REBUTTAL TO RUCO'S COST OF CAPITAL ANALYSIS, TESTIMONY**
4 **AND RECOMMENDATIONS**

5 **A. Proxies Used to Develop Cost of Equity**

6 **Q47. IS MR. RIGSBY'S SAMPLE GROUP DIFFERENT THAN THE**
7 **COMPANY'S AND STAFF'S SAMPLE?**

8 A47. Yes. Mr. Rigsby uses three publicly traded water utilities. He used the three
9 largest water utilities out of the six water utilities that I have used, the same ones
10 Staff typically uses when performing its cost of capital analysis.

11
12 **Q48. DO YOU HAVE ANY CONCERNS REAGR Ding MR. RIGSBY'S WATER**
13 **PROXY GROUP?**

14 A48. Yes. It is limited to only 3 companies (American States Water, Aqua America, and
15 California Water Company). Mr. Rigsby ignores the three other water utilities
16 used by both Staff and myself (Connecticut Water, Middlesex Water, and SJW
17 Corp.). More than three water companies are followed by Value Line. Mr. Rigsby
18 states that he does not use these companies because Value Line does not provide
19 the same type of forward-looking information (i.e. long-term estimates of return on
20 common equity, and share growth).⁵⁶

21
22 **Q49. DOES THIS PREVENT THESE COMPANIES FROM BEING USED IN A**
23 **PROXY GROUP?**

24 A49. Clearly, no. Both Staff and the Company utilize these companies in their respective

25
26 ⁵⁶ Rigsby Dt. at 20.

1 proxy groups. Despite the lack of some forward-looking information, beta's and
2 historical information are available from Value Line. Further, forward looking
3 estimates for earnings are available from Zacks, Morningstar, and Yahoo Finance.
4

5 **Q50. ARE THERE CURRENTLY FORWARD LOOKING ESTIMATES OF**
6 **LONG-TERM RETURNS ON COMMON EQUITY AND SHARE GROWTH**
7 **FOR SJW CORP. FROM VALUE LINE?**

8 A50. Yes.⁵⁷
9

10 **Q51. DOES MR. RIGSBY ALSO USE GAS DISTRIBUTION COMPANIES TO**
11 **DEVELOP HIS ESTIMATE OF THE COST OF EQUITY?**

12 A51. Yes, this helps to overcome his small water utility sample. Mr. Rigsby uses 9
13 natural gas companies. However, the sample gas utilities he uses are less risky and
14 therefore not comparable to water utilities. His sample water companies, for
15 example, have an average beta of 0.72, while his sample gas companies have an
16 average beta of just 0.66.⁵⁸ That means that the equity cost for the water utility
17 sample is greater than the gas utilities sample, based on their relative riskiness.
18 Even though the water utility sample has more systematic risk than the gas utility
19 sample, Mr. Rigsby assumes that the gas utilities and water utility have the same
20 systematic risk and are directly comparable. They are not.
21

22 **Q52. CAN GAS UTILITIES BE USED TO ESTIMATE GWC'S COST OF**
23 **EQUITY?**

24 A52. Yes, but it is only fair and proper to use gas companies if the results produced by
25

26 ⁵⁷ See *Value Line* Ratings and Reports, April 22, 2011.

⁵⁸ See RUCO Schedule WAR-7, page 1 of 2.

1 the DCF and CAPM models are adjusted upward to reflect the water utilities'
2 additional risk. Mr. Rigsby made no such adjustment.
3

4 **Q53. HAS THIS ISSUE EVER COME UP BEFORE?**

5 A53. Yes. In several prior cases, water utilities presented evidence of the cost of equity
6 using financial data for a similar group of publicly traded gas companies, which at
7 that time had a higher average beta than the water utility sample. In rejecting this
8 evidence, the Commission adopted Staff's argument that because the water utility
9 sample had a lower average beta than the gas utility sample, the cost of equity for
10 the water utility should be lower.⁵⁹

11 For example, in Arizona Water Company's Eastern Group rate case, Staff
12 determined, based on an analysis using the CAPM, that the cost of equity for the
13 sample gas utility group was approximately 100 basis points higher than the water
14 utility sample group based on the average betas for each industry proxy.⁶⁰ The
15 water utility sample had an average beta of 0.59, while the gas utility sample had
16 an average beta of 0.69. Therefore, Staff's cost of capital witness in that case, Mr.
17 Joel Reiker, testified that its estimate of the gas utilities' cost of equity "would
18 require a *significant downward adjustment*" to make the two industry groups
19 comparable in terms of market risk.⁶¹ Here, in contrast, a significant upward
20 adjustment to the gas utility sample's average cost of equity is necessary to make
21 the gas utility sample comparable to RUCO's water utility sample.
22

23 ⁵⁹ *Arizona Water Company (Eastern Group)*, Decision No. 66849 (March 19, 2004) at 21; *see also*
Arizona-American Water Company Decision No. 67093 (June 30, 2004) at 27.

24 ⁶⁰ Staff estimated that the cost of equity for the gas utilities was 10.4% using the CAPM, while the cost of
25 equity for the water utilities was 9.4% – a difference of 100 basis points. *See* Direct Testimony of Joel M.
Reiker, Docket No. W-01445A-02-0619 (filed July 8, 2003), Sch. JMR-7, Sch. JMR- 18.

26 ⁶¹ Direct Testimony of Joel M. Reiker, Docket No. W-01445A-02-0619 (filed July 8, 2003) at 26 (*italics*
original). *See also* Decision No. 66849 at 21.

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Q54. CAN YOU QUANTIFY THE ADJUSTMENT NEEDED IN THIS CASE TO MAKE THE GAS UTILITIES SAMPLE COMPARABLE TO THE WATER UTILITIES SAMPLE?

A54. Yes. By averaging the results of his equity cost estimate for the water utility sample with his equity cost estimate for the gas utility sample, Mr. Rigsby has depressed the cost of equity estimates. For example, the average of Mr. Rigsby's CAPM estimates for the water companies and gas companies are 6.0 percent and 5.7 percent, respectively. This is a 30 basis point difference, which reflects the relative riskiness of the two sample groups.

Q55. HOW WOULD YOU FACTOR IN THE DIFFERENCE IN RISK INDICATED BY THE AVERAGE BETA OF EACH UTILITY GROUP IF YOU WERE TO USE THE GAS UTILITIES?

A55. By using the CAPM, as Staff did in the Arizona Water Company case. As I explained above, the difference between the results produced by Mr. Rigsby's CAPM model is 30 basis points. Because of the method used by Mr. Rigsby to implement the CAPM, however, 30 basis points understates the required adjustment to properly reflect the gas utilities' lower investment risk. If my method and inputs are used instead, similar to the method used in the aforementioned Arizona Water Eastern Group case, the risk differential is 110 basis points, calculated as follows:

	<u>Rf</u>	+	<u>Beta</u>	X	<u>Rp</u>	=	<u>K</u>
Historic MRP – Gas	5.1%		0.66		6.7%		9.5%
Current MRP – Gas	5.1%		0.66		10.9%		12.3%
Average Gas Utility Sample							<u>10.9%</u>

1 Average Water Utility Sample⁶²
2 **Difference/Risk**
3 **Adjustment**

11.8%
1.1%

4 Given this difference, it is clearly inappropriate to simply average the gas utilities'
5 equity cost with the water utilities' equity cost, as Mr. Rigsby has done. This error
6 assumes that an average gas utility has the same investment risk as an average
7 water utility, which is simply not the case at the present time. As a result,
8 Mr. Rigsby's use of gas utilities depresses the cost of equity for GWC.
9

10 **Q56. ARE THERE ANY OTHER INDICATIONS, BASED ON RUCO'S GAS**
11 **UTILITY SAMPLE, THAT GWC'S COST OF EQUITY IS**
12 **CONSIDERABLY HIGHER THAN THE RECOMMENDATIONS OF**
13 **RUCO AND STAFF?**

14 **A56.** Yes. The Commission recently authorized a 10.0 percent return on equity for
15 Southwest Gas Corporation.⁶³ In April 2010, the Commission adopted a 9.5
16 percent return in equity in the rate case for UNS Gas.⁶⁴ So, recent decisions on
17 cost of equity for gas companies have averaged 9.75 percent. The water utility
18 sample group has significantly more market risk than the gas utility sample group,
19 and therefore has a higher cost of equity. The indicated cost of equity for GWC,
20 based on the Commission's recent decision for Southwest Gas and for UNS Gas, is
21 10.85 percent (9.75% + 1.1%, as shown above). That equity cost is substantially
22 higher than the cost of equity produced by Mr. Rigsby's models, 7.54 percent, or
23 the 9.0 percent equity return he has recommended for GWC. Again, it is apparent
24

25 ⁶² See Rebuttal Schedule D-4.12.

⁶³ Decision No. 70665 (Dec. 24, 2008).

⁶⁴ Decision No. 71263 (April 14, 2010).

1 that something is wrong with the methods and inputs Mr. Rigsby has used in this
2 case.

3 **B. Criticisms of RUCO's Implementation of the CAPM**

4 **Q57. WHAT OTHER CONCERNS DO YOU HAVE WITH RESPECT TO MR.**
5 **RIGBY'S CAPM ANALYSIS?**

6 A57. I have five other concerns with respect to Mr. Rigsby's CAPM analysis. First,
7 Mr. Rigsby employs a geometric average in calculating the market risk premium in
8 his CAPM. His choice to use geometric average depresses his cost of equity
9 estimate downward. As various finance experts have explained, an arithmetic
10 average is the correct approach to use in estimating the cost of capital.⁶⁵ In fact,
11 the CAPM was developed on the premise of expected returns being averages and
12 risk being measured with the standard deviation. As Dr. Morin states:

13 Since the [standard deviation] is estimated around the
14 arithmetic average, and not the geometric average, it is logical
15 to stay with arithmetic averages to estimate the market risk
16 premium. In fact, annual returns are uncorrelated over time,
17 and the objective is to estimate the market risk premium for
18 the next year, the arithmetic average is the best unbiased
19 estimate of the premium.⁶⁶

20 My attachment at Rebuttal Exhibit TJB-COC-RB5 includes an excerpt from Dr.
21 Roger Morin's textbook on regulatory finance, which provides a detailed
22 discussion of this issue. Dr. Morin cites several academic studies that explain what
23 the arithmetic average is and why it's the correct average to adopt when relying on
24 past data. The conclusion of the financial experts is that while the geometric mean
25 is useful in comparing what happened in the past, it should not be used to

26 ⁶⁵ Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance Chapter 7 (7th ed. 2003);
Morin, *supra* at 156-157; Ibbotson SBBi 2009 Valuation Yearbook 56-58.

⁶⁶ Morin, *supra*, at 156-157.

1 determine estimates of expected future returns, future growth rates, or market risk
2 premiums.

3
4 **Q58. WHAT IS YOUR SECOND CONCERN?**

5 A58. Second, Mr. Rigsby incorrectly uses the U.S. Treasury total returns rather than
6 income returns. As I explained in my direct testimony, the market risk premium is
7 calculated by subtracting the risk-free rate from the market return.⁶⁷ As shown on
8 Schedule WAR-7, at page 2, attached to Mr. Rigsby's direct testimony, the total
9 return used to calculate the market risk premium was 6.3 percent (11.8% total
10 return of large company stocks minus 5.5% total return of intermediate government
11 bonds). This was the average total return on an intermediate-term Treasury (1926-
12 2011) as published in the *2010 Ibbotson SBBI Valuation Edition Yearbook* (Table
13 2-1). By contrast, the average income return for an intermediate-term Treasury
14 security was 4.7 percent and the market risk premium using this figure would be
15 7.1 percent (11.8% total return of large company stocks minus 4.7% income return
16 of intermediate government bonds) – 70 basis points higher.

17 The reason that an average income return must be used, rather than the
18 average total return, is very simple. The CAPM is a risk premium methodology
19 that is based on the premise that an investor expects to earn a return equal to the
20 return on a risk-free investment, plus a premium for assuming additional risk that is
21 proportional to the security's market risk (i.e., its beta). U.S. Treasuries are
22 commonly used as a proxy for the risk-free rate because they are backed by the
23 United States government, effectively eliminating default risk. The income return
24 is the portion of the total return that results from the bond's periodic cash flow, i.e.,
25

26 ⁶⁷ Bourassa Dt. at 30.

1 the interest payments. The income return provides an unbiased estimate of the
2 riskless rate of return because an investor can hold the Treasury security to
3 maturity and receive fixed interest payments with no capital loss or capital gain. If
4 the total return on a Treasury security is used instead, additional risk is injected
5 into the CAPM estimate, which is inconsistent with treating the security as a
6 riskless asset.

7 As explained by *Ibbotson*:

8 Another point to keep in mind when calculating the equity
9 risk premium is that the income return on the appropriate-
10 horizon Treasury security, rather than the total return, is used
11 in the calculation. The total return is comprised of three
12 return components: the income return, the capital appreciation
13 return, and the reinvestment return. The income return is
14 defined as the portion of the total return that results from a
15 periodic cash flow or, in this case, the bond coupon payment.
16 The capital appreciation return results from the price change
17 of a bond over a specific period. Bond prices generally
18 change in reaction to unexpected fluctuations in yields.
19 Reinvestment return is the return on a given month's
20 investment income when reinvested into the same asset class
21 in the subsequent months of the year. The income return is
22 thus used in the estimation of the equity risk premium
23 because it represents the truly riskless portion of the return.⁶⁸

24 As a consequence of incorrectly using U.S. Treasury total returns as well as
25 geometric average, RUCO's CAPM estimate dramatically understates the cost of
26 equity for the water utility sample. If an intermediate-term Treasury security is
used as the proxy for the risk-free rate of return, the market risk premium would
increase from 6.3 percent to 7.1 percent using the conceptually correct arithmetic
averages.

Q59. WHAT IS YOUR THIRD CONCERN IN THIS AREA?

A59. Mr. Rigsby incorrectly uses a 5-year U.S. Treasury rate as his risk-free rate. This

⁶⁸ *Ibbotson* at 55.

1 depresses Mr. Rigsby's CAPM cost of equity estimates. Use of a short-term
2 treasury rate is conceptually incorrect. As Dr. Morin states:

3
4 At the conceptual level, because common stock is a long-term
5 investment and because cash flows to investors in the form of
6 dividends last indefinitely, the yield on very long-term
7 government bonds, namely the 30-year Treasury bonds, is the
8 best measure of the risk free rate for use in the CAPM and
9 risk premium methods. The expected stock return is based
10 upon long-term cash flows, regardless of an individual's
11 holding period. Utility asset investments generally have long-
12 term useful lives and should be correspondingly matched with
13 longer-term maturity financing instruments. Moreover, short-
14 term Treasury bill yields reflect the impact of factors different
15 from those influencing the yields on longer term securities
16 such as common stock.⁶⁹

17 Currently, the difference in yields between a 5-year U.S. Treasury and a 30-year
18 U.S Treasury is over 230 basis points.

19
20 **Q60. WHAT ARE THE FACTORS THAT MAKE USE OF SHORTER TERM**
21 **RATES DIFFERENT?**

22 A60. According to Dr. Morin, "short-term rates are volatile, fluctuate widely, and are
23 subject to more random disturbances than long-term rates leading to volatile and
24 unreliable equity returns."⁷⁰ He goes on to state that "on grounds of stability and
25 consistency, the yields on long-term Treasury bonds match more closely with
26 expected common stock returns."⁷¹ For example, the Federal Reserve has
announced that it will continue to hold interest rates down to support economic
recovery, resulting in extremely low short- and intermediate-term Treasury rates –

⁶⁹ Morin at 151-152.

⁷⁰ *Id.* at 152.

⁷¹ *Id.*

1 precisely the type of manipulation that Dr. Morin warns of in his text on regulatory
2 finance, quoted above.⁷²
3

4 **Q61. WHAT IS THE FOURTH PROBLEM WITH MR. RIGSBY'S CAPM**
5 **ESTIMATES?**

6 A61. Mr. Rigsby has ignored current market risk. This Commission has consistently
7 approved the use of a current market risk premium in implementing the CAPM in
8 water and wastewater utility rate cases. For example, in the Chaparral City's 2005
9 rate case,⁷³ the Commission adopted Staff's recommended cost of equity, which
10 used an historic market risk premium and a current market risk premium in
11 implementing the CAPM.⁷⁴ In this case, Mr. Manrique has developed his CAPM
12 estimate using a current market risk premium.⁷⁵ Ignoring current market risk,
13 RUCO has relied exclusively on incorrectly calculated historic market risk
14 premiums.

15 Changes in the current market risk premium have been a significant factor in
16 the cost of equity authorized by the Commission for water and wastewater utilities.
17 In Arizona Water Company's Eastern Group case, filed in 2002, Staff computed a
18 current market risk premium of 13.1 percent in its CAPM estimate, and relied on
19 that market risk premium in estimating a cost of equity of 9.2 percent, using the
20 same six sample water utilities.⁷⁶ At that time, the country was in the midst of a
21 recession, and, according to Staff, interest rates had fallen to the lowest levels since

22 ⁷² See, e.g., Blue Chip Financial Forecasts, April 1, 2011.

23 ⁷³ *Chaparral City Water Company*, Decision No. 68176 (September 30, 2005).

24 ⁷⁴ See Direct Testimony of Alejandro Ramirez, Docket No. W-02113A-04-0616 (March 22, 2005);
Surrebuttal Testimony of Alejandro Ramirez, Docket No. W-02113A-04-0616 (May 5, 2005).

25 ⁷⁵ Manrique Dt. at 29, Sch. JMC-3.

26 ⁷⁶ Decision No. 66849 at 21 (March 19, 2004); see also Direct Testimony of Joel M. Reiker, Docket No.
W-01445A-02-0619, 24-25 (July 8, 2003).

1 the 1950s.⁷⁷ Moreover, the average beta of Staff's water utility sample group was
2 only 0.59 at that time, indicating that investment risk for the water utility industry
3 was low relative to the market.⁷⁸

4 Two years later, Arizona Water Company filed a rate case for its Western
5 Group systems. Interest rates had increased from the levels in 2003, and the
6 average beta of the Staff's sample utilities had increased as well, indicating greater
7 investment risk. However, Staff's cost of equity estimate was virtually identical to
8 the Eastern Group case, 9.1 percent.⁷⁹ The primary reason was that Staff's current
9 market risk premium had dropped from 13.1 percent to 7.8 percent.⁸⁰ The
10 Commission, in adopting Staff's CAPM estimate, relied on this change, explaining
11 that "while interest rates have gone up, the cost of equity for the market as a whole
12 has decreased, while the cost of equity for utilities has remained relatively
13 stable."⁸¹

14 Even more recently, in Black Mountain Sewer Corporation's rate case, the
15 Commission relied on a further decline in the current market risk premium to
16 support Staff's recommended 9.6 percent cost of equity.⁸² In that case, interest
17 rates and the average beta of the sample group were even higher than 2003 levels,
18 and while the result produced by Staff's models was higher, the increase was not as
19 large as would be expected.⁸³ The reason was that the current market risk premium

20 ⁷⁷ See Direct Testimony of Joel M. Reiker, Docket No. W-01445A-02-0619, 5 (July 8, 2003).

21 ⁷⁸ See Direct Testimony of Joel M. Reiker, Docket No. W-01445A-02-0619, 23 (July 8, 2003); see also
Decision No. 66849 at 20.

22 ⁷⁹ Surrebuttal Testimony of Alejandro Ramirez, Docket No. W-01445A-04-0650, Sch. AXR-8 (May 25,
23 2005).

24 ⁸⁰ *Id.*

25 ⁸¹ *Arizona Water Co. (Western Group)*, Decision No. 68302 (Nov. 14, 2005).

26 ⁸² *Black Mountain Sewer Corp.*, Decision No. 69164 (Dec. 5, 2006).

⁸³ In the Black Mountain case, the intermediate-term Treasury used by Staff in its CAPM was 4.8 percent,
while the average beta of Staff's sample group was 0.74. Surrebuttal Testimony of Pedro M. Chaves,

1 had decreased to only 5.7 percent, reducing the result produced by the CAPM.
2 Thus, while interest rates increased and the investment risk of the water utility
3 sample had increased, Staff explained that those increases were offset by a decline
4 in the current market risk premium, indicating that the overall risk of the market
5 had declined.⁸⁴

6 As these decisions show, not only has the Commission consistently
7 considered the current market risk premium, but changes in the current market risk
8 premium have had a major impact on the cost of equity, offsetting changes in
9 interest rates and water utility betas in recent cases. Even Mr. Rigsby
10 acknowledged the importance of considering current market conditions in
11 determining the cost of equity:

12
13 Consideration of the economic environment is necessary
14 because trends in interest rates, present and projected levels
15 of inflation, and the overall state of the U.S. economy
16 determine the rate of return that investors earn on their
17 invested funds. Each of these factors represent potential risks
18 that must be weighed when estimating the cost of equity
19 capital for a regulated utility and are, most often, the same
20 factors considered by individuals who are also investing in
21 non-regulated entities.⁸⁵

22
23 In light of the current volatility in the financial markets, the failure to
24 consider current market risk grossly distorts the CAPM result. As previously
25 stated, Staff normally utilizes the current market risk premium in its CAPM
26

23 Docket No. SW-02361A-05-0657, Sch. PMC-2 (May 4, 2006). In Arizona Water's Eastern Group case, in
24 contrast, the intermediate-term Treasury used by Staff in its CAPM was 3.3 percent, while the average
25 beta of Staff's sample group was 0.59. Direct Testimony of Joel M. Reiker, Docket No. W-01445A-02-
26 0619, Sch. JMR-7 (July 8, 2003).

⁸⁴ *Black Mountain Sewer Corp.*, Decision No. 69164 at 25-26 (Dec. 5, 2006).

⁸⁵ Rigsby Dt. at 38-39.

1 estimate, and Mr. Manrique has done so again in this case. Consequently, RUCO's
2 use of two historic market risk premiums (one of which is conceptually wrong for
3 the reasons given previously) without considering the impact of current market risk
4 on investor expectations invalidates RUCO's cost of equity estimate.

5
6 **Q62. WHAT IS YOUR FIFTH CONCERN WITH MR. RIGSBY'S CAPM**
7 **ANALYSIS?**

8 A62. Fifth, and perhaps most importantly, two out of the four of Mr. Rigsby's CAPM
9 estimates (one for water and two for the gas utilities), as well as his overall CAPM
10 result, are below the current cost of Baa investment grade bonds. The current cost
11 of investment grade bonds is 6.0 percent.⁸⁶ The following are the results of
12 Mr. Rigsby's CAPM as shown on WAR-1, page 3 of 3:

13
14 Geometric mean CAPM estimate - water companies 5.35%
15 Arithmetic mean CAPM estimate - water companies 6.64%
16 Geometric mean CAPM estimate - gas companies 5.10%
17 Arithmetic mean CAPM estimate - gas companies 6.29%
18 Overall CAPM result 5.85%

19 A simple reality check should have caused Mr. Rigsby to question his inputs to the
20 CAPM. This further illustrates that RUCO's methods are not only biased
21 downward, but should not be used.

22
23 **C. Criticisms of RUCO's Use of Hypothetical Capital Structure and**
24 **Hypothetical Cost of Debt**

25
26 ⁸⁶ Federal Reserve, April 21, 2011.

1 **Q63. WHY DOES MR. RIGSBY RECOMMEND A HYPOTHETICAL CAPITAL**
2 **STRUCTURE?**

3 A63. Mr. Rigsby explains that he recommends a hypothetical capital structure in cases
4 where the utility has a capital structure containing 100 percent equity or does not
5 have third party debt with a financial institution or bondholders that rate payers
6 could benefit from.⁸⁷

7
8 **Q64. DOES THIS EXPLANATION COMPORT WITH YOUR PAST**
9 **EXPERIENCE WITH RUCO.**

10 A64. Not entirely. While I believe that Mr. Rigsby has proposed a hypothetical capital
11 structure in some instances where there was a capital structure consisting of 100
12 percent equity, I do not recall any case where Mr. Rigsby used the excuse of the
13 lack of third part debt. In a recent rate case for Rio Rico Utilities (“RRUI”), Mr.
14 Rigsby explained that his hypothetical capital structure was intended to account for
15 RRUI’s lower financial risk as compared to his sample of publicly traded water
16 companies.⁸⁸ In that case, RRUI had a 100% equity capital structure. Mr.Rigsby
17 also explained in the Litchfield Park Service Company (“LPSCo”) rate case that
18 absent any debt, he typically recommends a hypothetical capital structure. In an
19 exchange with LPSCo’s counsel during hearing he provided the following response
20 regarding a 40 percent debt and 60 percent equity hypothetical capital structure:
21

22 Q. Do you agree with Mr. Sorensen that such a capital structure is an
23 appropriate capital structure for a water or sewer utility in Arizona?
24

25 ⁸⁷ Rigsby Dt at 51.

26 ⁸⁸ See Direct Testimony of William A. Rigsby, Docket No. WS-02676A-09-0257, at 51.

1 A. Well, absent any debt, typically what I will recommend is a 60/40
2 capital structure, as I did in Gold Canyon. Okay? And the reason for
3 that is it provides the company with a little bit additional equity
4 capital in the structure in order to help to alleviate any investor or
5 any investor perceptions of business risk or risk that is unique to that
6 particular company. In this case, Litchfield Park, as I said, does
7 have actual debt. And so *when I was making my decisions on*
8 *capital structure and so forth, typically what I do is, if a company*
9 *actually has legitimate debt, what I will do is I will typically go*
10 *ahead and recommend that actual capital structure.* Okay?
11 Typically I don't recommend anything, *I don't recommend any*
12 *hypothetical capital structures unless we are looking at extremes,*
13 *in other words, capital structures that are comprised entirely of*
14 *common equity or, on the other hand, entirely debt.*⁸⁹ [*emphasis*
15 *added*]
16

17 So, Mr. Rigsby's cited reason for his hypothetical capital structure as being the
18 lack of third party debt is new to me. Mr. Rigsby does not dispute there is actual
19 debt in the capital structure of GWC. He apparently does not like the fact that the
20 Company's lender is an affiliate, E.C. Development.⁹⁰ It seems to me that Mr.
21 Rigsby's real problem is with the interest rate on this debt, not the actual debt
22 itself.⁹¹
23

24 ⁸⁹ Hearing Transcript- Litchfield Park Service Company, Docket No. SW-01428A-09-0103, etc.
Vol. V, pages 975-976.

25 ⁹⁰ Rigsby Dt. at 53-54.

26 ⁹¹ Rigsby Dt. at 55.

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Q65. DID RUCO RECOMMEND A 40 PERCENT DEBT 60 PERCENT EQUITY HYPOTHETICAL CAPITAL STRUCTURE FOR LPSCO IN LPSCO'S RECENT RATE CASE?

A65. No.⁹² LPSCo had about the same level of debt and equity as does GWC at about 18 percent debt and 82 percent equity.⁹³

Q66. WOULDN'T THE SOLUTION TO THE ISSUE WITH RESPECT TO AFFILIATE DEBT BE TO SIMPLY RECOMMEND AN INTEREST RATE THAT IS MORE AGREEABLE TO RUCO?

A66. Yes. That would have made the most sense. GWC already has debt in its capital structure and, while I disagree with Mr. Rigsby's recommend interest rate, he has never-the-less recommended an interest rate he believes is appropriate. In the end there would be no need for Mr. Rigsby to recommended a hypothetical capital structure since, as he admits, he typically recommends a hypothetical capital structure when there is no debt. In other words, when there is actual debt in the capital structure there is no need for a hypothetical capital structure. Instead, Mr. Rigsby recommends a hypothetical capital structure which effectively reclassifies 21 percent of the Company's equity capital to low cost debt. It is apparent that Mr. Rigsby seeks to lower the recommended return to the lowest possible result, not the most appropriate result from an objective analytical perspective. In reality, Mr. Rigsby's hypothetical capital structure in and of itself increases the risk to investors, and no amount of manipulation of the percentages of debt and equity can

⁹² See Direct Testimony of William A. Rigsby in Docket No. , Docket No. SW-01428A-09-0103, etc, at 52.

⁹³ *Id.*

1 compensate for that risk.

2

3 **Q67. PLEASE EXPLAIN WHAT YOU MEAN, MR. BOURASSA.**

4 A67. Put bluntly, the use of a hypothetical capital structure in this instance is
5 confiscatory. By recommending a capital structure that assumes a higher amount
6 of debt for rate making than actually exists, Mr. Rigsby effectively turns the
7 investor's equity investment into debt and then provides a return on that equity
8 investment equal to only 6.13 percent (Mr. Rigsby's recommended cost of debt).

9 The lower return on equity investment resulting from the shift of equity
10 capital to debt produces a 6.6 percent effective return on equity.

11

12 **Q68. PLEASE ELABORATE ON HOW YOU DETERMINED THE EFFECTIVE**
13 **6.6 PERCENT RETURN ON EQUITY.**

14 A68. RUCO recommends an operating income of \$135,754.⁹⁴ Deducting RUCO's
15 interest expense of \$42,378⁹⁵ produces a net income of \$93,378 (\$135,754 -
16 \$42,378). RUCO also recommends a rate base of \$1,729,190.⁹⁶ The actual
17 proportion of equity that is funding RUCO's rate base is \$ \$1,412,748 (\$1,729,190
18 rate base x 81.7% actual equity in GWC's capital structure). The effective equity
19 return is therefore 6.6 percent (\$93,378 / \$1,412,748).

20

21 **Q69. PLEASE CONTINUE.**

22 A69. In short, it is no secret why RUCO proposes a hypothetical capital structure.
23 RUCO seek to obtain a dramatically lower return on equity; far lower than the 7.54

24

⁹⁴ See RUCO Schedule TJC-1, page 1 of 2.

25

⁹⁵ See RUCO Schedule TJC-1, page 2 of 2.

26

⁹⁶ See RUCO Schedule TJC-1, page 1 of 2.

1 percent indicated by Mr. Rigsby's DCF and CAPM and his recommendation of 9.0
2 percent. For this reason, Mr. Rigsby's recommended cost of equity of 9.0 percent
3 is pure fiction.
4

5 **Q70. DOESN'T GWC HAVE LOWER FINANCIAL RISK COMPARED TO THE**
6 **PUBLICLY TRADED UTILITIES BY HAVING LESS DEBT IN ITS**
7 **ACTUAL CAPITAL STRUCTURE?**

8 A70. Yes. In fact, I have accounted for this in my analysis.⁹⁷ I have also accounted for
9 size risk which effectively offsets the lower financial risk of GWC. In any case,
10 based upon an effective equity return of 6.6 percent, the implied RUCO downward
11 financial risk adjustment is 240 basis points (9.0% minus 6.6%). I computed a
12 financial risk adjustment using the Hamada method of 70 basis points.⁹⁸ Given
13 RUCO models, the RUCO financial risk adjustment would be less than 70 basis
14 points using the Hamada method. By any measure, a 240 basis point financial risk
15 adjustment is excessive and unwarranted at to GWC.
16

17 **Q71. ARE DOWNWARD ADJUSTMENTS TO THE COST OF EQUITY FOR**
18 **FINANCIAL RISK COMMON?**

19 A71. No. Whether an adjustment is made often depends on whether a reasonable return
20 on equity is afforded to the utility based on consideration of all of the evidence in
21 the case. In some cases, even though the Hamada formula indicates a higher
22 downward adjustment, the adjustment to the cost of equity is less than what may be
23 indicated by the Hamada formula. In the Bella Vista Water Company case,⁹⁹ for
24

24 ⁹⁷ Bourassa COC Dt. at 41.

25 ⁹⁸ See Rebuttal Schedule D-4.13.

26 ⁹⁹ Decision No. 65350 (November 1, 2002).

1 example, the Hamada formula indicated an 89 basis point reduction to the cost of
2 equity which would have resulted in an 8.4 percent return on equity. However,
3 Staff did not recommend an 8.4 percent cost of equity, but rather recommended the
4 low end of its cost of equity range of 9.1 percent to 9.5 percent.¹⁰⁰ The
5 Commission ultimately adopted Staff's recommended 9.1 percent equity return.¹⁰¹
6 In the prior Black Mountain Sewer Company rate case,¹⁰² Staff's cost of equity
7 analysis produced an indicated cost of equity of 9.60 percent (before adjusting for
8 financial risk). Staff's calculated financial risk adjustment using the Hamada
9 formula was 50 basis points, but Staff did not recommend a downward adjustment
10 in that case.¹⁰³ Ultimately, the Commission adopted a 9.6 percent return on
11 equity.¹⁰⁴

12 In the instant case, Staff is not recommending a downward financial risk
13 adjustment.

14
15 **Q72. WHY NOT?**

16 A72. I am not sure. Staff has testified in the past for small companies that do not have
17 access to the capital markets. In those situations Staff does not recommend a
18 financial risk adjustment.

19 Whatever the rationale for Staff's recommendation in the instant case, the
20 bottom line is that adjustments for financial risk must be used cautiously.
21 Consideration must always be given to whether the result is fair and reasonable

22 ¹⁰⁰ See Direct Testimony of William S. Reiker, Docket No. W-02465A-01-0776. 26-27 (April 29, 2002).

23 ¹⁰¹ See Decision No. 65350 at 23.

24 ¹⁰² See Decision No. 69164 (December 5, 2006).

25 ¹⁰³ See Surrebuttal Testimony of Pedro M. Chaves, Docket SW-02361A-05-0657, Sch. PMC-2 (May 4, 2006).

26 ¹⁰⁴ Decision No. 69164 at 27.

1 under the circumstances. One reason for this is that cost of capital analyses are
2 based on financial data large, publicly traded water companies, which are not
3 directly comparable to relatively small water and sewer utilities in Arizona.¹⁰⁵
4 GWC also has more zero cost capital in its capitalization than the large publicly
5 traded water utilities. All things being equal, the higher proportion of zero cost
6 capital results in a lower capital cost per dollar of plant investment being reflected
7 in rate base. This, in turn, results in less rate impact which ultimately benefits rate
8 payers. But, as I testified in my rate base testimony, the higher proportions of zero
9 cost capital do not come without risk to the Company.¹⁰⁶ There are also
10 considerations regarding comparable earnings requirements set forth in the *Hope*
11 and *Bluefield* cases.

12
13 **Q73. CAN YOU DEMONSTRATE THAT GWC HAS A LESS RATE IMPACT**
14 **THAN THE PUBLICLY TRADED UTILITIES DUE TO ITS HIGHER**
15 **PROPORTION OF ZERO COST CAPITAL IN ITS TOTAL**
16 **CAPITALIZATION?**

17 A73. Yes. I have illustrated this in a schedule attached hereto as Rebuttal Exhibit TJB-
18 COC-RB6. To make things more relevant to the instant case, I assumed my
19 recommended debt cost of 8.5 percent and equity cost 10.2 percent for GWC and
20 for my sample water utilities I assumed a debt cost equal to the average debt cost of
21 the sample water utilities, or 5.75 percent, and an equity cost equal to the average
22 currently authorized returns of the sample water utilities, or 10.1 percent. As
23 shown the impact on the revenue requirement from recognized rate base
24 investment for my sample water utilities is \$9.92 while that for GWC is \$8.99 –

25 ¹⁰⁵ Bourassa Dt. at 31-32.

26 ¹⁰⁶ Bourassa Rb. at 24-25.

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The cost is 10 percent more for the sample water utilities than for GWC even at higher debt cost and higher equity cost for GWC. In order for the cost per \$100 of rate base to be the same for both the water sample group and GWC, the cost of equity would need to be increased to about 11.5 percent (keeping the debt cost at 8.5%). Thus, equity costs below 11.5 percent will have a benefit to GWC rate payers over that of the sample water group even at the higher debt cost for GWC. This makes sense because based upon total capitalization, the water utility sample group has a overall weighted cost of 6.12 percent while the overall weighted cost for GWC is much lower at 5.63 percent. It should be quite clear by now that despite GWC's lower proportion of debt in the capital structure and its higher debt cost, rate payers ultimately benefit from GWC's capitalization mix. The Commission should not countenance manipulation of the return or the revenue requirement through the use of hypothetical capital structures and hypothetical debt, as RUCO proposes.

Q74. WILL GOODMAN WATER COMPANY HAVE SUFFICIENT EARNINGS TO PAY DIVIDENDS AT A LEVEL COMPARABLE TO THE PUBLICLY TRADED WATER UTILITY COMPANIES?

A74. No. In fact, in order for the Company to pay dividends the payout ratio will need to be above 100 percent of earnings. The computations are shown below:

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Perspective 1 – Based Upon Rate Base

[1]	Total Rate Base Investment per RUCO	\$ 1,729,190
[2]	Actual % Equity per D-1	81.73%
[3]	Book Value of Equity [1] x[2]	\$ 1,413,267
[4]	Expected Dividend Yield per D-4.7	3.53%
[5]	Current market-to-book ratio publicly traded water utilities	1.90
[6]	Book Value Dividend Yield [4] x [5]	6.71%
[7]	Cash Dividend [3] x[6]	\$ 94,788
[8]	RUCO Recommended Operating Income	\$ 135,754
[9]	Less: Annual Interest Expense from D-2	(\$43,133)
[10]	Earnings Available for Dividends [8] - [9]	<u>\$ 92,621</u>
[11]	Less: Dividends [7]	<u>\$ (94,788)</u>
[12]	Retained Earnings [10] - [11]	\$ (2,167)
[13]	Pay-out ratio [11]/[10]	102%

A payout ratio of over 100 percent is not sustainable.

Q75. IN REALITY ISN'T IT MUCH WORSE THAN THIS FROM THE PERSPECTIVE THAT THE TOTAL INVESTED CAPITAL OF GWC IS NEARLY 2.3 MILLION; AND, DOESN'T A UTILITY HAVE TO SUPPORT THAT CAPITAL WITH ITS EARNINGS?

A75. Yes and yes. Let me address the first part of the question. The total invested equity capital in GWC is \$2,269,765 as shown on Rebuttal Schedule D-1. Because of RUCO's recommendation to disallow plant investment in the instant case, there is a large and significant discrepancy between rate base and invested capital. With respect to the second part of the question, all invested capital must be supported as each dollar of capital has an earnings requirement. Whether each dollar is recognized in rate base it never-the-less has capital costs and these costs must be absorbed by earnings from existing investments. When there is a discrepancy

1 between invested capital and rate base, there exists the real possibility of severe
 2 losses. As Dr. Morin states:

3
 4 The totality of a company's capital has to be
 5 serviced... Therefore, the allowed rate of return on common
 6 equity is applicable to the total common equity component of
 7 the total investments of the utility company. Anything less
 8 than that has the direct and immediate effect of reducing
 9 common equity return below the level needed to meet the
 10 capital attraction and the comparable earnings standards
 11 articulated in the Hope and Bluefield decisions. To apply an
 12 allowed rate of return to a rate base that does not maintain the
 13 integrity of that capital does not enable the company to attract
 14 capital.¹⁰⁷

15 A second perspective reflecting invested equity capital and using computations
 16 similar to the previous analysis shows that the Company will have a pay-out ratio
 17 of over 160 percent of earnings. These computations are shown below:

<u>Perspective 2 - Based Upon Equity Investment</u>		
15	[1] Total Capital per D-1	\$ 2,777,216
16	[2] % Equity per D-1	81.73%
17	[3] Book Value of Equity [1] x[2]	\$ 2,269,819
18	[4] Expected Dividend Yield per D-4.8	3.53%
19	[5] Current market-to-book ratio publicly traded water utilities	1.90
20	[6] Book Value Dividend Yield [4] x [5]	6.71%
21	[7] Cash Dividend [3] x[6]	\$ 146,630
22	[8] RUCO Recommended Operating Income	\$ 135,754
23	[9] Less: Annual Interest Expense from D-2	(\$43,133)
24	[10] Earnings Available for Dividends [8] - [9]	\$ 92,621
25	[11] Less: Dividends [7]	\$ (152,237)
26	[12] Retained Earnings [10] - [11]	\$ (59,616)
	[13] Pay-out ratio [11]/[10]	164%

¹⁰⁷ Morin at 497-498.

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Again, a payout ratio of over 100 percent is not sustainable.

Q76. WHAT IS THE 5 YEAR AVERAGE PAYOUT RATIO OF THE PUBLICLY TRADED WATER UTILITIES?

A76. The 5 year historical average payout ratio of the publicly traded water utilities is about 74 percent.

Q77. WHAT WOULD HAPPEN TO THE VALUE OF AN INVESTMENT IN GWC IF GWC PAID DIVIDENDS AT THE PROPORTION OF EARNINGS COMPARABLE TO THE PUBLICLY TRADED UTILITIES?

A77. The value of the equity investment in GWC would necessarily decrease. If GWC paid out 74 percent of its net earnings so that it is comparable to the publicly traded water utilities, it would pay dividends totaling about \$68,539 (\$92,621 times 74 percent). However, this would translate to a dividend yield of only 2.4 percent (\$68,359 cash divided by \$1,413,267 book equity times 1.9 market-book ratio) under the first perspective shown above ("Perspective 1") and 1.6 percent (\$68,539 cash dividend divided by \$2,269,819 book equity times 1.9 market-book ratio) under the second perspective shown above ("Perspective 2"). However, investors expect a dividend yield of 3.53 percent, so the value of an investment in GWC would need to decrease to \$1,967,875 million (\$69,466 divided by 3.53 percent) compared to a market value of \$2,685,207 under Perspective 1 and decrease to \$1,967,875 (\$69,466 divided by 3.53 percent) compared to a market value of \$4,312,656 (\$2,269,819 times 1.9) under Perspective 2 in order for investors to receive a 3.53 percent dividend yield. In other words, GWC investors will lose

1 approximately \$717,332 (\$1,967,875 minus \$2,685,207) to \$2,344,781 (\$4,312,656
2 minis \$1,967,875) of investment value depending on the perspective. No matter
3 how you look at it, GWC's investors will lose a significant amount of investment
4 value. The market-to-book ratios would drop precipitously from the 1.9 of the
5 publicly traded water utilities to 1.4 (\$1,967,875 divided by \$1,413,267) or to 0.87
6 (\$1,967,875 divided by \$2,269,819) under Perspective 2.
7

8 **Q78. WHAT WOULD THE RATE OF RETURN THAT IS APPLIED TO RUCO'S**
9 **PROPOSED RATE BASE NEED TO BE IN ORDER FOR THE COMPANY**
10 **TO BE COMPARABLE TO THE PUBLICLY TRADED WATER**
11 **COMPANIES?**

12 A78. 9.9 percent. Let me explain. Under Perspective 1, if GWC has a payout ratio of
13 74 percent, then it must have earnings after interest of about \$128,149 (\$1,413,267
14 book equity investment in rate base times 6.71% book dividend yield divided by 74
15 percent). Adding back interest of \$43,133 to the \$128,149 results in a required
16 operating income of \$171,282. RUCO's proposed rate base is \$1,729,190¹⁰⁸, so the
17 return required is 9.9 percent (\$171,282 divided by \$1,729,190).
18

19 **Q79. WHAT DOES THE RETURN ON EQUITY NEED TO BE IN ORDER TO**
20 **PRODUCE A 9.9 PERCENT OVERALL RETURN UNDER PERSPECTIVE**
21 **1 AND RUCO'S HYPOTHETICAL CAPITAL STRUCTURE?**

22 A79. 12.42 percent. This can be found by first subtracting the weighted cost of debt
23 from the 9.8 percent return to get the weighted cost of equity then dividing the
24 weighted cost of equity by the percentage of equity in RUCO's hypothetical capital
25

26 ¹⁰⁸ See RUCO Schedule TJC-1, page 1 of 2.

1 structure. The weighted cost of debt based upon RUCO's hypothetical capital
2 structure and the weighted cost of debt is 2.45 percent (6.13% times 40%) and the
3 percentage of equity in the hypothetical capital structure is 60 percent. So, the
4 computation is ((9.9% minus 2.45%) divided by 60%).
5

6 **Q80. PLEASE CONTINUE.**

7 A80. Under Perspective 2 the overall return applied to RUCO's rate base would need to
8 be 14.4 percent in order to have a payout ratio of 74 percent Under Perspective 2,
9 if GWC has a payout ratio of 74 percent, then it must have earnings after interest of
10 about \$205,817 (\$2,269,819 book equity investment times 6.71% book dividend
11 yield divided by 74 percent). Adding back interest of \$43,133 to the \$205,817
12 results in a required operating income of \$248,950. RUCO's proposed rate base is
13 \$1,729,190¹⁰⁹, so the return required is 14.4 percent (\$248,950 divided by
14 \$1,729,190).
15

16 **Q81. WHAT DOES THE RETURN ON EQUITY NEED TO BE IN ORDER TO**
17 **PRODUCE A 14.4 PERCENT OVERALL RETURN UNDER**
18 **PERSPECTIVE 2?**

19 A81. 19.91 percent. Again, this can be found by first subtracting the weight cost of debt
20 from the 11.3 percent return to get the weighted cost of equity , and then dividing
21 the weighted cost of equity by the percentage of equity in RUCO's hypothetical
22 capital structure. The weighted cost of debt based upon the actual capital structure
23 and RUCO's cost of debt is 2.45 percent (6.13% times 40%) and the percentage of
24 equity in the hypothetical capital structure is 60 percent. So, the computation is
25

26 ¹⁰⁹ See RUCO Schedule TJC-1, page 1 of 2.

1 ((14.4% minus 2.45%) divided by 60%).

2 Either way you look at it, Mr. Rigsby's recommended return on equity of
3 9.0 percent fails the comparable earnings test and the capital attraction standards
4 set forth in *Hope* and *Bluefield*, contrary to his assertions.¹¹⁰

5
6 **Q82. PLEASE COMMENT ON MR. RIGSBY'S HYPOTHETICAL COST OF**
7 **DEBT.**

8 A82. As already mentioned, Mr. Rigsby's hypothetical cost of debt, applicable to 40
9 percent of his hypothetical capital structure, is 6.13 percent. He bases this debt
10 cost on the average weighted cost of debt for the large, publicly traded water
11 utilities in his water proxy group.¹¹¹ As I previously discussed, those water utilities
12 have, on average, net plant of \$1.17 billion and revenue of \$329 million.
13 Moreover, because of their size and the fact that they issue debt in the public
14 markets, most of these utilities have published bond ratings. Mr. Rigsby assumes
15 that GWC could raise debt capital at the same cost as these entities. I seriously
16 doubt that it could.

17
18 **Q83. PLEASE RESPOND TO MR. RIGSBY'S TESTIMONY THAT THE**
19 **COMPANY COULD HAVE OBTAINED WATER INFRASTRUCTURE**
20 **AND FINANCING AUTHORITY DEBT AT A COST OF ONLY 3.86%.**

21 A83. Just because the Water Infrastructure and Financing Authority ("WIFA") stated to
22 Mr. Rigsby that its current rates are as low as 3.86 percent does not mean the
23 WIFA would have approved a loan for GWC at 3.86 percent or under acceptable
24 terms. As I understand it, the 3.86 percent rate is for a program under the Clean

25 ¹¹⁰ Rigsby Dt. at 6-7.

26 ¹¹¹ Rigsby Dt. at 52.

1 Water State Revolving Fund (“CWSRF”) and available to systems designated as
2 “Disadvantaged Community” and which qualify as a “Colonia Community”
3 through the federal government. A colonia is any identifiable community in the
4 U.S.-Mexico border regions of Arizona, California, New Mexico, and Texas that is
5 determined to be a colonia on the basis of objective criteria, including lack of a
6 potable water supply, inadequate sewage systems, and a shortage of decent, safe,
7 and sanitary housing. Rates for loans under the Drinking Water Revolving Fund
8 (“DWRF”) currently range from 4.2 percent to 5.25 percent.

9 But, regardless of the interest rates available, there are a number of factors
10 which have a bearing on whether or not a system pursues a loan. They include: the
11 requirements for plant replacement reserve funds; debt reserve and coverage ratio
12 requirements; restrictions on dividends; encumbrances of water plant assets; legal,
13 accounting, engineering and other costs related to obtaining the debt financing;
14 “Buy America” stipulations; loan monitoring and reporting requirements; and,
15 personal guarantees of the owners. Restrictive loan covenants can have a dramatic
16 impact on the investment risk to equity holders, particularly when cash flows must
17 be diverted to restricted funds, and, either as a consequence of a cash flow
18 diversion to restricted funds or by loan requirements, dividends are restricted or
19 suspended, and personal guarantees are required. So, a seemingly low interest rate
20 on a loan often does not come without costs and risks to equity capital.

21
22 **Q84. DIDN'T THE COMPANY INVESTIGATE OBTAINING A WIFA LOAN IN**
23 **2009?**

24 A84. Yes. Upon investigation the Company was not only very concerned about the
25 WIFA requirements, but also the perceived limited availability of the WIFA funds
26 given the nature of the plant being funded and the size of the request for funds. In

1 the end, the Company did not pursue the loan.

2 **Q85. WHAT WERE SOME OF THE WIFA REQUIREMENTS THAT CAUSED**
3 **CONCERN?**

4 A85. WIFA requires debt reserve and plant reserve replacement fund payments to be
5 made in addition to the debt service payments. These required payments have a
6 significant impact on available cash flows. There were also concerns over the
7 "Buy America" provisions which the Company believed were not only overly
8 burdensome but would have added a significant cost to construction. Further, the
9 legal and other costs to close the loan were estimated to be substantial. Finally,
10 there were concerns over restrictions on dividends and requirements for personal
11 guarantees from the owners.

12
13 **Q86. DOES THE LOAN WITH E.C. DEVELOPMENT CONTAIN**
14 **RESTRICTIVE LOAN COVENANTS (E.G. DEBT RESERVE**
15 **REQUIREMENTS, PERSONAL GUARANTEES, DIVIDEND**
16 **RESTRICTIONS, "BUY AMERICA" PROVISIONS, ETC)?**

17 A86. No. Further, the only closing costs were the cost of an appraisal and some legal
18 costs totaling less than \$4,300.

19
20 **Q87. WHAT ABOUT THE INTEREST RATE OF 8.5 PERCENT?**

21 A87. The Company obtained the loan in early 2008. During that time investment grade
22 bonds yields were in the range of about 6.5 percent to 7.0 percent. Given the
23 Company's size, financial history and the credit market conditions at the time, the
24 Company was advised that a premium of 150 to 200 basis points was required. In
25 early 2008, Baa investment bond yields were in the range of about 6.4 to 6.7
26 percent. It turns out that investment grade bond yields averaged 7.44 percent for

1 2008 and peaked at over 9 percent. It also turns out that investment grade bond
 2 yields for 2009 averaged 7.29 percent. Remember too, small businesses had
 3 extreme difficulty obtaining loans during this period. To some extent, the tight
 4 credit markets for small businesses still exist today. Banks are still reeling over the
 5 bad residential and commercial loans that they made before the financial crisis and
 6 remain credit risk-adverse. So, the 8.5 percent rate was and is reasonable under the
 7 circumstances irrespective of any affiliate relationship.

8
 9 **Q88. WHAT ARE THE WEIGHTED COSTS OF DEBT FOR THE PUBLICLY**
 10 **TRADED UTILITIES?**

11 A88. The publicly traded water utilities overall weighted costs of debt range from 4.7
 12 percent to 6.9 percent based upon their respective 2010 Form 10K's. The weighted
 13 debt cost and the range of debt cost for each utilities notes/debentures is listed
 14 below:

<u>Company</u>	<u>Overall</u> <u>Weighted Cost of</u> <u>Debt</u>	<u>Max.</u> <u>Interest Rate</u> <u>on Debt</u>	<u>Min.</u> <u>Interest Rate</u> <u>on Debt</u>
American States Water AWR)	6.93%	9.56%	0.00%
Aqua America (WTR)	5.25%	10.40%	0.00%
California Water (CWT)	6.14%	9.86%	4.58%
Connecticut Water (CTWS)	4.79%	5.13%	4.00%
Middlesex Water (MSEX)	4.72%	8.05%	0.00%
SJW Corp. (SJW)	6.49%	9.45%	2.50%
Average	5.72%	8.74%	1.85%

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 23 I have attached hereto as Rebuttal Exhibit RJB-COC-RB5 the relevant page(s)
 24 from the Form 10K's detailing each utility's long-term debt obligations.

25 As you can see from the table above there is a fairly wide range of overall
 26

1 weighted costs of debt among the water utilities. For each individual utility, there
2 is an even wider range of debt costs (interest rates) among the various utility's
3 individual notes and debentures. These wide ranges exist for many reasons which
4 include but are not limited to: 1) the credit market conditions at the time; 2) the
5 type of debt (secured v. unsecured, senior v. subordinated); 3) the term (length) of
6 the loan; 4) the credit rating and credit risks of the utility; 5) the amount of existing
7 debt; and 6) the amount of new debt. One of the key aspects of the publicly traded
8 water utility debt is that there are many individual notes/debentures of varying
9 smaller amounts that comprise the totality of debt. Because publicly traded utilities
10 have access to the capital markets, they have some degree of flexibility as to when
11 they acquire additional debt capital and can sometimes wait for better credit market
12 conditions. But, because water (and wastewater) utilities are capital intensive and
13 require significant amounts of plant in order to serve the ongoing needs of their
14 customers, the windows of opportunity for timing capital needs with optimum
15 market conditions are narrow or may not exist at all. In this light it is not
16 surprising to see the wide range of interest rates on the individual notes/debentures
17 of the water utilities. The reason is simple. Despite access to the markets, utilities
18 often do not control when the additional capital needs may arise or the credit
19 conditions when the capital is needed. As I stated earlier, GWC acquired its debt
20 capital in early 2008 when debt costs were relatively high and the credit markets
21 were tighter. Given that GWC does not have access to the credit markets and in
22 light of the data in the table above as well as the foregoing discussion, the cost of
23 debt of 8.5 percent should be considered reasonable.

24
25 **Q89. INVESTMENT GRADE BONDS ARE CURRENTLY AT ABOUT 6.0**
26 **PERCENT. DO YOU HAVE A COMMENT?**

1 A89. Yes. Using the same criteria of a 150 to 200 basis point premium, I would price a
2 current loan absent restrictive covenants and personal guarantees for small
3 companies like GWC at 7.5 percent to 8.0 percent, not much less than the 8.5
4 percent. Of course, I am not sure you would even find a willing lender with no
5 debt convenient restrictions or the requirement to provide personal guarantee even
6 at the 8.5 percent rate.

7 The Company has recently made inquiries at several banks, to attempt to
8 refinance the existing debt. Based on my experience, I am not optimistic for two
9 reasons. First, banks tend to want to finance for shorter periods of time for plant
10 and equipment especially for water and wastewater utility plant – typically less
11 than 7 years. Second, personal guarantees of the owners are typically required.
12 Personal guaranteed for smaller firms is almost a given. If personal guarantees are
13 not provided by the owners, then the banks will not provide the loan.

14

15 **D. Criticisms of RUCO's Implementation of the DCF**

16 **Q90. DO YOU HAVE ANY CONCERNS REGARDING MR. RIGSBY'S DCF**
17 **ESTIMATES?**

18 A90. Yes. RUCO's method of estimating his growth rates is subjective and cannot be
19 verified or replicated, in contrast to the methods I use. In his DCF model,
20 Mr. Rigsby relies on projected sustainable growth in order to estimate the dividend
21 growth rate. The difference, however, is that the key inputs necessary to estimate
22 the internal or retention growth rate are not disclosed by Mr. Rigsby.

23

24 **Q91. WHAT ARE THOSE INPUTS?**

25 A91. Internal or retention growth is the expected growth in dividends due to the

26

1 retention of earnings. Retention growth is dependent on the percentage of earnings
2 retained (the retention ratio) and the expected return on common equity that is
3 applied to the retained earnings. Thus, the internal growth rate formula is:

4
$$\text{Retention growth rate} = br$$

5 Where: b = the retention ratio (1-dividend payout ratio)

6 r = the expected return on common equity

7 The problem with Mr. Rigsby's implementation of this formula is that he does not
8 disclose the retention ratio or the expected return on common equity used to
9 calculate the retention growth rate. As a result, it is impossible to verify the
10 accuracy of his calculation of internal growth (br).

11 Mr. Rigsby lists various sources of data,¹¹² and he also attaches various
12 materials to his direct testimony. But there is no explanation of how any of these
13 materials were actually used. This approach effectively allows Mr. Rigsby to
14 simply select a growth rate that falls somewhere within a broad range and cannot
15 be verified.

16
17 **IV. REBUTTAL TO MR. SCHOEMPERLEN'S COST OF CAPITAL**
18 **ANALYSIS, TESTIMONY AND RECOMMENDATIONS**

19 **A. Response to Criticisms on the Proxies Used to Develop Cost of Equity**

20 **Q92. ON PAGE 11, 16, 30 and 31 OF HIS TESTIMONY, MR. SCHOEMPERLEN**
21 **ACCUSES YOU OF "CHERRY PICKING" THE SAMPLE WATER**
22 **COMPANIES YOU USED IN YOUR PROXY GROUP. PLEASE**
23 **COMMENT.**

24 **A92.** First, let me say that I did not "cherry pick" the publicly traded water utilities used

25
26 ¹¹² Rigsby Dt. at 23-24.

1 on my proxy group. The six water utilities in my proxy group are the same six
2 water utilities that Staff uses and has used for many years. RUCO uses three of the
3 six water utilities.
4

5 **Q93. BRIEFLY, WHY IS PROXY GROUP NECESSARY IN A COST OF**
6 **CAPITAL ANALYSIS AND HOW IS IT SELECTED?**

7 A93. The comparable earnings standard set forth in the *Hope* and *Bluefield* decisions
8 require the rate of return afforded to utilities be similar to the return in businesses
9 with similar or comparable risks.¹¹³ A proxy group of companies with comparable
10 risk is therefore the starting point in a cost of capital analysis.

11 There are two broad approaches to choosing a proxy group.¹¹⁴ The first
12 approach consists of selecting pure-play companies that are directly comparable in
13 risk to the subject utility. The companies are chosen using strict criteria with an
14 attempt to identify companies with the same investment risk as the subject utility.
15 There are several qualitative measures that influence investors' assessment of risk
16 which can be used to screen companies. These include SIC classification, bond
17 ratings, beta risk, business risk scores, size, percentage of revenues from regulated
18 operations, common equity ratio, geographical location, etc.¹¹⁵

19 The second approach is to select as large group of utilities as possible that is
20 representative of the utility industry average and make adjustments for any
21 difference between the subject utility and the industry average. Whether one
22 employs the direct approach or the indirect approach, the selection of companies
23 for a proxy group always raises the question of whether it is possible to select a

24 ¹¹³ Bourassa Dt. at 13-14.

25 ¹¹⁴ *Morin* at 400,

26 ¹¹⁵ *Id.*

1 group that are of comparable risk. Further, there is always the question of
2 identifying any differences in investment risk. The electric, natural gas, and water
3 utility industries have witnessed numerous takeovers, restructuring, corporate
4 reorganizations, unbundling, and increased competition over the last decade or so
5 which has made selections of proxy groups more difficult.¹¹⁶

6 The Company, Staff and RUCO approaches are indirect methods. The
7 water companies selected derive the vast majority of their revenues from regulated
8 operations. As shown in Rebuttal Schedule D-4.2, the six water utilities on average
9 derive over 90 percent of the revenues from regulated activities. These companies
10 were also chosen because they are publicly traded, are not in financial distress, and
11 there is a sufficiently long financial and market history from which to perform an
12 analysis. American Water Works, for example, was not used though it is publicly
13 traded and derives 89 percent of its revenues from regulated activities. This is
14 because American Water Works (AWK) only became a publicly traded entity in
15 2006 so arguably there is insufficient financial and market history at this time
16 perform a robust and meaningful analysis. Pennichuck Corporation (PNNW) which
17 also was not used is another example of a company that is not a good proxy
18 company candidate. PNNW has been in merger negotiations with the City of
19 Nashua and its stock price is heavily influenced by the pending merger.

20 The bottom line is that the water utility companies in my proxy group are
21 considered representative of the average of the industry. And, as I have stated
22 throughout my testimony, must be adjusted for differences in investment risk.

23 **Q94. DOES MR. SCHOEMPERLEN IDENTIFY ANY WATER UTILITY**
24 **COMPANIES WHICH YOU SHOULD NOT HAVE USED AND/OR ANY**
25

26 ¹¹⁶ *Id.*

1 **WATER UTILITIES YOU SHOULD HAVE USED IN YOUR PROXY**
2 **GROUP?**

3 A94. No.

4
5 **A. Criticisms of Mr. Schoemperlen's Recommended Cost of Equity**

6 **Q95. HOW DOES MR. SCHOEMPLEREN ARRIVE AT A COST OF EQUITY**
7 **OF 8.0 PERCENT?**

8 A95. I am not completely sure. He does not perform any generally recognized approach
9 to estimating the cost of capital by developing a comparable proxy group and then
10 performing an analysis using the DCF, CAPM, Comparable Earnings or Risk
11 Premium approach. It appears that Mr. Schoemperlen takes my DCF estimates of
12 7.0 percent and 7.4 percent that reflected only historical and projected dividend per
13 share ("DPS") growth¹¹⁷ and added a risk premium of 1 percent.¹¹⁸

14
15 **Q96. WHAT'S WRONG WITH THIS APPROACH?**

16 A96. There are at least two major problems with Mr. Schoemperlen's approach. First,
17 he relies on only one method, the DCF. When measuring the cost of equity, which
18 involves measuring investor expectations, no single method provides a foolproof
19 and meaningful solution. Each method has underlying assumptions and requires
20 the exercise of considerable judgment on the reasonableness of those assumptions.
21 Second, he relies on only two methods of estimating investor expectations for
22 growth, namely historical and projected DPS growth. I do not use projected DPS
23 growth because there are analyst estimates for dividend growth for only three of
24 the six sample companies. Further, only one source (Value Line) provides

25 ¹¹⁷ Bourassa Dt. at 29.

26 ¹¹⁸ Schoemperlen Dt. at 30.

1 projected DPS growth estimates. The wide availability of earnings growth
2 estimates compared to dividend growth estimates indicates a greater reliance by
3 investors on earnings rather than dividends for their investment decisions. Finally,
4 the indicated costs of equity were at or below the forecasts of yields on Baa
5 investment grade bonds which makes no sense.¹¹⁹ It may be Mr. Schoemperlen's
6 judgment that only historical and projected DPS growth matters, but there is a
7 plethora of empirical evidence that show that investors simply do not rely on one
8 or two measures of growth. As I stated earlier, it turns out that studies indicate that
9 earning per share ("EPS") growth, and in particular analysts estimates of EPS
10 growth, is the best measure of growth and DPS growth was the least preferable
11 measure of growth.¹²⁰

12
13 **Q97. IF ADOPTED, WOULD AN 8.0 PERCENT RETURN ON EQUITY BE**
14 **CONSISTENT WITH RECENT COMMISSION DECISIONS?**

15 A97. No. As I testified to earlier, Sahuarita Water Company (Decision 72177, February
16 11, 2011) was authorized a 10.3 percent return. In a recent case for Bella Vista
17 Water Company (Decision 72251, dated April 7, 2011) the Commission authorized
18 at 9.5 percent return on equity. It should be noted that in that case the 9.5 percent
19 return on equity was after an implied downward financial risk adjustment of 100
20 basis points.¹²¹ So, the implied return on equity before any financial risk
21 adjustment was 10.5 percent.

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23
24 ¹¹⁹ Bourassa Dt. at 29.

25 ¹²⁰ David A. Gordon, Myron J. Gordon and Lawrence I. Gould, "Choice Among Methods of
Estimating Share Yield," *Journal of Portfolio Management* (Spring 1989) 50-55.

26 ¹²¹ Decision 72551 at 32.

1 **B. Criticisms of Mr. Schoemperlen's Recommended Hypothetical Capital**
2 **Structure and Hypothetical Cost of debt**

3
4 **Q98. WHY DOES MR. SCHOEMPERLEN RECOMMEND A HYPOTHETICAL**
5 **CAPITAL STRUCTURE?**

6 A98. According to Mr. Schoemperlen that Company's current capital structure is not
7 prudent.¹²² He believes the Company should have a least 40 percent debt in order
8 to minimize the cost of capital.¹²³ However, he provides no evidence that a 40
9 percent debt ratio would actually minimize the capital costs for a small firm like
10 GWC. Let me explain. Financial theory does suggest there is an optimal capital
11 structure for a given firm.¹²⁴ That is, a capital structure that minimizes the weighted
12 average cost of capital. In simple terms, because of the lower cost of debt
13 compared to equity capital and the deductibility of interest, a firm can achieve a
14 lower overall cost of capital when debt is added. But, as the level of debt
15 increases, the cost of equity increases as the risks to equity holders increases. I
16 discussed this in my direct testimony.¹²⁵ At a certain point, as the level of debt
17 increases the costs of debt also increase which then raises the total capital costs
18 above optimal levels. Financial theory provides limited guidance on what an
19 optimal capital structure should be.¹²⁶ Studies have shown that there is a range of
20 debt to equity levels in a firm's capital structure in which the average cost of
21 capital does not change appreciably.¹²⁷

22 ¹²² Schoemperlen Dt. at 22.

23 ¹²³ *Id.*

24 ¹²⁴ *Morin* at 465.

25 ¹²⁵ Bourassa Dt. at 21-22.

26 ¹²⁶ *Id.* .at 471.

¹²⁷ *Id.*

1 The imputation of a hypothetical capital structure which is different from
2 the actual capital structure implies the existence of an optimal capital structure for
3 a particular firm. But, the hypothetical capital structure must be such that the cost
4 and tax benefits of debt do not outweigh the increased equity costs. One could
5 argue that since the publicly traded water utilities have about 50 percent debt in
6 their capital structures that a 50/50 weighting of debt and equity should be applied
7 to all water utilities regardless of size or whether they have access to the capital
8 markets. This view is incorrect for many reasons.

9 First, the large publicly traded utilities have access to the capital markets
10 whereas small firms like GWC do not. Second, many of the large public utilities
11 have credit ratings which add confidence to credit markets which in turn keeps the
12 costs of debt reasonable over a wider range of levels of debt. Third, as I stated in
13 my direct testimony, smaller firms cannot support the same levels of debt in their
14 capital structure.¹²⁸ Smaller companies typically have greater variability in their
15 earnings which makes them more risky. This variability impacts the risk not only
16 to equity holders but to debt holders in small firms as well.

17 The bottom line is that the optimal levels of debt for small firms are not the
18 same as larger firms, and the relationship between changes in the capital structure
19 and the cost of capital are quite different. The overall cost of capital for a large
20 firm, for example, may be minimized and may not change appreciably in the range
21 of debt levels of 30 to 50 percent whereas that for a small firm may be minimized
22 and may not change appreciably from 20 to 40 percent. Above these ranges of
23 levels of debt, the cost of capital begins to increase as the costs and tax benefits of
24 debt outweigh the increased capital costs.

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26 ¹²⁸ Bourassa Dt. at 22.

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Q99. PLEASE COMMENT ON MR. SCHOEMPLERLEN'S RECOMMENDED COST OF DEBT.

A99. Mr. Schoemperlen reclassifies 20.6 percent of equity investment to debt and recommends a cost of 3.86 percent on this debt. Mr. Schoemperlen based the 3.86 percent on the rate available under certain loan programs from WIFA. Putting that aside, this debt comprises 51.5 percent of the total debt. In addition, Mr. Schoemperlen retains 18.4 percent of the Company's existing debt at a cost of 8.5 percent. This debt comprises 49.5 percent of the total debt. Thus, the overall cost of debt is 5.82 percent (51.5 percent times 3.86 percent plus 49.5 percent times 8.5 percent).

Q100. DO YOU HAVE ANY ADDITIONAL COMMENTS REGARDING WIFA DEBT?

A100. No. I have previously testified on WIFA debt and the debt in general for small companies like GWC. At this point, I would simply observe that reclassifying 21 percent of GWC's equity investment to debt capital and then providing a 3.86 percent return on that equity is unwarranted and confiscatory.

Q101. IS A DEBT COST OF 5.85 PERCENT REASONABLE FOR A SMALL COMPANY LIKE GWC?

A101. No. The 5.82 is lower than the cost of Baa investment grade bonds. GWC has no bond rating and no access to the credit markets, as do the large publicly traded utilities. GWC could not borrow at the same terms and interest rates of the large publicly traded water utilities.

1 **Q102. PLEASE ELABORATE ON HOW YOU DETERMINED THAT THE**
2 **EFFECTIVE RETURN TO GWC UNDER MR. SCHOEMPERLEN'S**
3 **RECOMMENDATION FOR A HYPOTHETICAL CAPITAL STRUCTURE,**
4 **A HYPOTHETICAL COST OF DEBT OF 5.82 PERCENT, AND AN 8.0**
5 **PERCENT RETURN ON EQUITY WOULD RESULT IN AN EFFECTIVE**
6 **RATE OF RETURN ON EQUITY OF 5.87 PERCENT.**

7 A102. Mr. Schoemperlen recommends an operating income of \$64,878.¹²⁹ Deducting the
8 synchronized interest expense of \$21,399 (recommended rate base of \$906,756
9 times weighted cost of debt of 2.36 percent)¹³⁰ produces a net income of \$43,480
10 (\$64,878 - \$21,399). Mr. Schoemperlen also recommends a rate base of
11 \$906,756.¹³¹ The actual proportion of equity that is funding Mr. Schoemperlen's
12 rate base is \$740,818 (\$906,756 rate base x 81.7% actual equity in GWC's capital
13 structure). The effective equity return is therefore 5.87 percent (\$93,378 /
14 \$740,818).

15
16 **Q103. ISN'T THE CURRENT COST OF INVESTMENT GRADE BONDS ABOUT**
17 **6.0 PERCENT; AND, ISN'T THIS HIGHER THAN MR.**
18 **SCHOEMPERLEN'S EFFECTIVE COTS OF EQUITY?**

19 A103. Yes.¹³² Mr. Schoemperlen's recommendation translates to a cost of equity which
20 absolutely makes absolute no sense. Mr. Schoemperlen obtains a dramatically
21 lower return on equity through his hypothetical capital structure and hypothetical
22 debt cost; far lower than his recommendation of 8.0 percent. Like Mr. Rigsby's 9.0

23
24 ¹²⁹ See Schoemperlen Table 3 on page 25.

25 ¹³⁰ See Schoemperlen Table 3 on page 25.

26 ¹³¹ See Schoemperlen Table 3 on page 25..

¹³² Federal Reserve, April 21, 2011.

1 percent, Mr. Schoemperlen's recommended cost of equity of 8.0 percent is pure
2 fiction.

3
4 **Q104. WILL GOODMAN WATER COMPANY HAVE SUFFICIENT EARNINGS**
5 **TO PAY DIVIDENDS AT A LEVEL COMPARABLE TO THE PUBLICLY**
6 **TRADED WATER UTILITY COMPANIES?**

7 A104. No. Like the analysis provide earlier, we can look at this in two ways: 1) from the
8 perspective of actual equity financing Mr. Schoemperlen's proposed rate base
9 (Perspective 1); and 2) from the perspective of actual equity investment in GWC
10 (Perspective 2). Either way, the Company will have insufficient earnings to pay
11 dividends comparable to the publicly traded utilities. In fact, in order for the
12 Company to pay dividends the payout ratio will need to be well above 100 percent
13 of earnings depending on one's perspective. The computations for Perspective 1
14 are shown below:

15
16
17 Perspective 1 – Based Upon Rate Base

18	[1] Total Rate Base Per Shoemperlen	\$ 906,756
	[2] % Equity per D-1	81.73%
19	[3] Book Value of Equity [1] x[2]	\$ 740,818
	[4] Expected Dividend Yield per D-4.7	3.53%
20	[5] Current market-to-book ratio publicly traded water utilities	1.90
	[6] Book Value Dividend Yield [4] x [5]	6.71%
21	[7] Cash Dividend [3] x[6]	\$ 49,709
	[8] Schoemperlen Recommended Operating Income	\$ 64,878
22	[9] Less: Annual Interest Expense from D-2	(\$43,133)
23	[10] Earnings Available for Dividends [8] - [9]	\$ 31,953
	[11] Less: Dividends [7]	\$ (49,709)
24	[12] Retained Earnings [10] - [11]	\$ (17,756)
25	[13] Payout ratio [11]/[10]	156%

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The computations for Perspective 2 are shown below:

<u>Perspective 2 - Based Upon Equity Investment</u>		
[1]	Total Capital per D-1	\$ 2,777,216
[2]	% Equity per D-1	81.73%
[3]	Book Value of Equity [1] x[2]	\$ 2,269,819
[4]	Expected Dividend Yield per D-4.8	3.53%
[5]	Current market-to-book ratio publicly traded water utilities	1.90
[6]	Book Value Dividend Yield [4] x [5]	6.71%
[7]	Cash Dividend [3] x[6]	\$ 146,630
[8]	RUCO Recommended Operating Income	\$ 64,878
[9]	Less: Annual Interest Expense from D-2	(\$43,133)
[10]	Earnings Available for Dividends [8] - [9]	\$ 31,953
[11]	Less: Dividends [7]	\$ (146,630)
[12]	Retained Earnings [10] - [11]	\$ (114,677)
[13]	Payout ratio [11]/[10]	459%

Neither of these payout ratios are sustainable and are much higher than the publicly traded water utility payout ratios.

Q105. WHAT WOULD HAPPEN TO THE VALUE OF AN INVESTMENT IN GWC IF THE GWC PAID DIVIDENDS AT THE PROPORTION OF EARNINGS COMPARABLE TO THE PUBLICLY TRADED UTILITIES?

A105. The value of an equity investment would necessarily decrease. If GWC paid out

1 74 percent of its net earnings so that it is comparable to the publicly traded water
2 utilities, it would pay dividends totaling about \$23,645 (\$31,953 times 74 percent).
3 However, this would translate to a dividend yield of only 1.7 percent (\$23,645 cash
4 divided by \$1,413,267 book equity times 1.9 market-book ratio) under the first
5 perspective shown above (Perspective 1) and 1.0 percent (\$23,645 cash dividend
6 divided by \$2,269,819 book equity times 1.9 market-book ratio) under the second
7 perspective shown above (Perspective 2). However, investors expect a dividend
8 yield of 3.53 percent, so the value of an investment in GWC would need to
9 decrease to \$905,184 (\$31,953 divided by 3.53 percent) compared to a market
10 value of \$2,826,534 (\$1,413,267 times 1.9) under Perspective 1 and decrease to
11 \$905,184 (\$31,953 divided by 3.53 percent) compared to a market value of
12 \$4,312,656 (\$2,269,819 times 1.9) under Perspective 2 in order for investors to
13 receive a 3.53 percent dividend yield. In other words, GWC investors will lose
14 approximately \$1,911,350 (\$905,184 minus \$2,826,534) to \$3,407,472 (\$905,184
15 minus \$4,312,656) of investment value depending on the perspective. No matter
16 how you look at it, GWC's investors will lose a significant amount of investment
17 value. The market-to-book ratios would drop precipitously from the 1.9 of the
18 publicly traded water utilities to 0.64 (\$905,184 divided by \$1,413,267) or to 0.21
19 (\$905,184 divided by \$4,312,656) under Perspective 2.

20
21 **Q106. WHAT WOULD THE RATE OF RETURN THAT IS APPLIED TO MR.**
22 **SCHOEMPERLEN'S PROPOSED RATE BASE NEED TO BE IN ORDER**
23 **FOR THE COMPANY TO BE COMPARABLE TO THE PUBLICLY**
24 **TRADED WATER COMPANIES?**

25 **A106.** 12.16 percent. Let me explain. Under Perspective 1, if GWC has a payout ratio of
26 74 percent, then it must have earnings after interest of about \$67,174 (\$740,818

1 book equity investment in rate base times 6.71% book dividend yield divided by 74
2 percent). Adding back interest of \$43,133 to the \$110,307 results in a required
3 operating income of \$110,307. Mr. Schoemperlen's proposed rate base is
4 \$906,756¹³³, so the return required is 12.16 percent (\$110,307 million divided by
5 \$906,756).

6
7 **Q107. WHAT DOES THE RETURN ON EQUITY NEED TO BE IN ORDER TO**
8 **PRODUCE A 12.16 PERCENT OVERALL RETURN UNDER**
9 **PERSPECTIVE 1?**

10 A107. 16.33 percent. This can be found by first subtracting the weighted cost of debt
11 from the 12.16 percent return to get the weighted cost of equity then dividing the
12 weighted cost of equity by the percentage of equity in Mr. Schoemperlen's
13 hypothetical capital structure. The weighted cost of debt based upon the
14 hypothetical capital structure and the cost of debt is 2.36 percent (5.82% times
15 40%) and the percentage of equity in the hypothetical capital structure is 60
16 percent. So, the computation is ((12.16% minus 2.34%) divided by 60%).

17
18 **Q108. PLEASE CONTINUE.**

19 A108. Under Perspective 2 the overall return applied to Mr. Schoemperlen's rate base
20 would need to be 27.47 percent in order to have a payout ratio of 74 percent
21 Under Perspective 2, if GWC has a payout ratio of 74 percent, then it must have
22 earnings after interest of about \$205,817 (\$2,269,819 book equity investment times
23 6.71% book dividend yield divided by 74 percent). Adding back interest of
24 \$43,133 to the \$205,817 results in a required operating income of \$248,950. Mr.

25
26 ¹³³ See Schoemperlen Table 3 on page 25.

1 Schoemperlen's proposed rate base is \$905,756¹³⁴, so the return required is 27.47
2 percent (\$248,950 million divided by \$905,756).
3

4 **Q109. WHAT DOES THE RETURN ON EQUITY NEED TO BE IN ORDER TO**
5 **PRODUCE A 27.47 PERCENT OVERALL RETURN UNDER**
6 **PERSPECTIVE 2?**

7 A109. 41.88 percent. Again, this can be found by first subtracting the weight cost of debt
8 from the 27.47 percent return to get the weighted cost of equity then dividing the
9 weighted cost of equity by the percentage of equity in the capital structure. The
10 weighted cost of debt based upon the actual capital structure and Mr.
11 Schoemperlen's cost of debt is 2.34 percent (5.82% times 40%) and the percentage
12 of equity in the hypothetical capital structure is 60 percent. So, the computation is
13 ((27.47% minus 2.34%) divided by 60%).
14

15 **Q110. IN REALITY ISN'T PERSPECTIVE 2 THE MOST REVELANT WITH**
16 **RESPECT TO THE ADEQUACY OF EARNINGS AND THE**
17 **COMPARABLITY OF EARNINGS TO THE PUBLICLY TRADED**
18 **UTILITY COMPANIES?**

19 A110. Yes. Again, the total invested equity capital in GWC is \$2,269,765 as shown on
20 Rebuttal Schedule D-1. Because of Mr. Schoemperlen's recommendation to
21 disallow plant investment in the instant case, there is a large and significant
22 discrepancy between rate base and invested capital. As I stated earlier, all invested
23 capital must be supported as each dollar of capital has an earnings requirement. I
24 discussed this subject in depth earlier in my testimony and will not repeat that
25 testimony here. That said, either way you look at it, Mr. Schoemperlen's
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¹³⁴ See Schoemperlen Table 3 on page 25.

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recommended return on equity of 8.0 percent fails the comparable earnings test and the capital attraction standards set forth in *Hope* and *Bluefield*.

Q111. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY ON COST OF CAPITAL?

A111. Yes. Although my silence on any issue not discussed herein does not necessarily constitute agreement with Staff, RUCO, or Mr. Schoemperlen.

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**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF CAPITAL)
May 2, 2011**

EXHIBIT TJB-COC-RB1

Goodman Water Company
 COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

TABLE 1

Company	Measures of size (Millions)						
	MV Equity ¹	Book Equity ¹	MVIC ¹	5 Yr Avg. Net Income	Total Assets ²	5 Yr Avg. EBITDA ³	
American States	\$ 636	\$ 359	\$ 936	\$ 27	\$ 1,192	\$ 115	
Aqua America	\$ 3,011	\$ 1,174	\$ 4,543	\$ 103	\$ 4,072	\$ 396	
California Water	\$ 764	\$ 435	\$ 1,243	\$ 35	\$ 1,692	\$ 117	
Connecticut Water	\$ 220	\$ 114	\$ 332	\$ 9	\$ 425	\$ 22	
Middlesex	\$ 289	\$ 174	\$ 422	\$ 12	\$ 489	\$ 37	
SJW Corp.	\$ 427	\$ 256	\$ 723	\$ 24	\$ 935	\$ 84	
Goodman Water Company	\$ 4.3	\$ 2.3	\$ 4.8	\$ 0.0	\$ 4.9	\$ 0.3	
	(Estimate)		(Estimate)				

1. American States
2. Aqua America
3. California Water
4. Connecticut Water
5. Middlesex
6. SJW Corp.

¹ From Value Line data (12/31/2010)

² From Zacks Investment Research. From E-1 for subject utility.

³ Net Income. From Zacks Investment Research and Company ACC reports

Company	2010	2009	2008	2007	2006	Average
American States	\$ 33.2	\$ 29.5	\$ 22.0	\$ 28.0	\$ 23.1	\$ 27.2
Aqua America	\$ 124.0	\$ 104.4	\$ 97.9	\$ 95.0	\$ 92.0	\$ 102.6
California Water	\$ 37.7	\$ 40.6	\$ 39.8	\$ 31.2	\$ 25.6	\$ 34.9
Connecticut Water	\$ 9.8	\$ 10.2	\$ 9.4	\$ 8.8	\$ 7.0	\$ 9.0
Middlesex	\$ 14.3	\$ 10.0	\$ 12.2	\$ 11.8	\$ 10.0	\$ 11.7
SJW Corp.	\$ 24.4	\$ 15.2	\$ 21.5	\$ 19.3	\$ 38.6	\$ 23.8
Goodman Water Company	\$ -	\$ -	\$ -	\$ 0.1	\$ -	\$ 0.0

Net Income data for publicly traded water utilities from Zacks Investment Research and/or Yahoo Finance

⁴ Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA). From Zacks Investment Research and Company ACC reports.

Company	2010	2009	2008	2007	2006	Average
American States	\$ 134.4	\$ 122.6	\$ 105.9	\$ 102.8	\$ 111.6	\$ 115.5
Aqua America	\$ 473.2	\$ 415.2	\$ 384.7	\$ 364.5	\$ 340.8	\$ 395.7
California Water	\$ 155.7	\$ 125.5	\$ 122.1	\$ 95.6	\$ 86.9	\$ 117.2
Connecticut Water	\$ 22.5	\$ 20.3	\$ 21.1	\$ 27.9	\$ 17.4	\$ 21.8
Middlesex	\$ 43.3	\$ 34.6	\$ 38.6	\$ 36.6	\$ 34.1	\$ 37.4
SJW Corp.	\$ 75.4	\$ 93.5	\$ 99.7	\$ 77.7	\$ 73.5	\$ 84.0
Goodman Water Company	\$ 0.3	\$ 0.4	\$ 0.3	\$ 0.3	\$ 0.1	\$ 0.3

EBITDA data for publicly traded water utilities from Zacks Investment Research and/or Yahoo Finance

EBITDA data for subject utility from E-1 and/or ACC reports

Goodman Water Company
COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

MRP_{m+s} Estimates Using Duff & Phelps Study (Unlevered)

Assumes 100% Equity and 0% debt

Data Smoothing with Regression Analysis

Smoothed Premium (RP_{m+s}) = Constant + X Coefficients * Log(Relevant Metric)

$$RP_{unlevered} = RP_{levered} - W_d/W_e * (\beta_d - \beta_u) * RP_{market}$$

Where β_u = unlevered portfolio beta

β_d = debt beta, assumed to be 0.1

W_d = percentage of debt in capital structure

W_e = percentage of equity in capital structure

RP_{levered} = levered realized risk premium

TABLE 2

MV Equity (Table C-1)	Book Equity (Table C-2)	MVIC (Table C-4)	5 Yr Avg. Net Income (Table C-3)	Total Assets (Table C-5)	5 Yr Avg. EBITDA (Table C-6)
18.617%	15.902%	18.978%	13.719%	17.948%	15.173%
-3.314%	-2.693%	-3.298%	-2.751%	-2.953%	-2.829%

Constant
 X Coefficient(s)

Symbol	MRP _{m+s} (unlevered)					
	MV Equity	Book Equity	MVIC	5 Yr Avg. Net Income	Total Assets	5 Yr Avg. EBITDA
AWR	9.33%	9.02%	9.18%	9.77%	8.86%	9.34%
WTR	7.09%	7.64%	6.92%	8.19%	7.29%	7.83%
CWT	9.06%	8.80%	8.77%	9.47%	8.41%	9.32%
CTWS	10.86%	10.37%	10.67%	11.09%	10.19%	11.39%
MSEX	10.46%	9.87%	10.32%	10.78%	10.01%	10.72%
SJW	9.90%	9.42%	9.55%	9.93%	9.17%	9.73%
Average (unlevered)	9.45%	9.18%	9.23%	9.87%	8.99%	9.72%
Goodman Water Company	16.52%	14.94%	16.73%	18.10%	15.90%	16.82%

Symbol
 AWR
 WTR
 CWT
 CTWS
 MSEX
 SJW

Company

- American States
- Aqua America
- California Water
- Connecticut Water
- Middlesex
- SJW Corp.

Average (unlevered)

Goodman Water Company

Implied Size Premium for Goodman over publicly traded water utilities

7.10%

Goodman Water Company
 COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

Unlevered Portfolio Beta
 (from Duff & Phelps RP Study - Table C)

TABLE 3

	Company	Unlevered Portfolio Beta (β_u)							
		(Table C-1)	(Table C-2)	(Table C-4)	(Table C-3)	(Table C-5)	(Table C-6)	(Table C-6)	Average
1.	American States	0.97	0.96	0.95	0.96	0.94	0.97	0.97	0.96
2.	Aqua America	0.87	0.85	0.85	0.87	0.83	0.81	0.81	0.85
3.	California Water	0.94	0.95	0.95	0.94	0.92	0.95	0.95	0.94
4.	Connecticut Water	0.96	1.00	0.97	0.97	0.99	1.03	1.03	0.99
5.	Middlesex	0.98	1.00	0.98	0.97	0.99	0.99	0.99	0.99
6.	SJW Corp.	0.95	0.98	0.98	0.96	0.96	0.95	0.95	0.96
	Average	0.95	0.96	0.95	0.95	0.94	0.95	0.95	0.95
	Goodman Water Company	0.95	0.99	1.00	1.01	1.05	1.03	1.03	1.01

Goodman Water Company
 COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

TABLE 4

MRP Estimates Using Duff & Phelps Study (Relevered)

Relevered Realized Risk Premium

$$RP_{\text{relevered}} = RP_{\text{unlevered}} + W_d/W_e (\beta_d - \beta_e) * RP_{\text{market}}$$

Where β_u = unlevered portfolio beta

β_d = debt beta, assumed to be 0.1

W_d = percentage of debt in capital structure

W_e = percentage of equity in capital structure

$RP_{\text{unlevered}}$ = unlevered realized risk premium from Table 2

RP_{market} = general equity risk premium for the market since 1963 (4.4%)

	Symbol	MRP _{ms} (Relevered)									
		W _d /W _e	MV Equity	Book Equity	MVIC	5 Yr Avg. Net Income	Total Assets	5 Yr Avg. EBITDA	Average		
1. American States	AWR	47.1%	11.13%	10.81%	10.94%	11.56%	10.61%	11.14%	11.03%		
2. Aqua America	WTR	50.9%	8.81%	9.31%	8.59%	9.91%	8.92%	9.41%	9.16%		
3. California Water	CWT	62.7%	11.38%	11.14%	11.12%	11.79%	10.68%	11.67%	11.30%		
4. Connecticut Water	CTWS	50.8%	12.78%	12.38%	12.61%	13.04%	12.18%	13.46%	12.74%		
5. Middlesex	MSEX	46.4%	12.26%	11.71%	12.11%	12.56%	11.82%	12.54%	12.17%		
6. SJW Corp.	SJW	69.2%	12.49%	12.10%	12.23%	12.55%	11.79%	12.32%	12.25%		
Average MRP (Relevered)		54.53%	11.47%	11.24%	11.27%	11.90%	11.00%	11.76%	11.44%		
Goodman Water Company		11.81%	16.96%	15.41%	17.20%	18.57%	16.40%	17.31%	16.97%		

Goodman Water Company
 COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

Equity Risk Premium Adjustment and Other metrics used in Build-up Method

TABLE 5

[1] Estimate of Current Market Risk Premium (RP_{market})	4.40%
[2] Risk Premium Assumed in Duff & Phelps Study (1963-2009)	4.40%
[3] Equity Risk Premium Adjustment ([1] - [2])	0.00%
[4] Average MRP (relevered) for publicly traded water companies (from Table 4)	11.44%
[5] MRP (relevered) for publicly traded water companies (RP_{m+s}) ([3] + [4])	11.44%
[6] Equity Risk Premium Adjustment ([3])	0.00%
[7] Average MRP (relevered) for subject utility company (from Table 4)	16.97%
[8] MRP (relevered) for subject utility company (RP_{m+s}) ([6] + [7])	16.97%
[9] Industry Risk Premium (From Ibbotson for SIC 494 Water Supply Industry Table 3-5)	-4.59%
[10] Adjustment Factor to Industry Risk Premium ([2] / 6.7% ¹)	0.6567
[11] Adjusted Industry Risk Premium (R_i) ([9] x [10])	-3.01%
[12] Risk Free Rate (Ibbotson LT U.S. Treasury Yield) (R_f) ²	4.24%

¹ From Ibbotson S&P 2011 Valuation Edition Yearbook . Long-Horizon Equity Risk Premium (1926-2010)

² 20 year U.S. Treasury Bond Yield at April 21, 2011. Federal Reserve.

Goodman Water Company
 COST OF EQUITY (COE) USING RISK PREMIUM BUILD-UP METHOD

Cost of Equity (COE) Estimate using Build-up Method

$$E(R_i) = R_f + RP_{m+s} + RP_i + RP_u$$

Where:

$E(R_i)$ = Expected (indicated) rate of return

R_f = Risk-free rate of return. See Table 5.

RP_{m+s} = Market risk premium including size premium. See Table 4.

RP_i = Industry risk premium (adjusted) See Table 5.

RP_u = Company-specific risk premium

TABLE 6

Publicly Traded	Sample
Utilities	Water
4.24%	Goodman
See Table 4	Water
-3.01%	4.24%
0.00%	See Table 4
	-3.01%
	0.00%

Indicated COE E(R_i)

Symbol	Company	5 Yr Avg.		5 Yr Avg.		Average
		MV Equity	Book Equity	Net Income	Assets	
1. AWR	American States	12.36%	12.03%	12.78%	11.83%	12.26%
2. WTR	Aqua America	10.04%	10.54%	11.14%	10.15%	10.39%
3. CWT	California Water	12.61%	12.37%	13.02%	11.90%	12.52%
4. CTWS	Connecticut Water	14.00%	13.61%	14.26%	13.40%	13.97%
5. MSEX	Middlesex	13.48%	12.93%	13.78%	13.05%	13.39%
6. SJW	SJW Corp.	13.71%	13.32%	13.78%	13.02%	13.47%
	Average COE estimate	12.70%	12.47%	13.13%	12.23%	12.67%
	Goodman Water Company	18.19%	16.63%	19.80%	17.62%	18.20%

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF CAPITAL)**

May 2, 2011

EXHIBIT TJB-COC-RB2

Goodman Water Company Cost of Capital Calculation
Final Cost of Equity Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
DCF Method				
Constant Growth DCF Estimate		$\frac{D_1}{P_0} \cdot 1$	+	g^2
Multi-Stage DCF Estimate		3.4%	+	5.4%
Average of DCF Estimates				k
				8.8%
				<u>9.9%</u>
				9.4%
CAPM Method				
Historical Market Risk Premium ³	R_f		x	(R_p)
Current Market Risk Premium ⁴	2.8%	β^5	x	8.2%
Average of CAPM Estimates	4.5%	0.76	x	<u>11.3%</u>
		0.76	x	9.8%
			Average	9.6%
			Financial risk adjustment	
			Total	9.6%

1 MSN Money and Value Line
 2 Schedule JCM-8
 3 Risk-free rate (Rf) for 5, 7, and 10 year Treasury rates from the U.S. Treasury Department at www.ustreas.gov
 4 Risk-free rate (Rf) for 30 Year Treasury bond rate from the U.S. Treasury Department at www.ustreas.gov
 5 Value Line
 6 Historical Market Risk Premium (Rp) calculated from Ibbotson Associates SBBBI 2008 Yearbook data
 7 Testimony

Goodman Water Company Cost of Capital Calculation
Average Capital Structure of Sample Water Utilities

[A]	[B]	[C]	[D]
<u>Company</u>	<u>Debt</u>	<u>Common Equity</u>	<u>Total</u>
American States Water	44.5%	55.5%	100.0%
California Water	52.1%	47.9%	100.0%
Aqua America	56.4%	43.6%	100.0%
Connecticut Water	49.8%	50.2%	100.0%
Middlesex Water	44.5%	55.5%	100.0%
SJW Corp	<u>52.4%</u>	<u>47.6%</u>	<u>100.0%</u>
Average Sample Water Utilities	49.9%	50.1%	100.0%
GWC - Actual Capital Structure	18.6%	81.4%	100.0%

Source:
Sample Water Companies from Value Line

Goodman Water Company Cost of Capital Calculation
Growth in Earnings and Dividends
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]
Company	Dividends Per Share 2000 to 2010 <u>DPS¹</u>	Dividends Per Share Projected <u>DPS¹</u>	Earnings Per Share 2000 to 2010 <u>EPS^{1,2}</u>	Earnings Per Share Projected <u>EPS¹</u>
American States Water	1.9%	3.7%	5.8%	2.9%
California Water	0.8%	3.0%	3.3%	5.4%
Aqua America	7.7%	6.0%	6.7%	8.4%
Connecticut Water	1.5%	No Projection	2.4%	No Projection
Middlesex Water	1.8%	No Projection	2.4%	No Projection
SJW Corp	<u>5.2%</u>	<u>3.8%</u>	<u>3.8%</u>	<u>9.1%</u>
Average Sample Water Utilities	3.2%	4.1%	4.1%	6.5%

1 Value Line

2 Negative values are inconsistent with the DCF, accordingly, they are excluded from the average.

Goodman Water Company Cost of Capital Calculation
Sustainable Growth
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]
	Retention Growth 2001 to 2010 <u>br</u>	Retention Growth Projected <u>br</u>	Stock Financing Growth <u>vs</u>	Sustainable Growth 2001 to 2010 <u>br + vs</u>	Sustainable Growth Projected <u>br + vs</u>
<u>Company</u>					
American States Water	3.3%	6.7%	1.8%	5.1%	8.5%
California Water	2.1%	4.2%	3.9%	6.0%	8.1%
Aqua America	4.6%	5.5%	4.3%	8.9%	9.8%
Connecticut Water	2.5%	No Projection	0.9%	3.4%	No Projection
Middlesex Water	1.4%	No Projection	4.0%	5.4%	No Projection
SJW Corp	<u>4.0%</u>	<u>No Projection</u>	<u>1.4%</u>	<u>5.4%</u>	<u>No Projection</u>
Average Sample Water Utilities	3.0%	5.5%	2.7%	5.7%	8.8%

[B]: Value Line
 [C]: Value Line
 [D]: Value Line and MSN Money
 [E]: [B]+[D]
 [F]: [C]+[D]

Goodman Water Company Cost of Capital Calculation
Selected Financial Data of Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[G]
Company	Symbol	Spot Price 4/21/2011	Book Value	Mkt To Book	Value Line Beta β	Raw Beta β_{raw}
American States Water	AWR	34.39	20.26	1.7	0.75	0.60
California Water	CWT	36.73	20.91	1.8	0.65	0.45
Aqua America	WTR	21.82	8.51	2.6	0.70	0.52
Connecticut Water	CTWS	25.27	13.05	1.9	0.80	0.67
Middlesex Water	MSEX	18.50	11.13	1.7	0.75	0.60
SJW Corp	SJW	22.96	13.75	<u>1.7</u>	<u>0.90</u>	<u>0.82</u>
Average				1.9	0.76	0.61

[C]: Msn Money

[D]: Value Line

[E]: [C] / [D]

[F]: Value Line

[G]: (-0.35 + [F]) / 0.67

Goodman Water Company Cost of Capital Calculation
 Calculation of Expected Infinite Annual Growth in Dividends
 Sample Water Utilities

[A]	[B]
<u>Description</u>	g
DPS Growth - Historical ¹	3.2%
DPS Growth - Projected ¹	4.1%
EPS Growth - Historical ¹	4.1%
EPS Growth - Projected ¹	6.5%
Sustainable Growth - Historical ²	5.7%
<u>Sustainable Growth - Projected²</u>	<u>8.8%</u>
Average	5.4%

¹ Schedule JCM-5

² Schedule JCM-6

Goodman Water Company Cost of Capital Calculation
Multi-Stage DCF Estimates
Sample Water Utilities

[A]	[B]	[C]	[D]	[E]	[F]	[H]	[I]
Company	Current Mkt. Price (P_0) ¹ 4/21/2011	Projected Dividends ² (Stage 1 growth) (D_i)				Stage 2 growth ³ (g_n)	Equity Cost Estimate (K) ⁴
		d_1	d_2	d_3	d_4		
American States Water	34.4	1.10	1.16	1.22	1.28	6.6%	9.7%
California Water	36.7	1.25	1.32	1.39	1.47	6.6%	9.9%
Aqua America	21.8	0.62	0.66	0.69	0.73	6.6%	9.4%
Connecticut Water	25.3	0.97	1.02	1.08	1.14	6.6%	10.3%
Middlesex Water	18.5	0.76	0.80	0.84	0.89	6.6%	10.6%
SJW Corp	23.0	0.72	0.76	0.80	0.84	6.6%	9.6%

Average **9.9%**

Where : P_0 = current stock price

D_i = dividends expected during stage 1

K = cost of equity

n = years of non – constant growth

D_n = dividend expected in year n

g_n = constant rate of growth expected after year n

1 [B] see Schedule JCM-7

2 Derived from Value Line Information

3 Average annual growth in GDP 1929 – 2009 in current dollars.

4 Internal Rate of Return of Projected Dividends

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF CAPITAL)**

May 2, 2011

EXHIBIT TJB-COC-RB3

Application No.: 07-05-007
Exhibit No.: _____
Witness: Gary H. Hayes
Date: August 28, 2007

Exhibit	<u>4-D</u>
CPUC Proceeding	<u>A-07-05-007 AT AL</u>
Sponsor / Witness	<u>SDGE vs HAYES</u>
Date Ident.	<u>8/12/07</u>
Recd.	<u>9/11/07</u>
Michael J. Galvin Administrative Law Judge	

Application No. 07-05-007
Exhibit No. SDGE-5

SAN DIEGO GAS & ELECTRIC COMPANY
PREPARED REBUTTAL TESTIMONY OF
GARY H. HAYES

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

August 28, 2007

Appendix B

Analyst Growth-Forecast Research

This survey, prepared at the request of SDG&E by Dr. James H. Vander Weide, Research Professor of Finance and Economics at Duke University, summarizes nine articles that address whether analysts' growth forecasts are overly optimistic. Seven of the nine articles reviewed find no evidence that analysts' growth forecasts are overly optimistic. Two find evidence of optimism, but also conclude that optimism has been declining significantly over time. Of these two studies, one finds that analysts' forecasts for the S&P 500 are pessimistic for the last four years of the study. The summaries are listed in chronological order.

Crichfield, T., Thomas Dyckman and Josef Lakonishok (1978). "An evaluation of security analysts' forecasts." *The Accounting Review* 53(3): 651-668.

The authors study the ability of security analyst to provide unbiased estimates of earnings per share and compare analysts' forecasts to forecasts made using simple statistical models based on historical EPS data. Their study is based on data during the period 1967 - 1976 from the *Earnings Forecaster* published by Standard & Poor's, and the final sample consists of 46 firms. The authors conclude that the analysts perform well in terms of forecast accuracy when compared to the forecasts produced by five statistical models. Their tests also support the hypothesis that analysts predict EPS changes without significant systematic bias.

Elton, E. J., Martin J. Gruber and Mustafa N. Gultekin (1984). "Professional expectations: accuracy and diagnosis of errors." *Journal of Financial and Quantitative Analysis* 19(4): 351-363.

The authors examine five questions regarding analysts' EPS forecasts: (1) what is the size and pattern of analysts' errors; (2) what is the source of errors; (3) are some firms more difficult to predict than others; and (4) is there an association between errors in forecasts and divergence of analysts' estimates. The authors use the I/B/E/S database of earnings forecasts for a sample of 414 firms for the three years 1976 through 1978, and they compare the I/B/E/S forecasts to actual earnings for each of the next two years. The authors conclude that analysts were accurate in estimating the average level of growth in

earnings for all stocks in the sample. However, analysts did have greater divergence of opinion for some industries, and the diversion in analysts' opinions is positively related to forecast error.

Givoly, D., and Josef Lakonishok (1984). "Properties of analysts' forecasts of earnings: a review and analysis of the research." *Journal of Accounting Literature*.3: 119-148.

Givoly and Lakonishok review the status of the research on security analysts' forecasts up to 1984, and they conclude that: (1) the performance of analysts' forecasts is in general superior to that of statistical models, a result that is consistent with a rational market for forecasting services, where the higher costs of financial analysts' forecasts is compensated with better performance; and (2) financial analysts' forecasts incorporate the past history of realizations and predictions in an unbiased manner.

Brown, L. D. (1997). "Analyst forecasting errors: additional evidence." *Financial Analysts Journal* November/December: 81-88.

Using data from I/B/E/S for the period 1985 - 1996, Brown studies whether: (1) analysts' forecasts are optimistic; (2) potential optimistic bias is constant over time; and (3) analysts' forecasting errors are smaller for S&P 500 firms, firms with large market capitalization, firms with greater analyst following, and firms in particular industries. For the entire period, Brown finds that model and median values of analysts' forecast errors are zero, but mean errors are negative. He finds that the negative mean forecast error results from a relatively small number of large forecast errors, indicating that these errors are associated with large accounting write-offs for a small number of firms in certain years. In addition, he finds that: (1) the mean analyst forecast error decreases significantly over the period of his study; and (2) optimistic bias of mean forecasts for S&P 500 firms is significantly less than optimistic bias for all firms, and, indeed, analysts for S&P 500 firms are, on average, pessimistic for the years 1993 - 1996; (3) optimistic bias is less for large firms than for small firms; and (4) optimistic bias is less for firms in certain industries compared to other industries, with the best forecasts for the following industries: food and related products, transportation equipment, communications, and electric, gas, sanitary services.

Keane, M. P., and David E. Runkle (1998). "Are financial analysts' forecasts of corporate profits rational." *The Journal of Political Economy* 106(4): 768-805.

Keane and Runkle demonstrate that previous inferences regarding analyst optimism are strongly affected by correlation in analyst forecast errors across forecasts and firms and by unexpected accounting write-offs and special charges. They develop a new estimator of bias that gives correct statistical inference when forecast errors are correlated, and they show that previous studies' failure to account for correlation led to a conclusion that analysts are optimistic. Using an I/B/E/S database over the period 1983 - 1991, they also demonstrate that a correct test for analyst optimism leads to the conclusion that analysts are unbiased.

In addition to problems caused by correlation in analysts' earnings forecasts, the authors also address the problems caused by unanticipated accounting accruals. Similar to Abarbanell (2003), they demonstrate that statistical tests of optimism are distorted by discretionary special accounting charges in the forecast period. Failure to adjust for discretionary special accounting charges in the company sample under study distorts statistical results in the direction of favoring the conclusion of biased analysts' forecasts. The authors conclude that the evidence in their paper strongly supports the view that professional stock market analysts make rational forecasts of earnings per share for the companies they follow.

Abarbanell, J., and Reuven Lehavy (2003). "Biased forecasts or biased earnings? The role of reported earnings in explaining apparent bias and over/underreaction in analysts' earnings forecasts." *Journal of Accounting & Economics* 36: 105-146.

Abarbanell and Lehavy investigate whether the apparent bias in analysts' earnings forecasts that appears in some research studies is explained by large accounting write-offs and special charges made by a small number of sample firms. The Abarbanell/Lehavy study is based on a large database of consensus earnings forecasts provided by Zacks for the period 1985 – 1998. When Abarbanell/Lehavy examine the distribution of analysts' forecast errors over this time period, they find that the only statistical indication that supports the argument for analyst optimism is a fairly large negative mean forecast error. In contrast, the median error is zero, suggesting unbiased forecasts, while the percentage of positive errors is significantly greater than the percentage of negative errors (48 percent versus 40 percent), suggesting apparent analyst pessimism. Similar to Brown (1997), Abarbanell/Lehavy explain this phenomenon by observing that the left tail (the optimistic tail of the distribution) contains significantly more extreme errors of greater magnitude than the right tail (the pessimistic tail) of the distribution. Abarbanell/Lehavy's conclusion is supported by a correlation study that examines the relationship between extreme negative forecast errors with extreme negative unexpected accruals. The correlation study indicates a direct connection between the extreme errors in the left tail of the error distribution and unexpected accounting accruals. Once the effect of accounting accruals is removed the study, Abarbanell/Lehavy find that the mean forecast error becomes zero, indicating that there is no tendency for analysts' forecasts to be optimistic.

Ciccone, S. J. (2005). "Trends in analyst earnings forecast properties." *International Review of Financial Analysis* 14: 1-22.

Ciccone examines trends in analysts forecast dispersion, error, and optimism using First Call 120,022 quarterly observations from 1990 – 2001. He finds that analyst optimism declined significantly over the period of his study and that analysts' forecasts for profitable firms became pessimistic in the last several years of his study period. He concludes that analyst optimism is no longer an issue and that, "[i]f anything, analysts have a new concern: earnings pessimism for profit firms."

Clarke, J., Stephen P. Ferris, Narayanan Jayaraman, and Jinsoo Lee (2006). "Are analyst recommendations biased? Evidence from corporate bankruptcies." *Journal of Financial and Quantitative Analysis* 41(1): 169-196.

The authors test whether a bias exists in analysts' recommendations for firms that filed for bankruptcy in the period 1995 – 2001. Their database consists of a final set of 289 firms that filed for bankruptcy during this period and that have I/B/E/S analysts' forecasts. As a comparison sample, the authors identify a matching group of firms with the same SIC code and that have a similar likelihood of bankruptcy as measured by the Altman z-score. The authors test for optimism by comparing the analysts' recommendations for the companies in the bankrupt group to the matched sample of companies in the non-bankrupt group in five categories—strong buy, buy, hold, under-perform, and sell. They find that, on average, analysts' recommendations are significantly lower for the companies that eventually go bankrupt than for the matched companies that do not file for bankruptcy. From this comparison, the authors conclude that the hypothesis that analysts' recommendations are optimistic should be rejected.

Yang, R., and Yaw M. Mensah (2006). "The effect of the SEC's regulation fair disclosure on analyst forecast attributes." *Journal of Financial Regulation and Compliance* 14(2): 192-209.

Regulation fair disclosure ("Reg. FD"), issued on October 23, 2000, prohibits selective disclosure of material non-public information to financial analysts, institutional investors, and others prior to making it available to the general public. Before the implementation of Reg. FD, most conference calls with analysts were accessible only to certain analysts and institutional investors. The authors examine whether Reg. FD has influenced analysts' earnings forecast accuracy and forecast dispersion for companies that routinely conduct conference calls as well as for companies that do not conduct conference calls. Using I/B/E/S forecast data for the period October 1998 through September 2002 and 12,806 firm-quarter observations in pre-Reg FD period and 13,104 firm-quarter observations in the post-Reg FD period, the authors examine the descriptive statistics of analysts' forecast errors in the pre-Reg. FD and post-Reg. FD environments. They conclude that Reg. FD had little influence on analysts' forecast errors: the mean forecast error was approximately zero in both the pre-and post-Reg. FD periods.

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF CAPITAL)**

May 2, 2011

EXHIBIT TJB-COC-RB4

Introducing the Janney RCI: Our Ranking of Water Utility Regulation & Valuation

Janney Water Journal - April 2011

INVESTMENT CONCLUSION:

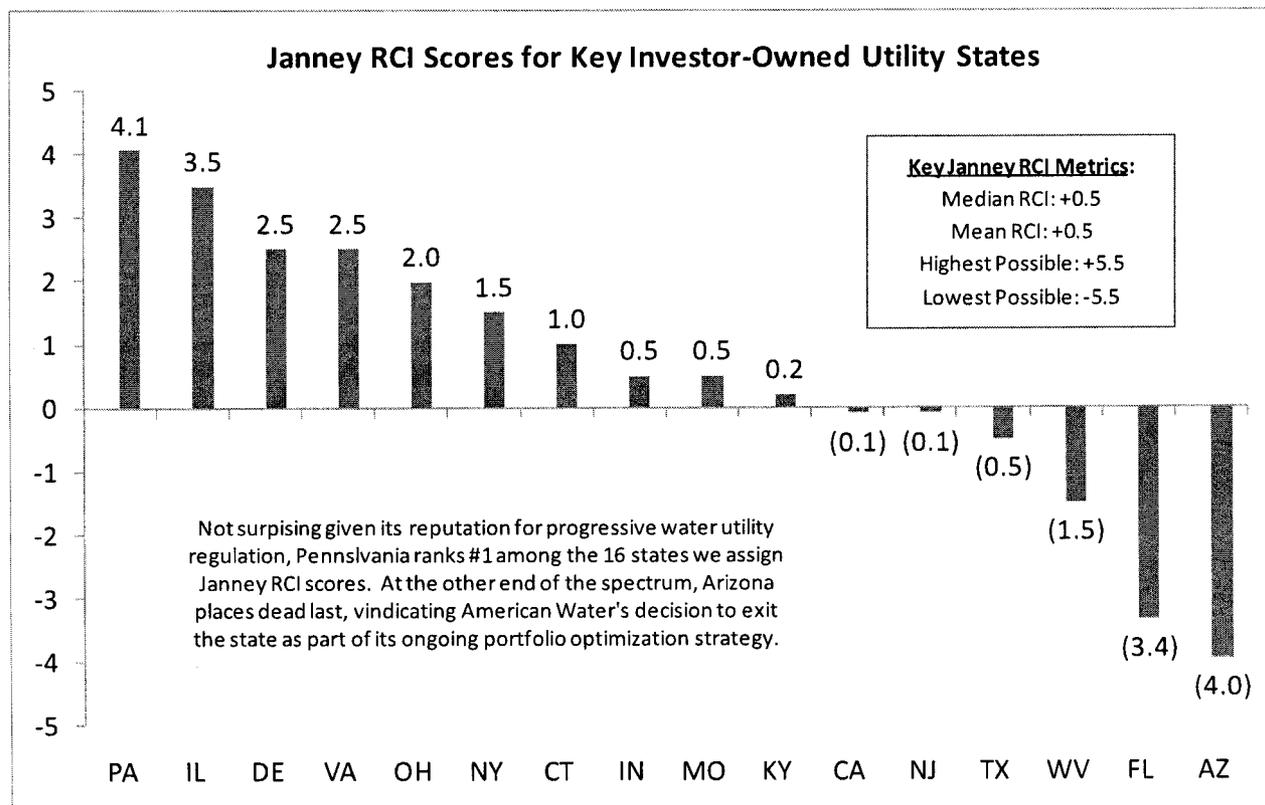
Having followed the water utility industry for years and - like many others - danced delicately around the issue of comparing state regulatory environments, we decided the time has come for a transparent, quantitative ranking system. Indeed, we believe regulatory climate is the single most important factor driving shareholder returns for water utilities, and that a clear scoring system on this key issue substantially demystifies the investment decision making process. With this in mind, we introduce our Janney Regulatory Climate Indicator (RCI), which assigns a numerical score to each state of relevance for the water utility peer group based upon key factors such as Returns on Equity and the existence (or lack thereof) of progressive regulatory mechanisms such as DSIC and Future Test Years. While we recognize that no such system is perfect and any attempt to tackle the issue will be controversial (hence the Street's historical reticence to do so), our system is transparent, easily understandable, and accurately depicts the relative attractiveness of various regulatory jurisdictions. In any event, we believe even detractors will find the Janney RCI a useful, refreshing step in the right direction toward a more open and candid discourse on the issue. Below we offer several key take-aways from our inaugural RCI rankings, and in the following pages we summarize our methodology and detail our findings.

KEY POINTS:

- **The States: PA on top as expected, but some surprises down the league table.** Not surprising given the PA PUC's near unanimous reputation as the most progressive of the state utility commissions on water issues, Pennsylvania ranks #1 of the 16 key states with a Janney RCI score of 4.1 (out of a possible range of -5.5 to +5.5). Among other key states - Illinois ranks #2 (RCI: 3.5), Delaware #3 (RCI: 2.5), Connecticut #7 (RCI: 1.0), California and New Jersey tie for #11 (RCI: -0.1), and Texas ranks #13 (RCI: -0.5). For detailed rankings and inputs see table on page 6.
- **American Water (AWK-BUY): RCI reinforces AWK as our top water utility idea.** Among the anxieties of this type of analysis is the fear that the results will contradict one's previously held views, but our 100% objectively designed system reinforces AWK as the most compelling stock idea in the space. While the company's weighted-average RCI (1.2) lies below key peer Aqua America (2.6), our implied fair value analysis suggests the valuation disconnect between the two companies more than reflects this. In addition, the potential implementation of a DSIC in New Jersey (20% of regulated revenue) represents a potentially significant regulatory catalyst.
- **Aqua America (WTR-Neutral): Premium valuation justified, but upside limited.** With its strong position in top-ranked Pennsylvania and diversified mix of additional states, Aqua America's RCI score (2.6) is second to only Pennsylvania pure-play York Water Company (YORW-BUY). Still, our RCI-based implied fair value analysis indicates that WTR's premium valuation appropriately reflects the company's favorable regulatory exposure, and upside remains limited. Overall, Aqua America remains the "best-of-breed" player in the investor-owned water utility space, and we believe any meaningful pullback in WTR shares should be viewed as buying opportunity.
- **California: CA regulation sub-par already, and uncertainty continues to loom.** While water utility regulation has improved in recent years, the state lacks key regulatory mechanisms and remains a below average capital destination in our view. Overall, we continue to believe that the discount valuations currently assigned to California-centric utilities American States Water Company (AWR-Neutral) and California Water Service Company (CWT-Neutral), appropriately reflect the fact that California regulation (though improved from years ago) remains so-so at best and that recent changes to the CA Public Utility Commission heighten uncertainty going forward.

JANNEY RCI: NOT PERFECT, BUT A USEFUL PIECE OF THE PUZZLE

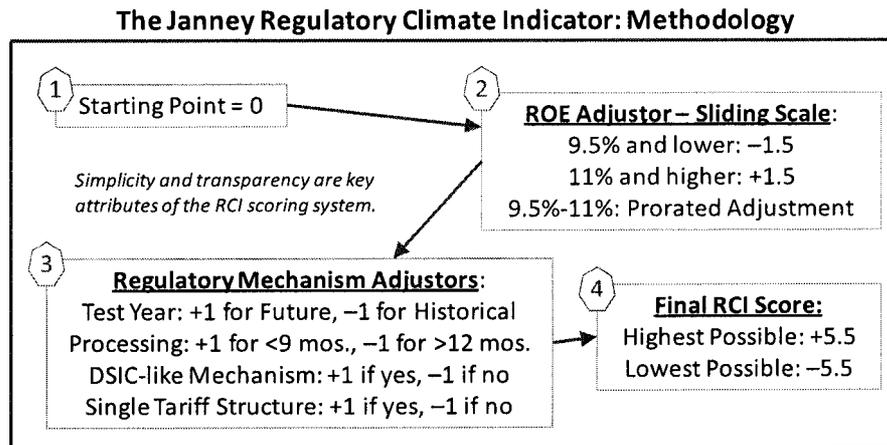
After following the water utility industry for more than five years and frequently speaking with investors frustrated by the difficulty of comparing regulatory environments, we believe the time is right for a simple, easy to understand system for making these comparisons. While we recognize that no such system is perfect, we are firm believers in not allowing the “perfect to be the enemy of the good” and therefore launch our Janney Regulatory Climate Indicator (RCI). Predictable given its attempt to quantify the unquantifiable, the RCI has its flaws, but we believe it will provide a useful tool for investors as they formulate a mosaic of the space. Our RCI scoring system, described in more detail on page 3, essentially starts each state at a baseline score of “0”, applies an adjustment factor based upon recent awarded returns on equity (the higher the better), and then further adjusts this figure depending on whether a state has implemented key progressive regulatory mechanisms (DSIC, future test year, single tariff, etc).



As mentioned above, we realize that no rating system of this type is perfect, and we acknowledge the inevitable criticisms that will come from states (and companies operating therein) ranking poorly. Still, inputs to the Janney RCI formula were carefully deliberated with an eye toward favoring those states whose regulatory systems facilitate strong returns on capital and investment outperformance, and the RCI rankings pass a key sanity check in that the rankings correspond with the more informal pecking order of state regulatory environment we've arrived at after years of following the space. For example, the state of Pennsylvania places #1 in the rankings with an RCI score of 4.1 while Arizona places dead last with an RCI of -4 (note that possible RCI scores range from -5.5 to +5.5). Given that Pennsylvania is universally regarded as the most progressive regulatory jurisdiction in the nation and that major publicly-traded companies like American Water (AWK-BUY) and American States Water (AWR-Neutral) have been exiting Arizona, these outcomes confirm the soundness of the Janney RCI scoring methodology.

JANNEY RCI: SUMMARY OF METHODOLOGY

In designing a system for quantifying the relative attractiveness of various state regulatory systems, we adhere to the maxim that “less is more” and deliberately favor elegance over complexity. Although a more intricate approach would have benefits, we believe a simple, transparent system sacrifices little in the way of accuracy while possessing the key advantage of being easily understandable.



Step-by-Step RCI Calculation:

- 1. Starting Point.** All states are created equal, beginning the process with a baseline score of 0.
- 2. Allowed Return on Equity Adjustment.** The first, and most significant, adjustment to the baseline score of 0 is the ROE adjustor. Using an average of recent awarded ROEs in the state, the baseline score is adjusted to reflect the attractiveness of returns on capital. States with ROEs of 9.5% and below have 1.5 points subtracted from the baseline, while states with ROEs of 11% and above have 1.5 points added to their baseline score. States with ROEs in between 9.5% and 11% receive a pro-rated adjustment according to their position in this range, with any state exactly at the midpoint of 10.25% receiving no adjustment to the starting point.
- 3. Regulatory Mechanism Adjustments.** The next set of adjustments takes into account whether a state has in place key regulatory mechanisms that we believe reduce regulatory lag or otherwise improve the investment climate. These simple +1/–1 adjustments are as follows:
 - +1 if a state has in place a DSIC, –1 if not.
 - +1 point if a Future Test Year is used, –1 if Historical (0 for Historical/Updated).
 - +1 if rate cases must be processed in 9 months or less, –1 if 12 months or more.
 - +1 if a state has in place single tariff rate structures, –1 if not.
- 4. Summation = Final RCI Score.** After all adjustments have been made to the initial starting point of 0, the end result is the Janney RCI score. The highest possible RCI score is +5.5 (0 + 1.5 for an 11% ROE + 1 for DSIC + 1 for Future Test Year + 1 for 9 month rate case processing + 1 for Single Tariff = 5.5). Conversely, the lowest possible score is –5.50. Interpreting RCI scores is easy: higher scores denote states with more capital-friendly regulatory environments.

JANNEY RCI: A LOOK AT KEY REGULATED TERRITORIES

Pennsylvania: The Gold Standard (#1 of 16). With its reputation for progressive regulation and status as a preferred capital destination, it's not surprising that Pennsylvania places #1 among the states included in our RCI rankings. A number of factors contribute to Pennsylvania's status as the gold standard in water utility regulation, but the key driver is that the Pennsylvania Public Utility Commission holds true to a simple concept: grant highly competitive allowed returns on capital and minimize the drag that the regulatory process creates on realized returns. The importance of the latter part of this equation cannot be understated, and the PA PUC has a long history of open mindedness toward forward-looking, creative regulatory mechanisms on this front. A notable example is that the state pioneered the Distribution System Improvement Charge (DSIC), which has long been viewed as an industry best practice and is increasingly seen by investors as a baseline standard of an acceptable regulatory environment.

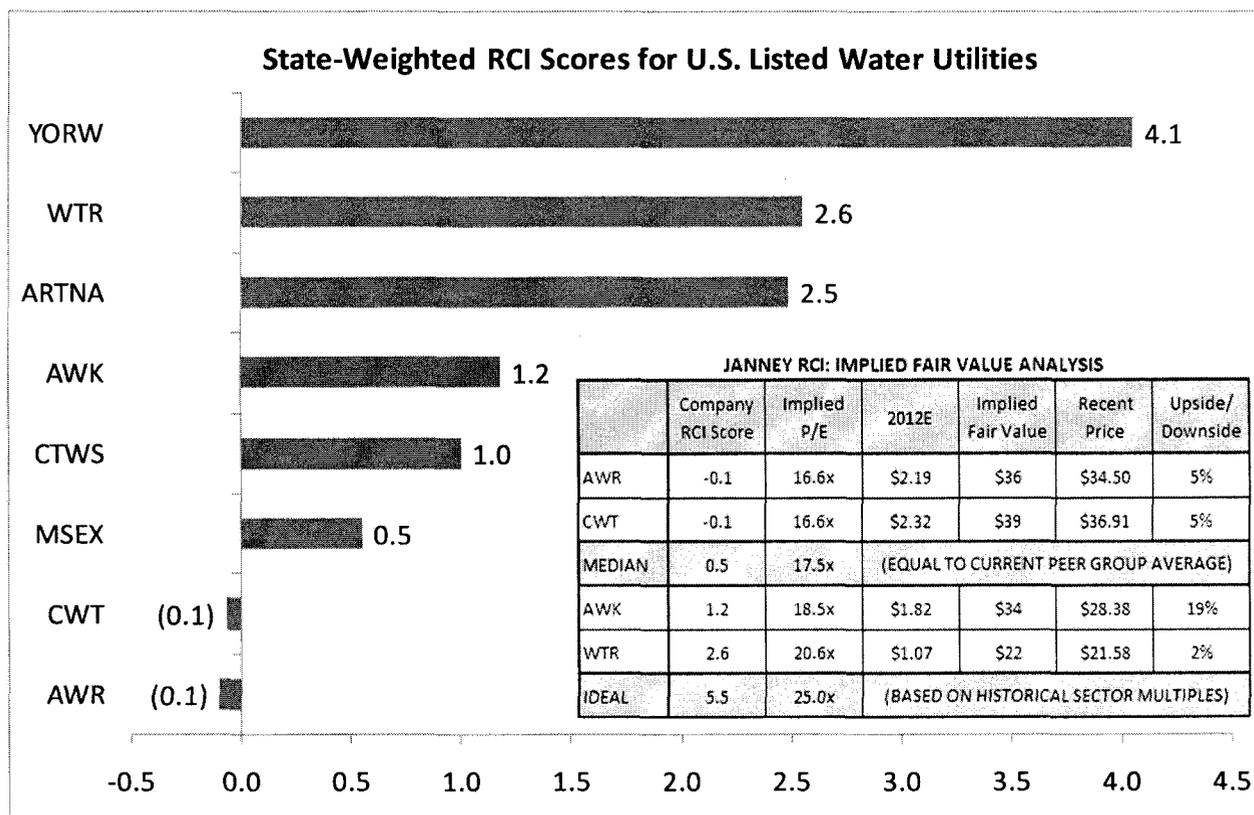
Connecticut: WICA Changes the Game (#7 of 16). Long viewed as a challenging place for regulated water utilities to do business, Connecticut's Department of Public Utility Control has been slowly evolving toward a more progressive regulatory approach in recent years. The cornerstone of the state's gradual positive trajectory was the adoption of an infrastructure surcharge mechanism, dubbed the Water Infrastructure and Conservation Charge (aka "WICA"), implemented in 2007. While granted returns on equity remain sub-par (Connecticut Water's latest granted ROE was 9.75%), the WICA closes the gap meaningfully between granted and realized returns, and is a significant driver of Connecticut's placing above the median in our RCI rankings. With the WICA and other regulatory best-practices (single tariff billing, prompt rate case processing) in place, only Connecticut's non-competitive ROEs (CT ranks dead last on this metric) keep the state from moving into the upper echelon of regulatory jurisdictions.

New Jersey: Late-Blooming Up & Comer (#11 of 16). Also viewed historically as a difficult regulatory environment, New Jersey looks likely to follow Connecticut's path of adopting (albeit belatedly) a DSIC-like mechanism. With comment sessions ongoing, we believe the Board of Public Utilities is likely to adopt a surcharge mechanism in the near-term, and that this would be a significant step in the right direction that would make New Jersey much more attractive from a capital allocation perspective. Indeed, given the significant impact of regulatory lag on realized returns in New Jersey and the fact that granted returns on equity are actually quite competitive (recent allowed ROEs have been in the 10.3% range), adoption of a DSIC-like system would (depending on the exact terms) immediately vault New Jersey into the top echelon of water regulatory jurisdictions. Given its prevalence in the industry (AWK, MSEX, and WTR all have significant NJ operations), New Jersey is a key state to watch going forward.

California: Is Decoupling a Good Thing? (#12 of 16). California water utility regulation is a case of good news/bad news, with the CA Public Utility Commission progressive on some key issues (eg. a true future test year) but notably behind the times on others (eg. no DSIC). Ironically, one of the supposed crowning achievements in CA water regulation – so-called “decoupling” – is counterproductive in our view and emblematic of the CPUC getting “too cute” rather than sticking with tried and true best practices with proven results in other states. By allegedly mitigating some of the “risk” associated with operating a water utility business in California, decoupling opens the door to the argument that lower returns are appropriate. In addition, the sheer complexity of the “balancing accounts” used to implement the system has proven a turn-off for investors. Ultimately, we believe the recently revamped CPUC would be well advised to focus on the basics, such as improving ROEs and implementing a DSIC mechanism.

STATES ARE INTERESTING, BUT HOW DO THE COMPANIES STACK UP?

While the Janney RCI is designed as a tool for comparing regulation on a state-by-state basis, the trend in recent years among water utilities has been toward greater geographic diversification. Therefore in order to use the RCI to compare the regulatory mix of individual companies, below assign company-specific RCI scores using a weighted average based on the percentage of regulated revenue each company derives from various states. Not surprisingly, the tails of this analysis are those companies with concentrated exposure to individual regulatory jurisdictions. Of course, this can work out for better or worse depending on which state(s) each company is levered to. York Water (YORW-BUY), for example, is at the head of the class with an RCI score of 4.1 – a product of its being the lone pure-play on top-ranked PA. At the other end of the spectrum, American States Water (AWR) and California Water (CWT) score poorly on this metric, a function of their concentrated exposure to California, whose RCI lies below the median.



Meanwhile, those investor-owned water utilities boasting more diversified state regulatory exposure – most notably BUY-rated American Water Works (serving 20 states) and Neutral-rated Aqua America (serving 12 states) – lie somewhere in between the single-state utility extremes. Aqua America’s heavy footprint in Pennsylvania enables the company to garner a significant edge over American Water Works, which comes as no surprise given that investors historically value WTR shares at a significant premium not only to AWK but also to most others in the peer group. Middlesex Water’s (MSEX-BUY) weighted RCI score looks so-so at best, but we would note that the New Jersey Board of Public Utilities is actively considering a DSIC-like surcharge mechanism, which would provide Middlesex an RCI boost given the company’s heavy exposure to New Jersey (75% of revenue). A NJ DSIC would also accrue to American Water’s benefit given that the company derives more than 20% of regulated revenue from New Jersey.

JANNEY REGULATORY CLIMATE INDICATOR: METHODOLOGY, STATE DETAIL AND LEAGUE TABLE

REG. ELEMENT	GRANTED ROE	TEST YEAR	PROCESSING	DSIC	SINGLE TARIFF		RCI SCORE	RCI RANK
					Yes = +1	No = -1		
RCI PARAMETERS	Sliding Scale 9.5% & Below = -1.5 11% & Above = +1.5	Future = +1 Historical/Updated = 0 Historical = -1	<9 mos. = +1 9-12 mos. = 0 >12 mos./None = -1	Yes = +1 No = -1	Yes = +1 No = -1			
PENNSYLVANIA	1.1	1	0	1	1	1	4.1	1
ILLINOIS	0.5	1	0	1	1	1	3.5	2
DELAWARE	-0.5	0	1	1	1	1	2.5	3
VIRGINIA	0.5	1	1	-1	1	1	2.5	3
OHIO	0.0	0	0	1	1	1	2.0	5
NEW YORK	-0.5	0	0	1	1	1	1.5	6
CONNECTICUT	-1.0	-1	1	1	1	1	1.0	7
INDIANA	-0.5	-1	0	1	1	1	0.5	8
MISSOURI	-0.5	-1	0	1	1	1	0.5	8
KENTUCKY	-0.8	1	0	-1	1	1	0.2	10
CALIFORNIA	-0.1	1	-1	-1	1	1	-0.1	11
NEW JERSEY	-0.1	0	0	-1	1	1	-0.1	11
TEXAS	1.5	-1	-1	-1	1	1	-0.5	13
WEST VIRGINIA	-0.5	-1	0	-1	1	1	-1.5	14
FLORIDA	-0.3	-1	0	-1	-1	-1	-3.4	15
ARIZONA	-1.0	-1	0	-1	-1	-1	-4.0	16

Source: Janney Capital Markets, Company Reports, State Regulatory Agencies

IMPORTANT DISCLOSURES

Research Analyst Certification

I, Ryan M. Connors, the Primarily Responsible Analyst for this research report, hereby certify that all of the views expressed in this research report accurately reflect my personal views about any and all of the subject securities or issuers. No part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views I expressed in this research report.

Janney Montgomery Scott LLC ("JMS") Equity Research Disclosure Legend

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Definition of Ratings

BUY: Janney expects that the subject company will appreciate in value. Additionally, we expect that the subject company will outperform comparable companies within its sector.

NEUTRAL: Janney believes that the subject company is fairly valued and will perform in line with comparable companies within its sector. Investors may add to current positions on short-term weakness and sell on strength as the valuations or fundamentals become more or less attractive.

SELL: Janney expects that the subject company will likely decline in value and will underperform comparable companies within its sector.

Janney Montgomery Scott Ratings Distribution as of March 31, 2011

Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [B]	185	53	15	8
NEUTRAL [N]	160	45	9	6
SELL [S]	8	2	0	0

***Percentages of each rating category where Janney has performed Investment Banking services over the past 12 months.**

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Docket No. W-02500A-10-0382**

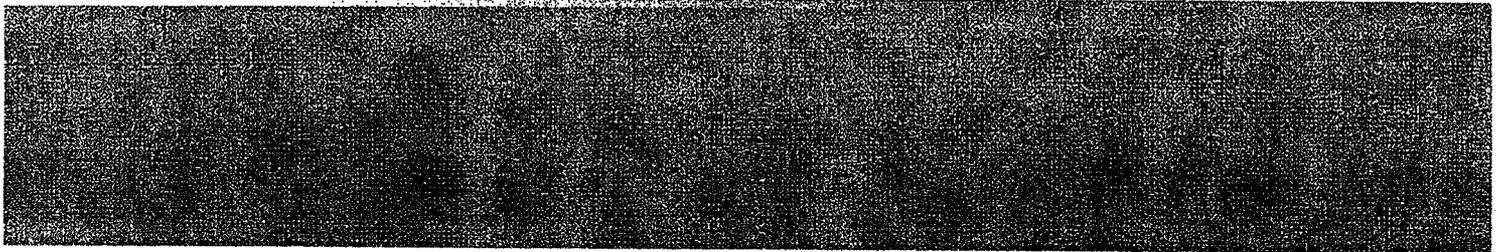
**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF CAPITAL)**

May 2, 2011

EXHIBIT TJB-COC-RB5

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REGULATORY
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Roger A. Morin, PhD



Appendix 4-A

Arithmetic versus Geometric Means in Estimating the Cost of Capital

The use of the arithmetic mean appears counter-intuitive at first glance, because we commonly use the geometric mean return to measure the average annual achieved return over some time period. For example, the long-term performance of a portfolio is frequently assessed using the geometric mean return.

But performance appraisal is one thing, and cost of capital estimation is another matter entirely. In estimating the cost of capital, the goal is to obtain the rate of return that investors expect, that is, a target rate of return. On average, investors expect to achieve their target return. This target expected return is in effect an arithmetic average. The achieved or retrospective return is the geometric average. In statistical parlance, the arithmetic average is the unbiased measure of the expected value of repeated observations of a random variable, not the geometric mean. This appendix formally illustrates that only arithmetic averages can be used as estimates of cost of capital, and that the geometric mean is not an appropriate measure of cost of capital.

The geometric mean answers the question of what constant return you would have had to achieve in each year to have your investment growth match the return achieved by the stock market. The arithmetic mean answers the question of what growth rate is the best estimate of the future amount of money that will be produced by continually reinvesting in the stock market. It is the rate of return which, compounded over multiple periods, gives the mean of the probability distribution of ending wealth.

While the geometric mean is the best estimate of performance over a long period of time, this does not contradict the statement that the arithmetic mean compounded over the number of years that an investment is held provides the best estimate of the ending wealth value of the investment. The reason is that an investment with uncertain returns will have a higher ending wealth value than an investment which simply earns (with certainty) its compound or geometric rate of return every year. In other words, more money, or terminal wealth, is gained by the occurrence of higher than expected returns than is lost by lower than expected returns.

In capital markets, where returns are a probability distribution, the answer that takes account of uncertainty, the arithmetic mean, is the correct one for estimating discount rates and the cost of capital.

While the geometric mean is appropriate when measuring performance over a long time period, it is incorrect when estimating a risk premium to compute the cost of capital.

TABLE 4A-1
GEOMETRIC VS. ARITHMETIC RETURNS

	Stock A	Stock B
1996	50.0%	11.61%
1997	-54.7%	11.61%
1998	98.5%	11.61%
1999	42.2%	11.61%
2000	-32.3%	11.61%
2001	-39.2%	11.61%
2002	153.2%	11.61%
2003	-10.0%	11.61%
2004	38.9%	11.61%
2005	20.0%	11.61%
Standard Deviation	64.9%	0.0%
Arithmetic Mean	26.7%	11.6%
Geometric Mean	11.6%	11.6%

Theory

The geometric mean measures the magnitude of the returns, as the investor starts with one portfolio and ends with another. It does not measure the variability of the journey, as does the arithmetic mean. The geometric mean is backward looking. There is no difference in the geometric mean of two stocks or portfolios, one of which is highly volatile and the other of which is absolutely stable. The arithmetic mean, on the other hand, is forward-looking in that it does impound the volatility of the stocks.

To illustrate, Table 4A-1 shows the historical returns of two stocks, the first one is highly volatile with a standard deviation of returns of 65% while the second one has a zero standard deviation. It makes no sense intuitively that the geometric mean is the correct measure of return, one that implies that both stocks are equally risky since they have the same geometric mean. No rational investor would consider the first stock equally as risky as the second stock. Every financial model to calculate the cost of capital recognizes that investors are risk-averse and avoid risk unless they are adequately compensated for undertaking it. It is more consistent to use the mean that fully impounds risk (arithmetic mean) than the one from which risk has been removed (geometric mean). In short, the arithmetic mean recognizes the uncertainty in the stock market while the geometric mean removes the uncertainty by smoothing over annual differences.

Empirical Evidence

If both the geometric and arithmetic mean returns over the 1926-2004 data are regressed against the standard deviation of returns for the firms in the

deciles, the arithmetic mean outperforms the geometric mean in this statistical regression. Moreover, the constant of arithmetic mean regression matches the average Treasury bond rate and therefore makes economic sense while the constant for the geometric mean matches nothing in particular. This is simply because the geometric mean is stripped of volatility information and, as a result, does a poor job of forecasting returns based on volatility.

The following illustration is frequently invoked in defense of the geometric mean. Suppose that a stock's performance over a two-year period is representative of the probability distribution, doubling in one year ($r_1 = 100\%$) and halving in the next ($r_2 = -50\%$). The stock's price ends up exactly where it started, and the geometric average annual return over the two-year period, r_g , is zero:

$$\begin{aligned} 1 + r_g &= [(1 + r_1)(1 + r_2)]^{1/2} \\ &= [(1 + 1)(1 - .50)]^{1/2} = 1 \\ r_g &= 0 \end{aligned}$$

confirming that a zero year-by-year return would have replicated the total return earned on the stock. The expected annual future rate of return on the stock is not zero, however. It is the arithmetic average of 100% and -50%, $(100 - 50)/2 = 25\%$. There are two equally likely outcomes per dollar invested: either a gain of \$1 when $r = 100\%$ or a loss of \$0.50 when $r = -50\%$. The expected profit is $(\$1 - \$0.50)/2 = \$0.25$ for a 25% expected rate of return. The profit in the good year more than offsets the loss in the bad year, despite the fact that the geometric return is zero. The arithmetic average return thus provides the best guide to expected future returns.

What Academics Have to Say

Bodie, Kane, and Marcus (2005) cite:

Which is the superior measure of investment performance, the arithmetic average or the geometric average? The geometric average has considerable appeal because it represents the constant rate of return we would have needed to earn in each year to match actual performance over some past investment period. It is an excellent measure of *past* performance. However, if our focus is on future performance, then the arithmetic average is the statistic of interest because it is an unbiased estimate of the portfolio's expected future return (assuming, of course, that the expected return does not change over time). In contrast, because the geometric return over a sample period is always less than the arithmetic mean,

it constitutes a downward-biased estimator of the stock's expected return in any future year.

Again, the arithmetic average is the better guide to future performance.

Another way of stating the Bodie, Kane, Marcus argument in favor of the arithmetic mean is that it is the best estimate of the future value of the return distribution because it represents the expected value of the distribution. It is most useful for determining the central tendency of a distribution at a particular time, that is, for cross-sectional analysis. The geometric mean, on the other hand, is best suited for measuring an investment's compound rate of return over time, that is, for time-series analysis. This is the same argument made by Ibbotson Associates (2005) where it is shown, using probability theory, that future terminal wealth is given by compounding the arithmetic mean, and not the geometric mean. In other words, if we accept the past as prologue, the best estimate of a future year's return based on a random distribution of the prior years' returns is the arithmetic average. Statistically, it is our best guess for the holding-period return in a given year.

Brigham and Ehrhardt (2005) in their widely used corporate finance text point out that the arithmetic average is more consistent with CAPM theory, as one of its key underpinning assumptions is that investors are supposed to focus, in their portfolio decisions, upon returns in the next period and the standard deviation of this return. To the extent that this next period is one year, the preference for the arithmetic mean, which derives from a set of single one year period returns, follows. It is also noteworthy that one of the crucial assumptions inherent in the CAPM is that investors are single-period expected utility of terminal wealth maximizers who choose among alternative portfolios on the basis of each portfolio's expected return and standard deviation.

Brealey, Myers, and Allen (2006) in their leading graduate textbook in corporate finance opt strongly for the arithmetic mean. The authors illustrate the distinction between arithmetic and geometric averages and conclude that arithmetic averages are appropriate when estimating the cost of capital:

The proper uses of arithmetic and compound rates of return from past investments are often misunderstood. Therefore, we call a brief time-out for a clarifying example.

Suppose that the price of Big Oil's common stock is \$100. There is an equal chance that at the end of the year the stock will be worth \$90, \$110, or \$130. Therefore, the return could be -10 percent, +10 percent or +30 percent (we assume that Big Oil does not pay a dividend). The expected return is $1/3(-10 + 10 + 30) = +10$ percent.

If we run the process in reverse and discount the expected cash flow by the expected rate of return, we obtain the value of Big Oil's stock:

$$PV = \frac{110}{1.10} = \$100$$

The expected return of 10 percent is therefore the correct rate at which to discount the expected cash flow from Big Oil's stock. It is also the opportunity cost of capital for investments which have the same degree of risk as Big Oil.

Now suppose that we observe the returns on Big Oil stock over a large number of years. If the odds are unchanged, the return will be -10 percent in a third of the years, +10 percent in a further third, and +30 percent in the remaining years. The arithmetic average of these yearly returns is

$$\frac{-10 + 10 + 30}{3} = +10\%$$

Thus the arithmetic average of the returns correctly measures the opportunity cost of capital for investments of similar risk to Big Oil stock.

The average compound annual return on Big Oil stock would be

$$(.9 \times 1.1 \times 1.3)^{1/3} - 1 = .088, \text{ or } 8.8\%$$

less than the opportunity cost of capital. Investors would not be willing to invest in a project that offered an 8.8 percent expected return if they could get an expected return of 10 percent in the capital markets. The net present value of such a project would be

$$NPV = -100 + \frac{108.8}{1.1} = -1.1$$

Moral: If the cost of capital is estimated from historical returns or risk premiums, use arithmetic averages, not compound annual rates of return (geometric averages).

(Richard A. Brealey, Stewart C. Myers, and Paul Allen, *Principles of Corporate Finance*, 8th Edition, Irwin McGraw-Hill, 2006, page 156-7.)

The widely cited Ibbotson Associates publication also contains a detailed and rigorous discussion of the impropriety of using geometric averages in estimating the cost of capital.¹²

¹² Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation, 2005 Yearbook, Valuation Edition*, page 75.

The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. This is because both the CAPM and the building block approach are additive models, in which the cost of capital is the sum of its parts. The geometric average is more appropriate for reporting past performance, since it represents the compound average return.

The argument for using the arithmetic average is quite straightforward. In looking at projected cash flows, the equity risk premium that should be employed is the equity risk premium that is expected to actually be incurred over the future time periods.

The best estimate of the expected value of a variable that has behaved randomly in the past is the average (or arithmetic mean) of its past values.

In their widely publicized research on the market risk premium, Dimson, Marsh and Staunton (2002) state

The arithmetic mean of a sequence of different returns is always larger than the geometric mean. To see this, consider equally likely returns of +25 and -20 percent. Their arithmetic mean is 2½ percent, since $(25 - 20)/2 = 2\frac{1}{2}$. Their geometric mean is zero, since $(1 + 25/100) \times (1 - 20/100) - 1 = 0$. But which mean is the right one for discounting risky expected future cash flows? For forward-looking decisions, the arithmetic mean is the appropriate measure.

To verify that the arithmetic mean is the correct choice, we can use the 2½ percent required return to value the investment we just described. A \$1 stake would offer equal probabilities of receiving back \$1.25 or \$0.80. To value this, we discount the cash flows at the arithmetic mean rate of 2½ percent. The present values are respectively $\$1.25/1.015 = \1.22 and $\$0.80/1.025 = \0.78 , each with equal probability, so the value is $\$1.22 \times \frac{1}{2} + \$0.80 \times \frac{1}{2} = \1.00 . If there were a sequence of equally likely returns of +25 and -20 percent, the geometric mean return will eventually converge on zero. The 2½ percent forward-looking arithmetic mean is required to compensate for the year-to-year volatility of returns.

Lastly, on the practical side, Bruner, Eades, Harris, and Higgins (1998) found that 71% of the texts and tradebooks in their extensive survey of practice supported use of an arithmetic mean for estimation of the cost of equity.

Mean Reversion Argument

Some academics have argued that if stock returns were expected to revert to a trend, this would suggest the use of a geometric mean since the geometric mean is, by definition, an estimate of a smoothed long-run trend increment. These same academics have argued that the historical estimate of the market risk premium (“MRP”) is upward-biased by the buoyant performance of the stock market prior to 2002, and because of the extraordinary and unusually high realized MRPs in those years, investors expect a return to lower MRPs in the future, bringing the average MPR to a more “normal” level.

The presence or absence of mean reversion is an empirical issue. The empirical findings are weak and highly contradictory; the empirical evidence is inconclusive and unconvincing, certainly not enough to support the “mean reversion” hypothesis. The weight of the empirical evidence on this issue is that the more sophisticated tests of mean reversion in the MRP demonstrate that the realized MRP over the last 75 years or so was almost perfectly free of mean reversion, and had no statistically identifiable time trend. It is also noteworthy that most of these studies were performed prior to the stock market’s debacle in 2000–2002, years of extraordinary and unusually low realized MRPs. The stock market’s dismal performance of 2000–2002 has certainly taken the wind out of the mean reversion school’s sails.

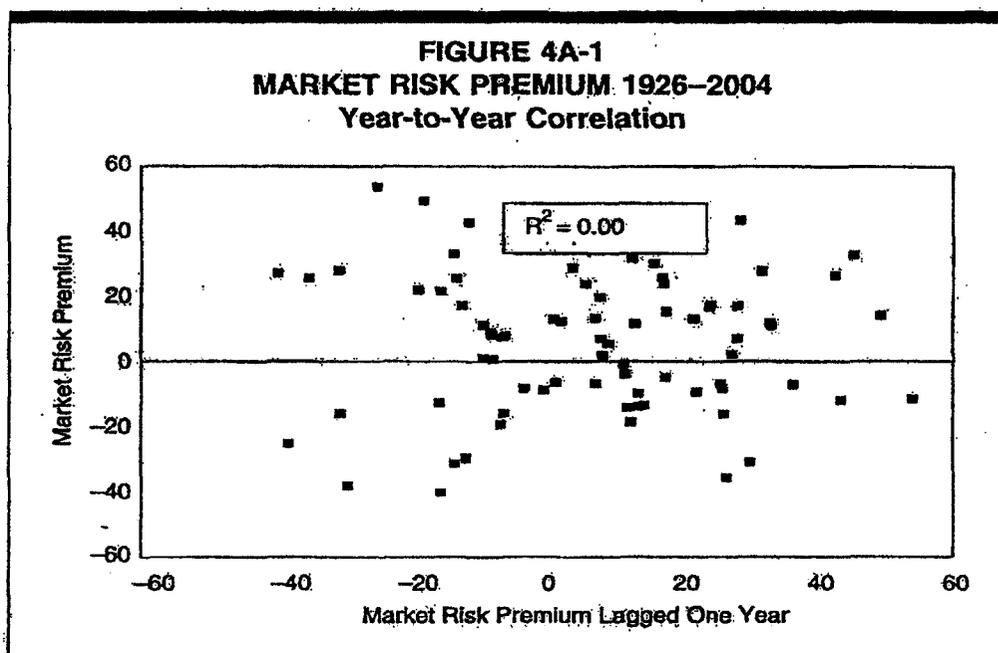
An examination of historical MRPs reveals that the MRP is random with no observable pattern. To the extent that the estimated historical equity risk premium follows what is known in statistics as a random walk, one should expect the equity risk premium to remain at its historical mean. Therefore, the best estimate of the future risk premium is the historical mean.

Ibbotson Associates (2005) find no evidence that the market price of risk or the amount of risk in common stocks has changed over time:

Our own empirical evidence suggests that the yearly difference between the stock market total return and the U.S. Treasury bond income return in any particular year is random . . . there is no discernable pattern in the realized equity risk premium. (Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation, 2005 Yearbook, Valuation Edition*, pages 74–75)

In statistical parlance, there is no significant serial correlation in successive annual market risk premiums, that is, no trend. Ibbotson Associates go on to state that it is reasonable to assume that these quantities will remain stable in the future (*Id.*):

The best estimate of the expected value of a variable that has behaved randomly in the past is the average (or arithmetic mean)



of its past values. (Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation, 2004 Yearbook, Valuation Edition*, page 75)

Nowhere is it suggested by Ibbotson Associates that the market risk premium has declined over time.

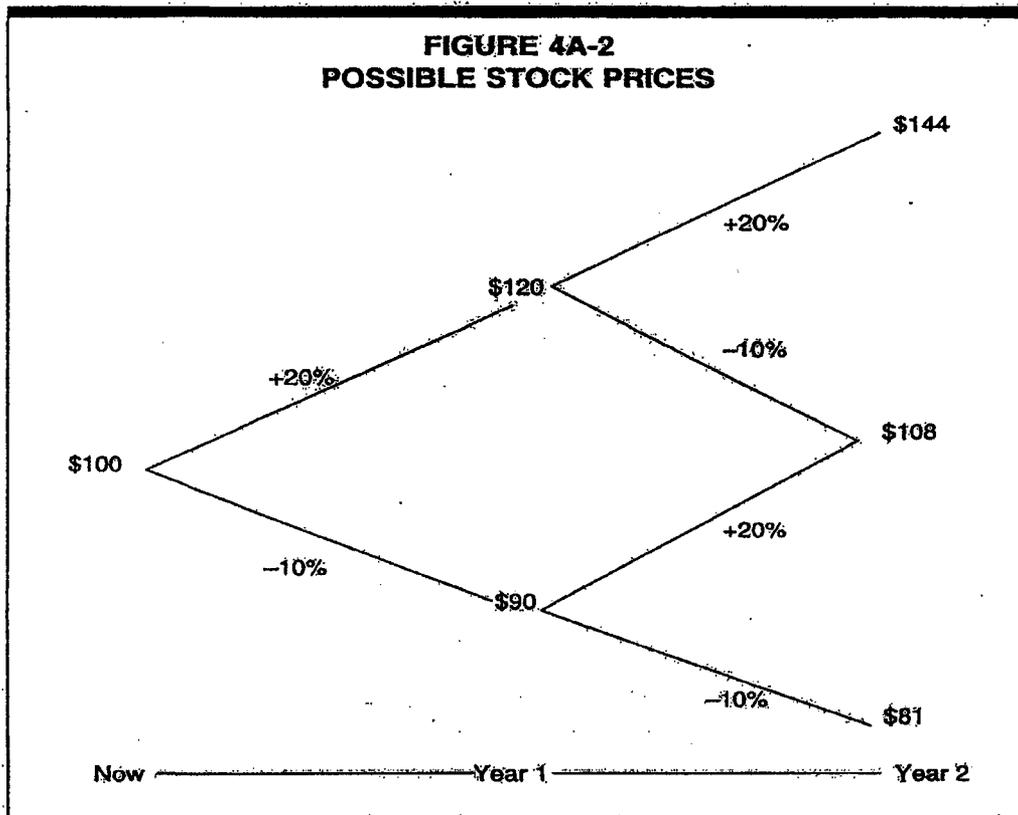
Because there is little evidence that the MRP has changed over time, it is reasonable to assume that these quantities will remain stable in the future. Figure 4A-1 shows the relationship, or the lack of relationship, between year-to-year MRPs reported in the Ibbotson Associates Valuation Yearbook, 2005 edition, for the 1926-2004 period. The relationship is virtually absent, as indicated by the low R^2 of zero between successive MRPs. In other words, there is no history in successive MRPs as indicated by the zero serial correlation coefficient.

In short, the determination of the cost of capital with the CAPM requires an unbiased estimate of the expected annual return. The expected arithmetic return provides the appropriate measure for this purpose.

Formal Demonstration

This section shows why arithmetic rather than geometric means should be used for forecasting, discounting, and estimating the cost of capital.¹³ By

¹³ This section is adapted from a similar treatments and demonstration in Brealey, Myers, and Allen (2006) and Ibbotson Associates (2005).



definition, the cost of equity capital is the annual discount rate that equates the discounted value of expected future cash flows (from dividends and the sale of the stock at the end of the investor's investment horizon) to the current market price of a share in the firm. The discount rate that equates the discounted value of future expected dividends and the end of period expected stock price to the current stock price is a prospective arithmetic, rather than a prospective geometric, mean rate of return. Since future dividends and stock prices cannot be predicted with certainty, the "expected" annual rate of return that investors require is an average "target" percentage rate around which the actual, year-by-year returns will vary. This target rate is, in effect, an arithmetic average.

A numerical illustration will clarify this important point. Consider a non-dividend paying stock trading for \$100 which has, in every year, an equal chance of appreciating by 20% or declining by 10%. Thus, after one year, there is an equal chance that the stock's price will be \$120 and an equal chance the price will be \$90. Figure 4A-2 presents all possible eventualities after two periods have elapsed (the rates of return are presented at the end of the lines in the diagram).

The possible stock prices are shown in the following table.

TABLE 4A-2
STOCK PRICES AFTER TWO PERIODS

Price	Chance
\$144	1 chance in 4
\$108	2 chances in 4
\$ 81	1 chance in 4

The expected future stock price after two periods is then:

$$1/4 (\$144) + 2/4 (\$108) + 1/4 (\$81) = \$110.25$$

The cost of equity capital is calculated as the discount rate that equates the present value of the future expected cash flows to the current stock price. In the present simple example, the only cash flow is the gain from selling the stock after two periods have elapsed. Thus, using the expected stock price of \$110.25 calculated above, the expected rate of return is that r , which solves the following equation:

$$\text{Current Stock Price} = \frac{\text{Expected Stock Price}}{(1 + r)^2}$$

The factor $(1 + r)^2$ discounts the expected stock price to the present. Substituting the numerical values, we have:

$$\begin{aligned} \$100 &= \frac{\$110.25}{(1 + r)^2} \\ r &= 5\% \end{aligned}$$

Thus, the cost of equity capital is 5%. This 5% cost of equity capital is equal to the prospective arithmetic mean rate of return, which is the probability-weighted average single period rate of return on equity. Since in every period there is an equal chance that the stock's return will be 20% or -10%, the probability-weighted average is:

$$1/2 (20\%) + 1/2 (-10\%) = 5\%$$

However, the 5% cost of equity capital is not equal to the prospective geometric mean rate of return, which is a probability-weighted average of the possible compounded rates of return over the two periods. Now consider the prospective geometric mean rate of return. Table 4A-3 shows the possible compounded rates of return over two periods, and the probability of each.

Thus, the prospective geometric mean rate of return is:

$$1/4 (20\%) + 2/4 (3.92\%) + 1/4 (-10\%) = 4.46\%$$

Price	Chance	Compounded Return
\$144	1 chance in 4	20.00%
\$108	2 chances in 4	3.92%
\$ 81	1 chance in 4	-10.00%

This return is not equal to the 5% cost of equity capital.

The example can easily be extended to include the case of a dividend-paying company and will reach the same conclusion: the implied discount rate calculated in the DCF model is an expected arithmetic rather than an expected geometric mean rate of return.

The foregoing analysis shows that it is erroneous to use a prospective multi-year geometric mean rate of return as a "target" rate of return for each year of the period. If, for example, investors currently require an expected future rate of return on an investment of 13% each year, then 13% is the appropriate annual rate of return on equity for ratemaking purposes. Consequently, in using a risk premium approach for the purposes of rate of return regulation, the single-year annual required rate of return should be estimated using arithmetic mean risk premiums.

It should be pointed out that the use of the arithmetic mean does not imply an investment holding period of one year. Rather, it is premised on the uncertainty with respect to each year's return during the holding period, however many years that may be. When computing the arithmetic average of historic annual returns in order to calculate the average return (expected value of the return), every achieved return outcome is one possible future outcome for each year the security will be held. Each historic return has an equal probability of occurring during each year of the holding period. The resulting expected value of the risk premium is the arithmetic average of all of the past premiums considered, regardless of the length of the expected holding period.

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF CAPITAL)**

May 2, 2011

EXHIBIT TJB-COC-RB6

**Goodman Water Company
Comparison of Total Capitalization and Return \$ Impact on Revenue Requirement**

<u>Total Capitalization</u>	<u>Proxy Group Average Percentage</u>	<u>Cost</u>	<u>Weighted Cost</u>	<u>Goodman Water Company</u>	<u>Cost</u>	<u>Weighted Cost</u>
[1] Refundable Advances for Construction (AIAC)	8.78%	0.0%	0.0%	43.07%	0.0%	0.0%
[2] Contributions-in-aid of Construction (CIAC)	13.79%	0.0%	0.0%	0.00%	0.0%	0.0%
[2] Debt	38.82%	5.7%	2.2%	10.39%	8.5%	0.9%
[3] Equity (Common and Preferred)	38.60%	10.1%	3.9%	46.53%	10.2%	4.7%
[4] Totals	<u>100.00%</u>		<u>6.12%</u>	<u>100.00%</u>		<u>5.63%</u>
 <u>Capital Structure</u>						
[5] Debt ¹	50.2%	5.7%	2.9%	23.1%	8.5%	2.0%
[6] Equity ²	49.8%	10.1%	5.0%	76.9%	10.2%	7.8%
[7] Totals	<u>100.0%</u>		<u>7.9%</u>	<u>100.0%</u>		<u>9.8%</u>
 <u>Rate Base (per \$100 of capitalization)</u>						
[8] Net Plant-in-service	\$ 100.00			Goodman Water Company		
[9] AIAC	(8.78)			\$ 100.00		
[10] CIAC	\$ (13.79)			(43.07)		
[11] Implied Rate Base (per \$100) ³	\$ 77.43			\$ -		
[12] WACC	7.9%			\$ 56.93		
[13] Required Return [12] x [11]	\$ 6.12			9.8%		
[14] Tax Factor ⁴	1.6207			\$ 5.58		
[15] Total \$ Impact [13] x [14]	\$ 9.92			1.6103		
				\$ 8.99		

	American States Water		Aqua America		California		Connecticut		Middlesex		SJV		Proxy Group Averages		Goodman Water	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
Refundable Advances for Construction (AIAC)	\$ 78,325	9.2%	\$ 66,966	2.1%	\$ 186,899	15.1%	\$ 36,719	11.5%	\$ 21,621	5.6%	\$ 68,352	9.2%	\$ 8,778	8.78%	\$ 2,101	-
Contributions-in-aid of Construction (CIAC)	\$ 95,460	11.2%	\$ 444,107	13.7%	\$ 136,356	11.0%	\$ 55,761	17.5%	\$ 49,698	12.9%	\$ 121,803	16.4%	\$ 13,799	13.79%	\$ -	-
Debt	\$ 299,839	35.2%	\$ 1,560,389	48.1%	\$ 481,561	38.8%	\$ 111,675	35.1%	\$ 138,286	35.8%	\$ 295,704	39.9%	\$ 38,826	38.82%	\$ 507	507
Equity	\$ 377,541	44.4%	\$ 1,174,254	36.2%	\$ 435,526	35.1%	\$ 113,963	35.8%	\$ 176,646	45.7%	\$ 255,032	34.4%	\$ 38,606	38.60%	\$ 2,270	2,270
Total	\$ 851,165	100.0%	\$ 3,245,716	100.0%	\$ 1,240,342	100.0%	\$ 318,118	100.0%	\$ 386,251	100.0%	\$ 740,891	100.0%	\$ 100,000	100.00%	\$ 4,878	4,878
Debt	\$ 299,839	44.3%	\$ 1,560,389	57.1%	\$ 481,561	52.5%	\$ 111,675	49.5%	\$ 138,286	43.9%	\$ 295,704	53.7%	\$ 50,155	50.15%	\$ 507	507
Equity	\$ 377,541	55.7%	\$ 1,174,254	42.9%	\$ 435,526	47.5%	\$ 113,963	50.5%	\$ 176,646	56.1%	\$ 255,032	46.3%	\$ 49,855	49.85%	\$ 2,270	2,270
Total	\$ 677,380	100.0%	\$ 2,734,643	100.0%	\$ 917,087	100.0%	\$ 225,638	100.0%	\$ 314,932	100.0%	\$ 550,736	100.0%	\$ 100,000	100.00%	\$ 2,777	2,777

Source: 2010 10K

**Goodman Water Company
Docket No. W-02500A-10-0382**

**THOMAS J. BOURASSA
REBUTTAL TESTIMONY
(COST OF CAPITAL)**

May 2, 2011

SCHEDULES

**Goodman Water Company
Summary of Results**

**Exhibit
Schedule D-4.1**

Line No.	<u>Method</u>	<u>Low</u>	<u>High</u>	<u>Midpoint</u>
1				
2				
3				
4				
5				
6	Range DCF Constant Growth Estimates ¹	8.7%	9.5%	9.1%
7				
8	Range of CAPM Estimates ²	10.2%	13.4%	11.8%
9				
10				
11	Average of DCF and CAPM midpoint estimates	9.4%	11.4%	10.4%
12				
13				
14	Financial Risk Adjustment ³	-0.7%	-0.7%	-0.7%
15				
16	Small Company Risk Premium ⁴	1.0%	1.0%	1.0%
17				
18	Indicated Cost of Equity	9.7%	11.7%	10.7%
19				
20				
21				
22	Recommended Cost of Equity			10.2%
23				
24				
25				

¹ See Schedule D-4-8

² See Schedule D-4.12

³ See Schedule D-4.16

⁴ See testimony.

Goodman Water Company
Selected Characteristics of Sample Group of Water Utilities

Exhibit
Schedule D-4.2

Line No.	Company ¹	% Water Revenues	Operating Revenues (millions)	Net Plant (millions)	S&P Bond Rating	Moody's Bond Rating	Allowed ROE
1	1. American States	73%	\$ 400.8	\$ 855.0	A+	A2	10.20
2	2. Aqua America	98%	\$ 726.1	\$ 3,469.3	AA-	NR	10.33
3	3. California Water	94%	\$ 460.4	\$ 1,270.2	AA-	NR	10.20
4	4. Connecticut Water	99%	\$ 68.1	\$ 344.2	A	NR	9.75
5	5. Middlesex	90%	\$ 102.7	\$ 398.7	A	NR	10.15
6	6. SJW Corp.	96%	\$ 215.6	\$ 692.4	A	NR	10.20
10	Average	92%	\$ 329.0	\$ 1,171.6			10.14
13	Goodman Water Company	100%	\$ 0.6	\$ 4.7	NR	NR	
14	(as of December 31, 2009)						

¹AUS Utility Reports (April 2011).

Line No. 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

**Goodman Water Company
Capital Structures**

**Exhibit
Schedule D-4.3**

No.	Company	Book Value ¹		Market Value ¹	
		Long-Term <u>Debt</u>	Common <u>Equity</u>	Long-Term <u>Debt</u>	Common <u>Equity</u>
1	1. American States	45.5%	54.5%	32.0%	68.0%
2	2. Aqua America	56.6%	43.4%	33.7%	66.3%
3	3. California Water	52.4%	47.6%	38.5%	61.5%
4	4. Connecticut Water	49.6%	50.4%	33.7%	66.3%
5	5. Middlesex	43.5%	56.5%	31.7%	68.3%
6	6. SJW Corp.	53.6%	46.4%	40.9%	59.1%
7	Average	50.2%	49.8%	35.1%	64.9%
8	Goodman Water Company	18.3%	81.7%	N/A	N/A
9	(Adjusted as of December 31, 2009)				

¹ Value Line Analyzer Data (April 21, 2011)

² Adjusted Per Schedule D-1

No. 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

Goodman Water Company
Comparisons of Past and Future Estimates of Growth

Exhibit
Schedule D-4.4

Line No.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
1							
2							
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29							

Five-year historical average annual changes

Company	Price ¹	Book Value ²	EPS ²	DPS ²	Average Col 1-4	Average Future Growth ³	Average of Future and Historical Growth Col 5-6
1. American States	4.19%	5.00%	8.50%	2.50%	5.05%	7.00%	6.02%
2. Aqua America	NMF	7.00%	4.50%	8.00%	6.50%	7.44%	6.97%
3. California Water	1.41%	5.50%	6.50%	1.00%	3.60%	5.25%	4.43%
4. Connecticut Water	5.97%	3.00%	1.50%	1.50%	2.99%	3.50%	3.25%
5. Middlesex	4.69%	5.50%	4.50%	1.50%	4.05%	3.00%	3.52%
6. SJW Corp.	1.57%	6.50%	NM	5.50%	4.52%	9.67%	7.09%
GROUP AVERAGE	3.56%	5.42%	5.10%	3.33%	4.45%	5.98%	5.21%
GROUP MEDIAN	4.19%	5.50%	4.50%	2.00%	4.28%	6.13%	5.22%

¹ Average of changes in annual stock prices ending on December 31 through 2010. Data from Yahoo Finance website.

² Value Line Analyzer Data, April 21, 2011

³ See Schedule D-4.6.

Goodman Water Company
Comparisons of Past and Future Estimates of Growth

Line No.	[1]	[2]	[3]	[4]	[5]	[6]	[7]
	<u>Ten-year historical average annual changes</u>						
	<u>Company</u>	Price ¹	Book Value ²	EPS ²	DPS ²	Average Col 1-4	Average Future Growth ³
1	1. American States	5.75%	4.50%	4.00%	1.50%	3.94%	7.00%
2	2. Aqua America	6.93%	9.00%	6.50%	7.50%	7.48%	7.44%
3	3. California Water	5.91%	4.50%	3.00%	1.00%	3.60%	5.25%
4	4. Connecticut Water	5.69%	4.00%	1.00%	1.50%	3.05%	3.50%
5	5. Middlesex	4.50%	4.50%	2.50%	2.00%	3.37%	3.00%
6	6. SJW Corp.	4.37%	6.00%	2.00%	5.00%	4.34%	9.67%
7							
8							
9							
10							
11							
12							
13							
14							
15	GROUP AVERAGE	5.52%	5.42%	3.17%	3.08%	4.30%	5.98%
16	GROUP MEDIAN	5.72%	4.50%	2.75%	1.75%	3.77%	6.13%
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

¹ Average of changes in annual stock prices ending December 31, 2010. Data from Yahoo Finance website.

² Value Line Analyzer Data, April 21, 2011

³ See Rejoinder Schedule D-4.6.

Goodman Water Company **Exhibit**
Analysts Forecasts of Earnings Per Share Growth **Schedule D-4.6**

Line No.	[1]	[2]	[3]	[4]	[5]
	ESTIMATES OF EARNINGS GROWTH				
	<u>Company</u>	<u>Zacks¹</u>	<u>Morningstar¹</u>	<u>Yahoo¹</u>	<u>Value Line¹</u>
1	1. American States	11.00%	4.00%	6.00%	7.00%
2	2. Aqua America	6.50%	7.50%	6.75%	9.00%
3	3. California Water		4.00%	8.25%	3.50%
4	4. Connecticut Water	4.00%	3.00%	3.00%	4.00%
5	5. Middlesex	3.00%	3.00%	3.00%	3.00%
6	6. SJW Corp.		9.00%	14.00%	6.00%
7					Average Growth (G) (Cols 1-4) ²
8					7.00%
9					7.44%
10					5.25%
11					3.50%
12					3.00%
13					9.67%
14					
15		6.13%	5.08%	6.83%	5.42%
16		GROUP AVERAGE			
17		GROUP MEDIAN			
18					5.98%
19					6.13%

¹ Data as of April 21, 2011

² Where no data available or single estimate, average of other utilities assumed to estimate for utility.

Line No. 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

Goodman Water Company
Current Dividend Yields for Water Utility Sample Group

Exhibit
Schedule D-4.7

Line No.	Company	Current Stock Price (P ₀) ¹	Current Dividend (D ₀) ¹	Current Dividend Yield (D ₀ /P ₀) ¹	Average Annual Dividend Yield (D ₀ /P ₀) ^{1,2}
1	1. American States	\$ 34.39	\$ 1.08	3.14%	2.94%
2	2. Aqua America	\$ 21.82	\$ 0.63	2.89%	3.09%
3	3. California Water	\$ 36.73	\$ 1.23	3.35%	3.07%
4	4. Connecticut Water	\$ 25.27	\$ 0.94	3.70%	4.11%
5	5. Middlesex	\$ 18.50	\$ 0.73	3.95%	4.71%
6	6. SJW Corp.	\$ 22.96	\$ 0.69	3.01%	2.84%
7					
8					
9					
10					
11					
12					
13	Average			3.34%	3.46%
14	Median			3.24%	3.08%
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

¹ Value Line Analyzer Data. Stock prices as of April 21, 2011.

² Average Annual Dividend is dividends declared per share for a year divided by the average annual price of the stock in the same year, expressed as a percentage. For comparison purposes only.

Goodman Water Company
Discounted Cash Flow Analysis
DCF Constant Growth

Exhibit
Schedule D-4.8

Line No.	[1] Average Spot Dividend Yield (D_0/P_0) ¹	[2] Expected Dividend Yield (D_1/P_0) ²	[3] Growth (g)	[4] Indicated Cost of Equity $k=Div Yld + g$ (Cols 2+3)
8	DCF - Past and Future Growth	3.34%	5.21%	8.7%
10	DCF - Future Growth	3.34%	5.98%	9.5%
13	Average	3.34%	5.59%	9.1%

¹ Spot Dividend Yield = D_0/P_0 . See Schedule D-4.7.

² Expected Dividend Yield = $D_1/P_0 = D_0/P_0 * (1+g)$.

³ Growth rate (g). Average of Past and Future Growth. See Schedule D-4.4, column 7

⁴ Growth rate (g). Average of Analyst Estimates Future Growth. See Schedule D-4.6.

**Goodman Water Company
Market Betas**

**Exhibit
Schedule D-4.9**

<u>Line No.</u>	<u>Company</u>	<u>Beta (β)¹</u>
1	American States	0.75
2	Aqua America	0.65
3	California Water	0.70
4	Connecticut Water	0.80
5	Middlesex	0.75
6	SJW Corp.	0.90
7		
8		
9	Average	0.76
10		
11		
12		
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18		
19		
20		

¹ Value Line Investment Analyzer data (April 21, 2011)

Note: Beta is a relative measure of the historical sensitivity of a stock's price to overall fluctuations in the New York Stock Exchange Composite Index. A Beta of 1.50 indicates a stock tends to rise (or fall) 50% more than the New York Stock Exchange Composite Index. The "Beta coefficient" is derived from a regression analysis of the relationship between weekly percent-age changes in the price of a stock and weekly percentage changes in the NYSE Index over a period of five years. In the case of shorter price histories, a smaller time period is used, but two years is the minimum. The Betas are adjusted for their long-term tendency to converge toward 1.00.

Goodman Water Company
Forecasts of Long-Term Interest Rates
2011-2012

Exhibit
Schedule D-4.10

Line No.	Description	<u>2012</u>	<u>2013</u>	<u>Average</u>
1				
2				
3				
4				
5				
6	Blue Chip Consensus Forecasts ¹	4.9%	5.2%	5.1%
7				
8	Value Line ²	4.9%	5.2%	5.1%
9				
10	Average			5.1%
11				
12				
13				
14				

¹ Dec 2010 Blue Chip Financial Forecasts consensus forecast of 30 Year U.S. Treasury

² Value Line Quarterly forecast, dated February 25, 2011, Long-term Treasury

Line No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Exhibit
Schedule D-4.11

Goodman Water Company
Computation of Current Market Risk Premium

Line No.	Month	Dividend Yield (D_t/P_{t-1}) ¹	Expected Dividend Yield (D_t/P_{t-1}) ²	+ Growth (g) ³	= Expected Market Return (k)	- Treasury Rate ⁴	= Monthly Average 30 Year	Market Risk Premium (MRP)
4	Dec 2009	2.56%	2.88%	+ 12.58%	= 15.46%	- 4.35%	=	11.11%
5	Jan 2010	2.64%	3.00%	+ 13.71%	= 16.71%	- 4.48%	=	12.23%
6	Feb	2.59%	2.97%	+ 14.65%	= 17.62%	- 4.48%	=	13.14%
7	Mar	2.44%	2.75%	+ 12.69%	= 15.44%	- 4.48%	=	10.96%
8	April	2.36%	2.63%	+ 11.61%	= 14.24%	- 4.69%	=	9.55%
9	May	2.61%	3.00%	+ 14.80%	= 17.80%	- 4.29%	=	13.51%
10	June	2.79%	3.30%	+ 18.20%	= 21.50%	- 4.13%	=	17.37%
11	July	2.61%	3.03%	+ 15.95%	= 18.98%	- 3.99%	=	14.99%
12	Aug	2.65%	3.10%	+ 16.83%	= 19.93%	- 3.80%	=	16.13%
13	Sept	2.55%	2.93%	+ 15.01%	= 17.94%	- 3.77%	=	14.17%
14	Oct	2.49%	2.85%	+ 14.31%	= 17.16%	- 3.87%	=	13.29%
15	Nov	2.43%	2.74%	+ 12.89%	= 15.63%	- 4.19%	=	11.44%
16	Dec 2010	2.37%	2.65%	+ 11.61%	= 14.26%	- 4.42%	=	9.84%
17	Jan 2011	2.34%	2.60%	+ 11.10%	= 13.70%	- 4.52%	=	9.18%
18	Feb	2.41%	2.73%	+ 13.16%	= 15.89%	- 4.65%	=	11.24%
19	Mar	2.35%	2.64%	+ 12.33%	= 14.97%	- 4.51%	=	10.46%
21	Recommended	2.37%	2.66%	+ 12.20%	= 14.85%	- 4.56%	=	10.91%
23	Short-term Trends							
24	Recent Twelve Months Avg	2.50%	2.85%	+ 13.98%	= 16.83%	- 4.24%	=	12.60%
25	Recent Nine Months Avg	2.47%	2.81%	+ 13.69%	= 16.49%	- 4.19%	=	12.30%
26	Recent Six Months Avg	2.40%	2.70%	+ 12.57%	= 15.27%	- 4.36%	=	10.91%
27	Recent Three Months Avg	2.37%	2.66%	+ 12.20%	= 14.85%	- 4.56%	=	10.29%

¹ Average Current Dividend Yield (D_t/P_{t-1}) of dividend paying stocks. Data from Value Line Investment Analyzer Software Data - Value Line 1700 Stocks

² Expected Dividend Yield (D_t/P_{t-1}) equals average current dividend yield (D_0/P_0) times one plus growth rate(g).

³ Average 3-5 year price appreciation (annualized). Data from Value Line Investment Analyzer Software Data - Value Line 1700 Stocks

⁴ Monthly average 30 year U.S. Treasury. Federal Reserve.

Line

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**Goodman Water Company
Capital Asset Pricing Model (CAPM)**

**Exhibit
Schedule D-4.12**

Line No.						
1	Rf ¹	+	beta ³	x	Rp	= k
2						
3	Historical Market Risk Premium CAPM	+	0.76	x	6.7% ⁴	= 10.2%
4						
5	Current Market Risk Premium CAPM	+	0.76	x	10.9% ⁵	= 13.4%
6						
7	Average					11.8%
8						
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10						
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¹ Forecasts of long-term treasury yields. See Schedule D-4.10.

² Value Line Investment Analyzer data. See Schedule D-4.9.

³ Historical Market Risk Premium from (Rp) MorningStar SBB1 2011 Valuation Yearbook Table A-1 Long-Horizon ERP 1926-2010

⁴ Computed using DCF constant growth method to determine current market return on Value Line 1700 stocks and CAPM with beta of 1.0 to compute Current Market Risk Premium (Rp). See Schedule D-4.11.

Goodman Water Company
Financial Risk Computation

Exhibit
Schedule D-4.13

Line No.									
1	<u>CAPM</u>								
2		Rf	+	β	x	(Rp)	=	k	
3	Historical Market Risk Premium	5.1%	+	0.76	x	6.7%	=	10.2%	
4	Current Market Risk Premium	5.1%	+	0.76	x	10.9%	=	13.4%	
5									
6	Average								11.8%
7									
8									
9	<u>CAPM Relevered Beta</u>								
10		Rf	+	β	x	(Rp)	=	k	
11	Historical Market Risk Premium	5.1%	+	0.68	x	6.7%	=	9.7%	
12	Current Market Risk Premium	5.1%	+	0.68	x	10.9%	=	12.5%	
13									
14	Average								11.1%
15									
16	Financial Risk Adjustment								<u>-0.7%</u>
17									

¹ Forecast of long-term treasury yields. See Schedule D-4.10

² Value Line Investment Analyzer data. See Schedule D-4.9

³ Historical Market Risk Premium from (Rp) MorningStar S&P 500 2011 Valuation Yearbook Table A-1 Long-Horizon ERP 1926-2010

⁴ Computed using DCF constant growth method to determine current market return on Value Line 1700 stocks and CAPM with beta of 1.0 to compute Current Market Risk Premium (Rp). See Schedule D-4.11

⁵ Relevered beta found on Schedule D-4.15

Goodman Water Company
Financial Risk Computation
Unlevered Beta

Exhibit
Schedule D-4.14

Line No.	Company	VL Beta β_L^1	Raw Beta $\frac{Raw \beta_L^2}{Raw \beta_U^2}$	Tax Rate t^3	MV Debt $\frac{D^4}{E^4}$	MV Equity $\frac{E^4}{E^4}$	Unlevered Raw Beta β_U^5
1.	American States	0.75	0.63	41.0%	32.0%	68.0%	0.49
2.	Aqua America	0.65	0.48	39.2%	33.7%	66.3%	0.37
3.	California Water	0.70	0.55	39.5%	38.5%	61.5%	0.40
4.	Connecticut Water	0.80	0.70	51.2%	33.7%	66.3%	0.56
5.	Middlesex	0.75	0.63	32.1%	31.7%	68.3%	0.48
6.	SJW Corp.	0.90	0.85	26.9%	40.9%	59.1%	0.56
13	Sample Water Utilities:	0.76	0.64	38.3%	35.1%	64.9%	0.48

¹ Value Line Investment Analyzer data. See Schedule D-4.13
² Value Line uses the historical data of the stock, but assumes that a security's beta moves toward the market average over time. The formula is as follows:
Adjusted beta = $.33 + (.67) * Raw\ beta$
³ Raw Beta = $(VL\ beta - .33) / (.67)$
⁴ Effective tax rates for year ended December 31, 2010.
⁵ See Schedule D-4.3
⁶ Raw $B_U = Raw\ B_L / (1 + (1-t)*D/E)$

Line No. 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

Exhibit
Schedule D-4.15

Goodman Water Company
Financial Risk Computation
Relevered Beta

Line No.	Unlevered Raw Beta β_{UL}^1	MV Book Debt $\frac{BD^2}{EC^2}$	MV Equity Capital $\frac{EC^2}{EC^2}$	Tax Rate t^3	Relevered Raw Beta $\beta_{RL} = \beta_U (1 + (1-t) \frac{BD}{EC})$	Adjusted Relevered Beta $\beta_{BL} = .33 + .67(\text{Raw Beta})$
1	0.48	10.6%	89.4%	37.81%	0.52	0.68
2						
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15						

¹ Unlevered Beta from Schedule D-4.14.

² Capital Structure of Company (Projected).

	BV (in Thousands)	MV (in Thousands)	MV %
Long-term Debt	\$ 507	\$ 507	10.60%
Preferred Stock	-	-	0.0%
Common Stock	\$ 2,270	\$ 4,298	89.4%
Total Capital	\$ 2,777	\$ 4,806	100.0%

(a) Current market-to-book ratio of sample water utilities. See work papers.

³ Current Tax rate based on test year ending 12/31/2009. See Schedule D-1.

Line No. 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

Goodman Water Company
Size Premium¹

Exhibit
Schedule D-4.16

Line No.	Beta(β)	Size Premium	Risk Premium for Small Water Utilities ⁷
1			
2			
3			
4			
5			
6	1.13	1.00%	
7			
8	1.26	1.64%	
9			
10	1.51	3.00%	
11			
12	1.64	4.74%	2.37%
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14			
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19			

Risk Premium for Small Water Utilities

0.99%

Estimated Risk Premium for small water utilities⁶

¹ Data from Table 7-11 of Morningstar, *Ibbotson S&P 500 2011 Valuation Yearbook*.
² Mid-Cap companies includes companies with market capitalization between \$1,779 million and \$6,794 million.
³ Low-Cap companies includes companies with market capitalization between \$478 million and \$1,776 million.
⁴ Micro-Cap companies includes companies with market capitalization less than \$477 million.
⁵ Decile 10 includes companies with market capitalization between \$1.2 million and \$235 million.
⁶ From Table 2, Thomas M. Zepp, "Utility Stocks and the Size Effect Revisited," *The Quarterly Review of Economics and Finance*, 43 (2003), 578-582.
⁷ Computed as the weighted differences between the Decile 10 risk premium and the indicated risk premiums for the sample water utilities as shown below. Excludes risk due to differences in beta.

Market Cap. (Millions)	Class	Size Premium	Difference to Decile 10	Weight	Weighted Size Premium
\$ 636	Low-Cap	1.76%	2.98%	0.1666667	0.50%
\$ 3,011	Mid-Cap	1.10%	3.64%	0.1666667	0.61%
\$ 764	Low-Cap	1.76%	2.98%	0.1666667	0.50%
\$ 220	Decile 10	4.78%	-0.04%	0.1666667	-0.01%
\$ 289	Micro-Cap	3.07%	1.67%	0.1666667	0.28%
\$ 427	Low-Cap	1.76%	2.98%	0.1666667	0.50%
Weighted Size Premium for Small Companies					2.37%

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2 P.O. Box 1448
Tubac, Arizona 85646
3 (520) 398-0411
4 Attorney for Applicant
5

6 **BEFORE THE ARIZONA CORPORATION COMMISSION**
7

8 IN THE MATTER OF THE APPLICATION
9 OF GOODMAN WATER COMPANY, AN
10 ARIZONA CORPORATION, FOR (i) A
11 DETERMINATION OF THE FAIR VALUE
12 OF ITS UTILITY PLANT AND PROPERTY
AND (ii) AN INCREASE IN ITS WATER
RATES AND CHARGES FOR UTILITY
SERVICE BASED THEREON.

DOCKET NO. W-02500A-10-0382

13
14
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18
19 **REBUTTAL TESTIMONY OF**

20 **JAMES A. SHINER**

21
22 **ON BEHALF OF GOODMAN WATER COMPANY**

23 **May 2, 2011**
24
25
26

1 **Q.1 Please state your name, business address and relationship with Goodman**
2 **Water Company (“Company”).**

3 A.1 James A. Shiner. My business address is 6340 N. Campbell Avenue, Suite 278, Tucson,
4 Arizona 85718. I am both President of and a shareholder in the Company.
5

6 **Q.2 Have you prepared a summary of your educational background and your**
7 **professional and business experience?**

8 A.2 Yes. I have attached that summary as Appendix “A” to my Rebuttal Testimony.
9

10 **Q.3 What is the purpose of your Rebuttal Testimony in this proceeding?**

11 A.3 There are several purposes. First, I am appearing as the Company’s policy witness;
12 and, in that capacity, I will be available to address any policy questions which
13 might arise in connection with the Company’s currently pending rate increase
14 request. Second, I will be providing certain background information as to the
15 development history of the Eagle Crest Ranch Subdivision (“Eagle Crest”), and the
16 construction of the Company’s water utility system. Third, I will be testifying on
17 certain issues which have been raised by the Commission’s Staff, RUCO and the
18 Individual Intervenors to the extent that other Company witnesses do not address
19 those issues.
20

21 **Q.4 Who are the other witnesses that will be testifying on behalf of the Company**
22 **in this proceeding?**

23 A.4 As of this point in time, they are as follows: Thomas J. Bourassa, C.P.A.; John
24 Ferenchak, M.A.I.; Michael J. Naifeh, M.A.I., C.R.E. and Mark Taylor, P.E. Their
25 respective prepared Rebuttal Testimony will be filed with the Commission and
26 distributed to the parties concurrent with the filing and distribution of my prepared

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Rebuttal Testimony.

In addition, depending upon the Surrebuttal Testimony that is due to be filed by the other parties to this case on May 31, 2011, it is possible that the Company may add one (1) or more additional witnesses as a part of the prepared Rejoinder Testimony it files on June 10, 2011.

Q.5 Let's begin with the history of the development of Eagle Crest. Who were the entities or persons involved in the decision(s) to create such a community, and how and when did they proceed to create what is now known as Eagle Crest?

A.5 The acreage of which Eagle Crest is comprised previously was a ranch used to raise and train quarter-horse race horses. Alexander Sears and I formed a group of investors known as Goodman Ranch Associations ("GRA") which purchased the property in May 1985. At that time, the property contained a ranch well and small storage tanks, located at what is now referred to as the Company's Water Plant No. 1. Mark Taylor of WestLand Resources, Inc. ("WestLand") discusses the subsequent development of the Company's water facilities at that location in his prepared Rebuttal Testimony.

During the May 1985-2001 time period, GRA devoted its efforts towards obtaining those entitlements necessary to allow development of the acquired acreage as a multiple-phase subdivision. Those included (i) an area plan, (ii) appropriate zoning, (iii) platting for Phase 1 and (iv) improvement plans for Phase 1. In addition, GRA made arrangements for future water, sewer, natural gas and electric utility service to and within Eagle Crest.

Beginning in 2002 and continuing to the present, the development activities relating to Eagle Crest have involved a number of entities. Those have included (i) GRA; (ii) E.C. Development, which was formed to provide finished lots along with

1 D.R. Horton to the homebuilders; (iii) the homebuilders, which included D.R.
2 Horton, Richmond American Homes, and Sombra; and (iv) the various providers
3 of utility services, including the Company.
4

5 **Q.6 What was the nature of Alexander Sears and your involvement with these**
6 **entities?**

7 A.6 Mr. Sears and I were among the investors in GRA.

8 In addition, we formed E.C. Development after we learned that the
9 homebuilding firms preferred to buy finished lots, rather than raw land they would
10 have to entitle plat and build lots on. In that regard, E.C. Development coordinates
11 the provision of those services necessary to convert undeveloped land into finished
12 lots suitable for use by the homebuilding firms in Eagle Crest; and, in this capacity,
13 E.C. Development also acts as a master developer. E.C. Development provided
14 Mr. Sears and me the opportunity to achieve our vision for Eagle Crest Ranch. We
15 did this by utilizing E.C. Development's right of supervision and approval. With
16 those tools we were able to secure improvement upgrades that included enhanced
17 landscaping, a landscaped median on Eagle Crest Ranch Blvd. and decorative
18 fencing. In addition, an expensive and elaborate entry feature sets the tone for the
19 community. Further, when the school site became available, we were able to
20 develop a park with D.R. Horton providing improvements and E.C. Development
21 donating the land. The community also enjoys extensive open space. Our goal
22 was a top end production/semi-custom community utilizing exceptional foothills
23 topography. Generally, the homebuilder will focus on the expedient. By setting
24 Eagle Crest apart, even in today's market, it is a top selling community which
25 never dropped below an average of 3 sales per month and is now averaging 3.8
26 new homes per month. In summary, E.C. Development was critical in developing

1 our quality vision and maintaining high standards. This approach is also consistent
2 with our other communities, in the Metropolitan Tucson area which include
3 Cobblestone, Wilderness Estates II & III at La Reserve, River Heights and Copper
4 Creek.

5 Finally, we each have an ownership interest in the Company.
6

7 **Q.7 Which entity owned the acreage which became the finished lots upon which**
8 **homes were ultimately constructed?**

9 A.7 The ownership of that acreage changed with the passage of time. Initially, GRA
10 sold an increment of acreage to D.R. Horton in connection with the development of
11 Phase 1 at Eagle Crest; and, D.R. Horton oversaw the conversion of that
12 undeveloped land into finished lots upon which it could build homes. However, as
13 previously mentioned, Mr. Sears and I became aware that the homebuilder(s)
14 preferred to not be involved in that stage of development activity which converted
15 raw acreage into finished lots. Thus, we formed E.C. Development to perform that
16 role. In addition, an arrangement was entered into between GRA and E.C.
17 Development under which E.C. Development purchased the remaining
18 undeveloped acreage in Eagle Crest from GRA. Thus, from that point forward,
19 E.C. Development owned the acreage which would ultimately become finished
20 lots; and, it was E.C. Development which sold those finished lots at various points
21 in time to the homebuilders I previously identified.
22

23 **Q.8 You previously indicated that Eagle Crest was developed as a “phased”**
24 **subdivision. Why was the development “phased”?**

25 A.8 Phasing allows for a development plan which incorporates the most logical and
26 cost effective extension of roads and utilities for the land area which is to be

1 developed. In so doing, the developer endeavors to avoid premature construction
2 of infrastructure and the unproductive financial burden such prematureness can
3 occasion. In addition, phasing allows for the developer to endeavor to provide the
4 homebuilder(s) with an uninterrupted supply of finished lots, which can be crucial
5 to the homebuilder(s) success in responding to market demand. In that regard, the
6 decision as to when to begin to develop a new phase in a master-planned
7 subdivision, such as Eagle Crest, is made jointly by the master developer and the
8 homebuilder(s).

9
10 **Q.9 How do the master developer and the homebuilder(s) know how much time**
11 **must be allowed between when the decision is made to develop a new phase**
12 **and when finished lots will be available in that new phase?**

13 A.9 The short answer to your question is that they approximate the time period between
14 the preparation of improvement plans and completion of the necessary
15 infrastructure based on experience. In so doing, they also must allow for a measure
16 of timing uncertainty associated with the relevant regulatory process(es) and plan
17 approval process(es), which involve third parties.

18 In addition, because of the millions (and perhaps tens of millions) of dollars
19 involved in reaching and implementing a decision as to when to commence a new
20 phase of development, there is also a close and continuous interplay between the
21 master developer, the homebuilder(s), the utilities who will be providing services
22 to and within the new phase, and various consultants working with these entities.

23
24 **Q.10 Is that in fact what occurred in connection with the planning, design and**
25 **construction of the water system which serves Eagle Crest?**

26 A.10 That is precisely what occurred. The Company and its professional engineering

1 consultants, WestLand Resources, Inc. ("WestLand") (water system planning and
2 engineering, OPW Engineering (civil engineer and land planner) and Terrmar
3 (construction coordinator) were directly involved in the decision-making process
4 relating to the phasing of Eagle Crest at each phase of development.
5

6 **Q.11 Was the timing of construction of the Company's water system in Eagle Crest**
7 **a result of these phasing decisions?**

8 A.11 Yes. Construction of the water system facilities needed to serve the contemplated
9 finished lots is an integral part of the phased development process. In that regard,
10 both WestLand and the Company played a critical role in determining what
11 facilities would be needed in order to insure in a cost-effective manner the timely
12 provision of adequate and reliable water service to each phase as development
13 progressed. Among the factors we considered were value engineering, anticipated
14 operation and maintenance expense, and projected land use(s) in the area(s) to be
15 served.

16 In addition, the Company also discussed with the homebuilder(s) the
17 assumptions upon which its/their request(s) for additional finished lots were
18 predicated, and the factors which influenced their timelines as to when water
19 service to those finished lots would be needed. Because both Mr. Sears and I had
20 previous experience in the development and marketing of residential subdivisions,
21 we were in a position to independently and critically examine the reasonableness of
22 the homebuilder(s) request(s), and to offer such comment and suggestions we
23 deemed to be appropriate. His focus was from the perspective of E.C.
24 Development, and my focus was from the perspective of the Company.
25

26 **Q.12 What would be examples of the type(s) of information that both the**

1 **homebuilder(s) and Mr. Sears and you would consider in this regard?**

2 A.12 Factors considered in connection with a decision as to whether or not to begin a
3 new phase in Eagle Crest included the following: (i) general economic data and
4 forecasts at both the national and local level; (ii) currently available and
5 foreseeable mortgage rates; (iii) currently available housing inventory in both the
6 general metropolitan Tucson area, and the northwest quadrant of that area in which
7 Eagle Crest is located; (iv) development costs vis-à-vis the homebuilder(s)
8 absorption or rate of home sales ; (v) current and projected cost per finished lot;
9 and (vi) recent and projected timeline(s) for obtaining any permits or approvals
10 required for the new phase then under consideration.

11

12 **Q.13 In that regard, what was the number of finished lots that the homebuilder(s)**
13 **at Eagle Crest requested?**

14 A.13 Typically, they wanted a two (2)-year plus inventory of finished lots. I say “plus,”
15 because the request would consist of a mix of product or lot sizes, ranging in front
16 line measurement(s) from 45' to 60' to 70'.

17

18 **Q.14 What was the timeline between preparation of the plans for improvement to**
19 **completion of the targeted inventory of finished lots?**

20 A.14 On the order of 18 to 24 months.

21

22 **Q.15 Does that mean that the Company had to schedule the design and construction**
23 **of its water facilities needed for the new phase in advance of the target date**
24 **for completion of the finished lots for that phase?**

25 A.15 Yes, to the extent that new water system capacity was needed. On occasion some
26 of the needed well production, storage reservoir and booster station capacity would

1 be available within the Company's then existing "backbone" water system
2 facilities. On other occasions, we would need to construct additional "backbone"
3 capacity to serve the new phase. However, the transmission and distribution
4 facilities needed to serve the new phase were almost always new system additions.

5 In summary, in order to be sure that its water facilities would be in place to
6 provide adequate and reliable water service to the finished lots in question on the
7 timeline agreed to among the homebuilder(s), E.C. Development and the Company,
8 the Company had to commence and conclude construction of its facilities in
9 advance of the targeted completion date for the new increment of finished lots.

10
11 **Q.16 Did the homebuilder(s) possess the ultimate decision-making authority as to**
12 **the nature and sizing of the water utility facilities that would be appropriate to**
13 **serve a given phase within Eagle Crest?**

14 A.16 No. The ultimate decision was made by the Company, although we endeavored to
15 reach a consensus with all affected parties which, at the same time, would not be
16 detrimental to the interests of the Company and its ratepayers.

17
18 **Q.17 What would be an example of where the Company exercised such ultimate**
19 **decision-making authority?**

20 A.17 An excellent example is the upgrade of the pressure booster station at Water Plant
21 No. 4, which D.R. Horton had requested, in order to avoid having to install fire
22 sprinkler systems in new homes of 3,800 square feet or larger. The installation of
23 such systems in homes of that size was a requirement of the Golder Ranch Fire
24 District ("District").

25 The Company and WestLand had originally sized that booster station to
26 provide a fire flow capability of 1,100 gpm, which satisfied the District's fire flow

1 requirement for new homes to be located in the elevation zone to be served by the
2 pressure booster station at Water Plant No. 4. When D.R. Horton decided to
3 construct some larger homes in that area, the District's fire flow requirement for
4 that area was increased to 1,600 gpm, assuming D.R. Horton would not be
5 installing fire sprinkler systems in those larger homes.

6 The Company and WestLand determined that the booster station at Water
7 Plant No. 4 could be modified so as to satisfy the District's 1,600 gpm fire flow
8 requirement. However, inasmuch as the Company believed that it would be
9 inappropriate for the Company and its ratepayers to bear the cost of this upgrade, in
10 order to address a limited purpose need of the homebuilder and a few of its future
11 customers, the Company advised D.R. Horton that the homebuilder would have to
12 bear the full cost of the upgrade. D.R. Horton initially was very upset with this
13 position, which I communicated on behalf of the Company. However, the
14 Company remained firm in its position, and D.R. Horton ultimately bore the cost of
15 the upgrade at Water Plant No. 4.

16
17 **Q.18 Does that mean that the Company is not requesting inclusion in rate base of**
18 **the cost of the upgrade to the booster station at Water Plant No. 4?**

19 A.18 Yes, that is correct.

20
21 **Q.19 Let's turn to another subject. How does the construction of roads within a**
22 **phased subdivision such as Eagle Crest affect the timing of construction of the**
23 **Company's facilities?**

24 A.19 If the Company's facilities are going to be located underground in a public or
25 private right-of-way, which will be paved, then the Company's facilities should be
26 constructed before the paving occurs for two (2) very important reasons.

1 First, the Company's facilities frequently will be sharing that same right-of-
2 way with the underground facilities of other providers of utility services; and, it is
3 important that there be appropriate separation between these various underground
4 facilities. Proper separation can be assured if the various utility facilities are
5 installed before the road is paved.

6 Second, if the Company's facilities were to be installed after the road has
7 been paved, then the cost of construction of the same would be substantially
8 increased because of the need to open up or "cut" the paved road, and thereafter
9 repave the same. Ultimately, the resulting additional costs of this nature would be
10 borne by the Company's ratepayers. In addition, road hazards, diversions and
11 liability concerns are other considerations occasioning the desire to avoid opening
12 up or "cutting" a paved road.

13 Thus, for these two (2) reasons, the Company will construct underground
14 facilities beneath a paved roadway in advance of the date by which they will be
15 needed in order to serve an area adjacent to the paved roadway in question.
16 Finally, in my opinion, this practice is also consistent with the expectation of the
17 governing jurisdiction which would view an under-build with a planned cut a
18 breach of trust.

19
20 **Q.20 Are the transmission facilities identified at pages 5-6 of Exhibit MSJ of the**
21 **March 21, 2011 prepared Direct Testimony of Commission Staff witness Gary**
22 **T. McMurry, under the section heading "Plant Not Used and Useful,"**
23 **examples of underground facilities that the Company constructed at the**
24 **point(s) in time it did for the reasons that you have just described?**

25 A.20 Yes.

1 **Q.21 Do you have any further comment on this subject?**

2 A.21 Yes. Commission Staff witness McMurry has recommended in his March 21, 2011
3 prepared Direct Testimony that certain transmission mains installed by the
4 Company beneath paved roads not be recognized for ratemaking purposes, because
5 they are not currently providing water service to customers located on lots or
6 parcels adjacent to those transmission mains. Those mains were included by the
7 Commission in that rate base established by the Commission in the Company's
8 2005 rate case. So, with respect to these particular transmission mains, it is the
9 Company's position that the Commission's previous decision is "res judicata" as to
10 whether those mains should be recognized for ratemaking purposes.

11

12 **Q.22 Returning to the subject of the timeline for new increments of finished lots,**
13 **and how in turn that influenced the timing of when the Company constructed**
14 **its associated facilities, did you find that the homebuilder(s) estimates as to the**
15 **need for additional finished lots were reasonable?**

16 A.22 Yes, until the latter half of 2008, when the recession began to severely impact both
17 the national and the local housing market. What then occurred was a virtually
18 unprecedented collapse of the housing market in the metropolitan Tucson area.
19 Illustrative of this is the fact that new home sales declined from 8,623 in 2005 to
20 1,778 in 2010; or, a decline of approximately 80% in annual new home sales!

21

22 **Q.23 In your opinion, could a decline of that magnitude in new homes sales have**
23 **been predicted by the homebuilder(s) at Eagle Crest and the Company as of**
24 **that point in time when the decision to construct the Company's Water Plant**
25 **No. 3 was made?**

26 A.23 Absolutely not. New home sales in Eagle Crest had been steadily increasing in the

1 years preceding that decision.

2

3 **Q.24 Was such a precipitous decline foreseeable as of the time the facilities at**
4 **Water Plant No. 3 were actually constructed?**

5 A.24 No.

6

7

8 **Q.25 Before we leave the subject of the Company's water utility plant, let me**
9 **inquire as to the purpose of Mark Taylor's prepared Rebuttal Testimony.**
10 **Why is he being called as a witness by the Company?**

11 A.25 Mark Taylor and his firm, WestLand, have served as the Company's professional
12 engineering consultant from the inception of the Company's water utility system.
13 The Company retained Mr. Taylor because of his many years of experience and his
14 excellent reputation in the field of water utility system planning, engineering and
15 construction. Mr. Taylor and his staff at WestLand prepared the March 15, 2001
16 master water plan for the Company's system to serve Eagle Crest, and they have
17 been intimately involved in the implementation of that plan at all stages up to the
18 present water system configuration.

19 In that regard, his Rebuttal Testimony is being offered to rebut certain
20 contentions and related portions of the prepared Direct Testimony of Commission
21 Staff witness Marlin Scott, Jr., RUCO witness Timothy J. Coley and Individual
22 Intervenor Lawrence Wawrzyniak. Each of these witnesses, in varying ways and
23 degrees, asserts that some portion of the Company's water utility plant is "not used
24 and useful"; and, therefore, such water utility plant should not be accorded
25 ratemaking recognition. The Company believes that Mr. Taylor's prepared
26 Rebuttal Testimony directly addresses and effectively rebuts those parties baseless

1 arguments in this regard.

2

3 **Q.26 In his prepared Rebuttal Testimony, Mr. Taylor appears to acknowledge that**
4 **the storage reservoir at Water Plant No. 3 was designed and constructed to**
5 **provide storage capacity in addition to that amount needed to satisfy the**
6 **current and future requirements of residents at Eagle Crest. Is his statement**
7 **in that regard correct?**

8 A.26 Yes, as is his observation that the Company is not requesting rate base inclusion or
9 ratemaking recognition of that additional storage capacity.

10

11 **Q.27 Please explain how the additional storage reservoir capacity at Water Plant**
12 **No. 3 came to exist, and why the Company is not requesting rate base**
13 **inclusion or ratemaking recognition of the same in this proceeding.**

14 A.27 At the time that the storage reservoir at Water Plant No. 3 was in the design stage,
15 Mr. Sears and I envisioned the Company would also be providing water service to
16 a new subdivision on the west side of Oracle Road, which he and I intended to
17 develop through a separate entity. That subdivision was to be named Eagle Crest
18 West. In fact, the Company had applied for and received approval from the
19 Commission to extend the Company's CC&N to include Eagle Crest West, subject
20 to compliance with certain conditions prescribed by the Commission relating to a
21 Certificate of Assured Water Supply from the Arizona Department of Water
22 Resources and an arrangement for the provision of wastewater service to Eagle
23 Crest West. Accordingly, the final design for the storage reservoir at Water Plant
24 No. 3 included additional storage to serve the projected requirements of Eagle
25 Crest West.

26

Ultimately, however, the Eagle Crest West project did not go forward for a

1 variety of reasons. Given that the Company had borne the cost of the additional
2 storage capacity to serve that project, and the need for storage associated with the
3 same does not exist at the present time, the Company is not seeking rate base
4 inclusion or ratemaking recognition of that portion of the storage reservoir at Water
5 Plant No. 3 in this rate case.

6
7 **Q.28 Did the supporting schedules which accompanied the Company's Application**
8 **in this case inadvertently include the entire cost and capacity of the storage**
9 **reservoir at Water Plant No. 3 as a part of the Company's rate increase**
10 **request?**

11 A.28 Yes. While I believe that the additional 190,000 gallons secured at a cost of
12 \$.38/gallon at Water Plant 3 is a valuable asset, it should not be included in the rate
13 base at this time. From a cost and an environmental perspective it was a correct
14 decision. However, it does not benefit current rate payers. At that time a cost of
15 \$1/gallon for storage was regarded as very reasonable. With the recent jump in
16 steel from \$.40/pound to over \$.60/pound, the decision looks even better. In his
17 prepared Rebuttal Testimony and related schedules, the Company's witness
18 Thomas J. Bourassa will make the changes necessary to correct this error by the
19 Company.

20
21 **Q.29 Let's turn to a somewhat related subject, namely, the value of real estate**
22 **owned by the Company in connection with its water utility operations which**
23 **should be recognized for ratemaking purposes. Why is the Company**
24 **presenting two (2) separate appraisals by two (2) different appraisers as a part**
25 **of its prepared Rebuttal Testimony?**

26 A.29 The valuation of the four (4) real estate parcels in question has become an issue as

1 a result of a portion of the March 21, 2011 prepared Direct Testimony of
2 Commission Staff witness Gary T. McMurry. At page 7, line 18-page 11, line 3 of
3 his prepared Direct Testimony, Mr. McMurry has offered several lines of criticism
4 regarding a June 26, 2008 Appraisal prepared by Michael J. Naifeh, M.A.I.,
5 C.R.E., upon which the Company relied in assigning land values to the four (4) real
6 estate parcels in question in connection with the currently pending rate increase
7 request. In addition, Mr. McMurry has suggested different appraisal years should
8 have been used; and, he has proposed use of 2009 Pinal County Assessor's data, in
9 the absence of an actual appraisal based on land value(s) during the years he
10 recommends for such purpose.

11 Mr. Naifeh's prepared Rebuttal Testimony is intended to address Mr.
12 McMurry's criticisms of Mr. Naifeh's June 26, 2008 Appraisal, and Mr.
13 McMurry's questioning of Mr. Naifeh's impartiality. In addition, Mr. Naifeh also
14 discusses why the use of Pinal County Assessor data, as recommended by Mr.
15 McMurry, is inappropriate for purposes of establishing true market value(s) for real
16 estate. In that regard, the reason Mr. Naifeh used 2008 market value data was
17 because that was the date that the Company actually acquired title to the four (4)
18 parcels in question.

19 Mr. John Ferenchak, M.A.I. has prepared a separate appraisal using market
20 values for the different years when the four (4) parcels in question were actually
21 "devoted to public service" by the Company, although it did not actually own any
22 of the parcels in question at those time(s). Accordingly, he has used 2002 market
23 value data for Parcel No. 1, 2005 market value data for Parcel No. 2, 2008 market
24 value data for Parcel No. 3, and 2004 market value data for Parcel No. 4, as Mr.
25 McMurry has recommended. These are the years in which those parcels were
26 "devoted to public service" in connection with the Company's operations. In so

1 doing, Mr. Ferenchak is providing that appraisal which Mr. McMurry testified
2 should have been prepared, but Mr. McMurry was unable to provide. In addition,
3 and similar to Mr. Naifeh, Mr. Ferenchak's prepared Rebuttal Testimony also
4 discusses why the use of Pinal County Assessor data to establish actual real estate
5 market value(s) would be inappropriate.

6 As a final comment on the subject of real estate market values to be
7 recognized in this case for ratemaking purposes, in his prepared Rebuttal
8 Testimony, Thomas J. Bourassa will address the reference to "NARUC audit
9 guidelines" which appears at page 9, lines 6-14 of Mr. McMurry's prepared Direct
10 Testimony; and, Mr. Bourassa will explain why such guidelines are inapplicable in
11 this case.

12
13 Q.30 Are Water Plant Nos. 1 through 4 synonymous with Parcel Nos. 1 through 4?

14 A.30 Yes.

15
16 **Q.31 What factors influenced the manner in which the Company financed the**
17 **construction of its water utility system?**

18 A.31 The manner of capitalization of the Company was a subject to which I personally
19 devoted a considerable amount of attention and time. In the process of reaching a
20 decision on capitalization I conferred on a number of occasions with Ronald L.
21 Kozoman and Thomas J. Bourassa, each of whom are highly regarded utility
22 accounting and rate consultants with many years of practice before the
23 Commission. In addition, I conferred with Michal F. McNulty, a well regarded
24 utility attorney, who also had practiced before the Commission for many years.
25 Finally, and throughout this process, I discussed the guidance and advice I was
26 receiving from these individuals with Mr. Sears, as well as the results of my own

1 analyses and observations regarding capitalization for the Company.

2 The capitalization approach Mr. Sears and I ultimately decided to pursue
3 consisted of the following features. "Backbone" facilities of a system-wide nature
4 would be financed through a combination of equity and debt. These types of
5 facilities typically would include wells, storage reservoirs and booster stations.
6 However, because of the relatively small size of the Company, the use of long-term
7 debt as a means of financing capital improvements would be conservative.

8 Transmission and distribution mains, and associated distribution
9 infrastructure, would be financed through the use of main extension agreements
10 with homebuilder(s) whose project or project phase required the facilities which
11 were the subject of a given main extension agreement. These agreements would be
12 structured so as to comply with the Commission's regulations on main extension
13 agreements; and, the effectiveness of the agreements would be expressly
14 contingent upon prior Commission approval.

15
16 **Q.32 Is the capitalization approach you have described the one that has actually**
17 **been used by the Company?**

18 A.32 Yes, and the Company's current capitalization reflects the use of that approach. We
19 followed the recommendations of those with whom we had consulted; and, we also
20 understood that their approach reflected the thinking of the Commission's staff.

21
22 **Q.33 Let me turn to another subject. In his March 21, 2011 prepared Direct**
23 **Testimony, RUCO witness Timothy J. Coley appears to implicitly assume that**
24 **the responsibilities of and services performed by Alexander Sears and you in**
25 **your respective capacities as Chairman and President of the Company have**
26 **not changed since 2005, the test period in the Company's last rate case. In**

1 turn, that threshold assumption as to the “static” nature of your respective
2 roles appears to be a critical predicate to his recommendation that the
3 compensation to you and Mr. Sears should be increased only by the Consumer
4 Price Index change(s) for the four (4) years between 2005 and the 2009 test
5 period in this rate case. Is Mr. Coley’s “static” assumption in that regard
6 correct?

7 A.33 No, it is incorrect.

8
9 **Q.34 Please explain why it is incorrect.**

10 A.34 During the intervening 2006-2009 time period, the responsibilities and associated
11 time commitment(s) of both Mr. Sears and me increased as a result of a
12 combination of changes in the manner in which the Company was operated and an
13 increase in the Company’s customer base. In addition, as the Company’s customer
14 base expanded, both Mr. Sears and I found it both necessary and appropriate to
15 devote more time to management of the Company than had been necessary in
16 previous years when the Company was smaller.

17
18 **Q.35 Didn’t the Company’s engagement of Smyth Utility Management (“Smyth”)**
19 **replace the functions previously performed by Chris Hill and YL Technology?**

20 A.35 Only in part, and not as to matters of regulatory compliance. Moreover, Smyth
21 began to provide services not previously performed by either Mr. Hill or YL
22 Technology that otherwise we would have needed to contract out to someone else.

23
24 **Q.36 Do you believe that the compensation of Mr. Sears and you for which the**
25 **Company has requested ratemaking recognition is reasonable?**

26 A.36 Yes, I do, both in terms of reflection of the value of the services we provide to the

1 Company, and when measured against the compensation which is provide for
2 similar positions elsewhere in the water utility industry. After discussions with Mr.
3 Bourassa, I believe the compensation requested is below market.
4

5 **Q.37 At page 20, line 10-page 22, line 24 of his prepared Direct Testimony,**
6 **Commission Staff witness Mr. McMurry discusses his concerns regarding the**
7 **relationship between the Company, E.C. Development and Goodman Ranch**
8 **Associates; and, he has recommended that the Company “. . . develop and**
9 **implement written policies pertaining to affiliated transactions and hiring**
10 **outside consultation.” Previously in this Rebuttal Testimony, you have**
11 **indicated that Mr. Sears and you conscientiously endeavored to insure the**
12 **Company and its ratepayers would not bear financial responsibilities relating**
13 **to the development of Eagle Crest, which were not the responsibility of the**
14 **Company, including the responsibilities of related business entities in which**
15 **Mr. Sears and you had a financial interest.**

16 **Against this background, please describe why the Company to date has**
17 **believed that it did not need to develop and implement the types of written**
18 **policies recommended by Mr. McMurry.**

19 **A.37 The Company thus far has had only four (4) people at various points in time**
20 **involved in its ongoing operations. We have ongoing contact with each other and**
21 **we each have an office in a single office suite. In addition, Mr. Sears and I have**
22 **had a continuing ownership and business relationship with the Company since its**
23 **inception in 1988. As a consequence, each of the people I have mentioned has**
24 **been very familiar with the business practices and policies of the Company**
25 **throughout their association with the Company. Because of such smallness in**
26 **staffing size, and shared knowledge of practices and policies, the Company did not**

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see a need to reduce the policies to writing up to this point time.

In addition, because of my legal background, I have conscientiously endeavored to insure that transactions involving the Company and any entities in which Mr. Sears and/or I had a financial interest were conducted in an "arms-length" manner. In that regard, I believe that he and I have succeeded in achieving that shared objective, so that the interests of the Company's ratepayers have not in any manner been compromised.

Finally, because of both my legal background and my experience of many years as a businessman, I have been very discerning in the selection of consultants and other firms the Company has retained for the provision of outside service on reasonable terms; and, Mr. Sears and I monitor their performance as a part of our ongoing management responsibilities.

Q.38 Is the Company willing to develop and implement written policies of the type recommended by Mr. McMurry?

A.38 Yes, if the Commission determines the same are in fact necessary for a company as small as the Company. In such event, we also hope that the Commission would recognize that there will be some cost incurred by the Company in connection with developing and implementing written policies of this nature.

Q.39 In his prepared Rebuttal Testimony, Mr. Bourassa states that the Company is revising its estimated rate case expense to an amount substantially higher than was anticipated at the time the Company filed its rate increase application last year; and, he indicates the reasons for the anticipated increase. Please describe what efforts the Company has made to control its rate case expenses.

A.39 Mr. Sears and I have diligently endeavored to control the level of these expenses,

1 since they are being paid out of current revenues of the Company with no
2 knowledge of when and in what amount the Commission will authorize recovery of
3 these expenses as part of an increase in rates. The Company is currently earning
4 less than the rate of return on investment to which we believe it is entitled under
5 law; and, these current ratemaking expenses further erode that return. In that
6 regard, while we believe that our consultants and rate case attorney are providing
7 their necessary services in a cost-effective manner, and at reasonable rates, the
8 Company is incurring substantial rate case expenses. So, in summary, while Mr.
9 Sears and I have endeavored to control rate case expense from the outset, and will
10 continue to do so throughout the course of this proceeding, that category of
11 expense will be substantially and unavoidably above our original estimate.

12
13 **Q.40 Are there any other issues raised by the other parties to this case which you**
14 **wish to address at this time in your prepared Rebuttal Testimony?**

15 A.40 No, not at this time. I believe the remainder of the issues we wish to address are
16 discussed in the prepared Rebuttal Testimony of Messrs. Bourassa, Taylor,
17 Ferenchak and Naifeh.

18 I do wish to make clear to both the Commission and our ratepayers that the
19 Company recognizes that it has requested a significant increase in its rates and
20 charges for water service, even taking into account the downward adjustment from
21 our original request, which is discussed in Mr. Bourassa's prepared Rebuttal
22 Testimony. However, at the same time, the Company believes that the increase it
23 is now requesting is warranted, based upon applicable law and the factual
24 circumstances surrounding this case.

1 **Q.41 Does this conclude your Rebuttal Testimony?**

2 A.41 Yes, it does.

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1 LAWRENCE V. ROBERTSON, JR.
2 Attorney At Law
3 P.O. Box 1448
4 Tubac, Arizona 85646
5 (520) 398-0411
6 Attorney for Applicant

7
8 **BEFORE THE ARIZONA CORPORATION COMMISSION**

9 IN THE MATTER OF THE APPLICATION
10 OF GOODMAN WATER COMPANY, AN
11 ARIZONA CORPORATION, FOR (i) A
12 DETERMINATION OF THE FAIR VALUE
13 OF ITS UTILITY PLANT AND PROPERTY
14 AND (ii) AN INCREASE IN ITS WATER
15 RATES AND CHARGES FOR UTILITY
16 SERVICE BASED THEREON.

DOCKET NO. W-02500A-10-0382

17
18 **REBUTTAL TESTIMONY OF**
19 **MARK TAYLOR**
20
21 **ON BEHALF OF GOODMAN WATER COMPANY**

22 **May 2, 2011**
23
24
25
26

1 **Q.1 Please state your name and business address.**

2 A.1 My name is Mark F. Taylor, and my business address is 4001 E. Paradise Falls
3 Drive, Tucson, Arizona 85712.

4 **Q.2 By whom are you employed, and in what capacity?**

5 A.2 I am a Vice President and a Principal of WestLand Resources, Inc. ("WestLand").
6

7 **Q.3 Please describe the nature of professional services provided by WestLand.**

8 A.3 Since our establishment in 1997, WestLand Resources, Inc. has brought together a
9 team of approximately 100 experts in environmental services, engineering,
10 landscape architecture, cultural resource, and right of way services. We provide
11 technical consulting services throughout the southwestern United States.
12

The technical expertise offered by WestLand's engineering staff includes
13 water and wastewater system design, permitting, and construction services; utility
14 and water resources planning; master planning for potable water, alternative water
15 resources, and wastewater systems, biological systems engineering, irrigation, and
16 water harvesting system design; groundwater recharge system design; and program
17 management.
18

19 **Q.4 Please describe your area(s) of responsibility within WestLand.**

20 A.4 I am responsible for providing project management, design and technical
21 supervision, project scheduling, and budget oversight.
22

23 **Q.5 Please summarize your educational background and professional experience
24 as relevant to the testimony you are presenting in this proceeding.**

25 Q.5 I graduated from the University of Arizona with a Bachelor of Science Degree in
26

1 Civil Engineering and a Masters in Business Administration Degree. In addition, I
2 have obtained my Professional Engineering ("P.E.") license in Arizona, Nevada
3 and New Mexico. I have over 25 years of experience in water resources
4 engineering, including the design of water systems for municipally- and privately-
5 owned water utilities, public works projects, master-planned communities, large
6 commercial and retail centers, and the mining industry. I am responsible for the
7 development of water system master plans; well, reservoir, booster station, and
8 transmission main design; water treatment design; and the assessment of rates and
9 development impact fees for private and municipal clients.

10
11 **Q.6 Is Goodman Water Company ("Company") a client of WestLand?**

12 **A.6** Yes. The Company has been a client for approximately 11 years.

13
14 **Q.7 Please describe the nature of professional services that WestLand has**
15 **provided to the Company during that period of time.**

16 **A.7** WestLand has provided master planning, infrastructure design, permitting and
17 construction inspection services to the Company since the Company's beginning.
18 WestLand was initially retained in 2000 to develop a master water plan for the
19 subdivision in southern Pinal County which has since become known as Eagle
20 Crest Ranch. That master water plan was completed in March 2001. Since then
21 WestLand has performed a variety of services for the Company over the years,
22 including design plan reviews and the provision of inspection services on all
23 infrastructure construction as the Company's water system was developed. In
24 addition, WestLand has provided assistance to the Company in connection with its
25 compliance with regulations of the Arizona Department of Environmental Quality
26 ("ADEQ") and the Arizona Department of Water Resources ("ADWR") applicable

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to the Company's operations.

Q.8 What is the purpose of your Rebuttal Testimony in this proceeding?

A.8 Based upon discussions with owners of the Company and its attorney, it is my understanding that certain parties in this case are contending that (i) the Company has water utility plant capacity which is "excess" and thus "not used and useful," and (ii) such water utility plant capacity should not be recognized for ratemaking purposes in this case. In my Rebuttal Testimony, I will discuss those circumstances and criteria which influenced the design and sizing of the Company's water system, as set forth in the March 15, 2001 master water plan. I will also discuss why water plant additions were undertaken at various points in time over the years, in connection with implementation of the master water plan. In that regard, I will include in my discussion why the decision was made to install certain water transmission mains in the spine public roadways prior to the adjacent platted blocks of land requiring service.

In addition, I will critique those portions of the March 21, 2011 prepared Direct Testimony of Commission Staff witness Marlin Scott, Jr. and RUCO witness Timothy J. Coley which contend that the Company has "excess" plant capacity which is "not used and useful."

Q.9 Do you have a copy of the March 15, 2001 water master plan to which you have referred, and to which you will be referring during your Rebuttal Testimony?

A.9 Yes. A copy of the March 15, 2001 water master plan is attached to my Rebuttal Testimony as Appendix "A."

1 **Q.10 Please describe the manner in which WestLand developed the March 15, 2001**
2 **master water plan for the Company.**

3 A.10 I would like to begin by discussing certain basic water system design principles
4 which are generally accepted for use in the water utility industry for planning
5 purposes, and which were used by WestLand in this instance. In that regard,
6 WestLand had available to it the tentative plat for the Eagle Crest Ranch
7 Subdivision, which is the same plat that was used to obtain the Certificate of
8 Assured Water Supply from ADWR required by the Arizona Groundwater Code.
9 The anticipated land uses and number of lots and parcels reflected in this tentative
10 plat assisted WestLand in determining the demand that the Company's water
11 system should be designed to serve.

12 Applicable regulations require that a domestic water system be designed and
13 operated in such a manner as to satisfy the fire flow and peak day demand
14 requirements anticipated to be imposed on its system, while at the same time
15 maintaining a minimum pressure of 20 pounds per square inch ("psi") in its
16 distribution facilities. These threshold requirements are typically satisfied through
17 a combination of well production capacity and production capacity, which I discuss
18 in my testimony. In addition, I will also discuss several other types of facilities and
19 related planning concepts.

20 Design criteria relating to the sizing of water system facilities includes the
21 planning concepts of: (i) average daily demand ("ADD"); (ii) peak day demand
22 ("PDD"); (iii) peak hour demand ("PHD"); and, (iv) average day peak month
23 ("ADPM") demand. ADD will vary by the type of customer connection being
24 serviced and can also vary overtime. Eagle Crest Ranch Subdivision was going to
25 be predominately residential; and, as to that customer connection category,
26 WestLand used 125 gallons per person per day in the original master plan when

1 this project was designed. This was an appropriate and typical design estimate at
2 that time. However, it is now apparent that over the past 10 years the region has
3 had a dramatic reduction in overall demand. Based upon the most current water
4 usage in the region, and current ADEQ design standards, the following design
5 requirements should be used for required capacity analyses at this point in time.
6 For this analysis, demand assumptions of 2.8 persons per household at 100 gallons
7 per person per day consumption, or an ADD of 280 gallons per day for each
8 residential connection are appropriate. These assumptions are based on
9 Engineering Bulletin 10 - Guidelines for the Construction of Water System
10 prepared by the Arizona Department of Health Services (ADHS) and the Arizona
11 Department of Environmental Quality. In that regard, I would like to emphasize
12 that actual demands can fluctuate from time to time, system to system. Therefore,
13 regulatory agencies have developed sound engineering guidelines such as Bulletin
14 10 to be used in the planning and design of water systems. These standards
15 numbers are an appropriate basis of design and are typically used by Civil
16 Engineers to plan and design new water systems.

17 In designing water system facilities, ADD is the baseline used to calculate
18 peaking flows. PDD is assumed to be twice ADD, and is thus assigned a peaking
19 factor of 2.0. PHD is assumed to be 3.2 times ADD, and represents the highest
20 hourly demand within the water system in question. ADPM is assigned a value of
21 1.4 to 1.5, since it represents an average day of demand during the peak month.
22 These values are based on typical engineering criteria for water systems of similar
23 size to that anticipated for Goodman Water.

24 Well Production Capacity

25 In connection with the design of well production capacity for a system such
26 as the Company's, sound water industry practice requires that the well production

1 capacity be adequate to meet a sustained PDD with the largest well out of service,
2 since in the arid southwest it cannot be assumed that PDD will be limited to a
3 single day during the summer peak period. In other words, it is not appropriate or
4 sound engineering practice and planning to rely on storage as part of a water
5 utility's ability to satisfy the PDD anticipated to be imposed on its system.

6 7 Storage Capacity

8 Design criteria relating to the sizing of storage capacity include the planning
9 concepts of: (i) ADPM; (ii) fire flow requirements of the applicable fire department
10 or fire district; and, (iii) "dead storage," or that space at the top and bottom of a
11 storage reservoir which cannot be used in connection with the provision of a
12 reliable supply of water to the water system in question in a cost effective manner.
13 I would further like to discuss the concept of nominal volume, usable volume and
14 dead storage for storage tanks. Nominal volumes are associated with total storage
15 capacity. However, it is not prudent to assume that 100% of nominal volume will
16 be available for water distribution use. Based on certain operational restrictions
17 such as pump shut off levels and tank overflow levels, some storage volume is
18 rendered unusable and thus represents "dead" storage. This volume can be as high
19 as 20% of the nominal tank volume. Therefore, it is very important to consider
20 usable volume for capacity calculations for a particular storage tank. Usable
21 volume can be calculated by subtracting "dead" storage from nominal volume.
22 Appendix "B" to my Rebuttal Testimony are drawings which depict these
23 conceptual components of a storage reservoir, as applicable to Water Plant Nos. 1
24 and 3 on the Company's system. As may be noted, ADEQ's regulations relating to
25 minimum useable storage requirements address only the ADPM and fire flow
26 requirements. However, it is imperative that "dead storage" also be recognized in

1 determining the useable storage capacity sizing.

2 **Booster Stations**

3 Booster stations are often included in the design of a domestic water system.
4 One type is designed to stabilize or increase pressure in the water system in
5 question; and, this type is often referred to as a “pressure-controlled booster
6 station.” This type of booster station serves a section of a water system that does
7 not have a storage reservoir located at an elevation above the area served to “float”
8 the water system. A second type of booster station is designed to be used in
9 connection with the operation of a storage reservoir located at an elevation above
10 the area served, or a reservoir that “floats” the water system, and its function is to
11 restore the water level in the reservoir after periods of drawdown. This type is
12 often referred to as a “level-controlled booster station.” As I will discuss in more
13 detail later in my testimony, sometimes the same booster station can perform both
14 the “pressure” and the “level” function at different stages in the development of a
15 water system, which is what occurred with the booster station located at Water
16 Plant No. 1 on the Company’s system.

17 **Transmission and Distribution**

18 The primary conceptual factors influencing the design and sizing of
19 transmission and distribution mains on a domestic water system are the need to be
20 able to (i) satisfy the anticipated PDD and fire flow requirements and (ii) maintain
21 a minimum pressure of 20 psi. The size of pipe and the rate of flow directly affect
22 the pressure in the water system, due to head losses within the pipelines during
23 flow conditions; and, thus, the pipe must accordingly be sized to satisfy these
24 criteria.

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Summary

All of the water system design concepts and criteria I have described above were taken into consideration by WestLand in connection with the development of the March 15, 2001 water master plan for the Company.

Q.11 Please discuss the principal features of the March 15, 2001 water master plan.

A.11 Attached to my Rebuttal Testimony as Appendix "C" is a copy of a 3-page Water System Base Map for the Company's water system. That map also includes a representative subdivision plat for the Eagle Crest Ranch Subdivision. As you will note, the locations and nature of the Company's well production, storage reservoirs and booster station facilities are shown in relation to the Eagle Crest Ranch Subdivision.

Water Plant No. 1, which is located mid-way up on the western side of the development on Eagle Crest Ranch Blvd., consists of: (i) a 500 gpm well; (ii) a 400,000 gallon storage reservoir; and (iii) a 2,000 gpm "J"-Zone booster station. Initially, this booster station was used as a "pressure-controlled booster station," and was used to assist in meeting fire flow requirements and maintaining system pressure. In recent years, since additional storage was constructed at Water Plant No. 3, this booster station has been used as a "level-controlled booster station" in connection with the Water Plant No. 3 storage reservoir.

Water Plant No. 2 is located in the southwestern quadrant of the subdivision; and, it consists of an 800 gpm well.

Water Plant No. 3 is located in the northeast corner of Eagle Crest Ranch. As you will note, it consists of: (i) a 530,000 gallon "J"-Zone storage reservoir; and, (ii) a 1,200 gpm "K"-Zone booster station.

Water Plant No. 4 is located in the southeast quadrant of the subdivision. It

1 now consists of an 1,600 gpm "K"-Zone booster station. Water Plant No. 4 was
2 upgraded from 1,100 gpm to 1,600 gpm in 2004.
3

4 **Q.12 What is the relevance and purpose of the "zone" designations depicted on**
5 **Appendix "C"?**

6 A.12 In addition to the 20 psi requirement I previously mentioned, which arises from
7 public health considerations, domestic water systems generally maintain a
8 minimum of approximately 40 psi on the system, in order to be able to adequately
9 respond to instantaneous demands arising from everyday customer usage. Since
10 the ability to meet this additional requirement varies with changes in ground level
11 elevation above sea level, the water utility industry uses the design concept of
12 pressure "zones" to assist it in planning how to address changes in elevation in the
13 topography encompassed by a given water system. Typically, each "zone" will
14 cover a 100 foot range in elevation.

15 Accordingly, when determining and planning for the capacity requirements
16 of a domestic water system, it is necessary to take elevation changes which occur
17 within the boundaries of that system into account.
18

19 **Q.13 Does the reference to "J"-Zone and "K"-Zone facilities on Appendix "C"**
20 **mean that there are in fact elevation changes in the topography encompassed**
21 **by the Company's water system?**

22 A.13 Yes. As contrasted with many water systems in southern Arizona which are
23 located in relatively flat terrain, the Company's water system is located in a setting
24 which includes a number of foothills. In that regard, the elevation changes which
25 occur within that area required that we establish two (2) separate "pressure zones"
26 for design and planning purposes. That is why you see a reference to "J"-Zone and

1 "K"-Zone on the water system base map.

2
3 **Q.14 Why are they labeled "J"-Zone and "K"-Zone, as opposed to Zone 1 and Zone**
4 **2, for example?**

5 A.14 Because the Company's water system is located directly north of a satellite water
6 system owned and operated by Tucson Water, and with the thought of a possible
7 future interconnection with that Tucson Water system in mind, WestLand decided
8 to plan the Company's water system using the same elevation "zone" designations
9 and elevation ranges as are used throughout the Tucson Water system, including in
10 this satellite system. In this instance, the appropriate "zone" designations for the
11 elevations which occur within the Company's system are "J"-Zone and "K"-Zone;
12 and, the zone designation range is 105 feet within each "zone."

13
14 **Q.15 What are the actual elevations encompassed within the "J"-Zone and the "K"-**
15 **Zone, respectively, on the Company's system?**

16 A.15 The elevation range included in the J-Zone in this instance is 3,225 to 3,330 feet
17 above sea level; and, the elevation range included within the K-Zone is 3,330 to
18 3,435 feet above sea level.

19
20 **Q.16 Where are the "J"-Zone and the "K"-Zone physically located within the Eagle**
21 **Crest Ranch Subdivision?**

22 A.16 Appendix "D" to my Rebuttal Testimony is a copy of a color-coded map which is
23 entitled "Eagle Crest Water Infrastructure Phases and Lots Served." Superimposed
24 on that map with red boundaries are the two (2) areas within the Company's water
25 system where the "K"-Zone elevations occurs. The remainder of the water system
26 is located within the "J"-Zone of elevation. As may be noted from both Appendix

1 “C” and Appendix “D,” the booster stations located at Water Plant No. 3 and Water
2 Plant No. 4 are necessary in order to provide service at the required pressure(s) to
3 the north “K”-Zone and the south “K”-Zone, respectively. Thus, each functions as
4 a “pressure booster station.”
5

6 **Q.17 Please discuss (i) at what point(s) in time the various phases of the Company’s**
7 **water system were constructed; and, (ii) the circumstances occasioning the**
8 **construction of each water plant phase at that point in time.**

9 A.17

10 **Water Plant No. 1**

11 Prior to development of the Eagle Crest Ranch Subdivision, the acreage
12 had been operated as a horse-breeding ranch. At that time, there was a well and a
13 small storage reservoir located at what is now known as the Water Plant No. 1 site.
14 Water Plant No. 1 was constructed at this location in 2002. WestLand determined
15 that that well was still usable; and, it was refurbished to bring it to the indicated
16 500 gpm production capacity and to sanitary standards for potable wells. The small
17 and aged original storage reservoir was removed and replaced with the current
18 400,000 gallon storage reservoir. In addition, the previous owner also had a small
19 booster station at this site; and, that booster station was replaced with the indicated
20 “J”-Zone booster station, which initially provided pressure for fire flow and the
21 homes to be constructed in Phase I and Phase II of the Eagle Crest Ranch
22 development.

23 The color coding and Legend on Appendix “D” indicate (i) the geographic
24 location of each phase within the Eagle Crest Ranch Subdivision, and (ii) the lot
25 numbers within each phase. The Water Plant No. 1 facilities were constructed in
26 connection with the commencement of developmental activities and initial home

1 sales at Eagle Crest Ranch. The water system distribution infrastructure
2 construction began in 2002, and water system connections to finished lots began in
3 2002 as well. Home sales began in 2002, and the pace of lot connections and home
4 sales increased in subsequent years as prospective homebuyers became aware of
5 Eagle Crest Ranch.

6 Water Plant No. 2

7 Because the initial storage reservoir was sized at 400,000 gallons, ADEQ
8 was willing to allow the construction of approximately 200 homes in Eagle Crest
9 Ranch before it required the development of a second well. That second well was
10 constructed at Water Plant No. 2 in 2005. As indicated on Appendix "C" and
11 Appendix "D," the well has a production capacity of 800 gpm.

12 The construction of the second well was occasioned by the continued steady
13 sale of homes in the subdivision, and in order to enable the Company to continue to
14 comply with applicable ADEQ requirements. As previously indicated, ADEQ had
15 allowed the Company to delay the construction of a redundant well until
16 approximately 200 homes were being served, only because of the existence of
17 400,000 gallons of storage capacity at Water Plant No. 1.

18 Water Plant No. 3

19 Water Plant No. 3 was constructed in 2008. As previously noted, the water system
20 facilities consist of: (i) a 530,000 gallon "J"-Zone storage reservoir; and, (ii) a
21 1,200 gpm "K"-Zone booster station. As suggested by the two (2) zone
22 references, these facilities were designed to serve different but complimentary
23 purposes; and, the overall reliability of the Company's system was enhanced with
24 these additions.

25 More specifically, the "J"-Zone storage reservoir was designed to serve the
26 increasing water service demands and fire flow requirements related to the "J"-

1 Zone in the Eagle Crest Ranch Subdivision. In addition, because of its elevation,
2 this storage reservoir would enable the Company to “float” its water system and
3 take advantage of the phenomenon of gravity flow as well as the associated
4 benefits. More specifically, the ability to “float” the Company’s system improves
5 the reliability of the system, because water already in storage can simply enter the
6 transmission and distribution through gravity flow. It does not require further
7 pumping or pressurization in order to do so. In fact, this capability played a crucial
8 role in the Company’s ability to maintain service to its customers during the deep
9 freeze in February 2011, when certain equipment at Water Plant No. 1 was
10 rendered inoperable for a good part of one (1) day. Because there was a reservoir
11 full of water available to the J Zone, there was water service available to the J Zone
12 while the booster station was out of service. In addition, the ability to “float” a
13 water system results in less pressure fluctuation(s) in the system than might
14 otherwise be the case, when pressure control is dependent upon the operation of
15 “pressure booster stations.”

16 In the March 15, 2001 water master plan, this storage reservoir was sized at
17 340,000 gallons. Subsequently, the owners of the company decided to increase the
18 size to the present 530,000 gallons in anticipation of serving a future development
19 on the west side of the Oracle Highway, which was to be known as Eagle Crest
20 West. That additional development has not materialized to date. However, based
21 on discussions with the owners of the Company and its attorney, it is my
22 understanding that the Company is not requesting ratemaking recognition at this
23 time of the additional 190,000 gallons of storage capacity associated with Eagle
24 Crest West.

25 As suggested by the “K”-Zone designation, the 1,200 gpm booster station at
26 Water Plant No. 3 is designed to provide the previously mentioned 40 psi typical

1 pressure, and 20 psi pressure minimum required by ADEQ in connection with the
2 provision of water service in the north "K"-Zone on the Company's system.

3 The timing of construction of Water Plant No. 3 was influenced by three (3)
4 circumstances. First, the storage reservoir capacity at Water Plant No. 1 was about
5 to be exceeded with the growth which had occurred in the "J"-Zone on the
6 Company's water system. Second, D.R. Horton had advised the Company that it
7 intended to construct homes in the north "K"-Zone, which would necessitate the
8 construction of a booster station in that area in order to provide the minimum water
9 system pressures required by ADEQ. Third, the owners of the Company
10 anticipated that commercial development was about to begin in some of the areas
11 reserved for that purpose on the western side of the Eagle Crest Ranch Subdivision.
12 The "commercial" areas are indicated in gray on Appendix "D." Given the growth
13 that had occurred as of that point in time in the "J"-Zone, the 400,000 gallon
14 storage reservoir at Water Plant No. 1 would not have been able to satisfy both the
15 (i) ADPM demand and (ii) fire flow requirements which would be imposed on the
16 Company's system. Thus, for this combination of reasons, Water Plant No. 3 was
17 constructed in 2007.

18 **Water Plant No. 4**

19 As indicated on Appendix "C" and Appendix "D," Water Plant No. 4
20 consists of a 1,600 gpm "K"-Zone booster station. This booster station was
21 originally sized for 1,100 gpm. It was upgraded to 1,600 gpm at the request of
22 D.R. Horton, in order to comply with requirements of the Golder Ranch Fire
23 District, due to the size of some of the homes planned in that area of Eagle Crest
24 Ranch. In that regard, it is my understanding that the cost of the upgrade was not
25 paid for by the Company, and the Company is not requesting ratemaking
26 recognition of that portion of the cost of this booster station.

1 This booster station was constructed in 2003, and its purpose was to enable
2 the Company to maintain the ADEQ-required minimum pressures in the south
3 "K"-Zone on the Company's water system. The timing of construction of this
4 facility was influenced by the decision of D.R. Horton to begin selling homes in the
5 south "K"-Zone area, which preceded by several years when it began to sell homes
6 in the north "K"-Zone area.

7 As previously noted, the booster stations located in Water Plant No. 3 and
8 Water Plant No. 4 perform a "pressure" function in relation to the water
9 transmission and distribution facilities located in each of the "K"-Zone areas. In
10 contrast, the booster station located at Water Plant No. 1 now performs a "level"
11 function in relation to the 400,000 gallon storage reservoir at that location.

12
13 **Q.18 I would like for you to now explain why the Company installed certain water**
14 **transmission and distribution water mains in public roadways in advance of**
15 **construction of those roadways being completed.**

16 A.18 It is a typical engineering and construction practice in master-planned
17 developments to install the "spine" infrastructure in conjunction with the "spine"
18 roadways. Public transportation authorities, the developers of master-planned
19 communities and subdivisions the size of Eagle Crest Ranch and the utilities who
20 will serve those communities and subdivisions each prefer that all underground
21 utility facilities that are going to be located within public roadways be installed in
22 advance of the completion of construction of those public roadways. This enables
23 each of these entities to be sure that there is adequate room and spacing between
24 the various underground utility facilities. In addition, this practice enables them to
25 avoid the disruptive effect of the public roadways being opened up or "cut" and
26 repaved if one (1) or more utility's facilities are installed after the public roadway

1 initially has been paved; and, it enables a utility to avoid having to pay the cost of
2 opening and repaving the public roadway, costs of which can be significant at
3 times.

4
5 **Q.19 Have you reviewed the prepared Direct Testimony of Commission Staff**
6 **witness Marlin J. Scott, as filed in this case on March 21, 2011?**

7 A.19 Yes, I have.

8
9 **Q.20 Directing your attention to pages 5 and 6 of Exhibit MJS to that testimony, is**
10 **the transmission main water utility plant identified at Items 1(a), 2(a) and 3(a)**
11 **under the section heading of “Plant Not Used and Useful” water plant which**
12 **was installed in public roadways within the Eagle Crest Ranch Subdivision?**

13 A.20 Yes.

14
15 **Q.21 Was that water plant installed at the time it was installed for the reasons you**
16 **have just discussed?**

17 A.21 Yes.

18
19 **Q.22 Further directing your attention to page 5 of Exhibit MJS, and specifically to**
20 **the subsection entitled “Excess Storage Tank Capacity,” do you agree with**
21 **Mr. Scott’s calculations and his conclusion that the 530,000 gallon storage**
22 **reservoir at Water Plant No. 3 contains the “excess” capacity he has**
23 **calculated?**

24 A.22 No, I do not for two (2) fundamental reasons. First, in calculating per capita per
25 day consumption, Mr. Scott appears to have used Company’s 2009 actual test year
26 data which is significantly lower than the minimum level specified by ADEQ in

1 Engineering Bulletin 10 Guidelines for the Construction of Water Systems. As I
 2 have previously testified, a figure of 100 gallons per person per day, which is
 3 typically specified specified by ADEQ is our present basis of design for
 4 Company's water facilities. When that amount is multiplied by ADWR's
 5 assumption of 2.8 persons per household in the TAMA, the resulting household
 6 consumption is 280 gallons per day ("GPD"), which is 50 GPD per customer
 7 connection higher than the 230 GPD figure used by Mr. Scott in his calculations.
 8 With reference to my previous testimony regarding "dead storage", I would like to
 9 further discuss "dead storage" in relation to the storage tanks at Water Plant 1 and
 10 3. Water Plant 1 has a nominal capacity of 400,000 gallons and is 18 feet high.
 11 Water Plant 3 has a nominal capacity of 530,000 gallons and is 20 feet high. At
 12 both storage tanks, the pump shut off, which is the low-level in the storage tank at
 13 which the pumps shut off, is set at 3 feet from the tank bottom. This renders the
 14 bottom 3 feet unusable for pumping and public distribution purposes, and
 15 therefore, contributes towards the "dead storage". The top overflow is located at 1
 16 foot below the tank top level, and therefore also renders the top foot of the tank as
 17 "dead storage". This means that 14 feet and 16 feet of usable storage in the storage
 18 tanks at Water Plant 1 and 3, respectively. This corresponds to 316,000 gallons
 19 and 487,000 gallons of usable volume at Water Plant 1 and 3, respectively. Further
 20 I would like to present the calculations necessary to determine the total storage
 21 capacity available to the Company.

22	Water Plant 1 Usable Storage Capacity	316,000 gallons
23	Water Plant 3 Usable Storage Capacity	487,000 gallons
24	Subtracting 190,000 gallons (not included in	297,000 gallons
25		
26		

1	the ratemaking recognition) from Water Plant 3	
2	Total Usable Storage Capacity	613,000 gallons
3	Subtracting Fire Flow Storage of 240,000	373,000 gallons of actual usable
4	gallons (2,000 gpm for 2 hours)	storage for potable purposes

5

6 Based on the calculations above, it is clear that only 373,000 gallons of storage is
7 usable storage. Based on 100 gpcd and 2.8 persons per units, it can be computed
8 that this usable storage capacity can support 1332 connections. Goodman Water
9 Company has 959 platted EDUs and 83 commercial acres. Converting commercial
10 acres to EDUs (based on 1,400 gallons per acre per day), it can be calculated that
11 total EDUs at buildout are 1,374 EDUs. This means that existing usable storage
12 capacity is less than what build-out capacity should be by 42 EDUs.

13 It is very typical for engineers and planners to slightly overbuild any system
14 because the basis of design and planning are various assumptions which may not
15 stand the test of time. These assumptions are generally provided by regulatory
16 agencies such as ADEQ and ADWR. Further, it is prudent that an engineer or
17 planner would slightly oversize the system rather than undersize it. If system
18 components can be modulized, which would allow adding modules to increase
19 capacity, it may be feasible to keep up with demands on short-term basis. For
20 example, pump stations can be easily modulized, where an additional pump may be
21 added at a relatively lower cost to increase the pumping capacity. However, and
22 unfortunately, this is not true for water storage tanks. Storage tanks cannot be
23 easily modulized and therefore, need long term planning to achieve economies of
24 scale. Therefore, it becomes important to consider buildout scenarios, especially
25 for a small system such as Goodman Water, in order to be cost effective in the long
26 run. If the water company was to go back and add multiple 100,000 gallon storage

1 tanks every few years, the cost of doing this would be substantially higher than
2 building 2 bigger storage tanks to meet buildout demands over 10 years. It would
3 also be a high-cost operation to operate and maintain multiple, small water tanks at
4 a water site.

5 Second, Mr. Scott uses a customer connection number of 875 customer
6 connections. His "System Analysis" discussion on page 4 of Exhibit MJS indicates
7 that this calculation is based upon (i) a 2009 test year customer base, and (ii) a five-
8 year customer growth projection. However, this approach ignores the fact that the
9 decision as to when to construct the storage reservoir in Water Plant No. 3 was
10 made sometime in 2005. If you give consideration to the pattern of customer
11 connections during the 2002-2007 period, and project five years forward from that
12 base, the estimated number of EDUs in 2012 would be on the order of 1,113. This
13 projection is depicted in a graph on page 1 to Appendix "E" to my Rebuttal
14 Testimony. If we use the years 2003-2008, the resulting five year units figure in
15 2013 is on the order of 1,112 EDUs, as shown on page 2 of Appendix "E." Either
16 of these numbers is substantially in excess of the 875 customer connection
17 projection used by Mr. Scott which used only two (2) years (2009 and 2010) of
18 actual customer growth experienced during a period of dramatic housing market
19 decline.

20
21 **Q.23 Have you reviewed the March 21, 2011 prepared Direct Testimony of RUCO**
22 **witness Timothy J. Coley, at page 13, line 14 – page 20, line 19, at which he**
23 **discusses the first of two (2) reasons why RUCO contends "excess" capacity**
24 **exists on the Company's water system?**

25 A.23 Yes, I have.

1 **Q.24 Do you believe RUCO's contention is well-founded?**

2 A.24 No, not at all. First, RUCO's approach is not based upon any engineering analysis
3 of why the Company added various types of water utility plant at different points in
4 time. Rather, Mr. Coley engages in simplistic arithmetic comparisons of water
5 utility plant balances and customer counts as of the end of the test period in the
6 Company's last rate case and the end of the test period in this case; and, he then
7 derives percentage relationships from which he seeks to infer the intervening plant
8 additions were unreasonable.

9 Second, Mr. Coley adopts an after-the-fact perspective from which he
10 concludes that the Company's plant addition decisions were unreasonable, given
11 that the customer growth experienced during the mid-2000s was not sustained
12 throughout. What he chooses to ignore is the growth pattern in the years
13 immediately preceding and surrounding 2005, when the decision to proceed with
14 the construction of Water Plant No. 3 was made. When the planning for this
15 facility was taking place in 2005, the water company could not have predicted, and
16 did not account for, the dramatic decline in customer connections in subsequent
17 years. Under the circumstances which existed at that time, and given what was
18 anticipated by both D.R. Horton and the Company as to future customer growth,
19 the Company's decision to begin construction of the storage reservoir at Water
20 Plant No. 3 appears to have been quite reasonable. Supportive of this is the July
21 31, 2007 compliance filing made by the Company in Docket No. W-02500A-06-
22 0281 to which Mr. Coley refers in his testimony at page 17, line 11 – page 18, line
23 6.

24
25 **Q.25 Please discuss the concept of "reserve margin" to which Mr. Coley refers at**
26 **page 19, line 7 – page 20, line 11 of his testimony.**

1 A.25 The core of Mr. Coley's reasoning appears in the following quotation from his
2 prepared Direct Testimony:

3 ". . . RUCO realizes that a water system cannot be designed to serve
4 the exact same number of current customers in an economically
5 feasible manner. Over the short-run or a period of one-year or less,
6 there may be some excess capacity in a water system that is
7 inevitable if we seek economies of scale. But, there should not be
8 excess capacity over the long-run, particularly with water systems. In
9 essence, excess capacity results in higher rates to the current
10 ratepayers and is inherently unfair." [Coley prepared Direct
11 Testimony at page 20, lines 5-11]

12
13 On the one hand, he acknowledges the benefit of designing and constructing a
14 water system in such a manner as to achieve economies of scale. On the other
15 hand, he believes that there should not be excess capacity in the "long run" which,
16 by implication, he appears to define as any time period in excess of one (1) year.
17 In that regard, he allowed for a 10% "margin of reserve" or "excess" capacity
18 during that period of "one-year or less."

19 In essence, Mr. Coley is engaging in the proverbial "trying to have it both
20 ways," which simply does not work for a water utility system the size of the
21 Company. More specifically, if "backbone" infrastructure such as wells and
22 storage reservoirs were to be designed and added on the basis of the annual 10%
23 "reserve margin" criterion advocated by RUCO, it would be virtually impossible to
24 achieve the economies of scale which Mr. Coley and RUCO purportedly support.
25 Economically feasible capacity increments do not always allow for that fine-tuning
26 in sizing which Mr. Coley's conceptual approach appears to assume without a basis

1 in fact.

2 Moreover, Mr. Coley is unclear as to the customer base upon which his 10%
3 “reserve margin” is predicated. However, whether it is applied during the design
4 stage or as of the end of the test period in a given water utility rate case, it would
5 appear that what really is relevant is whether the customer growth and demand
6 projections used by the utility in question are based upon reliable information, and
7 whether the decision as to capacity design and sizing was reasonable in light of the
8 surrounding circumstances at the time such decision was made. Mr. Coley’s
9 analytical approach appears to completely ignore this threshold consideration.

10

11 **Q.26 In his discussion of what RUCO perceives to be “excess” capacity on the**
12 **Company’s water system, Mr. Coley appears to rely upon the upgrade on the**
13 **booster station at Water Plant No. 4 as a second reason for concluding that the**
14 **Company has “excess” capacity. Do you believe that portion of this testimony**
15 **has merit?**

16 A.26 No, and I say “no” for two (2) reasons. First, the upgrade in question did improve
17 the fire flow capability of that particular booster station, due to the requirements of
18 the local fire jurisdiction. So, from a design and operating perspective, the upgrade
19 provided a beneficial result for the Company’s water system and allowed the
20 facilities to meet development standards imposed upon the builder of that
21 subdivision. Second, as indicated in my previous discussion of Water Plant No. 4,
22 it is my understanding that the Company did not pay for the cost of that upgrade
23 and the Company is not seeking ratemaking recognition of that cost. Thus, for
24 these reasons, I do not believe that the capacity provided by the upgrade is
25 “excess.”

26

1 **Q.27 Do you have any further criticism with respect to the approach recommended**
2 **by Mr. Coley for dealing with the “excess” capacity he alleges exists on the**
3 **Company’s water system?**

4 A.27 Yes, and my criticism is conceptual in nature, because I do not accept his assertion
5 that “excess” capacity exists. A fundamental flaw is the indiscriminate nature of
6 his suggested “remedy.” More specifically, he avoids any sort of engineering
7 analysis and recommends an across-the-board 43.12% reduction or non-recognition
8 of the Company’s water utility plant for purposes of this case. Such an approach
9 gives no consideration to the actual functions performed by and need for a
10 particular facility; and, it thus has no demonstrable basis in fact from a “used and
11 useful” perspective. An excellent example of the fallacy of Mr. Coley’s approach
12 is the observation of Commission Staff witness Marlin Scott that 100% of the
13 400,000 gallon storage reservoir located at Water Plant No. 1 is needed for safe and
14 reliable operation of the Company’s water system. [See Exhibit MJS to Marlin
15 Scott’s prepared Direct Testimony at page 5, numbered paragraph 2] Another
16 example is Mr. Scott’s observation that the combined capacity of the Company’s
17 two (2) wells is not excessive for the reasons indicated by Mr. Scott. [See Exhibit
18 MJS to Marlin Scot’s prepared Direct Testimony at page 4, numbered paragraph 1]

19 Under RUCO’s approach, 43.12% of the value of these facilities would not
20 be accorded ratemaking recognition, despite Mr. Scott’s observation that each of
21 these facilities is fully “used and useful.” In my mind, as well as in the opinion of
22 the Company, this readily demonstrates the arbitrary and unsubstantiated nature of
23 Mr. Coley’s conceptual approach.

24
25 **Q.28 Have you and your colleagues at WestLand worked closely with the owners of**
26 **the Company from 2001 in connection with (i) the formulation of a master**

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water plan for the Eagle Crest Ranch Subdivision and (ii) the implementation of the mater water plan that was developed in various several stages at various points in time thereafter?

A.28 Yes, my staff and I have worked very closely with the Company since the inception of our professional relationship.

Q.29 In your professional opinion, was the March 15, 2001 master water plan for the Eagle Crest Ranch Subdivision well-conceived, and has it been responsibly implemented?

A.29 Yes, as to each part of your question.

Q.30 Based upon your knowledge of the surrounding circumstances, as they existed when the March 15, 2001 master water plan was accepted and thereafter implemented at various points in time by the Company, do you believe that the decisions and actions of the Company and its owners were reasonable and prudent in that regard?

A.30 Yes, without a doubt.

Q.31 Does this conclude your Rebuttal Testimony in this case?

A.31 Yes, it does.

**Goodman Water Company
Docket No. W-02500A-10-0382**

**MARK TAYLOR
REBUTTAL TESTIMONY**

May 2, 2011

APPENDIX A

WestLand Resources, Inc.
Engineering and Environmental Consultants

March 15, 2001

ARIZONA DEPARTMENT
OF ENVIRONMENTAL QUALITY
3033 N. Central Avenue
Phoenix, Arizona 85012

**RE: EAGLE CREST RANCH WATER SYSTEM MASTER PLAN
WESTLAND PROJECT NO. 292.02**

To Whom It May Concern:

This Master Plan is in reference to Eagle Crest Ranch subdivision. This project is located in Section 32, Township 10 South, Range 14 East, Pinal County, Arizona. The following analysis is based on the development plan provided by OPW & Associates, Inc. as revised on February 14, 2000. The development plan is divided into five (5) phases, with approximately 938 residential units and 71 acres of commercial land including a 12-acre school site. The water facilities designed for this project are based on the Tucson Water zone boundaries at 105-foot intervals. The facilities will serve the J- and K-zones and any lots located in the I-zone will be served using individual pressure reducing valves (PRVs).

The construction of facilities will be based on the following construction phases:

Table 1. Construction Facilities and Phases

Phase	Water Plant No.	Well No.
I	1	1
	4	
II	3 (Reservoir only)	2
III	3 (K-zone booster station)	3

These facilities will be able to supply the demands of Phase IV and V construction.

WATER SYSTEM ASSUMPTIONS

- 2.8 persons per unit
- 938 residential units
- 83 acres of commercial/light industrial/school
- 125 gallons per capita per day (gpcpd) (Residential)
- 1,400 gallons per acre per day (gpapd) (Commercial/Light Industrial)
- 1,000 gallons per minute (gpm) Fire Flow (Residential)
- 1,500 gpm Fire Flow (Commercial/Light Industrial)
- 2,000 gpm Fire Flow (School Site/Large Commercial)

Q:\obs\292.02\master plan ltr.doc

Average Daily Demand (ADD) = No. of Units * Persons/Unit * gpcpd (Residential)
 ADD = No. Acres * gpapd (Commercial/Light Industrial)

Peak Daily Demand (PDD) = ADD * 2.0
 Peak Hourly Demand (PHD) = ADD * 3.5

Table 2. Water System Demands

Phase	Zone	No. of Units	Commercial/School (acres)	Average Daily Demand (gpm)	Peak Daily Demand (gpm)	Peak Hour Demand (gpm)
I	J	193	33	79	158	277
	K	34		8	17	29
II	J	148	12 (school)	48	95	166
	K	60		15	29	51
III	J	118	38	66	132	231
	K	87		21	42	74
IV	J	93		23	45	79
	K	33		8	16	28
V	J	172		42	84	147
Totals		938	83	310	618	1,082

The well, storage and booster capacity was calculated using the demands determined in the table above. Definitions of how each capacity is calculated are listed below.

WELL CAPACITY

Well capacity is based on providing the entire systems PDD with one well and a well of equal capacity for backup. The existing system has a well with a capacity of 490 gpm. This well is to be brought up to regulatory standards for a potable water system. A second well with a capacity of 800 gpm will need to be constructed in phase II. A third well with a capacity of 800 gpm is planned for phase III.

STORAGE CAPACITY

Storage Capacity is one full day of the ADD for the system, plus two hours of fire flow. Because the fire flow demands differ on the type of land use, the storage tanks were sized by the largest fire flow requirement for the project (2,000 gpm). The ADD storage requirement is 446,400 gallons and the fire flow storage is 240,000 gallons. Using this criterion, 686,400 gallons of storage are needed. Based upon

15 percent of the storage capacity being dead storage, the total storage requirement is brought to 800,000 gallons. The storage will be divided into two 400,000-gallon reservoirs. One reservoir is to be built in Phase I and the second in Phase II.

- Storage = ADD + Fire Flow
ADD = 310 gpm * 1,440 minutes/day
= 446,400 gallons
Fire Flow = 2,000 gpm * 2 hours * 60 minutes/hour
= 240,000 gallons
- Storage = 446,400 gallons + 240,000 gallons
= 686,400 gallons (plus 15 percent)
= 686,400 gallons + (686,400 * 0.15)
= 789,360 gallons 800,000 gallons

BOOSTER CAPACITY

The capacity for each booster station is determined by the PDD for the area it serves plus the highest required fire flow for that area. Where the area can be served by gravity, boosters are not necessary to serve fire flow. A 2,000-gpm booster station will serve the J-zone until the J-zone reservoir is built in Phase II. At that time, the booster station will be used for transferring water from the lower reservoir to the upper reservoir. Two separate booster stations will serve the K-zone. A 1,100-gpm booster station for the southern K-zone will be built in Phase I, while the second 1,200-gpm booster station will be built in Phase III for the Northern K-zone. These two booster stations will provide PDD plus 1,000-gpm fire flow.

ELECTRIC

All facilities will have 480-volt, 3-phase power. No back-up generators will be provided for these facilities. However, manual transfer switches will be provided for backup generators for prolonged power outages. Provisions will be made for each facility for possible future remote telemetry. Currently, the systems will have a flashing red light as an alarm for low/high levels or low/high pressures. The wells will be equipped with a high-discharge switch. All flow meters shall be propeller type with manual readings.

WATER PLANT NO. 1

This water plant shall be constructed in Phase I and will include a 400,000-gallon steel reservoir that is 18 feet high, Well No. 1, 2,000-gpm J-zone booster station, 5,000-gallon hydropneumatic tank, electrical panel and an air compressor. This booster station has been sized to supply the demand of residential development and fire flow demands of commercial development for Phase I. The booster station will be operating on a pressure system until the second reservoir is built in Phase II. Once this reservoir is built, the booster station will operate as a transferring station to supply storage to the second reservoir.

The J-zone high water elevation is 3422 (per Tucson Water zone boundaries). The reservoir has a bottom elevation of 3,197 feet and, assuming the tank is two-thirds full, the static head is 213 feet (92 psi). Manifold losses are assumed to be 10 feet. To calculate the system curve a pipe loss coefficient of 120 and a pipe length of 5,000 feet was used (see Exhibit 3). The J-zone has an average system loss of 0.52 feet with a total dynamic head of 223.5 feet. Table 3 illustrates pump capacity and Table 4 lists the proposed pressure settings.

Table 3. Pump Capacity for J-zone Booster Station

Pump No.	Capacity (gpm)
1	150
2	350
3	500
4	1,000

Table 4. Proposed Pressure Settings for J-zone Booster Station

Pump No.	On (psi)	Off (psi)
1	97	103
2	95	105
3	93	107
4	91	109

The hydropneumatic tank shall be rated at a pressure of 150 psi with a pressure relief setting of 120 psi.

The existing well is identified as Well No. 55-610541 and has a capacity of 490 gpm. This well will be modified to meet ADEQ requirements. Improvements include a new 20-foot grout seal, new pump motor and starter with a pumping capacity of 500 gpm.

All coatings for this system are to be specified in accordance with the current AWWA and NSF 61 standards for potable water.

WELL NO. 2

Well No. 2 will be constructed in Phase II. This well is planned for a capacity of 800 gpm and will supply storage to the reservoir at Water Plant No. 1.

WATER PLANT NO. 3

This water plant will be built in two phases. The second 400,000-gallon reservoir will be built in Phase II and the K-zone booster station will be built in Phase III. This water plant shall include the reservoir, 1,200-gpm K-zone booster station, one 5,000-gallon hydropneumatic tank, air compressor and an electric rack. The pump capacities, system curve, and following criteria shall be calculated at a later date.

WELL NO. 3

Well No. 3 will be constructed in Phase III and will be connected to the reservoir in Water Plant No. 1. This well shall be equipped for providing a capacity of 800 gpm.

WATER PLANT NO. 4

Water Plant No. 4 is located in Section 32, Township 10 South, Range 14 East, Pinal County, Arizona. This water plant will contain a 1,100-gpm K-zone booster station, two 5,000-gallon hydropneumatic tanks, electric panel, and an air charger. This booster station will serve the lower (southern) K-zone. The K-zone high water is 3,527 feet, the suction high water is 3,422 feet (from Water Plant No. 1), and the static head is 105 feet (46 psi). A pipe diameter of 12 inches, pipe length of 1,300 feet and a pipe loss coefficient of 120 was used to calculate the system curve (Exhibit 4). The K-zone has minimal average system losses and an average total dynamic head of 105 feet at the PPD. Table 5 shows the typical pump capacities for this booster station, and Table 6 shows the pump pressure settings.

**Table 5. Pump Capacities
for the K-zone Booster Station**

Pump No.	Capacity (gpm)
1	50
2	150
3	900
4	Future

**Table 6. Pump Settings for the
K-zone Booster Station**

Pump No.	On (psi)	Off (psi)
1	98	104
2	96	106
3	94	108
4	--	--

Arizona Department of Environmental Quality

March 15, 2001

Page 6

The suction hydropneumatic tank to be rated at a pressure of 100 psi, and with a pressure relief setting at 80 psi. The discharge hydropneumatic tank to be rated at a pressure of 150 psi with a pressure relief setting at 120 psi. All coatings for the system are to be specified in accordance with the current AWWA and NSF 61 standards for potable water.

We appreciate your help in this review process and look forward to working with you on future projects. If you have any questions or are in need of additional information, please call.

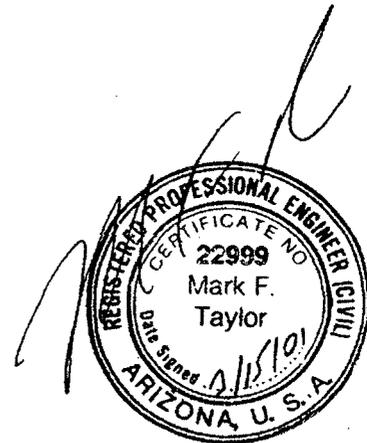
Respectfully,
WestLand Resources, Inc.



Rebecca Dameron, E.I.T.
Civil Designer

RD:be

Attachments: Exhibit 1. Site Plan
Exhibit 2. Exhibit 2 System Schematic
Exhibit 3. Water Plant No. 1 Data
Exhibit 4. Water Plant No. 4 Data



EXHIBIT

SITE PLAN



WATER PLANT #3
K-ZONE
BOOSTER STA.
400,000 GAL.
RESERVOIR

WATER PLANT #4
K-ZONE BOOSTER
STATION

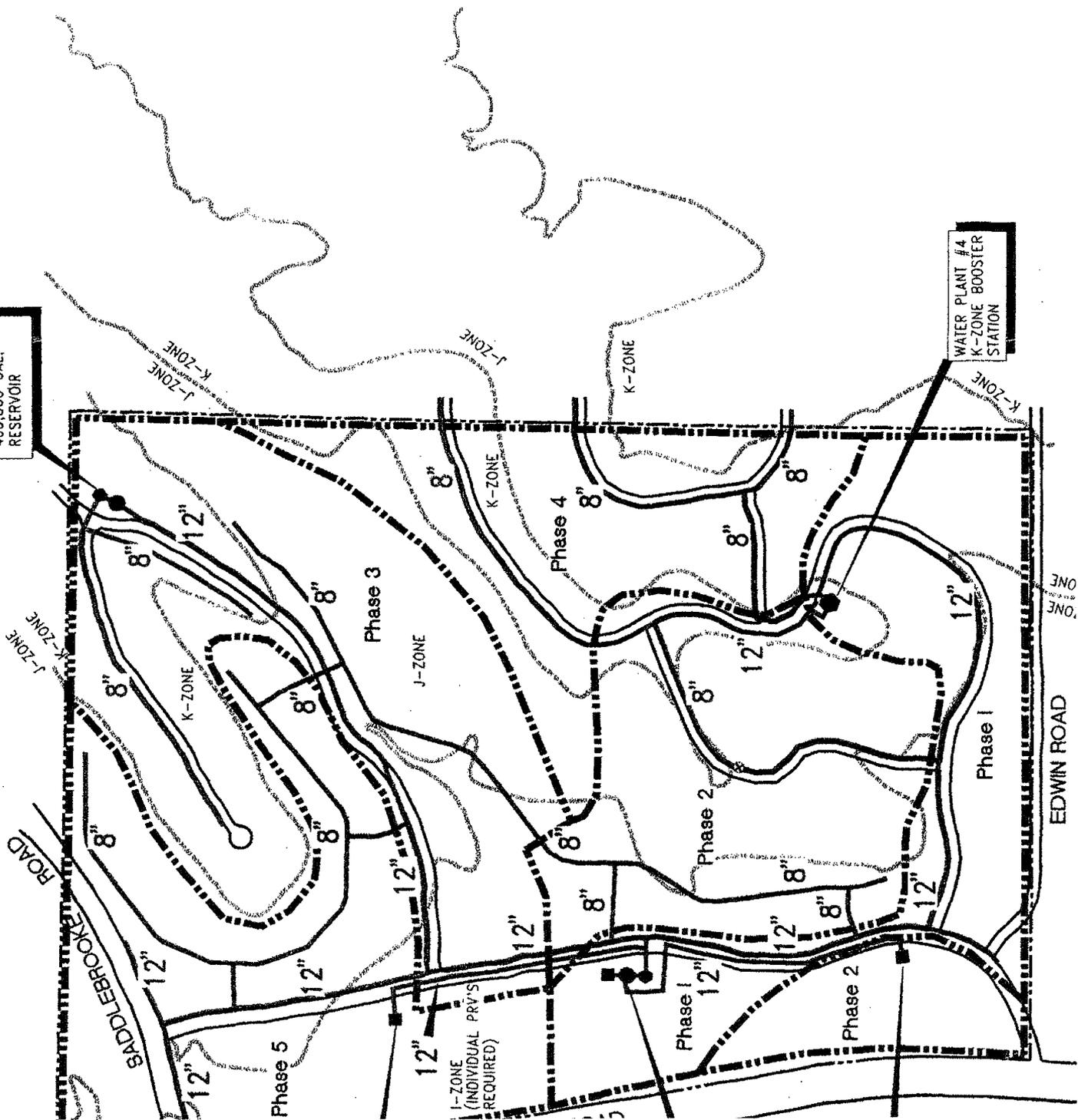
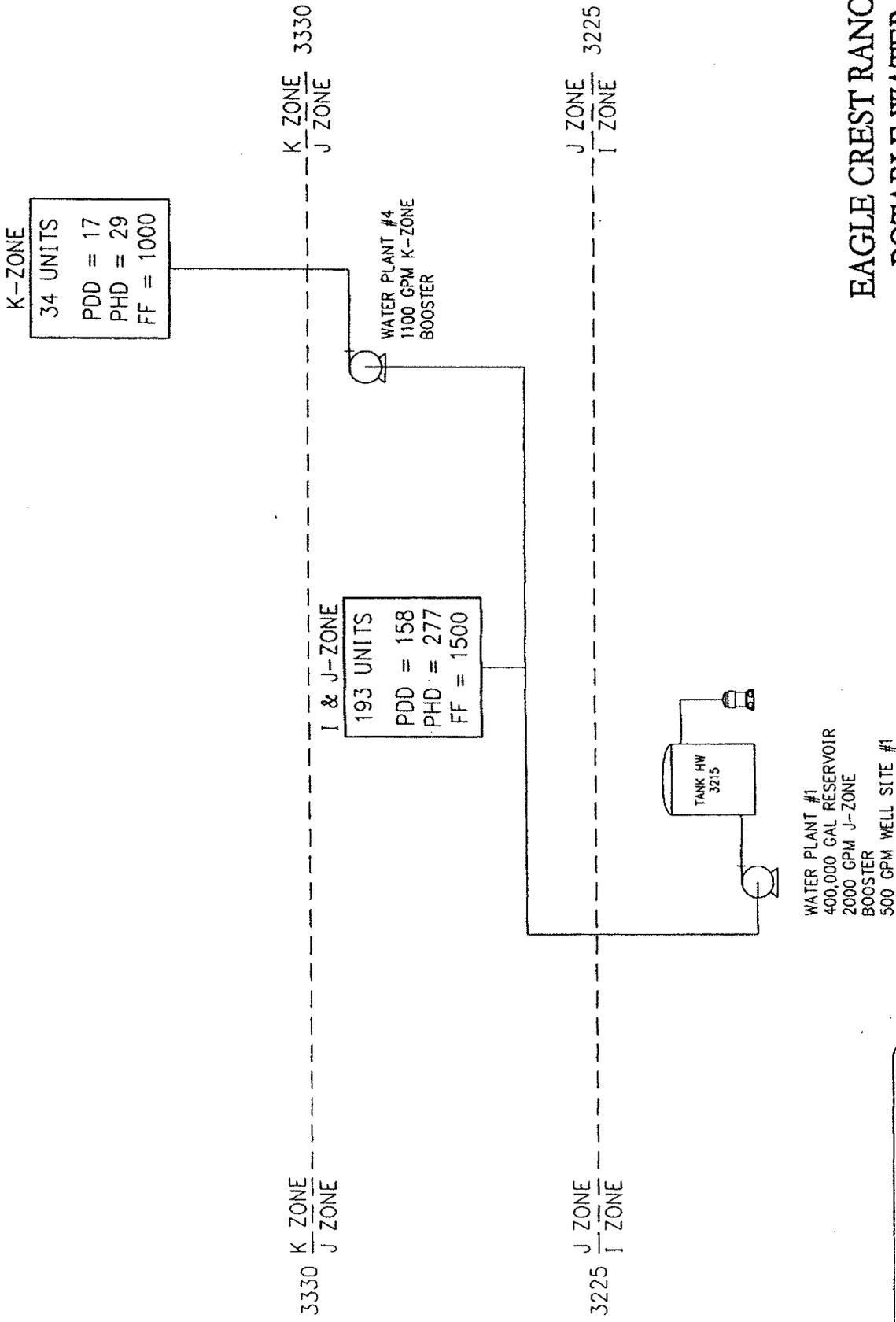


EXHIBIT 2

SYSTEM
SCHEMATIC

W:/projects/292.02/system-schematic-PH1.dwg

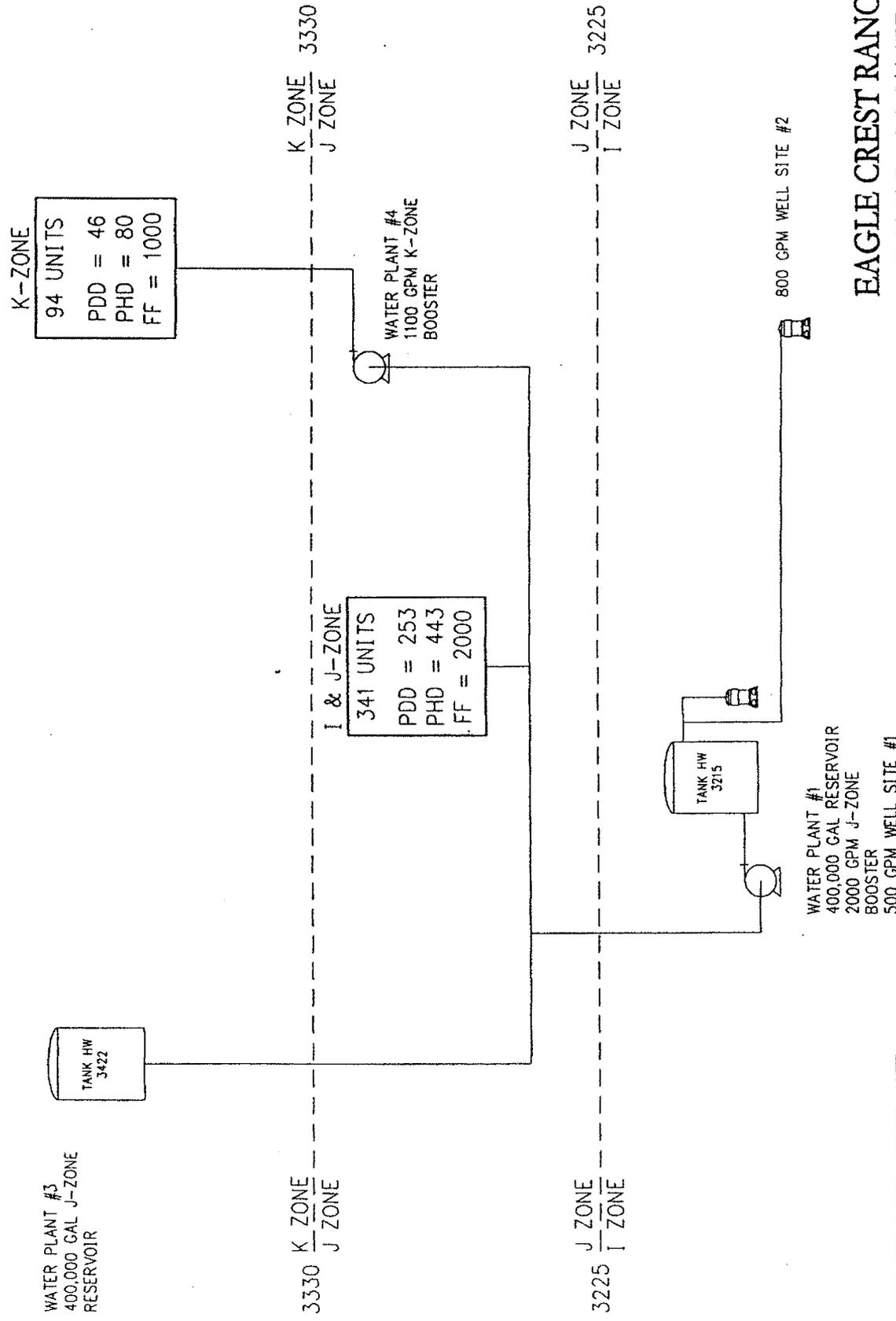


EAGLE CREST RANCH POTABLE WATER SYSTEM SCHEMATIC PHASE 1



WestLand Resources Inc.
Engineering and Environmental Consultants
2343 E. Broadway Blvd., Suite 203
Tucson, AZ 85719 (520) 205-9588

W:/projects/292.02/system-schematic-PH2.dwg



WATER PLANT #3
400,000 GAL J-ZONE
RESERVOIR

K-ZONE
94 UNITS
PDD = 46
PHD = 80
FF = 1000

3330 K ZONE
J ZONE

I & J-ZONE
341 UNITS
PDD = 253
PHD = 443
FF = 2000

WATER PLANT #4
1100 GPM K-ZONE
BOOSTER

3225 J ZONE
I ZONE

TANK HW
3215

WATER PLANT #1
400,000 GAL RESERVOIR
2000 GPM J-ZONE
BOOSTER
500 GPM WELL SITE #1

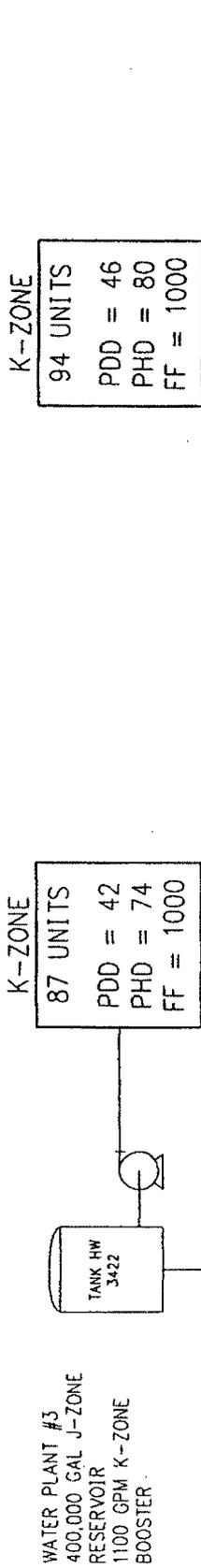
800 GPM WELL SITE #2

EAGLE CREST RANCH POTABLE WATER SYSTEM SCHEMATIC PHASE 2



WestLand Resources Inc.
Engineering and Environmental Consultants
2343 E. Broadway Blvd., Suite 202
Tucson, AZ 85719 (520) 298-8585

V:\projects\282.02\system-schematic-PI3.dwg



WATER PLANT #3
400,000 GAL J-ZONE
RESERVOIR
1100 GPM K-ZONE
BOOSTER

K-ZONE
87 UNITS
PDD = 42
PHD = 74
FF = 1000

K-ZONE
94 UNITS
PDD = 46
PHD = 80
FF = 1000

3330
K ZONE
J ZONE

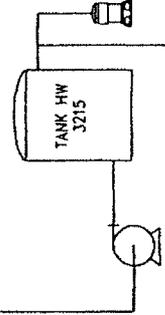
3330
K ZONE
J ZONE

I & J-ZONE
459 UNITS
PDD = 385
PHD = 674
FF = 2000

WATER PLANT #4
1100 GPM K-ZONE
BOOSTER

3225
J ZONE
I ZONE

3225
J ZONE
I ZONE



WATER PLANT #1
400,000 GAL RESERVOIR
2000 GPM J-ZONE
BOOSTER
500 GPM WELL SITE #1

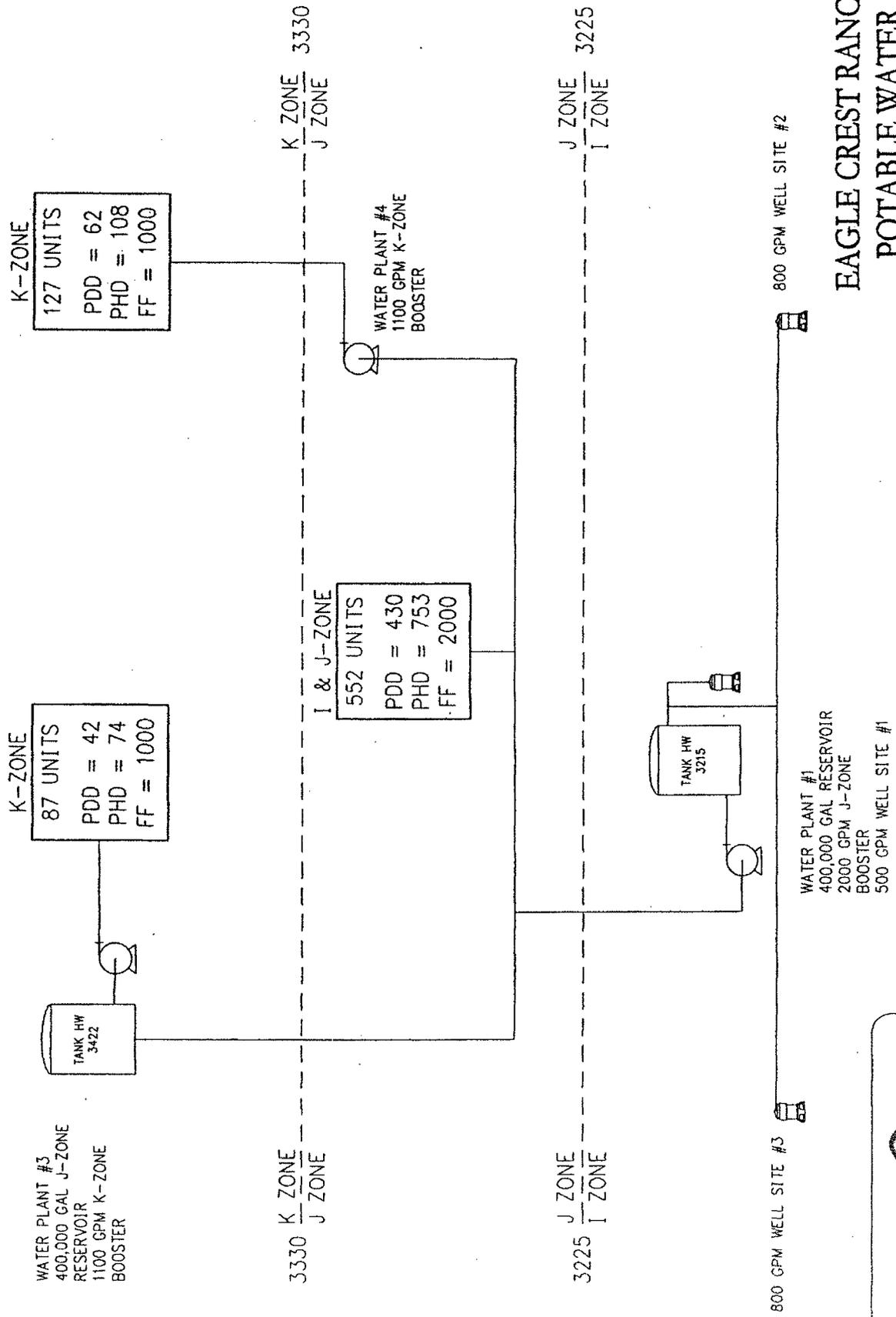
800 GPM WELL SITE #3

800 GPM WELL SITE #2

**EAGLE CREST RANCH
POTABLE WATER
SYSTEM SCHEMATIC
PHASE 3**

WestLand Resources Inc.
Engineering and Environmental Consultants
2343 E. Broadway Blvd., Suite 302
Tucson, AZ 85718 (520) 208-3585

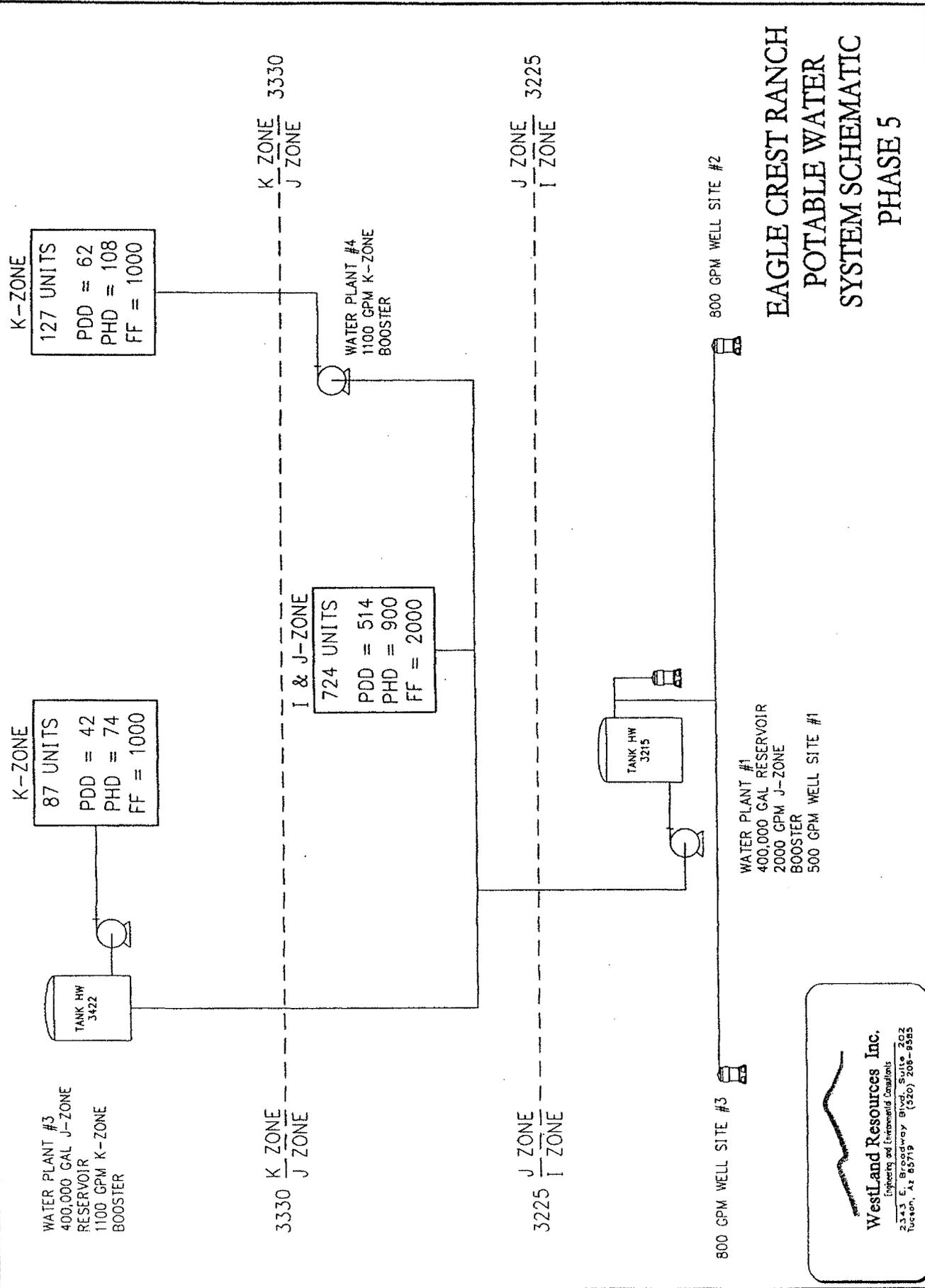
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EAGLE CREST RANCH POTABLE WATER SYSTEM SCHEMATIC PHASE 4

WestLand Resources Inc.
Engineering and Environmental Consultants
2343 E. Broadway Blvd., Suite 202
Tucson, Az 85719 (520) 208-9585

K:\projects\282.02\system-schematic-PHS.dwg



EAGLE CREST RANCH POTABLE WATER SYSTEM SCHEMATIC PHASE 5

Westland Resources Inc.
Engineering and Environmental Consultants
2343 E. Broadway Blvd., Suite 202
Tucson, AZ 85719 (520) 208-9585

EXHIBIT 3

WATER PLANT

NO. 1 DATA

**EAGLE CREST RANCH
WATER PLANT NO. 1**

J-Zone Booster Station

This booster station will be a pressure system and once the second reservoir is built in Phase II this will become a transfer station.

PDD = 158 gpm

PHD = 277 gpm

ADD = 79 gpm

Site elevation = 3197 feet

Reservoir HW = 3215 feet

Reservoir 2/3 full = 3209 feet

J zone HW = 3422 feet

Static head = 213 feet

Manifold losses = 10 feet

Equivalent length = 5000 feet

Max. capacity of booster station = 2000 gpm

Head loss at PDD = 0.52 feet

Head loss at Fire Flow = 31.35 feet

TDH at average conditions (PDD) = 223.5 feet

TDH at Fire Flow = 254 feet

EAGLE CREST
 WESTLAND JOB NO. 292.02 A 8000

DATE: 1-Feb-01

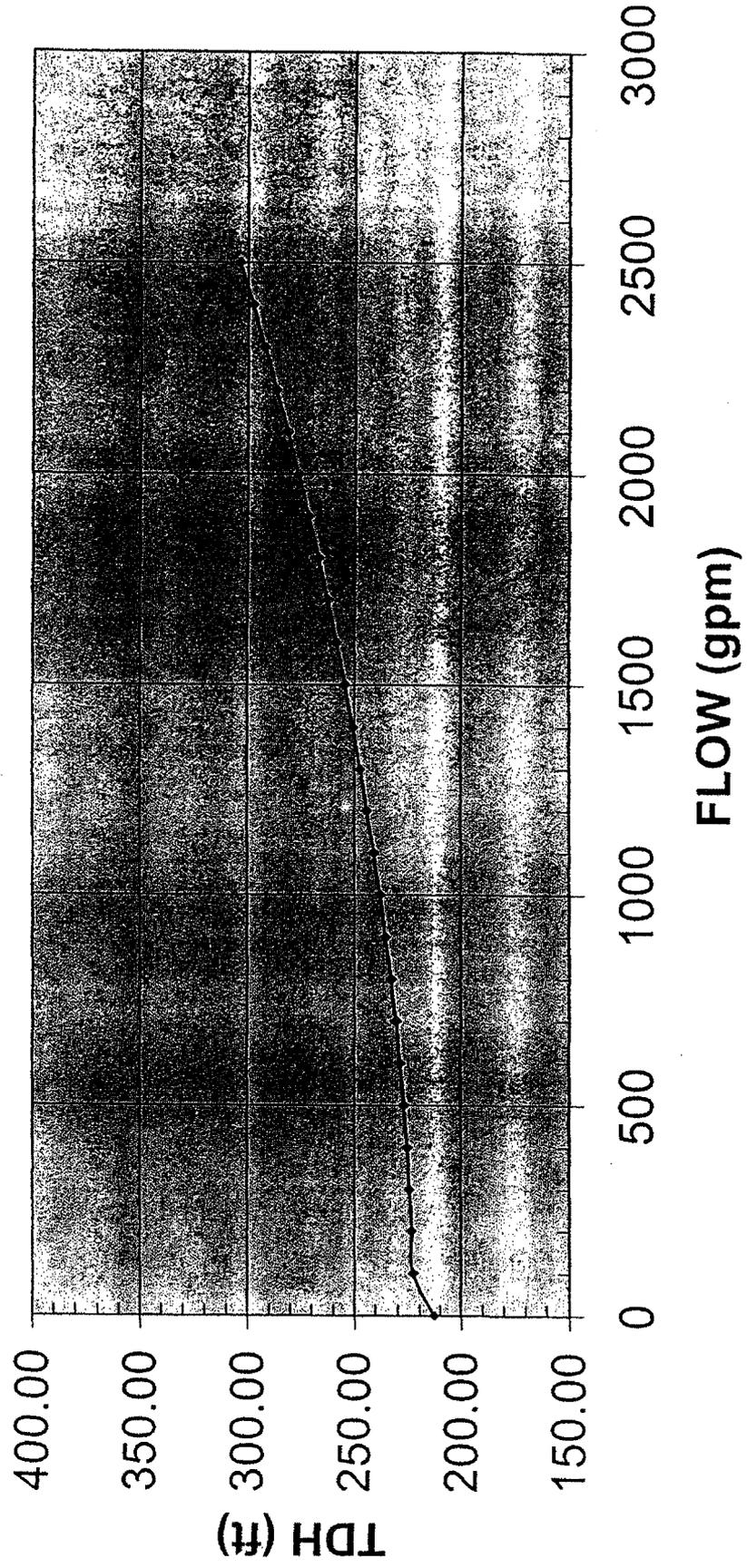
WATER PLANT NO. 1
 SYSTEM CURVE

J ZONE BOOSTER STATION

Length of pipe (feet)= 5000
 Size of pipe (inches) = 12
 C = 120
 Static head (feet) = 213 (J zone HW-tank 2/3 full=3422-3209)

FLOW (GPM)	HL (FEET)	STATIC HEAD (FEET)	MANIFOLD LOSSES (FEET)	TDH (FEET)
0	0.00	213	0	213.00
100	0.21	213	10	223.21
200	0.75	213	10	223.75
300	1.60	213	10	224.60
400	2.72	213	10	225.72
500	4.11	213	10	227.11
600	5.75	213	10	228.75
700	7.65	213	10	230.65
800	9.80	213	10	232.80
900	12.18	213	10	235.18
1000	14.81	213	10	237.81
1100	17.66	213	10	240.66
1200	20.75	213	10	243.75
1300	24.06	213	10	247.06
1400	27.59	213	10	250.59
1500	31.35	213	10	254.35
1600	35.32	213	10	258.32
1700	39.51	213	10	262.51
1800	43.92	213	10	266.92
1900	48.54	213	10	271.54
2000	53.37	213	10	276.37
2100	58.42	213	10	281.42
2200	63.67	213	10	286.67
2300	69.12	213	10	292.12
2400	74.79	213	10	297.79
2500	80.65	213	10	303.65

**EAGLE CREST RANCH
WATER PLANT NO. 1
System Curve**



— System Curve

WATER PLANT NO.1

PUMP TDH

PUMP HW= 3422
 RESERVOIR HW = 3215
 RESERVOIR HW
 (TANK 2/3 FULL)= 3209
 STATIC HEAD = 213 PRESSURE = 92

PUMP	CAPACITY (gpm)	ON (ft)	ON (psi)	AVE (ft)	AVE (psi)	OFF (ft)	OFF (psi)
1	150	210	91	217	94	224	97
2	350	206	89	217	94	229	99
3	500	201	87	217	94	233	101
4	1000	196	85	217	94	238	103
TOTAL	2000						

PUMP PRESSURE SETTINGS

PUMP HW = 3422
 PUMP ELEVATION= 3196
 STATIC HEAD = 226 PRESSURE = 98

PUMP	CAPACITY (gpm)	ON (psi)	OFF (psi)
1	150	97	103
2	350	95	105
3	500	93	107
4	1000	91	109

**EAGLE CREST
WATER PLANT NO. 1**

HYDROPNEUMATIC TANK:

J-Zone: Static head of 213 feet = 92 psi
 Tank working pressure = 150 psi
 Pressure relief valve = 80% of working pressure
 = 0.80×150 psi
 = 120 psi

AIR COMPRESSOR:

5000 gallon hydropneumatic tank = 669 cu. feet
Size air compressor to fill 1/3 of hydropneumatic tank at 1 time = 223 cu. ft.
Air compressor to fill tank in 32 minutes.
 $223 \text{ cu. ft.} / 32 \text{ min.} = 7.0 \text{ cfm}$
Size air compressor to fill 7.0 cfm at 92 psi.

*Note: 1 HP can fill tank 3 cfm
 $7.0 \text{ cfm} / 3 \text{ cfm} = 2.33 \text{ HP} \Rightarrow 2 \text{ HP}$*

EXHIBIT
WATER PLAN
NO. 4 DATA

**EAGLE CREST RANCH
WATER PLANT NO. 4**

K-Zone Booster Station

This booster station will be working as a pressure system.

PDD = 17 gpm

PHD = 29 gpm

ADD = 8 gpm

Site elevation = 3299 feet

Suction HW = 3422 feet

K-zone HW = 3527 feet

Static head = 105 feet

Manifold losses = 10 feet

Equivalent length = 1300 feet

Max. capacity of booster station = 1100 gpm

Head loss at PDD = 0 feet

Head loss at Fire Flow = 4 feet

TDH at average conditions (PDD) = 105 feet

TDH at Fire Flow = 119 feet

EAGLE CREST
WESTLAND JOB NO. 292.02 A 8000

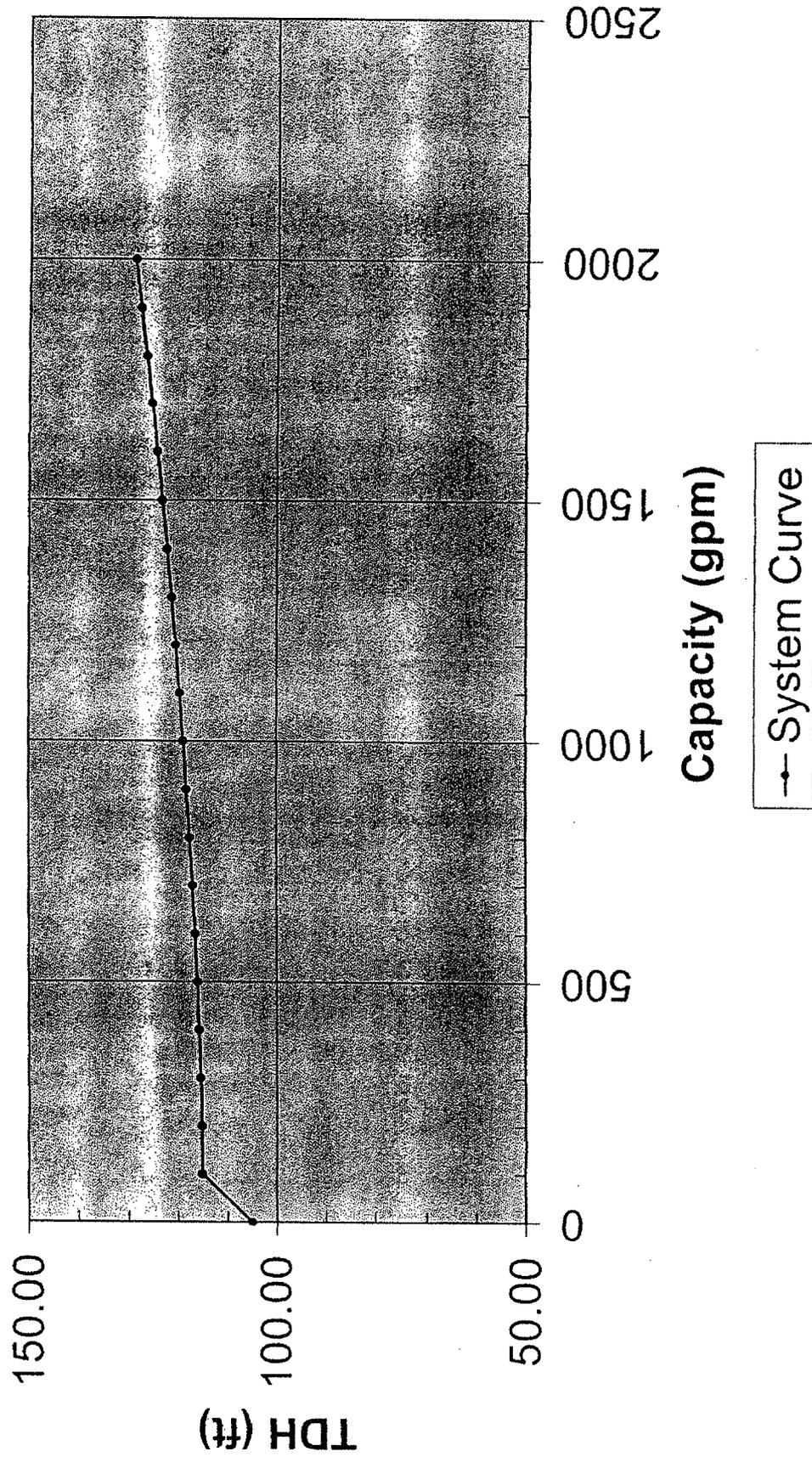
WATER PLANT NO. 4
SYSTEM CURVE (Pump Only)

K ZONE BOOSTER

Length of pipe(feet)=	1300	Suction HW=	3422
Size of pipe (inches)=	12	Discharge HW=	<u>3527</u>
C =	120	Static Head (ft)=	105
		Static Head (psi)=	45.5

FLOW (gpm)	HL (feet)	STATIC HEAD (feet)	MANIFOLD LOSSES (feet)	TDH (feet)
0	0.00	105	0	105.00
100	0.05	105	10	115.05
200	0.20	105	10	115.20
300	0.42	105	10	115.42
400	0.71	105	10	115.71
500	1.07	105	10	116.07
600	1.50	105	10	116.50
700	1.99	105	10	116.99
800	2.55	105	10	117.55
900	3.17	105	10	118.17
1000	3.85	105	10	118.85
1100	4.59	105	10	119.59
1200	5.39	105	10	120.39
1300	6.25	105	10	121.25
1400	7.17	105	10	122.17
1500	8.15	105	10	123.15
1600	9.18	105	10	124.18
1700	10.27	105	10	125.27
1800	11.42	105	10	126.42
1900	12.62	105	10	127.62
2000	13.88	105	10	128.88

Eagle Crest Water Plant No. 4



**EAGLE CREST
WATER PLANT NO. 4**

HYDROPNEUMATIC TANK:

K-Zone: Max. head of 228 feet = 99 psi
(Discharge) Tank working pressure = 150 psi
 Pressure relief valve = 80% of working pressure
 = $0.80 * 150$ psi
 = 120 psi

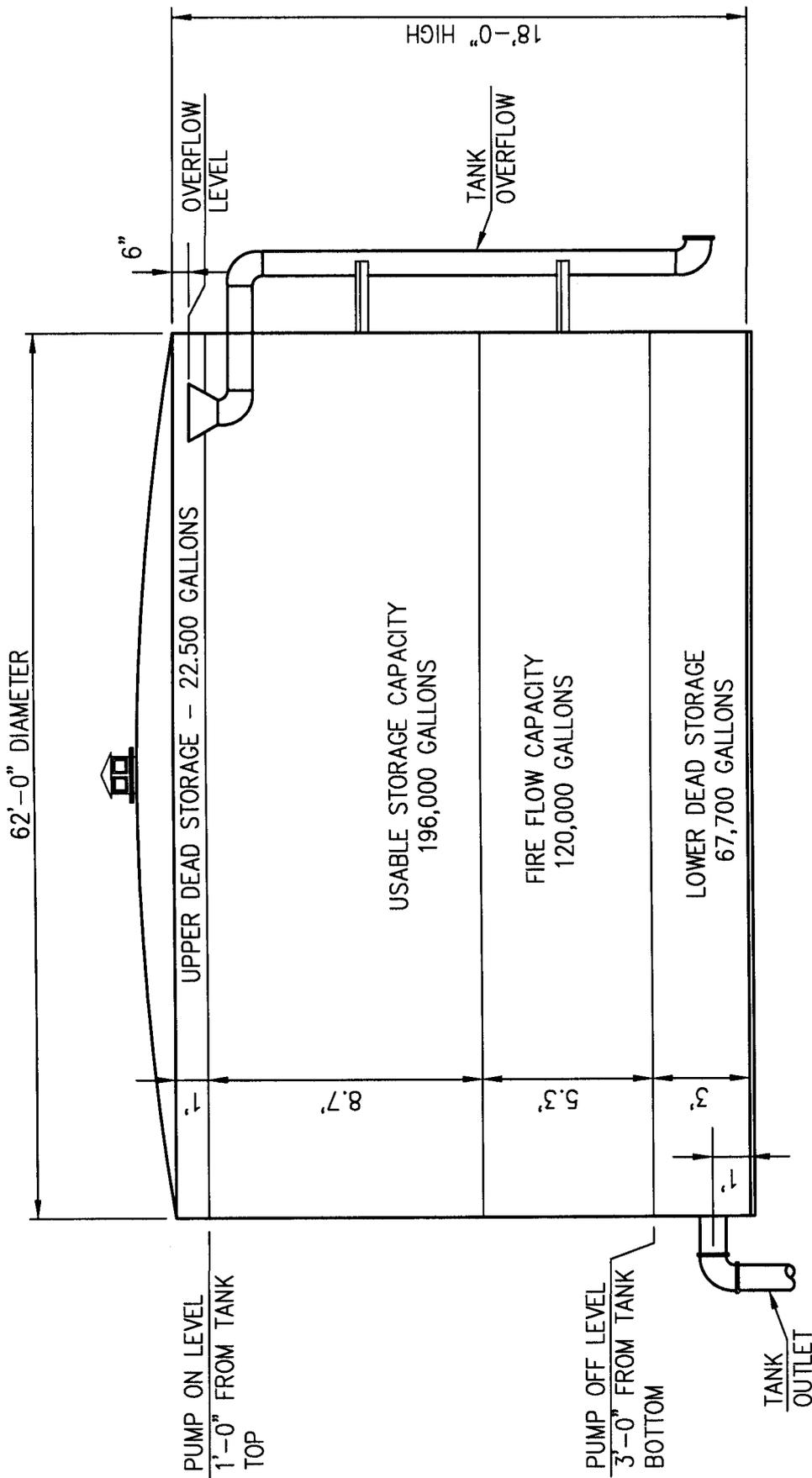
J-Zone: Max. head of 123 feet = 53 psi (J-zone HW-Site elevation of WP #4)
(Suction) Tank working pressure = 100 psi
 Pressure relief valve = 80% of working pressure
 = $0.80 * 100$ psi
 = 80 psi

**Goodman Water Company
Docket No. W-02500A-10-0382**

**MARK TAYLOR
REBUTTAL TESTIMONY**

May 2, 2011

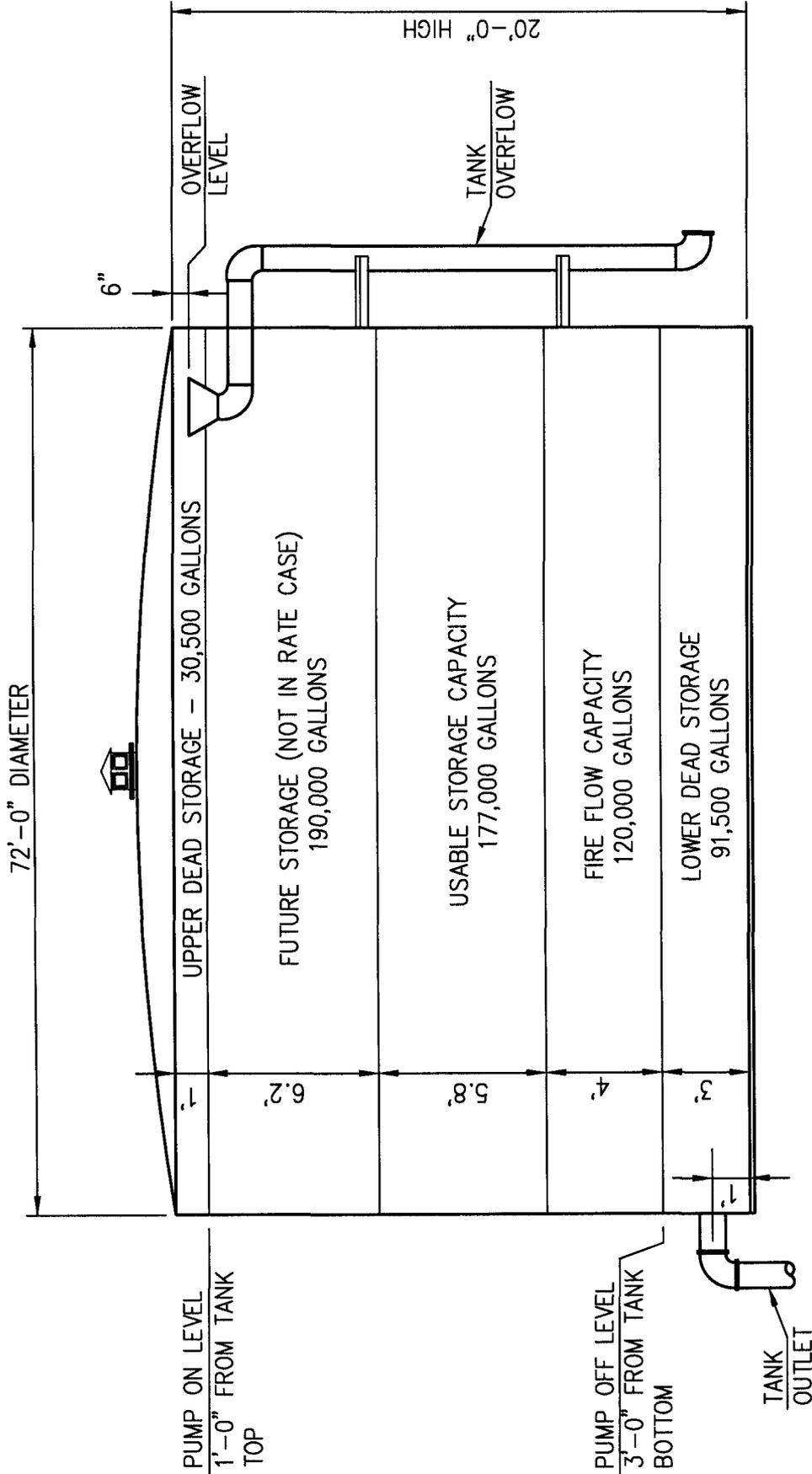
APPENDIX B



EAGLE CREST WATER PLANT NO.1 STORAGE TANK

WestLand Resources Inc.
Engineering and Environmental Consultants
4001 E. Paradise Drive
Tucson, Az 85712 (520) 206-9585

APRIL 29, 2011



EAGLE CREST WATER PLANT NO.3 STORAGE TANK

WestLand Resources, Inc.
Engineering and Environmental Consultants
4001 E. Paradise Falls Drive
Tucson, AZ 85712 (520) 206-9565

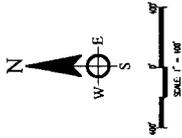
APRIL 29, 2011

**Goodman Water Company
Docket No. W-02500A-10-0382**

**MARK TAYLOR
REBUTTAL TESTIMONY**

May 2, 2011

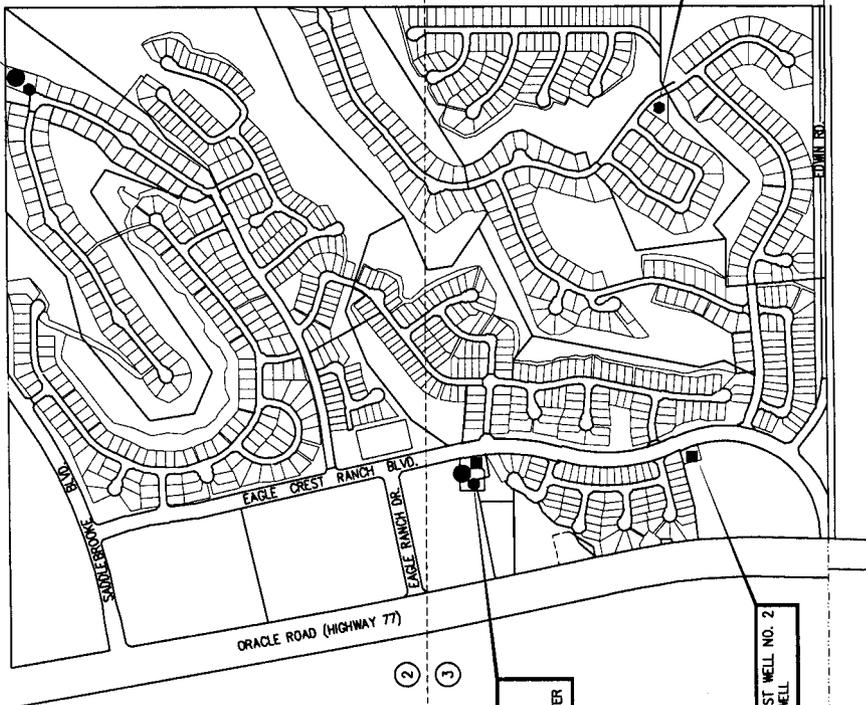
APPENDIX C



SHEET INDEX

SHEET INDEX
 ② TOWNSHIP 10 SOUTH, RANGE 14 EAST, SECTION 32 - NORTH
 ③ TOWNSHIP 10 SOUTH, RANGE 14 EAST, SECTION 32 - SOUTH

WATER PLANT NO. 3
 530,000 GAL. J-ZONE RESERVOIR
 1,200 GPM K-ZONE BOOSTER



WATER PLANT NO. 1
 400,000 GAL. RESERVOIR
 500 GPM WELL
 2,000 GPM J-ZONE BOOSTER

EAGLE CREST WELL NO. 2
 800 GPM WELL

WATER PLANT NO. 4
 1100 GPM K-ZONE BOOSTER

GOODMAN WATER COMPANY WATER SYSTEM BASE MAP

SECTION NUMBER

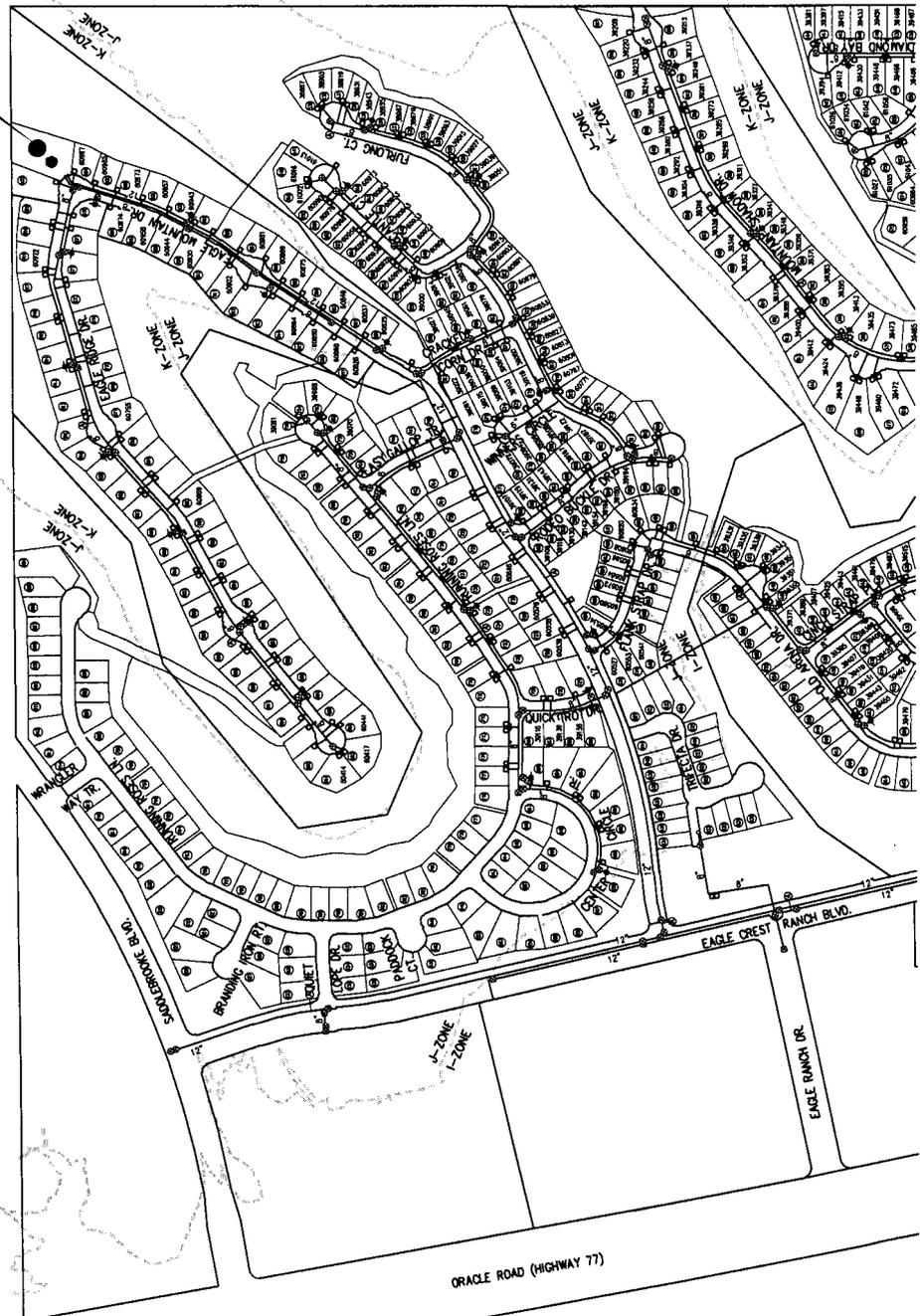
INDEX SHEET

REV. 05/09/09

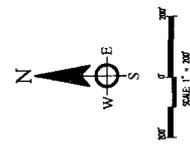
SHEET NUMBER

1

WATER PLANT NO. 3
 530,000 GAL. J-ZONE RESERVOIR
 1200 GPM K-ZONE BOOSTER



- LEGEND**
- WATER MAIN
 - AIR RELEASE VALVE
 - WATER WAVE
 - FIRE HYDRANT
 - 3/4" WATER SERVICE
 - 1" WATER SERVICE
 - IRRIGATION SERVICE
 - CLOSED VALVE (ZONE BOUNDARY)
 - EXISTING WELL
 - EXISTING RESERVOIR
 - EXISTING PTV STATION
 - EXISTING BOOSTER STATION
 - ZONE BOUNDARY
 - SHEET NUMBER
 - LOT NUMBER



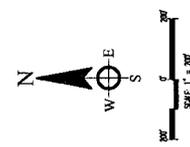
SECTION NUMBER
 TOWNSHIP 10 SOUTH
 RANGE 14 EAST
 NORTH 1/2
 SECTION 32

GOODMAN WATER COMPANY WATER SYSTEM BASE MAP

2



- LEGEND**
- WATER MAIN
 - AIR RELEASE VALVE
 - WATER WALKIE
 - FIRE HYDRANT
 - 3/4" WATER SERVICE
 - 1" WATER SERVICE
 - IRRIGATION SERVICE
 - CLOSED VALVE (ZONE BOUNDARY)
 - EXISTING WELL
 - EXISTING RESERVOIR
 - EXISTING PIV STATION
 - EXISTING BOOSTER STATION
 - ZONE BOUNDARY
 - SHEET NUMBER
 - LOT NUMBER

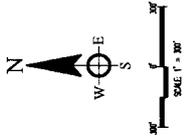


**Goodman Water Company
Docket No. W-02500A-10-0382**

**MARK TAYLOR
REBUTTAL TESTIMONY**

May 2, 2011

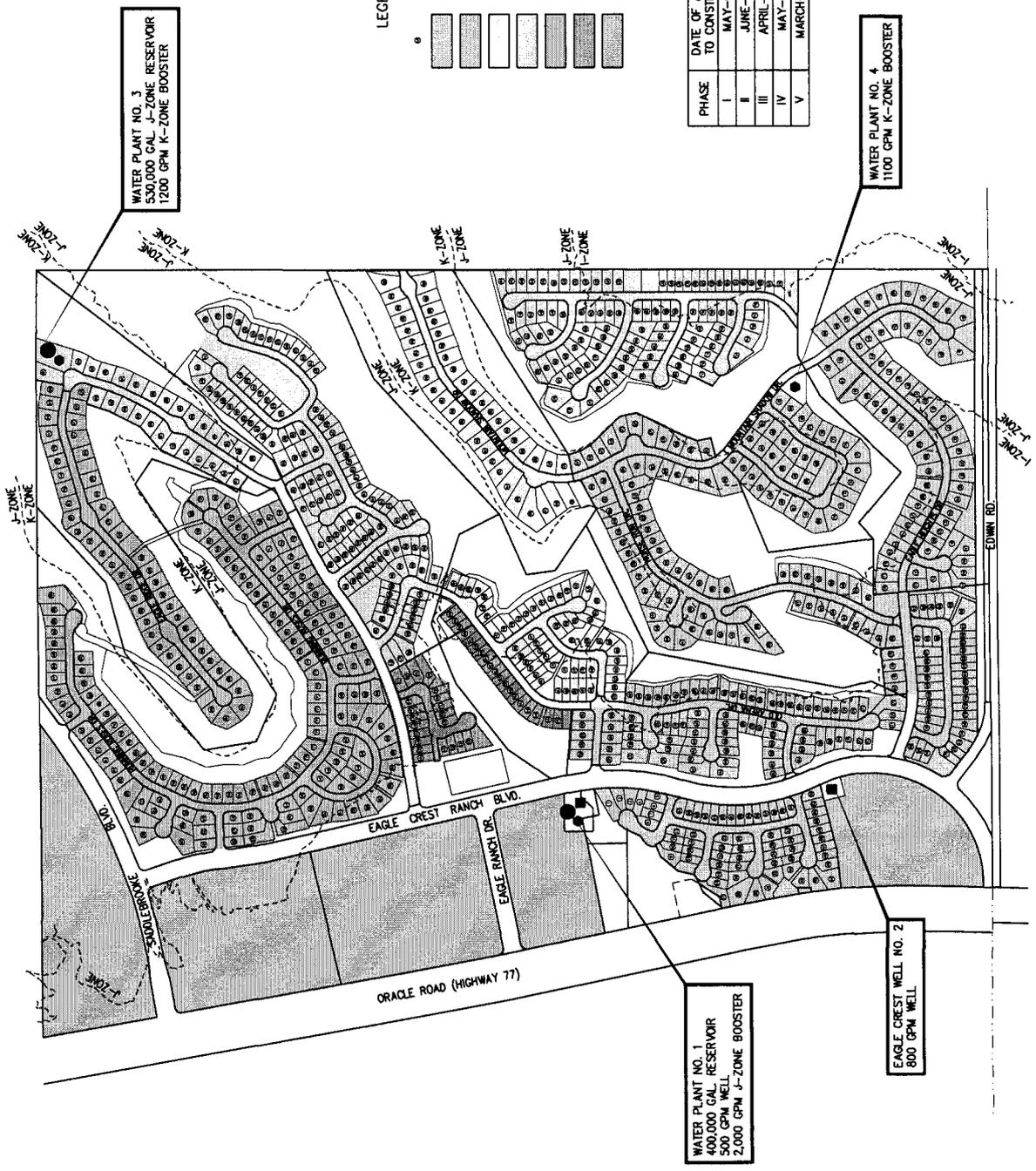
APPENDIX D



LEGEND

○	LOT NUMBER
[Pattern]	PHASE I
[Pattern]	PHASE II
[Pattern]	PHASE III
[Pattern]	PHASE IV
[Pattern]	PHASE V
[Pattern]	FUTURE PHASE
[Pattern]	COMMERCIAL AREA

PHASE	DATE OF APPROVAL TO CONSTRUCT	LOTS INCLUDED
I	MAY-02	1-218
II	JUNE-03	219-377
III	APRIL-04	378-477
IV	MAY-06	478-728
V	MARCH-08	729-920



SHEET NUMBER

1

FEB. 16, 2011

GOODMAN WATER COMPANY
EAGLE CREST WATER INFRASTRUCTURE
PHASES AND LOTS SERVED

**Goodman Water Company
Docket No. W-02500A-10-0382**

**MARK TAYLOR
REBUTTAL TESTIMONY**

May 2, 2011

APPENDIX E

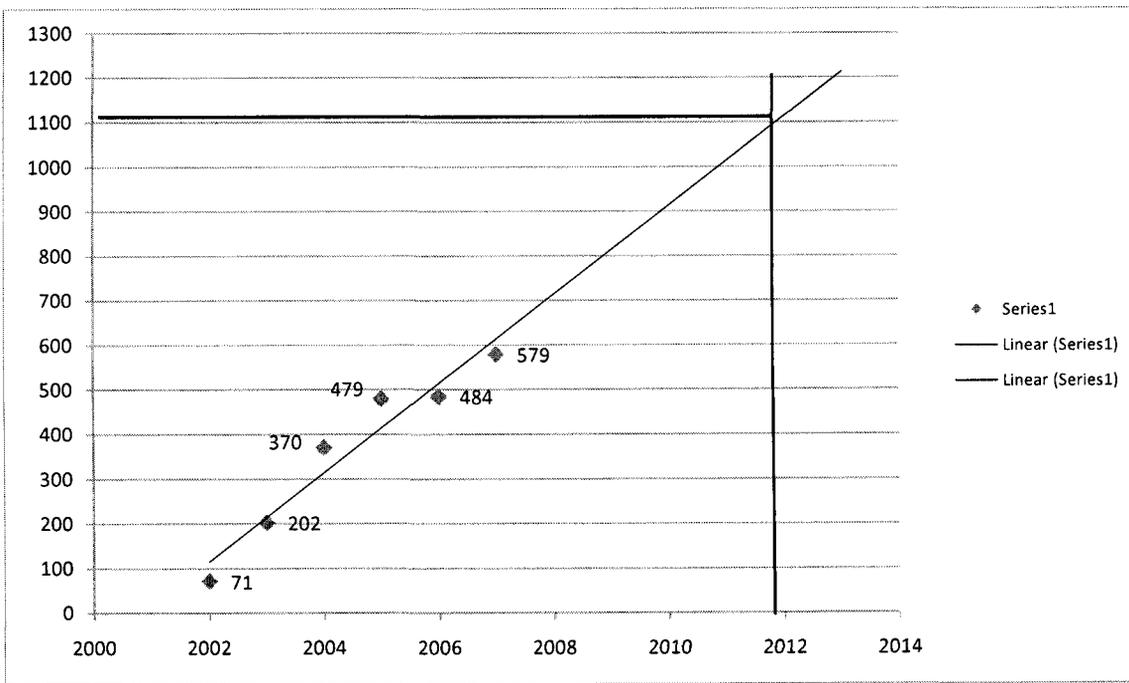
Goodman Water Company
Projections of EDUs based upon data from 2002 to 2007

GWC Number of Customers (Source: Annual Reports)

Cumulative	
Year	No. of YE Customers
2002	71
2003	202
2004	370
2005	479
2006	484
2007	579

Projected EDUs

Year	No. of EDUs
2012	1,113
2013	1,213
2014	1,313



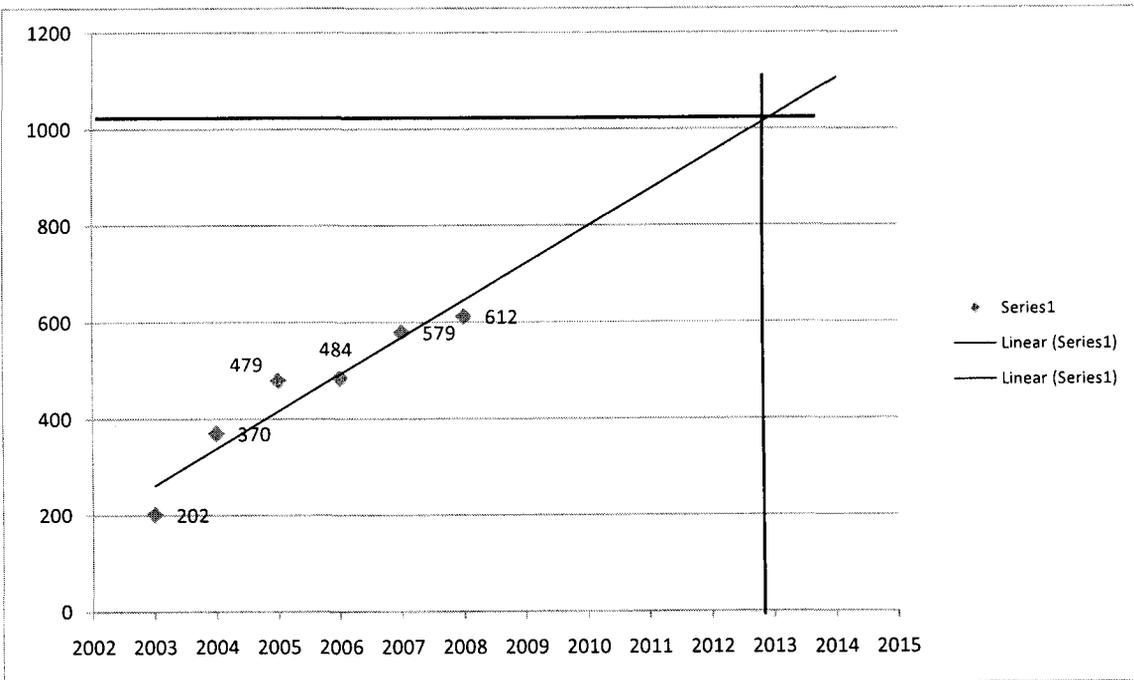
Goodman Water Company
Projections of EDUs based upon data from 2003 to 2008

GWC Number of Customers (Source: Annual Reports)

Cummulative	
Year	No. of YE Customers
2003	202
2004	370
2005	479
2006	484
2007	579
2008	612

Projected EDUs

Year	No. of EDUs
Forecast 2012	954
Forecast 2013	1,030
Forecast 2014	1,107



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28

BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION OF)
GOODMAN WATER COMPANY, AN ARIZONA) DOCKET NO. W-02500A-10-0382
CORPORATION, FOR (i) A DETERMINATION)
OF THE FAIR VALUE OF ITS UTILITY PLANT)
AND PROPERTY AND (ii) AN INCREASE IN) PREPARED REBUTTAL
ITS WATER RATES AND CHARGES FOR) TESTIMONY
UTILITY SERVICE BASED THEREON.)

REBUTTAL TESTIMONY OF

MICHAEL J. NAIFEH

ON BEHALF OF GOODMAN WATER COMPANY

May 2, 2011

Lawrence V. Robertson, Jr.
Attorney at Law
P. O. Box 1448
Tubac, Arizona 85646
(520) 398-0411

Lawrence V. Robertson, Jr.
Attorney at Law
P. O. Box 1448
Tubac, Arizona 85646
(520) 398-0411

**REBUTTAL TESTIMONY
OF
MICHAEL J. NAIFEH**

1
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Q.1 Please state your name, business affiliation and business address.

A.1 My name is Michael J. Naifeh. I am the owner of MJN Enterprises, Inc., a company which provides real estate appraisal and consulting services to a wide range of clients. The company's offices are located at 6061 East Grant Road, Suite 212, Tucson, Arizona, 85712.

Q.2 Are you the same Michael J. Naifeh who prepared a Summary Appraisal Report Market Value Opinions of Underlying Land (a Fractional Interest Appraisal) of Four Parcels Within the Eagle Crest Ranch Subdivision, as of June 26, 2008 ("2008 Appraisal") for Goodman Water Company, Inc. ("Company")?

A.2 Yes, I am. Since I will be referring to the 2008 Appraisal from time-to-time in connection with my Rebuttal Testimony, a copy of the same is attached to this Rebuttal Testimony as Appendix "A."

Q.3 Before we begin with a discussion of the 2008 Appraisal and the circumstances surrounding your preparation of the same, I would like to ask you a few questions regarding your educational background and your professional experience.

To begin, please describe your educational background.

A.3 I graduated from the University of Arizona in 1980 with a BS/BA and a dual concentration in accounting and real estate. I completed and passed examinations for all the necessary Appraisal Institute courses and experience review to achieve the MAI designation of the Appraisal Institute. MAI stands for Member of the Appraisal Institute. The purpose and role of the Appraisal Institute is to improve appraisal professionalism and practices. In addition to numerous classes, one must also prepare what is essentially a master's thesis

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called a demonstration appraisal report and also successfully pass the comprehensive exam which is somewhat similar to the CPA exam.

I have undertaken public service, serving approximately 3.5 years on the Arizona State Board of Appraisal (“Board”) which is the regulatory board for appraisers in the State of Arizona. I served as Vice Chairman my first year, and Chairperson my second year. The functions of the Board include approving educational offerings, disciplinary actions, and, as a subset of disciplinary action, helping appraisers improve their professional practice.

Q.4 Please describe your professional experience, with particular emphasis upon your qualifications and experience as a real estate appraiser.

A.4 I have been appraising real estate since May, 1980, or for over 30 years. The scope of my practice typically excludes owner occupied single family dwellings, and it includes counseling, mortgage loan appraisals, litigation appraisals, and valuation for tax and acquisition/disposition purposes.

Through the course of my career I have appraised a wide variety of properties throughout the state of Arizona. Examples of higher profile appraisals include assisting the GSA in an appraisal of the DeConcini Federal Courthouse in downtown Tucson, appraising some closed schools for Tucson Unified School District No. 1, and appraising some of the highest priced Desert Ridge parcels near route 101 and Tatum Boulevard in the metropolitan Phoenix area, which were thereafter auctioned by the Arizona State Land Department. In addition, I recently appraised a ridgeline property for a wind farm which will be on state land. I also recently appraised the largest Greek monastery outside of Greece, which is located near Florence, Arizona.

Q.5 The initials “MAI” and “CRE” appear after your name in the 2008 Appraisal. What does the designation “MAI” mean, and what is required of an individual in order to qualify for such a designation?

Q.5 As previously indicated, the designation MAI means Member of the Appraisal Institute.

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Q.6 Do all real estate appraisers possess the “MAI” designation; and, why do you believe possession of that designation is important and of value?

A.6 Only about 12,000 appraisers hold the MAI designation worldwide. The MAI designation is challenging to achieve and takes several years of experience. The MAI designation is important and valuable because it demonstrates commitment to a higher standard of appraisal practice that is further bound by a commitment to a code of ethics, including subjecting any of my appraisals to peer review.

Q.7 What does the designation “CRE” mean, and what is required of an individual in order to qualify for that designation?

A.7 CRE stands for Counselor of Real Estate. The CRE designation is not awarded by passing classes or taking tests. It is awarded only to individuals who are invited by their peers into the membership of the Counselors of Real Estate after at least 10 years of exemplary service in their field of expertise. The organization focuses on counseling, public service and collegially working together.

Q.8 Do all real estate appraisers possess the “CRE” designation; and, why do you believe possession of that designation is important and of value?

A.8 There are about 1,200 CRE members worldwide. In order to be invited to join, one must have at least 10 years of experience with a significant focus on counseling within their real estate discipline. Members of the organization do an extensive background check, look at both consulting work product, and personally interview the nominee. Invitation to the Counselors of Real Estate is not by application, it is by nomination. I was nominated by Sanders K. Solot, MAI, CRE.

1 **Q.9 In connection with the preparation of your Rebuttal Testimony, I requested that you**
2 **provide a representative list of the types of past and present clients for whom you and**
3 **MJN Enterprises, Inc. have provided services, and an indication of the types of**
4 **services provided. Have you had an opportunity to prepare such a list?**

5 A.9 Yes, the list attached to this Rebuttal Testimony as Appendix "B" is a partial list of clients
6 including lenders, brokers, attorneys, and government and non-profit agencies.
7

8 **Q.10 What is the purpose of your Rebuttal Testimony in this proceeding?**

9 A.10 The Company has asked me to provide Rebuttal Testimony responding to the criticisms of
10 the 2008 Appraisal and me which are set forth in the March 21, 2011 prepared Direct
11 Testimony of Commission Staff witness Gary T. McMurry at page 7, lines 6-7 and page 9,
12 line 16-page 10, line 12. I was retained by the Company to prepare an appraisal on June
13 11, 2008. My understanding as to the purpose of the appraisal was for asset management
14 decision purposes, which included valuing the four (4) parcels which were to be conveyed
15 to the water company. I did not know that the results of my appraisal might be used in
16 connection with a water rate case. Regardless, such information would have had no
17 influence on my value conclusions as set forth in the appraisal.
18

19 **Q.11 Please generally describe the appraisal methodology you selected for the 2008**
20 **Appraisal, and the reason(s) why you selected that particular methodology.**

21 A.11 The best appraisal methodology for vacant land is the sales comparison approach, which is
22 what I used in this case. There was sufficient data available in market from which to
23 develop the sales comparison approach. I inspected the property. I observed the market
24 area by looking around the area including not only Eagle Crest Ranch but also the
25 surrounding area and developments. Public records were researched and sales were
26 confirmed and analyzed. Thereafter, I developed opinions of value for each of the parcels
27 and issued the report. Carolyn Van Hazel, an appraiser who had assisted me with
28 numerous land appraisals for almost 10 years at that point in time, also assisted me in the

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development of the Appraisal. Because there were water system improvements on the parcels, a “fractional interest” as to only the land was set forth in order to avoid misleading the reader.

Q.12 Please describe the type(s) of data or information you relied upon in arriving at the opinion(s) as to land valuation reflected in the 2008 Appraisal; and, also describe how you obtained the data or information on which you relied.

A.12 Data research included public records, assessor’s records, information from CoStar Comps and Properties, MLS, information from real estate brokers and developers, secondary data sources, and, as I stated previously, visual inspection.

Q.13 What were the 2008 land valuations for Parcels 1, 2, 3 and 4 as a result of your appraisal activity?

A.13 \$180,000, \$60,000, \$150,000 and \$100,000 for Parcels 1, 2, 3 and 4, respectively.

Q.14 Why did you use calendar year 2008?

A.14 I prepared an appraisal as of the then current date of value, June 26, 2008, based upon my discussion with the client. No other date of value was requested.

Q.15 The title of the 2008 Appraisal includes, in parenthesis, the words “A Fractional Interest Appraisal,” and you used that phrase a moment ago in response to a previous question. What does that mean?

A.15 I was contracted to appraise only the land. The land underlies water company improvements. In order to avoid being misleading and to emphasize that the water system improvements are excluded, I state several times in the report that the appraisal was a “fractional interest” appraisal, that is, only as to only the land value. This is a typical process used in many instances. For example, a Chili’s Restaurant building is subject to a ground lease and the ground rent is coming up for renewal. The Chili’s building would be

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excluded and only the land would be appraised. Since the Chili's Restaurant building is excluded for the purposes of setting a land value to determine the ground rent, this would be a "fractional interest" appraisal as to land value only.

Q.16 Does the use of those words in any manner suggest that there are entities or persons in addition to the Company who have an ownership interest in the four (4) parcels of real estate which are the subject of the 2008 Appraisal?

A.16 No, it does not. According to public records presented in the appraisal report, the Company owned the land in question. Suggesting other entities or persons in addition to the property owner have an ownership interest in the parcels, based upon the phrase "fractional interest as to land value only," would constitute a misinterpretation or lack of understanding of the appraisal and the appraisal process. If other entities have an interest, that interest would have been disclosed in the ownership section.

Q.17 What appraisal regulations and/or guidelines are applicable to the type of appraisal you prepared in this instance for the Company?

A.17 Guidelines applicable to the appraisal that I prepared are the Uniform Standards of Professional Appraisal Practice ("USPAP"). The Certification correctly cites USPAP effective January 1, 2008. There were no supplemental standards necessary to complete this assignment.

Q.18 Have you read that portion of Mr. McMurry's March 21, 2011 prepared Direct Testimony which is critical of both the 2008 Appraisal and you?

A.18 Yes, I have read that portion as well as the remainder of his prepared Direct Testimony relating to land values for the four (4) real estate parcels in question. In that regard, it is my understanding that other Company witnesses will be filing Rebuttal Testimony addressing other aspects of Mr. McMurry's testimony on land values.

1 Q.19 At page 8, lines 6-7 of his prepared Direct Testimony, Mr. McMurry states

2 ". . . the land appraisal used to value the transaction was
3 conducted by an appraiser that was not independent from the
4 Company. . ."

5 At page 10, lines 5-12 of Mr. McMurry's testimony, the following question and answer
6 appear:

7 "Is the appraiser's financial interest in the transaction relevant?
8 Yes. An appraiser's evaluation of a property's value should be an
9 independent market-based assessment. In this case, the appraiser's
10 financial interest in the underlying participants creates a potential
11 conflict of interest. There are both appraisal guidelines and Federal
12 Deposit Insurance Corporation regulations that require that an
13 appraiser have no interest, financial or otherwise, in the property or
14 the transaction. The appraiser's proper disclosure of a financial
15 interest does not resolve the conflict of interest caused by the lack of
16 independence; accordingly, the appraisal's reliability is called into
17 question."

18 Against that background, please specifically describe and quantify the nature of the
19 business relationship between you and Alexander Sears, a shareholder in the
20 Company. As you are aware, Mr. McMurry refers to that relationship at page 10,
21 lines 1-3 of his Direct Testimony.

22 A.19 Throughout my appraisal career, I have spoken to Mr. Sears and Mr. Shiner numerous
23 times to obtain market information and confirm sales data. I have also done this with other
24 subdivision and community developers over the course of my appraisal practice as it is a
25 necessary step in the preparation of certain real estate appraisals. Over those same 30 years,
26 I have prepared less than 5 appraisals directly for Sears Financial as a direct client. I may
27 have prepared others in connection with appraisal assignments from financial institutions
28 for lending purposes. However, I keep records by client name, not land owner name.

In late 2005, I spoke with Mr. Sears regarding property in Flagstaff that I was
putting an investment group together to buy. Mr. Sears, through an entity known as D&D
Investment West, L.L.C. ("D&D Investment"), invested approximately \$300,000 in a total
project investment of \$19,000,000. Additional funds have been invested for carrying costs

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and to liquidate a \$750,000 loan on one of the two parcels acquired. Mr. Sears through D&D Investment has less than a 2% interest in the property. The property consists of 325 acres of vacant land in Flagstaff, Arizona, being planned for a traditional neighborhood development-style planned community. It is currently in the entitlement (rezoning) phase.

Q.20 Please discuss why you believe the nature of the business relationship between entities in which you and Mr. Sears have a financial interest does not create a conflict of interest vis-à-vis your preparation of the 2008 Appraisal and the conclusions as to valuation you reached.

A.20 First, prior to taking the assignment, I discussed my assignment conditions with Mr. Sears. In that regard, I specifically stated that I was required to make a full disclosure in the appraisal that we both had a common investment interest in a different property than what was being appraised. Second, prior to accepting the assignment, I confirmed that I would be appraising only land and that I would give him an unbiased, disinterested opinion of market value for each of the four (4) parcels; and, the language in the first and fourth paragraphs of my July 3, 2008 transmittal letter to the Company contains an express acknowledgment to that effect. Neither Mr. Sears nor anyone else related to the property owner influenced my appraisal. Third, in my appraisal I certified that the appraisal was unbiased and that the assignment was not based on a requested minimum valuation or a specific valuation.

Moreover, Mr. Sears' entity that invested in the Flagstaff transaction owns less than a 2% interest. Mr. Sears has not been a "high volume" appraisal client through my appraisal career. Finally, USPAP permits an appraiser to appraise a property or transaction in which an appraiser has an interest, direct or indirect, financial or otherwise, as long as the appraiser affirms that he has no bias and provides proper disclosure in the certification. I have no interest in the subject four (4) parcels and the investment by D&D Investment in the Flagstaff project is quite small. The less than 2% minority interest of Mr. Sears, again,

1 had no bearing upon the 2008 Appraisal other than to occasion my disclosure of the same
2 and my affirmation that there was an absence of bias.

3

4 **Q.21 In the Certification set forth at page 39 of the 2008 Appraisal, you also indicate that in**
5 **preparing the appraisal, as well as in conducting all related activities, you complied**
6 **with the Uniform Standards of Professional Appraisal Practice (“USPAP”), is that**
7 **correct?**

8 A.21 Yes, and I did in fact comply with the Uniform Standards of Professional Appraisal
9 Practice in effect at the time of the appraisal.

10

11 **Q.22 Why do you believe the USPAP to be applicable to the 2008 Appraisal?**

12 A.22 USPAP is applicable to an appraisal assignment because value opinions were developed
13 (Standard Rule 1) and reported (Standard Rule 2). The development of value opinions is
14 consistent with “the act or process of developing an opinion of value as defined under the
15 USPAP definitions.”

16

17 **Q.23 Are the “Federal Deposit Insurance Corporation regulations” to which Mr. McMurry**
18 **refers to at page 10, line 9 of his testimony applicable to the 2008 Appraisal?**

19 A.23 No.

20

21 **Q.24 Why not?**

22 A.24 The Federal Deposit Insurance Corporation (“FDIC”) regulations referred to by Mr.
23 McMurray are not applicable. The subject property was not appraised for a federally
24 related transaction. The FDIC regulations represent “supplemental standards” required for
25 appraisals to be properly prepared for financial institution underwriting decisions. These
26 regulations are not applicable to this 2008 Appraisal.

27

28

In that regard, it has occurred to me that a sentence included in my July 3, 2008
letter transmitting the 2008 Appraisal to the Company may have caused some confusion.

1 More specifically, the following sentence appears as the second sentence within the first
2 paragraph of that letter:

3 "This Evaluation Report closely adheres to the Interagency Appraisal
4 and Evaluation Guidelines issues October 28, 1994."

5 This sentence is one that I typically include in reports where such guidelines are in fact
6 applicable to the appraisal assignment in question. In this instance, those guidelines were
7 not applicable and my inclusion of the above-quoted sentence in my standard form of
8 transmittal letter to the client was inadvertent upon my part and erroneous. Accordingly, I
9 apologize for any confusion that such inclusion might have occasioned.

10
11 **Q.25 Were you offended by Mr. McMurry's testimony that the "appraisal's reliability is**
12 **called into question," as well as his implied suggestion that the reliability of your**
13 **professionalism and impartiality should be questioned as well?**

14 **A.25** Yes, I was and am deeply offended by that testimony and suggestion. I do not know at this
15 time how acquainted Mr. McMurry is with the field of real estate appraisals, but I would
16 respectfully submit that it is at best naïve upon his part to suggest that I would jeopardize a
17 professional reputation and credentials I have acquired over 30 years in the field of real
18 estate appraisal for any single assignment fee, including a fee in this instance of \$2,000.
19 When I read Mr. McMurry's testimony, it appears that he read the appraisal. However, I
20 question whether or not he understood the appraisal. I also am not sure whether or not he
21 understood how offensive his tone and insulting his words were to me. I have been
22 practicing as a real estate appraiser for over 30 years. Instead of leaping to conclusions,
23 Mr. McMurry could have sought out professional advice as to whether or not the appraisal
24 was well prepared and the value opinions were appropriately developed, but he did not.
25 Secondly, Mr. McMurry could have submitted data requests through his attorney for an
26 explanation of the appraisal and posed questions directly to me for response through the
27 Company's attorney including whether or not there was any bias. However, he did not.
28 Further, before Mr. McMurry rendered his conclusion as to my work product, just like any

1 other professional, he should have undertaken sufficient investigation to form a reasonable
2 conclusion, but he did not. As a consequence, I am extremely disappointed in Mr.
3 McMurry's lack of diligence and his subsequent testimony that unfairly, inaccurately, and
4 misleadingly characterizes my actions as an appraiser.

5
6 **Q.26 At page 8, line 7 of his prepared Direct Testimony, Mr. McMurry asserts that "the**
7 **[2008] appraisal was flawed." Aside from the subsequent discussion in his testimony**
8 **of what he perceived to be a "potential conflict of interest" upon your part, did he in**
9 **any manner discuss any "flaws" in the appraisal methodology you used or the data or**
10 **information upon which you relied?**

11 A.26 Other than suggesting that the parcels in question should have been valued on the basis of
12 land values in earlier years, he did not discuss or imply any "flaws" in my appraisal
13 methodology or the data or information upon which I relied.

14
15 **Q.27 Do you have an opinion as to the years which should have been used as between the**
16 **testimony of Mr. McMurry and you?**

17 A.27 No, I do not. It appears that the answer to that question may depend on the meaning of the
18 phrase "devoted to public service," as used by Mr. McMurry. I will defer to others to
19 resolve that issue.

20 My 2008 Appraisal was based upon directions received from the Company at the
21 time of my retention. However, it is my understanding that another Company witness will
22 be presenting Rebuttal Testimony on land values for the four (4) parcels in question using
23 the years of 2003, 2004 and 2007 suggested by Mr. McMurry.

24
25 **Q.28 Do you believe that it is appropriate to use land values reflected in the records of the**
26 **Pinal County Assessor, for the purpose of establishing actual market values for the**
27 **four (4) parcels in question, setting aside the question of the year(s) to be used?**
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A.28 Absolutely not, because, first of all, the values are set one year prior. For example, the 2008 Assessor's valuations are set as of January 2007. Secondly, they are based on a mass valuation system and, while the statutes state that the ad valorem values are to be market values, typically they are set somewhere between 60% and 80% of market value. However, experience has shown there are extremes even to the range of 20% to over 200% of actual market value.

Indeed, using the Assessor's ad valorem value is a reckless approach to valuing individual properties.

Q.29 Does this conclude your Rebuttal Testimony?

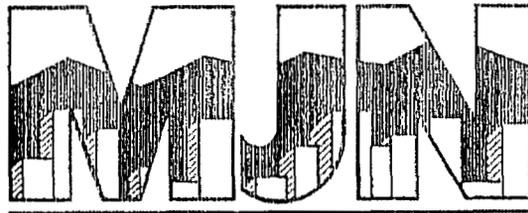
A.29 Yes, it does.

**Goodman Water Company
Docket No. W-02500A-10-0382**

**MICHAEL J. NAIFEH
REBUTTAL TESTIMONY**

May 2, 2011

APPENDIX A



MJN ENTERPRISES INC.
REAL ESTATE APPRAISERS & CONSULTANTS

A SUMMARY APPRAISAL REPORT
DEVELOPING MARKET VALUE OPINIONS OF
THE UNDERLYING LAND (A FRACTIONAL INTEREST APPRAISAL) OF

FOUR PARCELS
WITHIN THE EAGLE CREST RANCH SUBDIVISION

LOCATED

SOUTHEAST OF STATE ROUTE 77
AND SADDLEBROOKE BOULEVARD

IN

PINAL COUNTY, ARIZONA

AS OF:

JUNE 26, 2008

FOR:

MS. JACKIE ZILIOX, SECRETARY
GOODMAN WATER COMPANY
6340 NORTH CAMPBELL AVENUE, SUITE 278
TUCSON, AZ 85718

BY:

MICHAEL J. NAIFEH, MAI, CRE
MJN ENTERPRISES, INC.
6061 EAST GRANT ROAD, SUITE 121
TUCSON, AZ 85712

Summary of Important Conclusions

Date and Scope

Date of Value Opinion: June 26, 2008
Effective Date of the Report: July 3, 2008
Purpose: Develop market value opinions of the underlying land (a fractional interest appraisal) of the four subject parcels
Intended Use: Asset management decisions

Property Data

Site Size: Parcel 1: 0.72 ac.
Parcel 2: 0.25 ac.
Parcel 3: 0.63 ac.
Parcel 4: 0.39 ac.
(per Pinal County Assessor & Legal Descriptions)
Location: The four subject sites are located within the Eagle Crest Ranch Subdivision located southeast of State Route 77 and Saddlebrooke Blvd. in Pinal County, AZ
Zoning:

Highest & Best Use

Highest & Best Use as if vacant: Parcels 1 & 2: Commercial development as part of a larger development parcel
Parcels 3 & 4: Single family residential development

Market Value Opinions

ESTIMATED MARKET VALUE OF THE SUBJECT SITES, A FRACTIONAL INTEREST AS TO LAND VALUE ONLY, AS IF VACANT, FEE SIMPLE INTEREST, REAL ESTATE ONLY:

PARCEL 1:.....	\$180,000
PARCEL 2:.....	\$60,000
PARCEL 3:.....	\$150,000
PARCEL 4:.....	\$100,000



July 3, 2008

Ms. Jackie Ziliox, Secretary
Goodman Water Company
6340 N. Campbell Ave., Ste. 278
Tucson, AZ 85718

Re: Summary Appraisal Report (Evaluation) of four parcels within the Eagle Crest Ranch Subdivision located southeast of State Route 77 and Saddlebrooke Blvd. in Pinal County, Arizona

MJN File No.: 08-L-109

Dear Ms. Ziliox:

As requested, I have evaluated the property identified above as of June 26, 2008. This Evaluation Report closely adheres to the Interagency Appraisal and Evaluation Guidelines issued October 28, 1994. This evaluation also follows the Uniform Standards of Professional Appraisal Practice. The evaluation is for the internal use of Sears Financial Corporation (the sole intended user) and may not be used by any other parties except those named herein. It is disclosed within this report, as well as the appraisal contract, that an affiliate of Sears Financial Corporation, D&D Investments, has a minority investment in PBH Flagstaff Holdings, LLC, of which the signing appraiser, Mr. Michael J. Naifeh, is also a member. Because the ownership interest is small (+/-2%) and because the appraiser is not being used for a federally related transaction, the client and the appraiser mutually agree and acknowledge that this has no influence whatsoever on either the appraiser's independence or the value conclusion.

Property Identification

The property that is the subject of this report consists of four sites within the Eagle Crest Ranch Subdivision. The sites are currently improved with water well infrastructure, but only the underlying land is valued within this appraisal. The subject sites are referred to as Parcels 1 thru 4. The orientation of the sites is displayed in the map which follows. Eagle Crest Ranch is located southeast of State Route 77 and Saddlebrooke Boulevard in Pinal County, AZ. The legal descriptions were provided by the client. The individual parcels are more accurately described as follows:

- Parcel 1:* The west side of Eagle Crest Ranch Blvd., south of Eagle Ranch Rd.
- Parcel 2:* The west side of Eagle Crest Ranch Blvd., northeast of the intersection with State Route 77
- Parcel 3:* Northeast of the cul-de-sac at the intersection of Eagle Mountain Dr. and Eagle Ridge Drive.
- Parcel 4:* The south side of Mountain Shadow Dr., east of Rock Ledge Loop

Figure 1: Parcel Orientation Map

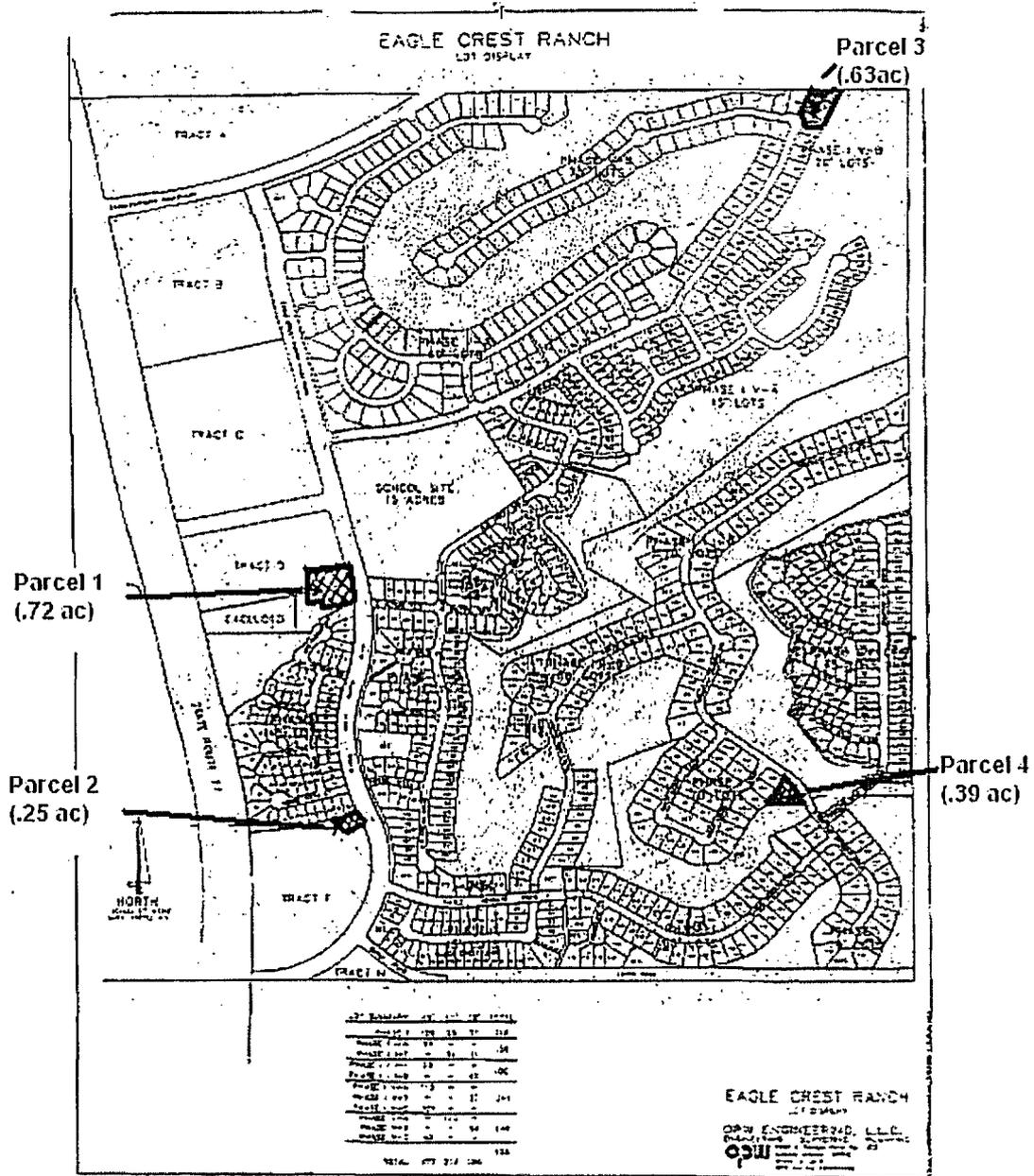


Figure 2: Legal Description

LEGAL DESCRIPTION

EXHIBIT "ONE"

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF PIMA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

Parcel No. 1: (Water Plant # 1) .72 acres

Tract A, of EAGLE CREST RANCH I, according to the plat of record in the office of the County Recorder of Pinal County, Arizona, recorded in Cabinet D of Maps, Slide 34.

Parcel No. 2: (Water Plant # 4) .39 acres

Tract B, of EAGLE CREST RANCH I, according to the plat of record in the office of the County Recorder of Pinal County, Arizona, recorded in Cabinet D of Maps, Slide 34.

Parcel No. 3: (Water Plant # 3) .63 acres

Tract E, of EAGLE CREST RANCH IV-A, according to the plat of record in the office of the County Recorder of Pinal County, Arizona, recorded in Cabinet G of Maps, Slide 83.

Parcel No. 4: (Water Plant # 2) .25 acres

All of that portion of the Southwest Quarter of Section 32, Township 10 South, Range 14 East, Gila and Salt River Base and Meridian, Pinal County, Arizona, being a portion of Eagle Crest Ranch Tracts "A" through "N" and Common Area "A" (Private Streets), a subdivision of Pinal County, Arizona, recorded in Cabinet "C" in Slide 173 on October 25, 2000, more particularly described as follows:

Commencing at the Southeast corner of Tract "D" of said Eagle Crest Ranch Tracts "A" through "N" as it adjoins Tract "E" and Eagle Crest Ranch Boulevard, said point falling on a curve from which the radius bears South 83 degrees 55 minutes 51 seconds West;

Thence Northwesterly along said curve to the left on the Westerly right-of-way of Eagle Crest Ranch Boulevard, having a radius of 1150.00 feet and a central angle of 03 degrees 36 minutes 30 seconds, an arc distance of 72.42 feet to the POINT OF BEGINNING;

Thence departing said curve, West, on a non-tangent line, a distance of 36.10 feet;

Thence South 45 degrees 00 minutes 00 seconds West, a distance of 92.02 feet;

Thence West, a distance of 46.69 feet;

Thence North 10 degrees 49 minutes 04 seconds West, a distance of 60.09 feet;

Thence South 79 degrees 10 minutes 56 seconds West, a distance of 75.26 feet;

Figure 4: Assessor's Record Map - Parcel 3

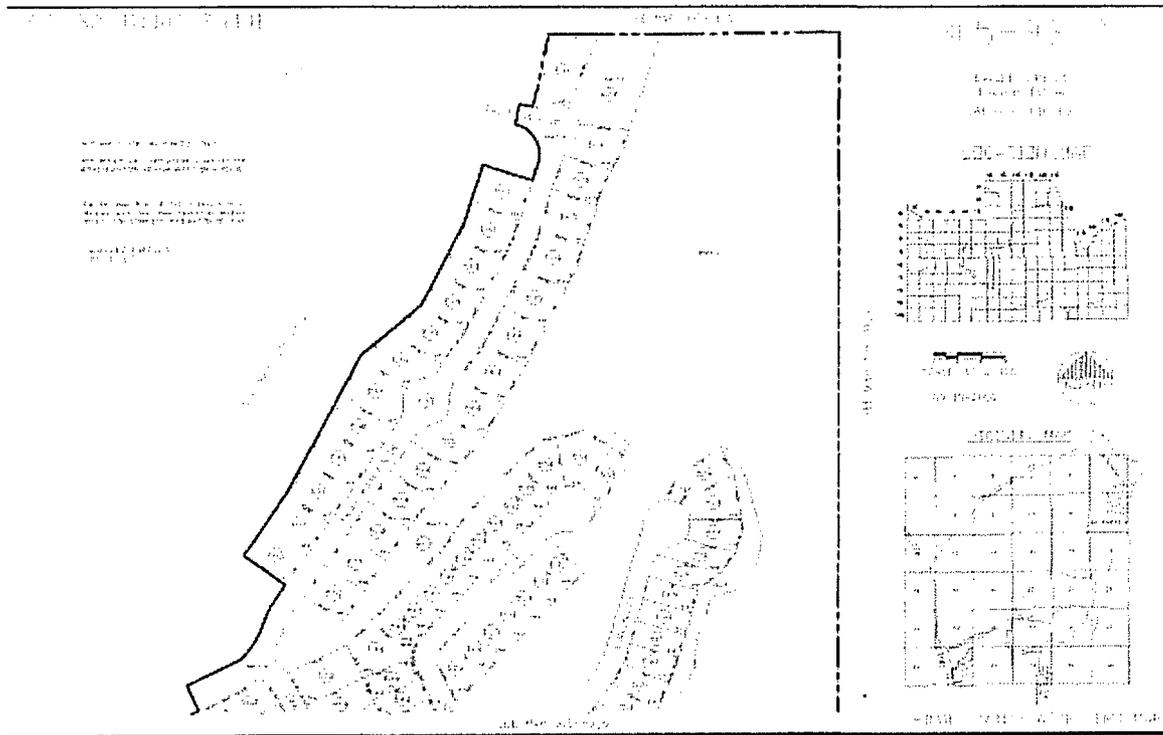
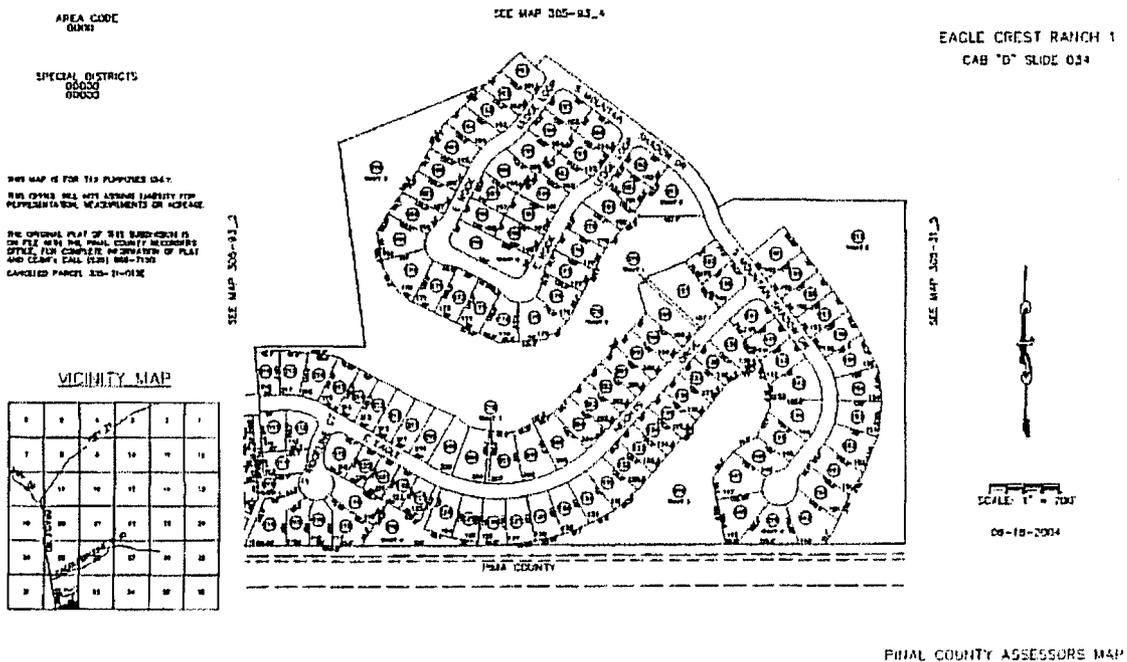


Figure 5: Assessor's Record Map - Parcel 4

SEC. 32 TN.10S RG.14E

305-93_3



Property Rights Appraised

Fee simple interest in the underlying land (a fractional interest appraisal)

Appraisal Problem to be Solved

The purpose of this evaluation is to provide current market value opinions of the four subject sites, a fractional interest appraisal as to land value only. Therefore, the "as is" value is not estimated. The subject parcels are valued in accordance with their highest and best use and not as infrastructure sites for the Goodman Water Company. However, it is a hypothetical condition of this report that the infrastructure contained within the subject sites is located elsewhere within the subdivision development.

Date of Value Opinion and Conclusions

June 26, 2008

Effective Date of Report

July 3, 2008

Intended Use of Opinions and Conclusions

Asset management decisions including valuing the land donations to the water company.

Client / Intended User

Sears Financial Corporation/Goodman Water Company

Type of Report

Summary

Extraordinary Assumptions

An extraordinary assumption is an assumption, directly related to a specific assignment, which, if found to be false, could alter the appraiser's opinions or conclusions. Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property such as market conditions or trends; or about the integrity of data used in an analysis. An extraordinary assumption may be used in an assignment only if:

- it is required to properly develop credible opinions and conclusions;
- the appraiser has a reasonable basis for the extraordinary assumption;
- use of the extraordinary assumption results in a credible analysis; and
- the appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions. (USPAP, 2008 ed.)

The following extraordinary assumptions apply in this report

- none

Hypothetical Conditions

A hypothetical condition is that which is contrary to what exists but is supposed for the purpose of analysis. Hypothetical conditions assume conditions contrary to known facts about physical, legal, or economic characteristics of the subject property; or about

conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. A hypothetical condition may be used in an assignment only if:

- use of the hypothetical condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
- use of the hypothetical condition results in a credible analysis; and
- the appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions. (USPAP, 2008 ed.)

The following hypothetical conditions apply in this report

- **The subject parcels are valued as if vacant without the water infrastructure improvements on the sites. The infrastructure exists elsewhere within the subdivision development.**

Definition of Value

Market value is defined as the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby: a) buyer and seller are typically motivated; b) both parties are well informed or well advised, and each acting in what they consider their own best interest; c) a reasonable time is allowed for exposure to the open market; d) payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and e) the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. 12 CFR 34.42(g) (2008).

Scope of the Assignment

This summary appraisal report is a recapitulation of the appraiser's data, analyses, and conclusions. Supporting documentation is retained in the appraiser's file and is available to the client during regular business hours, if required.

As part of this appraisal assignment, the appraiser made a number of independent investigations and analyses. Data retained in office files, which are updated regularly, was relied on. Public records were checked to verify information.

The market area was observed and the contents of this report express the appraiser's opinion of what was found and observed. A search for data in the market area of the subject is accomplished first. If there is inadequate data for comparison, the search is then expanded into other markets. A site inspection was made on June 26, 2008.

All market data was gathered from one or more of the following sources: CoStar Comps, affidavit of property value, Tucson MLS, and commercial real estate brokers and/or agents.

Secondary data was compiled from the Metropolitan Tucson Land Use Study (MTLUS) and STDBOnline. The appraiser did not develop the cost and income approaches as these are unnecessary for a credible opinion of value and there is sufficient sales data available to develop a credible appraisal.

I inspected the subject sites. Carolyn Van Hazel assisted in data research and wrote the initial draft of this report with my consultation. I made revisions in subsequent drafts, prior to issuing the final report, such that the report represents my work product.

Property Ownership

Title to the subject parcels is currently vested in Goodman Water Company, LLC. The vesting information is presented in the following table:

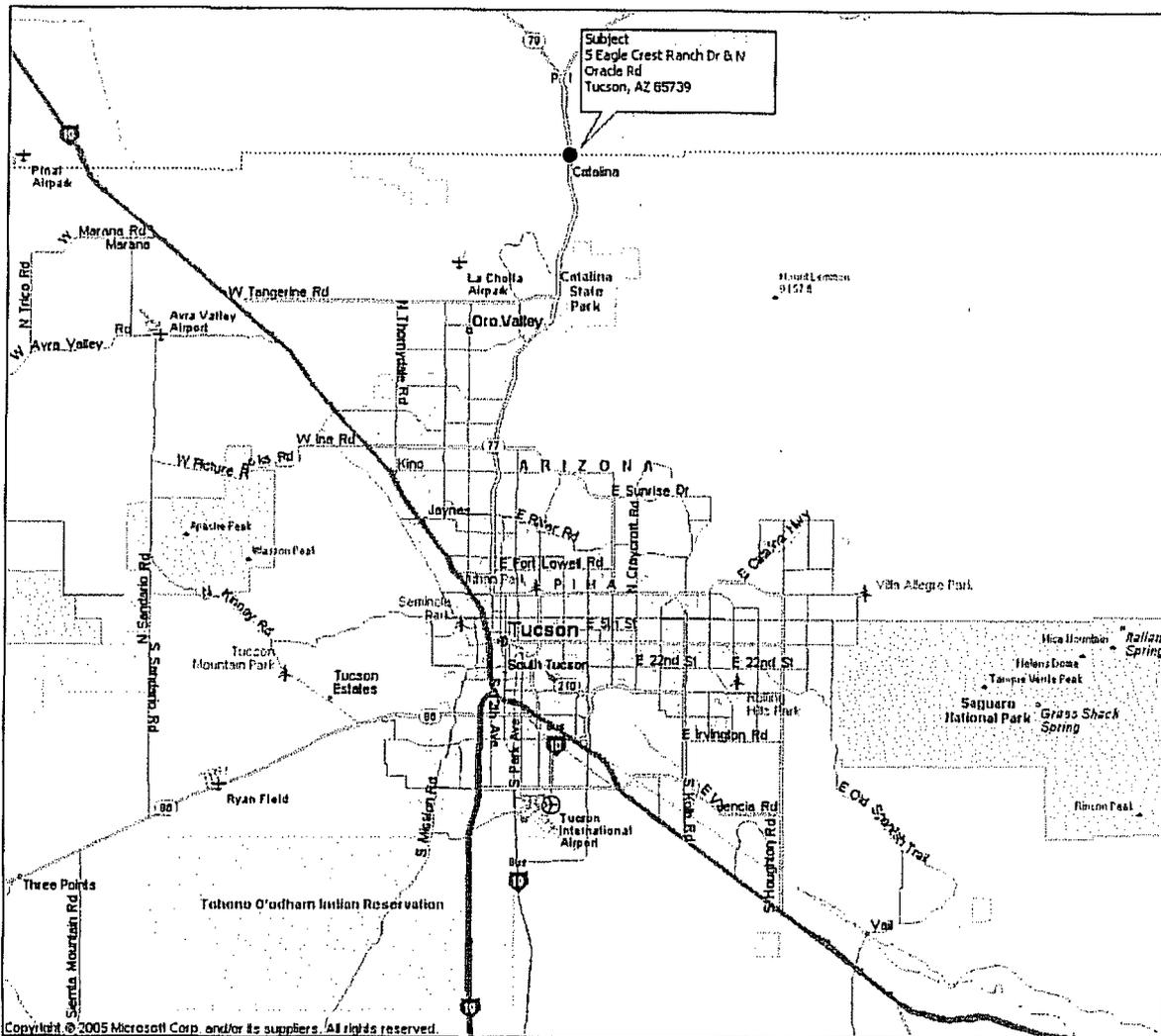
Parcels	Document No.	Recording Date
1, 3, 4	2008-042476	May 5, 2008
2	2008-042477	May 5, 2008

The parcels are not currently listed or under contract for sale.

Market Area Data

The subject is located within metropolitan Tucson, Arizona. Tucson as a whole is experiencing unprecedented robust growth in all market sectors. The recently overheated residential market from 2004/2005 has slowed down. The recovered industrial market continues to improve but appears to have plateaued. Office space is gradually being absorbed, but the market is still somewhat overbuilt in the CBD. The retail market has improved but is still tenuous due to the entry of "category killer" stores. Overall, the Tucson community remains strong with good population growing demand for services.

Figure 6: Market Area Map



The subject is located adjacent north of the Pima County / Pinal County line, but derives its influence from the Tucson market. The subject parcels are located within northwest metropolitan Tucson and are in an established path of growth area. The boundaries are the Rillito Creek on the south, First Avenue and Pusch Ridge on the east, the Santa Cruz wash on the west, and just north of the Pinal County line on the north. The future of the neighborhood appears sound over the long term but economically uncertain at this time. The roads are somewhat congested. Pygmy Owl habitat concerns previously impeded some developments in the path of growth and induced some development beyond the growth path. Improvements which have enhanced the accessibility of the region include the extension of Tangerine Road to Oracle Road along with a concrete bridge over the Canada Del Oro Wash.

Active residential development is underway within the neighborhood where all utilities and zoning are available. Sites lacking all utilities for development are deemed less desirable evident from purchase prices. While residential development sites are actively sought, the sites lacking all utilities encounter a somewhat speculative appeal. Residential land sites

with all utilities available generally indicate a stable price trend, whereas the price trend for speculative sites remains somewhat tenuous. Multi-family development has been active, but some developments have exceeded affordability, and the market has mixed perceptions. This is illustrated by rents and vacancy statistics. Condominium conversions have increased volatility.

Residential support services are following the trend of residential development with a newer Fry's (formerly Smith's) store at the northeast corner of La Canada Drive and Lambert Lane. Albertsons (closing), Home Depot, Fry's and Target have opened stores at Oracle Road and First Avenue. Albertsons opened stores at River and La Canada, La Cholla and Ina, and First and Oracle. Bashas' anchors a newer center at Thornydale and Cortaro Farms Road. Kohl's, Sprouts, and a Wal-Mart Neighborhood Market anchor an expanded center at the southwest corner of Oracle and Magee Roads. Wal-Mart opened a store adjacent north of the renovated and re-tenanted Foothills Center. A community center under construction at Tangerine and Oracle will reportedly be anchored by Wal-Mart. Pima Community College developed a northwest satellite campus at Magee and Shannon Roads.

Land Description

Figure 7: Aerial View

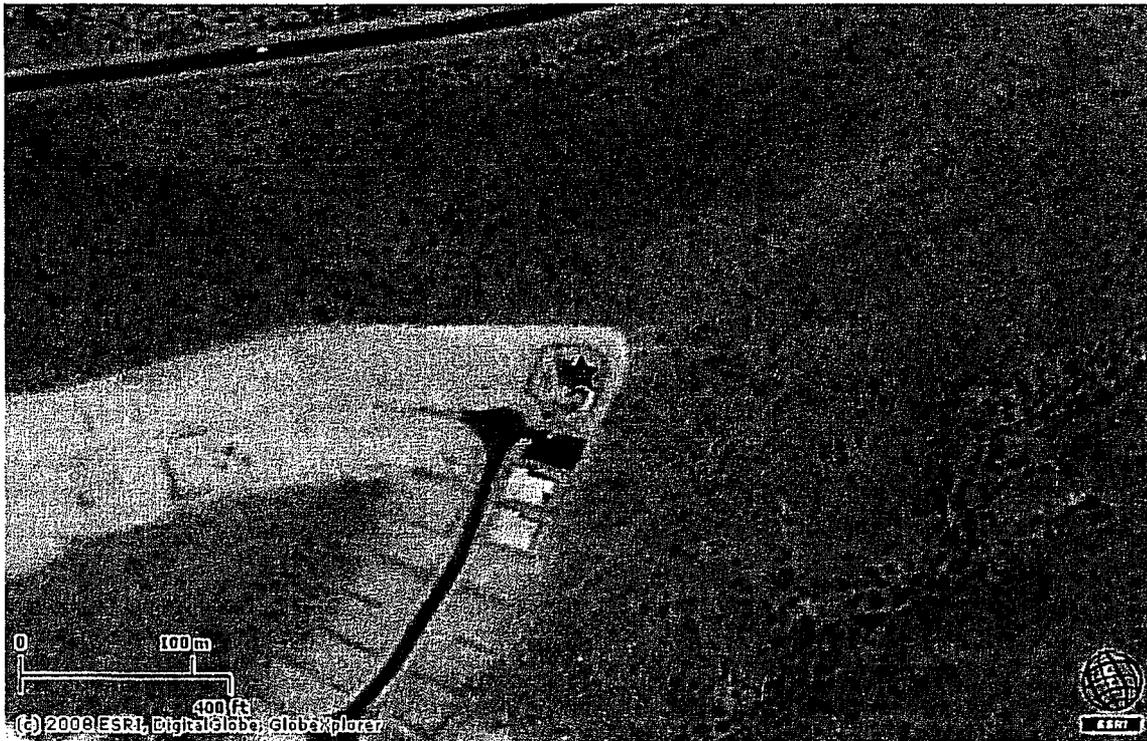
Parcel 1:



Parcel 2:



Parcel 3:



Parcel 4:



Subject Four sites within the Eagle Crest Ranch Subdivision improved with water well infrastructure

Location The Eagle Crest Ranch Subdivision is located southeast of State Route 77 and Saddlebrooke Blvd. The individual parcels are more accurately described as follows:

Parcel 1: The west side of Eagle Crest Ranch Blvd., south of Eagle Ranch Rd.

Parcel 2: The west side of Eagle Crest Ranch Blvd, northeast of the intersection with State Route 77

Parcel 3: North east of the cul-de-sac at the intersection of Eagle Mountain Dr. and Eagle Ridge Drive.

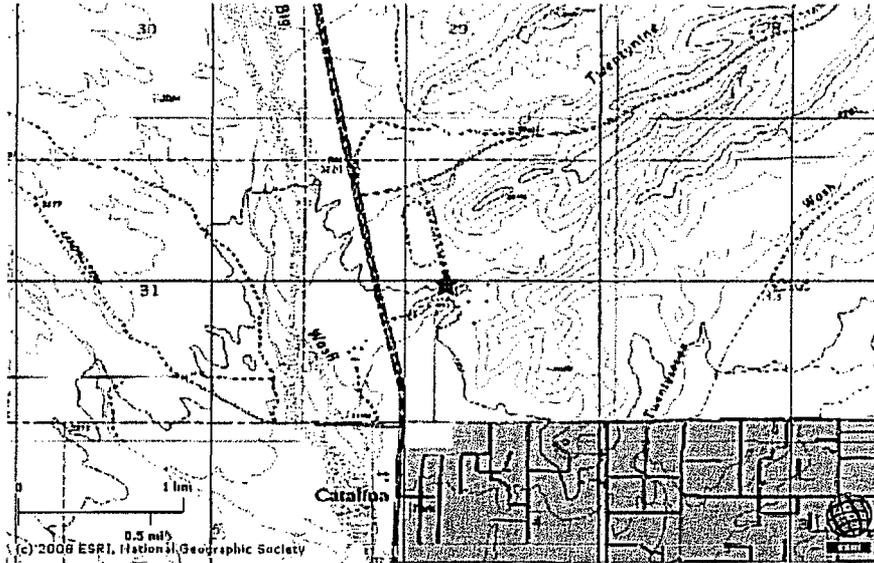
Parcel 4: The south side of Mountain Shadow Dr., east of Rock Ledge Loop

Shape The parcels have irregular, yet functional shapes

Size Parcel 1: .72 acres; 31,363 S.F.
Parcel 2: .25 acres; 10,890 S.F.
Parcel 3: .63 acres; 27,443 S.F.
Parcel 4: .39 acres; 16,988 S.F.

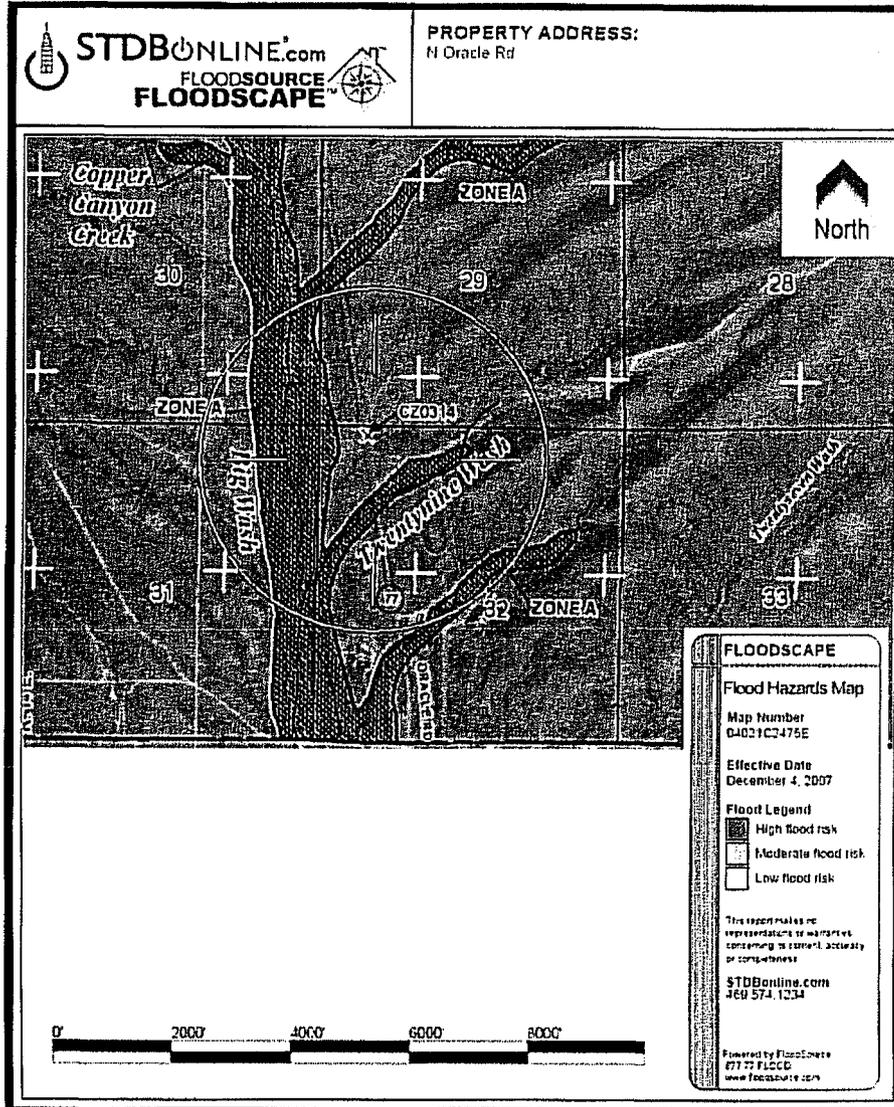
Topography All of the parcels are level and at finish grade. Parcel 1 is slightly

below grade from surrounding land parcels. Parcel 2 is above grade from the adjacent commercial land and below grade from the adjacent residential parcels. Parcels 3 and 4 are above grade from the surrounding parcels and offer panoramic views of the Catalina Mountains and the city lights.



Hydrology

The sites appear to generally be located within Zone X, outside of the 100-year floodplain, FIRM Panel 2475K, dated December 4, 2007. Parcels 1 and 2 could be partially within Zone A, subject to 100-year flooding. Parcel 1 appears to have a natural detention/retention area created somewhat from the larger parcel. Hydrology mitigation and/or flood insurance would possibly be required if the sites were to be developed according to their highest and best use.



Access

Parcels 1 and 2 are located along Eagle Crest Ranch Blvd, the spine road which traverses the subdivision. Eagle Crest Ranch Blvd. is median divided four lane collector street with vertical concrete curbs, bike lanes, and sidewalks. Parcel 3 is located at the cul-de-sac intersection of Eagle Ridge Drive and Eagle Mountain Drive, while Parcel 4 is located along Mountain Shadow Drive. All of these streets are asphalt paved two lane neighborhood streets with sidewalks along one side. The access road to Parcel 4 is somewhat steep which might possibly limit access to the pad, although the site appears big enough to orientate it with a typical size house in mitigation.

Visibility

Parcels 1 and 2 have good visibility when taken in the context of the larger commercial parcels. Parcels 3 and 4 have good locations for residential parcels with panoramic views of the Catalina Mountains and city lights.

Utilities	All available and underground.
Surrounding Uses	Parcel 1: Larger commercial land parcel to the north and west, residential dwellings to the south and east. Parcel 2: The larger commercial land parcel to the south and west, and residential dwellings to the north and east. Parcel 3: Residential dwellings to the west and northwest, vacant land to the north, east and south. Parcel 4: Vacant common area land to the south and east. Residential dwellings to the north and west,
Easements	A title report was not provided. The appraisal assumes typical access and utility easements and CC&R's that do not affect the site adversely.
Environmental	It is unknown whether PCBs are in electrical transformers. According to the AZDEQ Map, the site is not within a Superfund or WQARF designated area.
Site Improvements	The parcels are improved with water well infrastructure. However, only the underlying land is considered within the appraisal and the parcels are valued as if vacant.
Zoning	
Conclusion	The sites are functional and adaptable to typical subdivision development.

Figure 8: ADEQ Map

Superfund Program Sites Outside of
Metropolitan Phoenix and Tucson

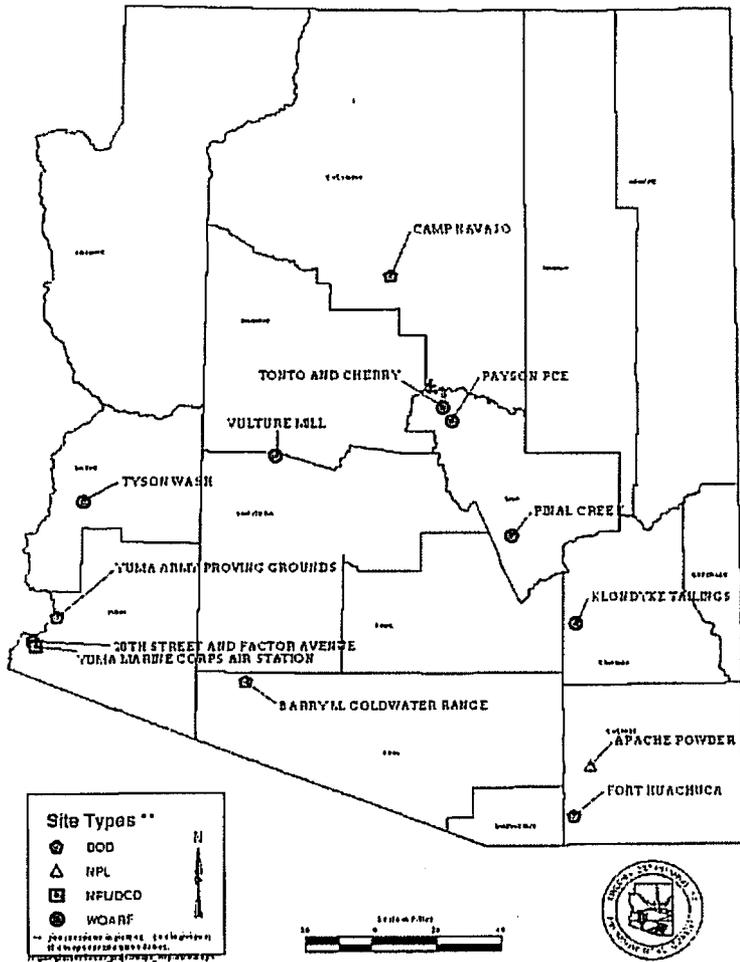
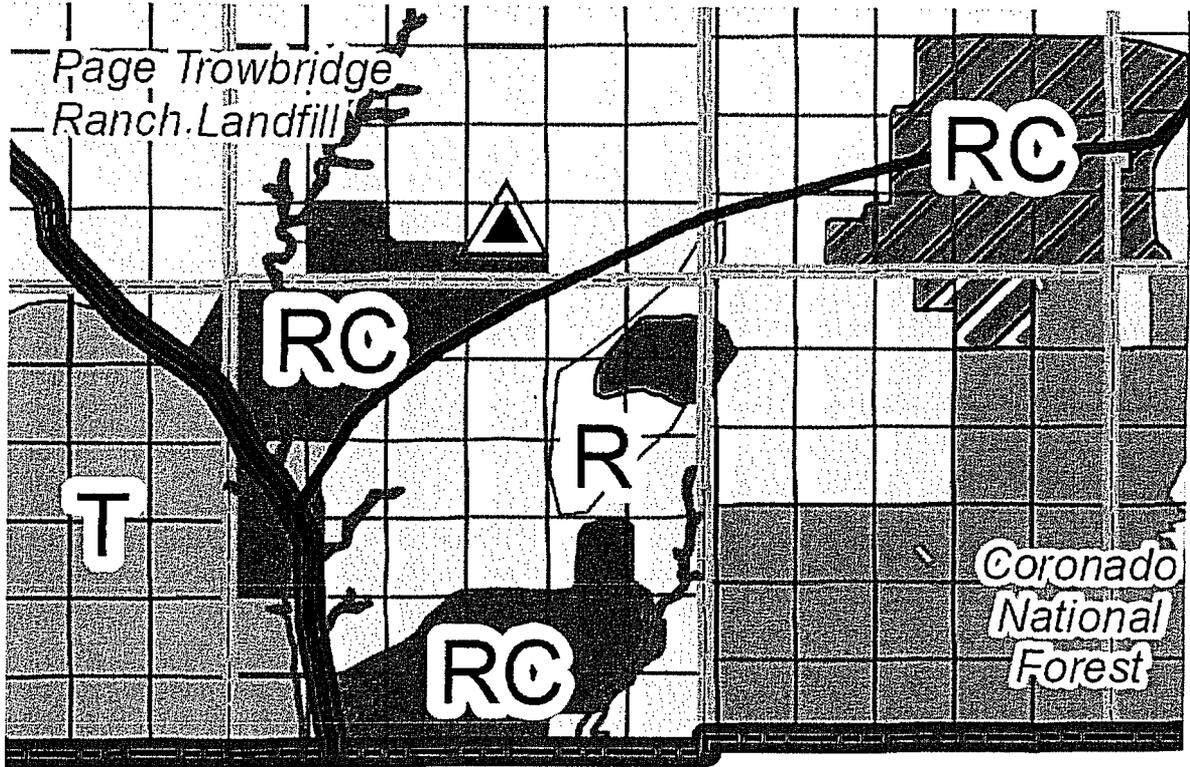


Figure 9: Comprehensive Land Use Map



Legend

Current Land Use

	AIRPORT RESERVE
	ARAVAIPA RESERVE
	COMMERCIAL ACTIVITY CENTER
	CORRIDOR MIX
	DEVELOPMENT SENSITIVE
	FOOTHILL
	INDUSTRIAL
	INTERCHANGE MIX
	MINING
	NATURAL RESOURCES
	RURAL
	SEMI RURAL
	RURAL COMMUNITY
	TRANSITIONAL
	UNDESIGNATED
	URBAN

Tax Data

The subject parcels assessed information is presented in the following table:

Parcel No.	Tax Code No.	2008 FCV	2008 LV	2007 Taxes	Assd. Ratio	Parcel Size	Subject %
1	Part of 305-31-013W	\$279,600	\$86,831	\$405.82	16%	9.32 ac.	7.70%
2	305-31-013Q	\$60,924	\$34,927	\$705.26	23%	.25 ac.	100%
3	305-93-604	\$500	\$272	N/Av	16%	.63 ac.	100%
4	Part of 305-93-219	\$109,680	\$63,857	\$2,665.22	16%	27.42	1.42%

The parcels are in Tax Area Code 0204, which has the following tax rate history:

Tax Area	Primary Rate	Secondary Rate	Total Rate
0204			
2007	\$9.2167	\$2.4726	\$11.6893

The parcels are not assessed in accordance with their highest and best use. If the parcels were developed in accordance with their highest and best uses, the ad valorem values would increase dramatically. The ratio of Parcel 2 should be appealed.

SUBJECT PHOTOGRAPHS



Photo 1: Street scene looking north on Oracle Road



Photo 2: Street scene looking south on Oracle Road

PARCEL 1



Photo 3: Street scene looking south on Eagle Crest Ranch Boulevard



Photo 4: Street scene looking north on Eagle Crest Ranch Boulevard



Photo 5: Looking northwest through the site

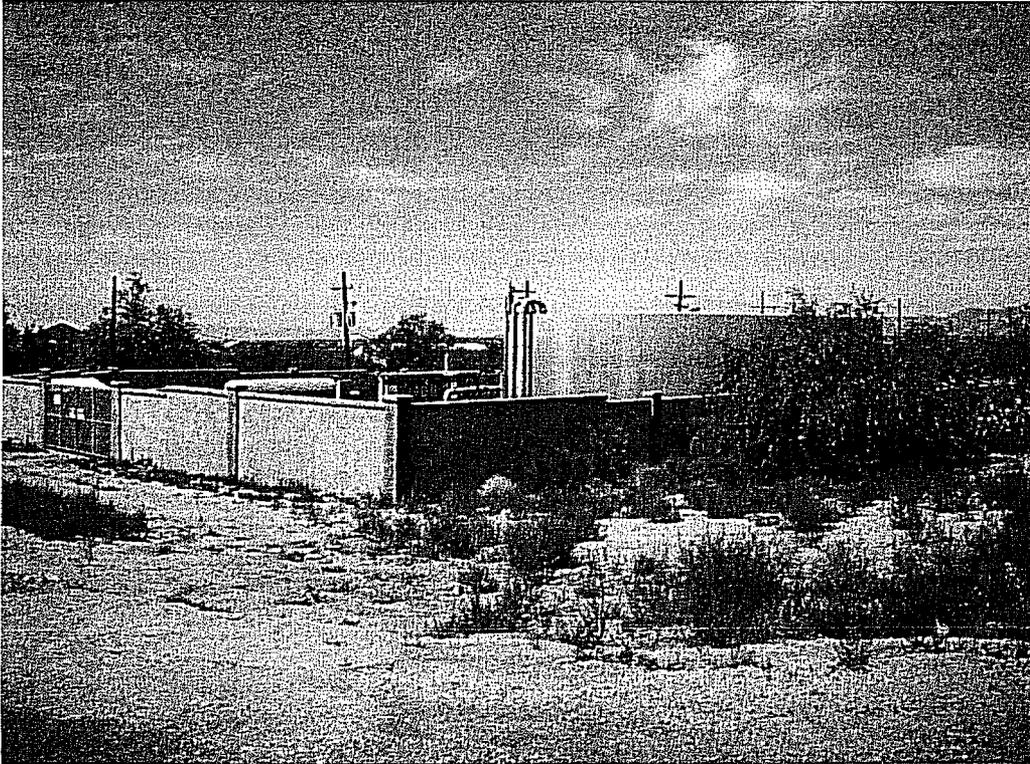


Photo 6: Looking southwest through the site



Photo 7: Looking southeast through the site

PARCEL 2



Photo 8: Street scene looking north on Eagle Crest Ranch boulevard



Photo 9: Street scene looking south on Eagle Crest Ranch Boulevard

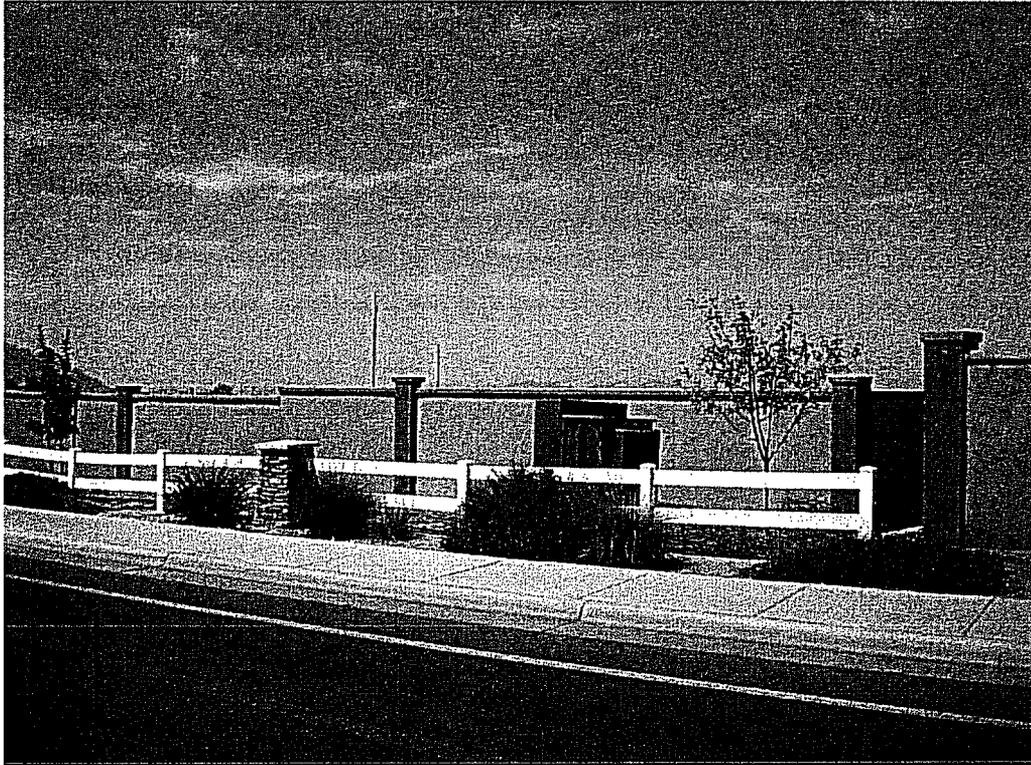


Photo 10: Looking southwest through the site



Photo 11: Looking northwest through the site



Photo 12: Looking northeast through the site

PARCEL 3

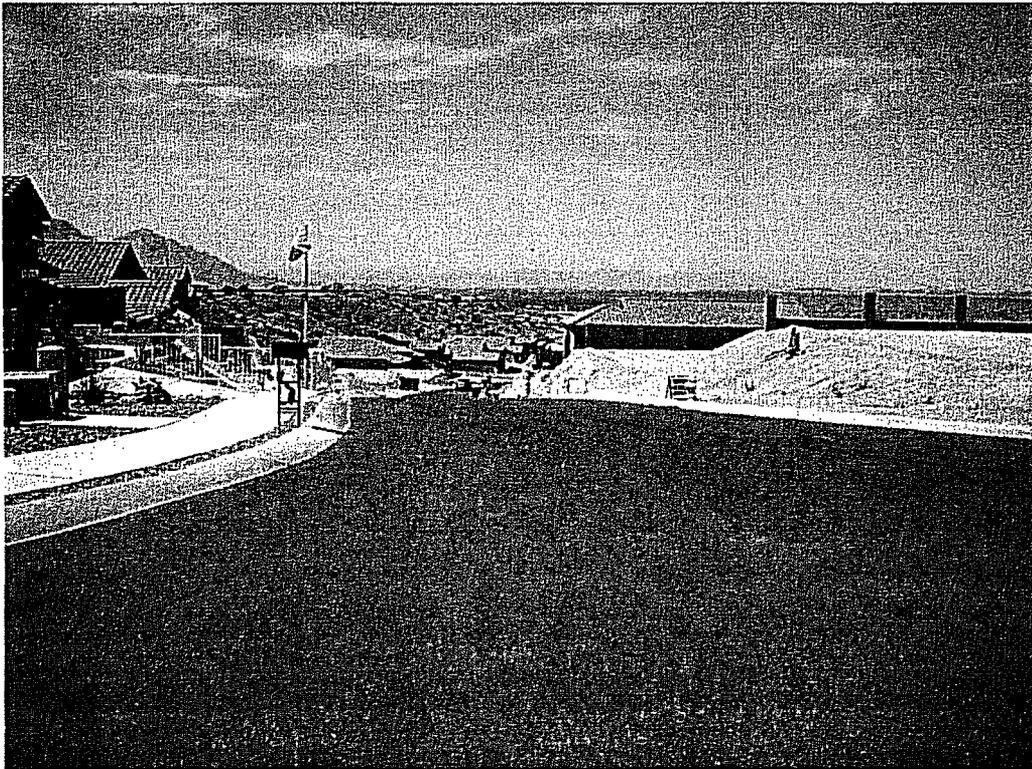


Photo 13: Street scene looking west on Eagle Mountain Drive



Photo 14: Street scene looking northwest on Eagle Ridge Drive

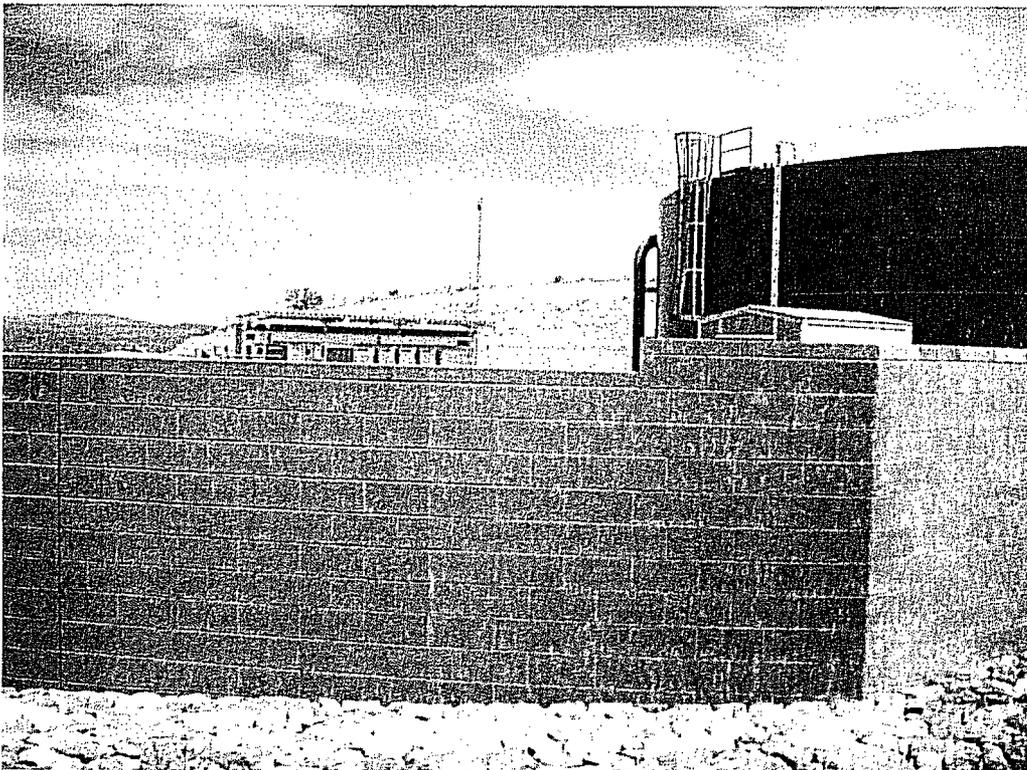


Photo 15: Looking northeasterly through the site

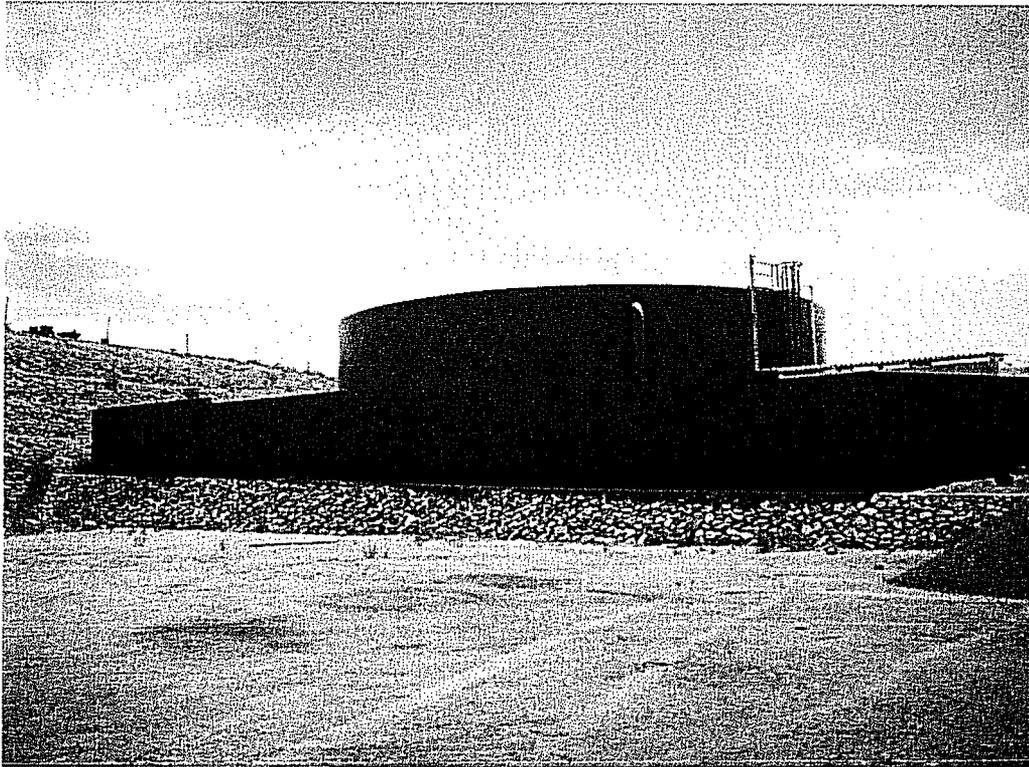


Photo 16: Looking southeasterly through the site

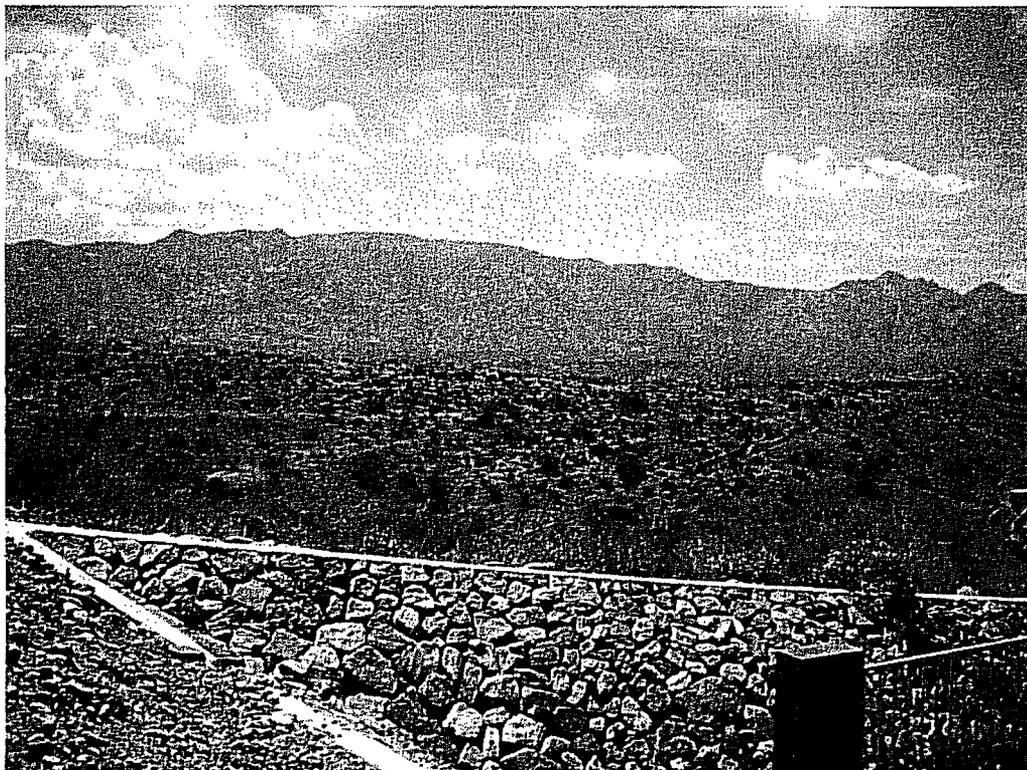


Photo 17: Panoramic view of the Catalina Mountains to the south from the site

PARCEL 4

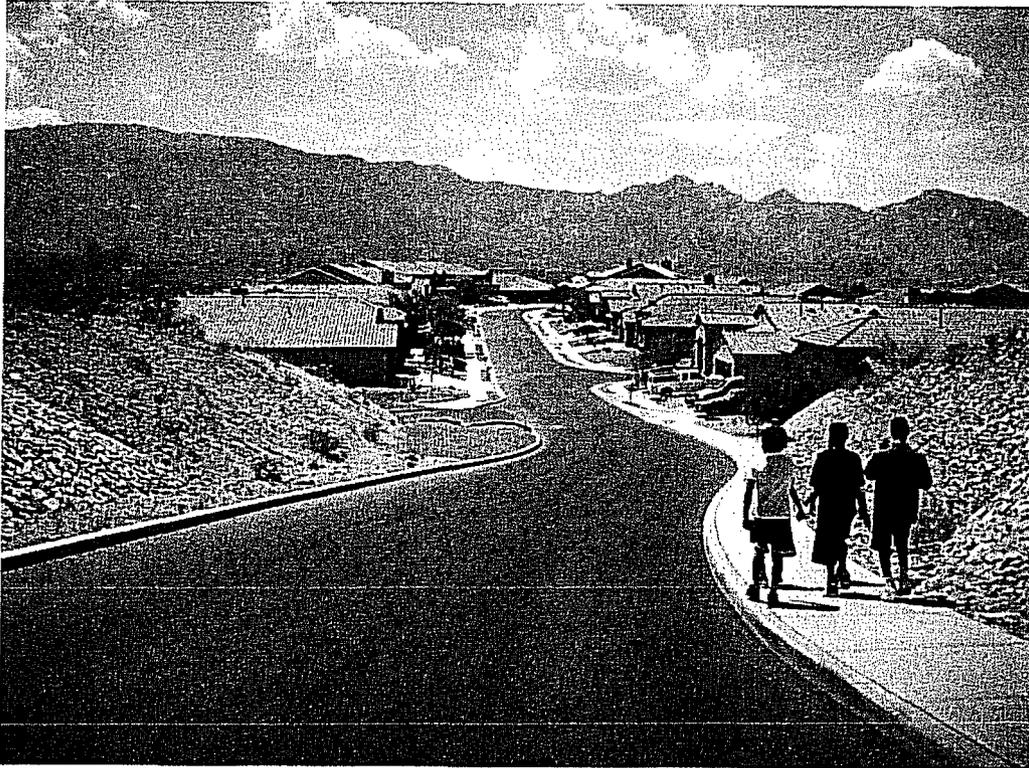


Photo 18: Street scene looking south on Mountain Shadow Drive

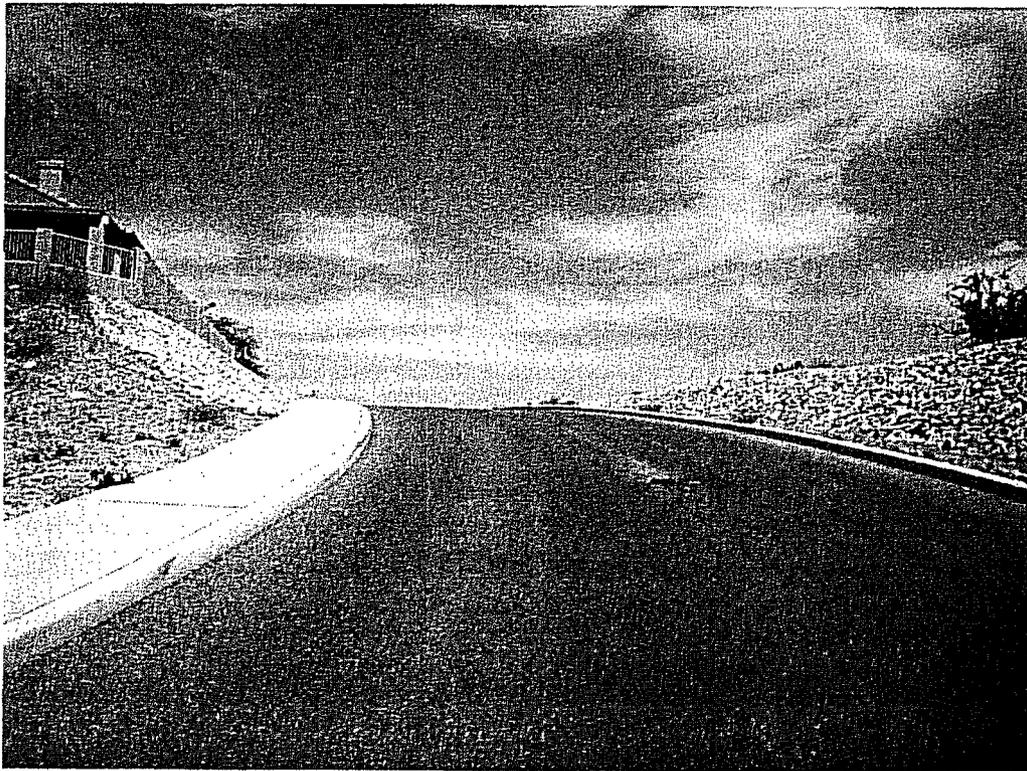


Photo 19: Street scene looking north on Mountain Shadow Drive

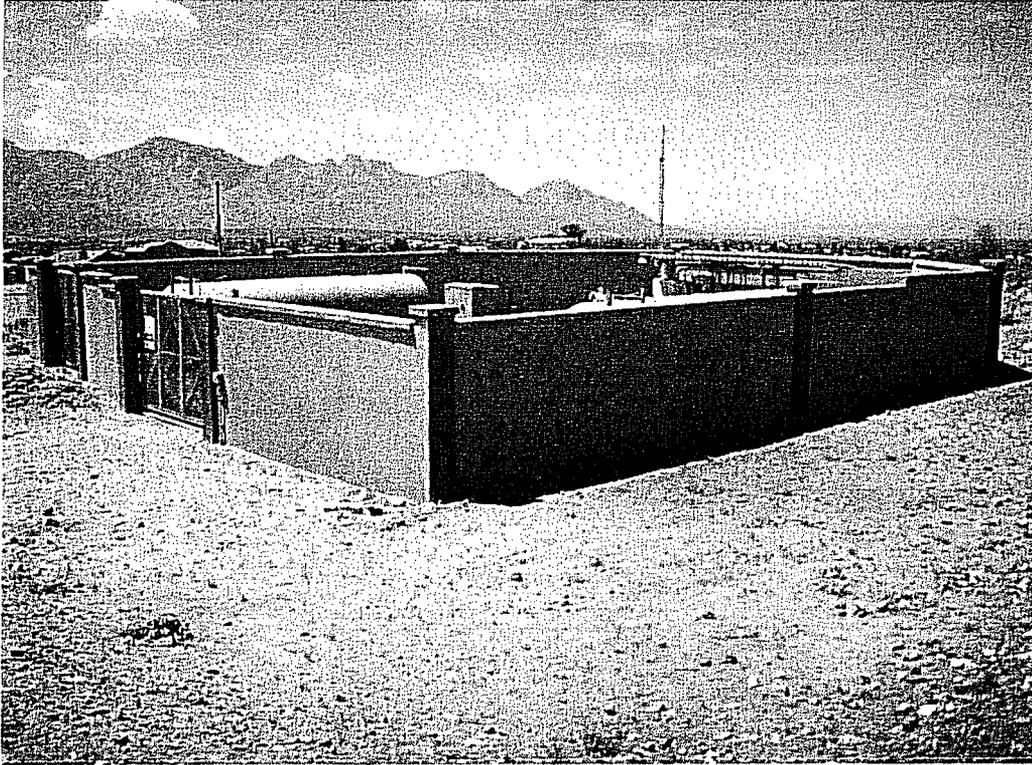


Photo 20: Looking southwest through the site



Photo 21: Looking northwest through the site

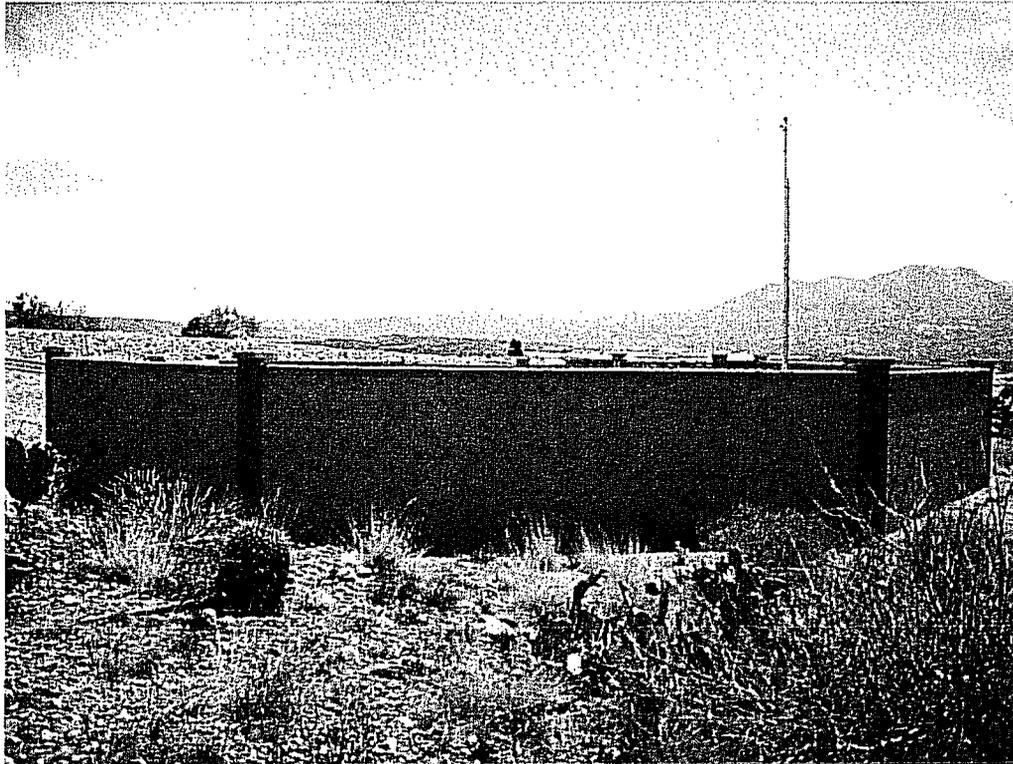


Photo 22: Looking northeast through the site



Photo 23: Looking southeasterly, observing panoramic mountain views to the south

Market Overview

Demographic statistics from *STDBOnline* are in the addenda and indicate a generally stable locale. The *MTLUS* statistics for the retail and single family markets are in the addenda and are also summarized below. The subject is located in District 4, Oro Valley / Catalina. Marketing and exposure times are one year or less. The retail market appears to be undersupplied based on the low vacancy rates and the low district capture of inventory (2.1%) compared to the high district capture of permits (53.3%). However, the large supply of permitted inventory coming online soon will help to balance the market. The single family market appears to be stable where percentage growth mirrors the community overall.

Figure 10: Retail Snapshot

MTLUS Retail Snapshot

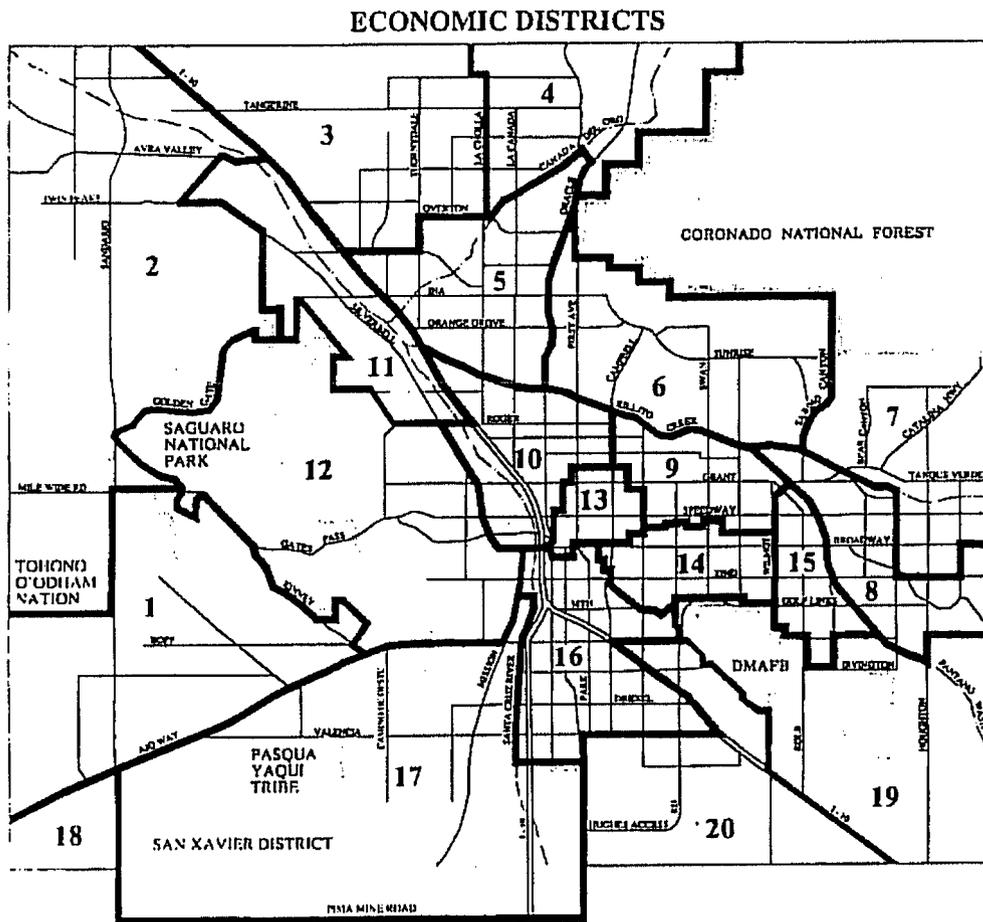
Q4 2007

	Tucson Metro			District 4		
	Total	Street-side	Shop. Ctr.	Total	Street-side	Shop. Ctr.
Centers (#)	216		216	9		9
<i>% District Capture</i>				4.2%		
Establishments (#)	9,809	5,338	4,471	239	98	141
<i>% District Capture</i>				2.4%	1.8%	3.2%
Vacant (#)	1,119	544	575	24	5	19
<i>% District Capture</i>				2.1%	0.9%	3.3%
Inventory (S.F.)	43,294,596	17,938,157	25,356,439	924,840	239,108	685,732
<i>% District Capture</i>				2.1%	1.3%	2.7%
Vacancy (S.F.)	3,447,452	1,504,533	1,942,919	45,521	6,544	38,977
<i>% Vacancy</i>	8.0%	8.4%	7.7%	4.9%	2.7%	5.7%
<i>% District Capture</i>				1.3%	0.4%	2.0%
Ann. Absorption (S.F.)	641,694	52,211	589,483	75,014	14,637	60,377
<i>% District Capture</i>				11.7%	28.0%	10.2%
Ann. Supply Inc. (S.F.)	685,742	122,930	562,812	109,957	16,485	93,472
<i>% District Capture</i>				16.0%	13.4%	16.6%
Permits (6 mos.) (S.F.)	765,466			407,857		
<i>% District Capture</i>				53.3%		

Figure 11: Single Family Snapshot

**MTLUS Single-family Snapshot
Q4 2007**

	Tucson Metro	District 4
Inventory (units)	246,877	19,925
% District Capture		8.1%
Ann. Permits (units)	4,846	482
% Growth	2.0%	2.4%
% District Capture		9.9%



Highest & Best Use

Highest and best use is a market driven concept that focuses on market forces as each relates to the subject site, identifying the most profitable and competitive use to which the property can be put. For this assignment, the appraiser has considered the following factors in determining the highest and best use of the subject property: legally permissible, physically possible, financially reasonable and maximally productive.

After examining the facts in the preceding sections of this appraisal report, the following can be summarized regarding the subjects' most probable uses:

- Current zoning of the site permits a variety of commercial uses for Parcels 1 & 2 and single family residential uses for Parcels 3 & 4.
- There do not appear to be any physical limitations that would prohibit development of the subject sites other than size.
- The subject's immediate neighborhood is dominated by residential uses with supporting office and commercial uses.
- The area in which the subject sites are located enjoys an adequate transportation system via arterial streets.

After considering all the various factors, the highest and best use of Subject Parcels 1 and 2 is for commercial development in conjunction with the larger surrounding commercial parcels. The highest and best use for the Subject Parcels 3 and 4 is for single family residential development.

The appraisal process typically involves three traditional valuation approaches: cost, income capitalization and sales comparison. For this evaluation, only the sales comparison approach will be utilized. The Subject Parcels 1 and 2 have a highest and best use to be developed commercially in conjunction with a larger development parcel. Therefore, these parcels will be compared to larger commercial land sales and a price will be allocated on a per square foot basis. Parcels 3 and 4 are valued per lot.

Sales Comparison Approach – Parcels 1 & 2

A search of the entire Tucson metropolitan area for sales of comparable properties was conducted. Similar sales were located in the subject's general neighborhood and competing areas. The sales are compared to the subject Parcels 1 & 2 "as if vacant" and part of a larger commercial development. The larger development parcel for Parcel 1 is located at the southwest corner of Eagle Ranch Rd. and Eagle Crest Ranch Blvd. and is contained within tax parcel no. 305-31-013W. The larger development parcel contains approximately 9.32 acres. The larger parcel for Parcel 2 contains approximately 10.55 acres within tax parcel no's: 305-31-013P and -013Q. The larger parcel is located at the northwest corner of State Route 77 (Oracle Rd) and Eagle Crest Ranch Blvd.

The sales tabulation is a summary of five of the most recent comparable transactions. The properties are competitive uses to the subject. Based on the sales summarized in the table, a unit value of \$5.75/S.F. is appropriate for the underlying land of Parcels 1 and 2, as part of a larger commercial development parcel. Calculations follow:

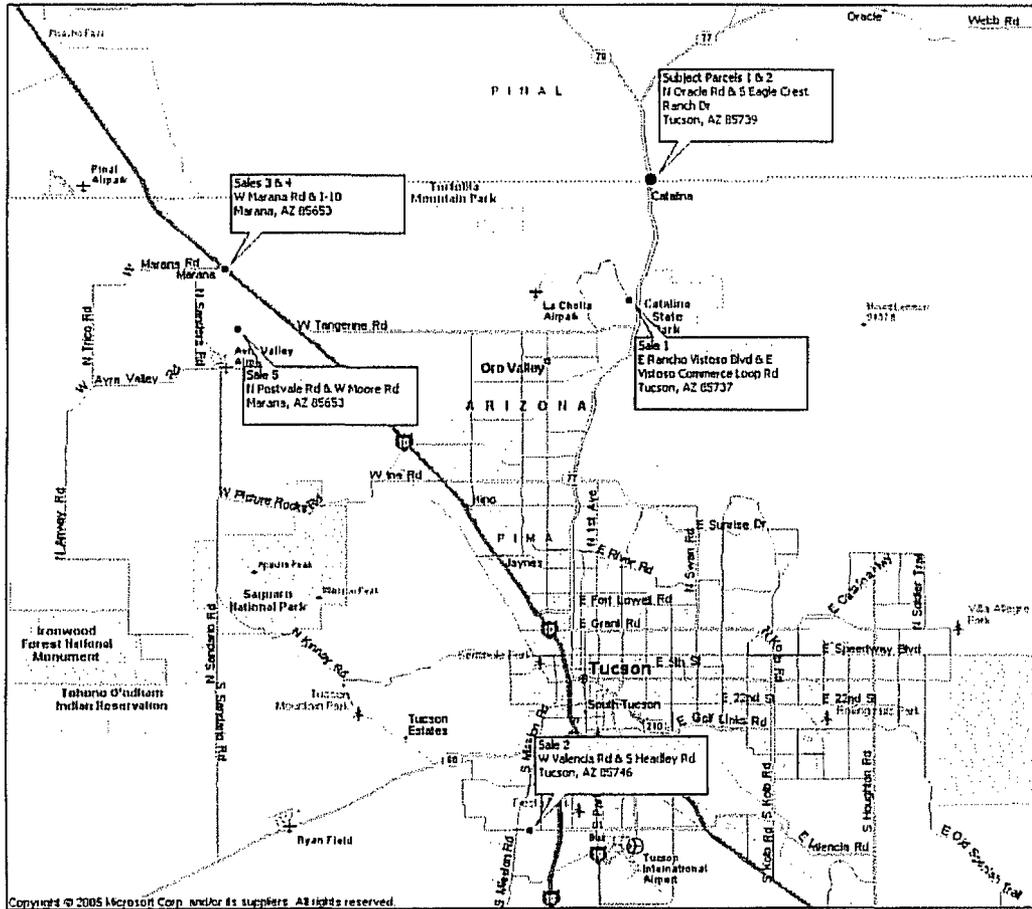
<u>Parcel</u>	<u>Site Area</u>		<u>Value/S.F.</u>	<u>Indicated Value</u>
1	31,363 S.F.	x	\$5.75	\$180,337
			Rounded to:	\$180,000
2	10,890 S.F.	x	\$5.75	\$62,618
			Rounded to:	\$60,000

Figure 12: Comparable Commercial Land Sales – Parcels 1 & 2

LAND SALE ADJUSTMENT GRID					
	Sale 1	Sale 2	Sale 3	Sale 4	Sale 5
Location	NW of Rancho Vistoso Blvd. & Oracle Rd.	SWc Valencia & Headley Rd	SW of Marana Rd. & I-10	NWc of Marana Rd. & I-10	S/s Tangerine Farms, W of Postvale Rd
Date	Jan-07	Mar-07	Sep-07	Jan-08	Feb-08
Adjusted Sales Price*	\$3,735,000	\$3,000,000	\$5,350,692	\$7,720,000	\$3,200,000
Land SF	661,676	495,713	1,126,462	1,810,789	853,776
Land Acres	15.19	11.38	25.86	41.57	19.60
Zoning	PAD, Oro Valley	C-1, Tucson	NC, Marana	C, Marana	VC, Marana
Intended Use	Office Park/Planned Unit Development	Auto dealership with possible retail	Mixed Use Commercial	Power Center	Walgreen's anchored center
Sale Price/SF	\$5.64	\$6.05	\$4.75	\$4.26	\$3.75
Property Rights Conveyed	0	0	0	0	0
Conditions of Sale	0	-20%	0	0	0
Market Conditions	+10%	+5%	0	0	0
Base Adjusted Price	\$6.21	\$5.08	\$4.75	\$4.26	\$3.75
Location	-10%	+10%	+15%	+15%	+25%
Physical Characteristics	0	0	0	0	0
Size	0	0	+5%	+10%	+5%
Shape	0	0	0	+10%	0
Utility	0	0	0	0	+25%
Zoning/Use	0	0	0	0	0
Non Realty Components	0	0	0	0	0
Indicated Value/S.F.	\$5.59	\$5.59	\$5.70	\$5.76	\$5.81

*Where applicable, price adjusted for cash equivalency, and expenditures required immediately after sale.

Figure 13: Sales Location Map

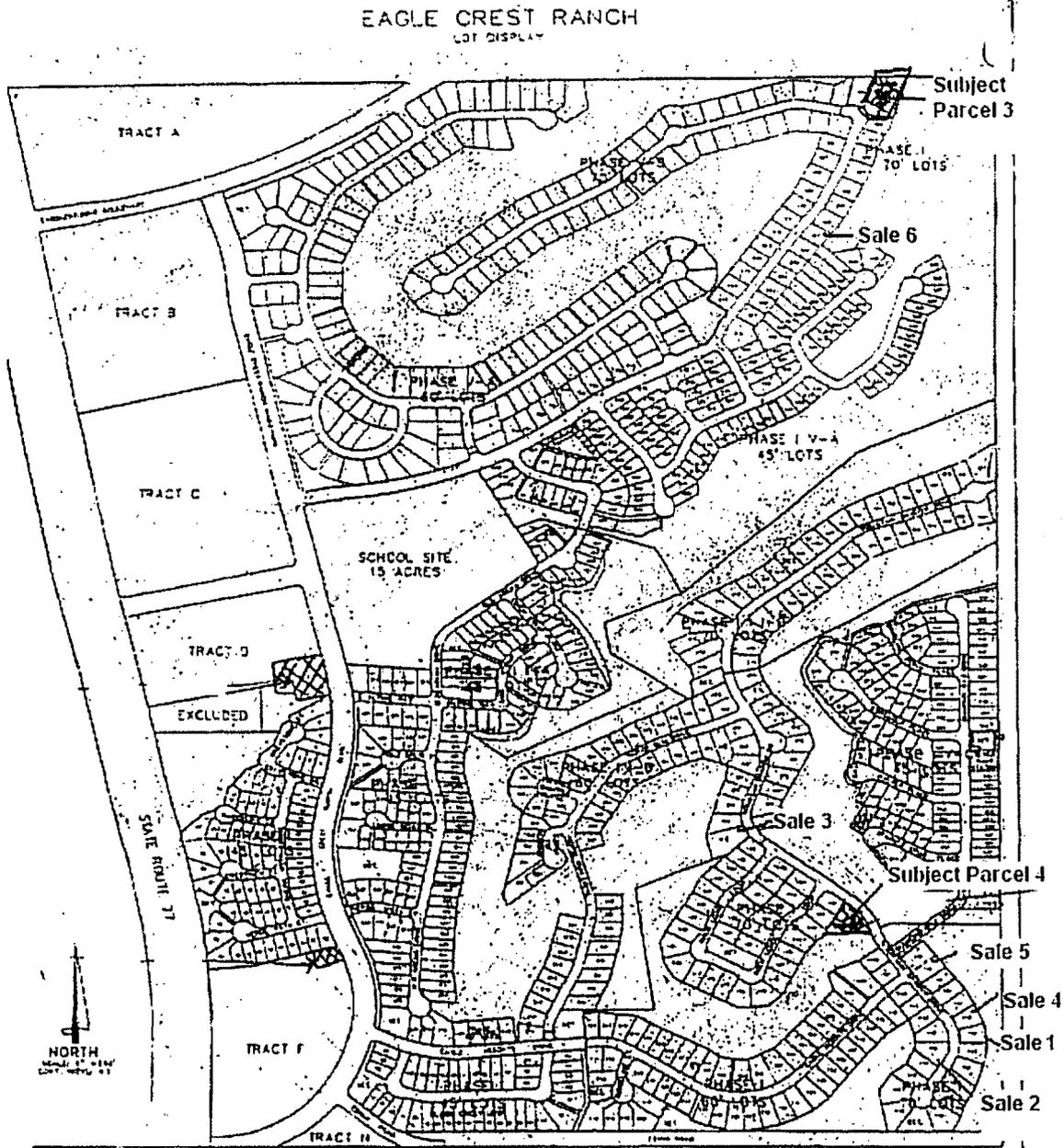


Sales Comparison Approach – Parcels 3 & 4

A search of the entire Tucson metropolitan area for sales of comparable properties was conducted. Nearby vacant comparable residential lot sales were not discovered as finished lots are sold with a house. Value of the underlying land is obtained by applying a land allocation to the overall sales prices of single family homes within the Eagle Crest Ranch Subdivision. A survey of subdivision developers indicates a land to building ratio of 25% for single family homes in similar subdivisions. Following is a tabulation of recent single family home sales in the Eagle Crest Ranch Subdivision:

Sale No.	Sale Date	Subdivision	Lot No.	Sale Price	Lot Size	Imp. Size
1	4/07	Eagle Crest Ranch	154	\$480,000	.23 ac.	3,612
2	8/07	Eagle Crest Ranch	144	\$439,000	.28 ac.	2,319
3	8/07	Eagle Crest Ranch	357	\$367,500	.43 ac.	2,711
4	9/07	Eagle Crest Ranch	155	\$435,000	.23 ac.	3,612
5	12/07	Eagle Crest Ranch	159	\$340,000	.21 ac.	2,318
6	3/08	Eagle Crest Ranch	597	\$345,000	.21 ac.	2,057

Figure 14: Sales Location Map



All of the sales selected are nearby to the subject Parcels 3 and 4, abut open space, and enjoy above average views, as well as larger lot sizes. The sales average \$401,083, say \$400,000. Applying a 25% land allocation yields an estimated lot value of \$100,000 for Parcel 4, as if vacant and valued in accordance with its highest and best use. An additional lot premium of \$50,000 is added to Parcel 3 to reflect its superior views and larger lot size. Therefore, the estimated value of Parcel 3 is \$150,000, as if vacant and valued in accordance with its highest and best use.

Reconciliation

Only the sales comparison approach is applied, and this approach best reflects buyer and seller actions. Based upon all of the information, data and analyses contained in the report, it is my opinion the market value of the underlying land of each subject site, as of June 26, 2008, is properly expressed at:

ESTIMATED MARKET VALUE OF THE SUBJECT SITES, A FRACTIONAL INTEREST AS TO LAND VALUE ONLY, AS IF VACANT, FEE SIMPLE INTEREST, REAL ESTATE ONLY:

PARCEL 1:.....	\$180,000
PARCEL 2:.....	\$60,000
PARCEL 3:.....	\$150,000
PARCEL 4:.....	\$100,000

Estimate of Exposure Time / Marketing Time

3 to 6 months. The estimated construction time is 3 months.

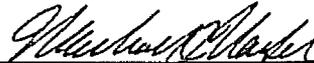
My Certification, the Contingent & Limiting Conditions and my current Qualifications follow.

Your attention is directed to the data and discussions contained in this summary appraisal report and to the pertinent exhibits.

I do hereby certify that, to the best of my knowledge and belief, all statements and opinions contained in this appraisal report are correct. This transmittal letter is not valid for any purpose unless accompanied by the 58-page appraisal referred to herein. The appraisal report and this letter of transmittal are subject to the limiting conditions as set forth in the appraisal report under the heading "Contingent and Limiting Conditions" and to such other specific and limiting conditions as set forth by the appraiser in the appraisal report.

In order to guarantee authenticity of this report, the designated appraiser has imprinted this letter of transmittal with an embossed seal. Any copy without same is not a certified copy and the appraisers assume no responsibility or liability for such a report.

Respectfully submitted,
MJN Enterprises, Inc.

By 
Michael J. Naifeh, MAI, CRE
Certified General
Real Estate Appraiser
State of Arizona
Certificate No. 30276

Certification

I certify that, to the best of my knowledge:

- the statements of fact contained in this report are true and correct.
- the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.
- the appraisal assignment was not based on a requested minimum valuation, a specific valuation, or the approval of the loan.
- I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.
- my compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.
- my analyses, opinions, and conclusions were developed, and this report has been prepared in conformity with, the Uniform Standards of Professional Appraisal Practice.
- the undersigned hereby acknowledge that they have the appropriate education and experience to complete the assignment in a competent manner. The reader is referred to the appraisers' Statement of Qualifications.
- Michael J. Naifeh has made a personal inspection of the property that is the subject of this report.
- no one provided significant professional assistance to the person(s) signing this report, except as provided hereafter. Carolyn Van Hazel provided significant assistance in the preparation of this appraisal.
- The "Estimate of Market Value" in the appraisal report is not based in whole or in part upon the race, color, or national origin of the prospective owners or occupants of the property appraised, or upon the race, color, or national origin of the present owners or occupants of the properties in the vicinity of the property appraised.
- the reported analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Practice of the Appraisal Institute.

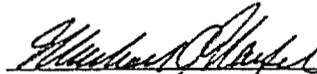
The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

As of the date of this report, I, Michael J. Naifeh, MAI, have completed the requirements under the continuing education program of the Appraisal Institute.

All conclusions and opinions concerning the real estate that are set forth in the appraisal report were prepared by the Appraisers whose signature(s) appears on the appraisal report, unless indicated as "Review Appraiser."

No change of any item in the appraisal report shall be made by anyone other than the Appraiser(s), and the Appraiser(s) shall have no responsibility for any such unauthorized change.

This summary appraisal report is prepared in conformance with the Uniform Standards of Professional Appraisal Practice.



Michael J. Naifeh, MAI, CRE
Certified General
Real Estate Appraiser
State of Arizona
Certificate No. 30276

Contingent and Limiting Conditions

The certification of the Appraiser appearing in the appraisal report is subject to the following conditions, and to such other specific and limiting conditions as are set forth by the Appraiser in the appraisal report.

This report is prepared for our client. This report or any portion thereof is for the exclusive use of the client and is not intended to be used, sold, transferred, given, or relied on by any other person than the client without the prior, expressed written permission of the authors, as set forth within the Limiting Conditions contained in this report. Possession of this appraisal, or a copy thereof, does not carry with it the right of publication. The appraisal may not be used for any purpose by any person other than the client without prior written consent of the appraiser. Neither all nor any part of the contents of this appraisal (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of the appraiser.

The Appraiser assumes no responsibility for matters of a legal nature affecting the property appraised or the title thereto, nor does the Appraiser render any opinion as to the title, which is assumed to be good and marketable. No Owner's Title Policy has been furnished to the Appraiser. The property is appraised as though under responsible ownership, competent management, and adequate marketing typical for that type of property.

The Appraiser has made no survey of the property. Any sketch or map in the appraisal report may show approximate dimensions and is included for illustrative purposes only. It is the responsibility of a certified engineer, architect, or registered surveyor to show by a site plan the exact location of the subject property or any improvements or any proposed improvements thereon, or the exact measurements or calculations of estimated area of the site. In the absence of such a survey, the appraiser may have used Tax Assessor's maps or other maps provided by the client which may not represent the exact measurements of the subject property or other comparable information used to estimate the value of the subject property. Any variation in dimensions or calculations based thereon may alter the estimates of value contained within the appraisal.

The plot plans and illustrative material in this appraisal are included only to assist the reader in visualizing the property.

The property is appraised free and clear of any or all liens or encumbrances unless otherwise stated.

Responsible ownership and competent property management are assumed.

It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws unless noncompliance is stated, defined and considered in the appraisal.

It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use upon which the value estimate contained in this appraisal is based.

It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in the appraisal.

In estimating the value of the subject property and in analyzing comparable information, the appraisers have relied upon information from public and private planning agencies as to the potential use of land or improved properties. This information may include, but is not limited to, Area Plans, Neighborhood Plans, Zoning Plans and Ordinances, Transportation Plans, and the like. In the estimate of market value, the appraiser may consider the extent to which a knowledgeable and informed purchaser or seller, as of the date of the appraisal, would reflect the reasonable probability of changes in such land uses becoming actualized in the future. To the extent that these plans may change, the value estimates of this appraisal may also change.

In the absence of a professional Engineer's Feasibility Study, information regarding the existence of utilities is made only from a visual inspection of the site. The Appraiser assumes no responsibility for the actual availability of utilities, their capacity, or any other problem which may result from a condition involving utilities. The respective companies, governmental agencies or entities should be contacted directly by concerned persons.

The Appraiser is not required to give testimony or appear in court because of having made the appraisal with reference to the property in question, unless prior arrangements have been made and confirmed in writing.

Any allocation of the valuation in the appraisal report between land and improvements applies only under the stated program of utilization. The separate valuations for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used.

The Appraiser assumes that there are no hidden or unapparent conditions of the property, subsoil, potential flooding hazards, hydrology, or structures, which would render it more or less valuable. The Appraiser assumes no responsibility for such conditions, or for engineering which might be required to discover such factors. To the extent that published data from public agencies is available on the above, the Appraiser has made an effort to consult this information.

Unless otherwise stated within our report, the existence of hazardous material, which may or may not be present within or on the property, will not be considered by us. The Appraiser assumes, and the client warrants, that no such materials adversely affect the utility, usability, or developability of the property to the best of their knowledge. The appraisers are not qualified to detect such substances. The presence of substances such as asbestos, ur-ea-formaldehyde foam insulation, radon gas, or other potentially hazardous materials may affect the value of the property. The value estimate has been predicated on

the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility will be assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired. If at a later time hazardous materials or substances are discovered, we reserve the right, for an additional agreed-upon fee, to re-analyze and re-appraise said property, taking into account the discovery of such factor or factors and their effects on the value of the subject property.

Information, estimates, and opinions furnished to the Appraiser and contained in the appraisal report were obtained from sources considered reliable and believed to be true and correct. However, no responsibility for accuracy of such items furnished to the Appraiser can be attributed to the Appraiser.

In this appraisal assignment, the existence of potentially hazardous material used in the construction or maintenance of the building, such as the presence of urea formaldehyde foam insulation, and/or existence of toxic waste or radon gas, which may or may not be present on this property, has not been considered. The appraiser is not qualified to detect such substances. We suggest that the client retain an expert in this field, if desired.

The appraiser has not detected or knows of any substance relating to environmental health that would affect the market value of the subject property.

Disclosures of the contents of the appraisal report by the Appraiser are governed by the Bylaws and Regulations of the professional appraisal organizations with which the Appraiser is affiliated.

On all appraisals which are undertaken subject to satisfactory completion of, alterations of, or repairs to improvements, the appraisal report and value conclusions contained in it are contingent upon completion of the improvements or of the repairs thereto or alterations thereof in a workmanlike manner.

This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraiser is not responsible for unauthorized use of this report.

The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraiser is not responsible for unauthorized use of this report.

There were no other specific and/or limiting conditions associated with this appraisal for the subject property except what has been previously mentioned above.

The use of this report or its analysis and conclusions by the client or any other party constitutes acceptance of all the above limiting conditions.

Qualifications of the Appraiser

Michael J. Naifeh

Experience

- Includes valuation of most types of urban real property and interest in real property; i.e., single and multi-family residential, commercial, industrial, and vacant land. Experience also includes special-purpose properties, feasibility studies, property tax appeals, lease fee and leasehold interest, and counseling.
- Employed as a Fee Appraiser with Sanders K. Solot and Associates, Tucson, Arizona, from May 1980 through April 1983.
- Employed as a Fee Appraiser with Mahoney, Cole and Associates, Tucson, Arizona, from May 1983 through May 1988.
- Currently President and Principal Appraiser, MJN Enterprises, Inc.

Professional Education

Successful completion of examinations for the following Appraisal Institute courses:

- Real Estate Appraisal Principles, and Basic Valuation Procedures, December, 1979 (formerly Course 1A, now Courses 110 and 120)
- Capitalization Theory & Techniques, Part 1, March, 1980; Parts 2 and 3, June, 1983; attended again, January, 1988 (formerly Course 1B, now Courses 310 and 510)
- Case Studies and Valuation Analysis and Report Writing, February, 1984 (formerly Course 2, now Courses 540 and 550)
- Standards of Professional Practice, May, 1984; attended again October, 1990, June, 2001 (formerly Course 2 Part 3, now Courses 410 and 420)
- Litigation Valuation, June, 1991 (formerly Course 4)
- Real Estate Investment Analysis, June, 1982 (formerly Course 6)
- Market Analysis, March, 1985; attended Highest and Best Use and Market Analysis, June, 1994 (formerly Course 10, now Course 520)
- Attended Advanced Sales Comparison and Cost Approaches, February, 1996, Course 530
- Attended various seminars such as Case Studies and Litigation Valuation

Professional Memberships

- Member of the Counselors of Real Estate (CRE), Certification Number 2387. The CRE designation is awarded only to those individuals who are invited by their peers into the membership of the Counselors of Real Estate.
- Member, Appraisal Institute, (MAI), Certificate Number 7812. As of the date of this report, I, Michael J. Naifeh, have completed the requirements under the continuing education program of the Appraisal Institute.
- Certified General Real Estate Appraiser, State of Arizona Certificate No. 30276.
- Registered Property Tax Agent in the State of Arizona
- Licensed Real Estate Salesman, State of Arizona

Formal Education

Bachelor of Science Degree, University of Arizona, 1980.

Concentration: Accounting and Real Estate

Public Service

- Appointed to the Arizona State Board of Appraisal January, 2000.
- Served as Vice Chairperson in 2000 and Chairperson in 2001.
- Reappointed for a second term January, 2002.

Scope of Appraisal Practice

Appraisal practice is classified into five categories:

- Mortgage Loan Appraisal
- Taxation Valuation
- Eminent Domain Appraisal
- Market Value for Private Negotiation Purposes
- Counseling

Clientele includes governmental agencies, corporate organizations, development companies, and financial institutions.

Addenda

Figure 15: Appraisal Contract



June 9, 2008

Ms. Jackie Ziliox
Chief Executive Officer
Sears Financial Corporation
6340 N. Campbell Ave., Suite 278
Tucson, AZ 85718

Re: Summary appraisal of the vacant land, 4 sites located in Eagle Crest Ranch, Pima County, Arizona

Sent by fax: 529-8012
Sent by e-mail: Jackie.z@comcast.net

Dear Ms Ziliox:

I am submitting this proposal for a summary appraisal on the property referenced above. The purpose of this assignment is to develop market value opinions of the individual sites as to their highest and best use and not as infrastructure sites for the Goodman Water Company.

The summary appraisal report will contain abbreviated descriptions of the market area and the sites, and will discuss pertinent market conditions and their effects on the value of each property. The appraisal report also will contain a summary of supporting factual data and analyses necessary to substantiate my opinions of value, as well as pertinent exhibits and photographs. The sales comparison approach will be developed as it is necessary for a credible value opinion. The intended use is for asset management decisions including possible donation to the water company. The intended user is the client.

Please provide maps with site sizes or surveys, zoning conditions, and master plan documents. The scope of the work will include tabulation of comparable sales verified by public records, similar to an "evaluation" report often prepared for banks on diminimus properties (diminimus properties are generally properties with financing under \$250,000). Prior to issuing this letter, I explained the scope of services to you as you are a knowledgeable user of appraisal services.

Please be advised that I am disclosing/will disclose, both in this contract letter and in the appraisal report, that an affiliate of Sears Financial Corporation, D&D Investments, has a

6061 East Grant Road, Tucson, Arizona 85712
(520) 321-0000 FAX (520) 290-5293

minority investment in PBH Flagstaff Holdings, LLC of which I am also a member. Because the interest owned is small (+/- 2%) and because the appraisal is not being used for a federally related transaction, by executing this letter, we mutually agree and acknowledge that this will have no influence whatsoever on both my independence and the value opinions.

My certification on the appraisal report will be subject to the limiting conditions set forth in the enclosed three-page document entitled "Contingent and Limiting Conditions" and to other specific and limiting conditions which will be set forth in the appraisal report.

The total fee for the appraisal will not exceed \$2,000. Upon the receipt of this mutually-executed agreement, the appraisal will be completed in 3 weeks.

The client hereby agrees to pay an 18% per annum finance charge on any unpaid balance of the fee if payment is not received when due. Accounts which must be assigned to an outside agency for collection will be assessed a \$200.00 service charge. In case legal action is instituted to collect a past due balance, the above-named client promises to pay collection costs and such additional sums as the court may adjudge reasonable such as court costs, attorney fees, service of process, and any other costs necessary to effect judgment and enforce payment. Please make all checks payable to MJN Enterprises, Inc. If this agreement is not signed by the client and returned to the appraisers within seven days from the above date, the fees set forth herein may be subject to change. Further, the above-quoted fee agreement is subject to change by the appraisers upon inspection of the property or upon change in the client's requested services. Appraisers shall notify the client of any such change in fees prior to commencement of the work.

The parties agree that the estimated fee does not include any services or expenses other than those as set forth above. For example, post appraisal consultation, appearance at legal proceedings, research, analysis, preparation, and testimony for depositions or court appearances for any legal proceedings are not included services, unless specifically set forth above. Any such additional services requested by the client and expenses occasioned thereby are subject to an additional fee to be billed at \$200.00 per hour, excepting expert witness testimony and testimony within depositions which are billed at \$250 per hour.

Your acceptance of this proposal, as confirmed by your signature on this letter, will acknowledge your understanding and agreement with the terms of this assignment as set forth in this letter, including the document entitled "Contingent and Limiting Conditions."

This contract is made solely with MJN Enterprises, Inc., an independent corporation.

If these terms expressed in this letter are acceptable to you, please date and sign this original letter and return it to me, together with your check covering the retainer fee made payable to MJN Enterprises, Inc. I am enclosing a signed copy of this letter for your records.

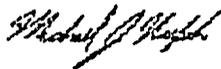
If any provision of this agreement is determined to be void or unenforceable by any court of proper jurisdiction, such determination shall not affect any other provision of this agreement held to be enforceable and all such enforceable provisions shall remain in full force and effect. Any actions or proceedings brought by anyone relating to or arising out of this agreement shall be brought in a court of proper jurisdiction in Pima County, Arizona. It is agreed that this agreement and the performance hereunder and all suits and legal proceedings hereunder shall be construed in accordance with and pursuant to the laws of the State of Arizona. This agreement represents the entire agreement between the parties and supersedes all prior written or oral agreements, negotiations, or representations.

This agreement shall be binding upon the heirs, successors, and assigns of the parties.

I look forward to being of service to you.

Respectfully submitted,

MJN ENTERPRISES, INC.



By _____
Michael J. Naifeh, MAI, CRE
Certified General
Real Estate Appraiser
State of Arizona
Certificate #30276

CLIENT ACCEPTED & APPROVED:

By Jamie Zelnick
Secretary of Goodman Water Company

Date 6-11-08

MJN/st

Figure 16: Subject Deeds

FIDELITY NATIONAL TITLE



OFFICIAL RECORDS OF
PINAL COUNTY RECORDER
LAURA DEAN-LYTLÉ

When recorded, return to:
Goodman Water Company
Attn: Jackie Ziliox, Chief Executive Officer
Sears Financial Corporation
6340 N. Campbell Avenue, Suite 278
Tucson, AZ 85718

DATE/TIME: 05/05/08 1421
FEE: \$16.00
PAGES: 3
FEE NUMBER: 2008-042476

1/2 30029990

SPECIAL WARRANTY DEED

For the consideration of the sum of Ten Dollars (\$10.00) and other valuable consideration, D.R. Horton, Inc., a Delaware corporation ("Grantor"), does hereby grant, sell and convey unto Goodman Water Company, an Arizona corporation, the following described real property located in Pinal County, Arizona:

See Exhibit "A" attached hereto and by this reference made a part hereof (the "Property"),

together with all rights, easements and privileges appurtenant thereto.

SUBJECT TO: All taxes and assessments; patent reservations; easements, rights of way, encumbrances, liens, covenants, conditions, restrictions, obligations, liabilities and other matters that appear of record.

Grantor warrants the title to the Property against all acts of the Grantor and no other, subject only to the matters above set forth.

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed this 18th day of April, 2008.

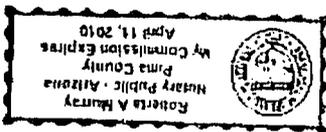
D.R. Horton, Inc. a Delaware corporation

By: 
Name: David S. Greenberg
Title: Division President

STATE OF Arizona)
) ss.
County of Pima)

On April 18, 2008 before me, Robert A Murray
personally appeared David S Greenberg personally known to me (or
proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s)
is/are subscribed to the within instrument and acknowledged to me that he/she/they
executed the same in his/her/their authorized capacity(ies), and that by his/her/their
signature(s) on the instrument the person(s) or the entity upon behalf of which the
person(s) acted, executed the instrument.

Witness my hand and official seal.



[SEAL]

Robert A Murray
Notary Public

EXHIBIT "A" TO GENERAL WARRANTY DEED

Parcel No. 1:

Tract A, of EAGLE CREST RANCH I, according to the plat record in the office of the
County Recorder of Pinal County, Arizona, recorded in Cabinet D of Maps, Slide 34.

Parcel No. 2:

Tract B, of EAGLE CREST RANCH I, according to the plat record in the office of the
County Recorder of Pinal County, Arizona, recorded in Cabinet D of Maps, Slide 34.

Parcel No. 3:

Tract E, of EAGLE CREST RANCH IV-A, according to the plat of record in the office
of the County Recorder of Pinal County, Arizona, recorded in Cabinet G of Maps, Slide
83.

FIDELITY NATIONAL TITLE



OFFICIAL RECORDS OF
PINAL COUNTY RECORDER
LAURA DEAN-LYTL

When recorded, return to:
Goodman Water Company
Attn: Jackie Ziliox, Chief Executive Officer
Sears Financial Corporation
6340 N. Campbell Avenue, Suite 278
Tucson, AZ 85718

DATE/TIME: 05/05/08 1421
FEE: \$16.00
PAGES: 3
FEE NUMBER: 2008-042477

2/2 30029990

GENERAL WARRANTY DEED

For the consideration of the sum of Ten Dollars (\$10.00) and other valuable consideration, Fidelity National Title Agency, Inc., an Arizona corporation, as Trustee under Trust No. 10,587 ("Grantor"), does hereby grant, sell and convey unto Goodman Water Company, an Arizona public service corporation, the following described real property located in Pinal County, Arizona:

See Exhibit "A" attached hereto and by this reference made a part hereof (the "Property").

together with all rights, easements and privileges appurtenant thereto.

SUBJECT TO: All taxes and assessments; patent reservations; easements, rights of way, encumbrances, liens, covenants, conditions, restrictions, obligations, liabilities and other matters that appear of record.

Grantor warrants the title to the Property against all persons whomsoever subject only to the matters above set forth.

Pursuant to A.R.S. § 33-404, the name and address of the beneficiary of Grantor is:

Goodman Ranch Associates
6340 N. Campbell Avenue
Suite 278
Tucson, AZ

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed this 24th day of March, 2008.

Fidelity National Title Agency, Inc., an Arizona corporation, as Trustee under Trust No. 10.587

By: _____ FIDELITY NATIONAL TITLE AGENCY, INC.
Name: _____ an Arizona corporation as TRUSTEE Under
Title: _____ TRUST NO. 10.587 _____ and not in its
corporate capacity
By: MARLENE L. HILL
Its Trust Officer

STATE OF Arizona)
) ss.
County of Pima)

On 3-24-08, before me, LAURA E. MARTINEZ personally appeared MARLENE L. HILL personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

Witness my hand and official seal.

Laura E. Martinez
Notary Public

[SEAL]

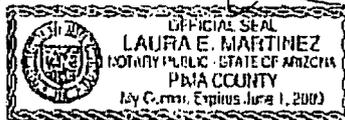


EXHIBIT "A" TO GENERAL WARRANTY DEED

All of that portion of the Southwest Quarter of Section 32, Township 10 South, Range 14 East, Gila and Salt River Base and Meridian, Pinal County, Arizona, being a portion of Eagle Crest Ranch Tracts "A" through "N" and Common Area "A" (Private Streets), a subdivision of Pinal County, Arizona, recorded in Cabinet "C" in Slide 173 on October 25, 2000, more particularly described as follows:

Commencing at the Southeast corner of Tract "D" of said Eagle Crest Ranch Tracts "A" through "N" as it adjoins Tract "E" and Eagle Crest Ranch Boulevard, said point falling on a curve from which the radius bears South 83 degrees 55 minutes 51 seconds West;

Thence Northerly along said curve to the left on the Westerly right-of-way of Eagle Crest Ranch Boulevard, having a radius of 1150.00 feet and a central angle of 03 degrees 36 minutes 30 seconds, an arc distance of 72.42 feet to the POINT OF BEGINNING;

Thence departing said curve, West, on a non-tangent line, a distance of 36.10 feet;

Thence South 45 degrees 00 minutes 00 seconds West, a distance of 92.02 feet;

Thence West, a distance of 46.69 feet;

Thence North 10 degrees 49 minutes 04 seconds West, a distance of 60.09 feet;

Thence South 79 degrees 10 minutes 56 seconds West, a distance of 75.26 feet;

Thence North, a distance of 113.17 feet;

Thence East, a distance of 213.60 feet to a point on the Westerly right-of-way of said Eagle Crest Ranch Boulevard;

Thence South 12 degrees 56 minutes 33 seconds East along said Westerly right-of-way, a distance of 29.49 feet to a point of curvature;

Thence Southerly along said curve to the right, having a radius of 1150.00 feet and a central angle of 03 degrees 15 minutes 55 seconds, an arc distance of 65.54 feet to the POINT OF BEGINNING;



Demographic and Income Profile - Appraisal Version
MJN Enterprises

Eagle Crest
Eagle Crest Ranch Blvd & N Oracle Rd
Tucson, AZ 85739

Latitude: 32.511318
Longitude: -110.925771
Radius: 3.0 mile

Site Type: Radius

Summary	2000	2008	2013
Population	7,512	12,165	14,342
Households	3,105	5,328	6,414
Families	2,360	4,045	4,941
Average Household Size	2.40	2.28	2.22
Owner Occupied HUs	2,713	4,719	5,643
Renter Occupied HUs	391	619	770
Median Age	46.2	55.5	55.0

Trends: 2008-2013 Annual Rate	Area	State	National
Population	3.34%	3.27%	1.23%
Households	3.75%	3.25%	1.26%
Families	3.00%	3.00%	1.05%
Owner HHs	3.65%	3.1%	1.07%
Median Household Income	2.63%	3.74%	3.18%

Households by Income	2000		2008		2013	
	Number	Percent	Number	Percent	Number	Percent
< \$15,000	377	9.0%	370	5.1%	262	3.8%
\$15,000 - \$24,999	453	15.7%	425	8.0%	311	4.8%
\$25,000 - \$34,999	350	12.3%	507	9.5%	560	9.2%
\$35,000 - \$49,999	668	21.7%	714	13.4%	677	10.6%
\$50,000 - \$74,999	519	20.1%	1,359	25.5%	1,923	25.5%
\$75,000 - \$99,999	250	9.4%	658	12.0%	683	10.7%
\$100,000 - \$149,999	240	7.5%	758	14.5%	1,264	20.0%
\$150,000 - \$199,999	59	1.8%	277	5.2%	411	6.4%
\$200,000+	62	2.0%	311	5.5%	571	9.0%
Median Household Income	\$43,068		\$82,712		\$71,073	
Average Household Income	\$55,566		\$84,964		\$105,131	
Per Capita Income	\$22,245		\$37,766		\$47,605	

Population by Age	2000		2008		2013	
	Number	Percent	Number	Percent	Number	Percent
0 - 4	360	4.8%	474	3.9%	564	3.9%
5 - 9	424	5.4%	471	3.9%	559	3.9%
10 - 14	501	6.4%	500	4.1%	601	4.2%
15 - 19	519	6.8%	539	4.4%	607	4.2%
20 - 24	322	4.1%	479	3.9%	469	3.5%
25 - 34	651	8.3%	1,030	8.5%	1,253	9.7%
35 - 44	1,305	12.0%	1,040	8.5%	1,231	8.8%
45 - 64	1,030	13.2%	1,458	12.0%	1,662	11.6%
55 - 64	1,214	15.5%	1,892	15.8%	2,267	16.0%
65 - 74	1,132	14.5%	2,493	20.5%	2,509	18.2%
75 - 84	551	7.1%	1,460	12.0%	1,909	13.3%
85+	104	1.3%	331	2.7%	556	3.9%

Data Note: income is expressed in current dollars

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, ESRI forecasts for 2008 and 2013.

MTLUS Retail History

District 4: Oro Valley - Catalina	4/05	2/06	4/06	2/07	4/07
Street-side Commercial					
Establishments					
Total	87	94	91	98	98
Vacant	7	4	4	5	5
Square Footage					
Total	208,738	224,203	222,623	239,108	239,108
Vacant	11,668	6,636	4,696	7,903	6,544
Vacancy Rate	5.59%	2.96%	2.11%	3.31%	2.74%
Change in Supply	0	15,465	(1,580)	16,485	0
Absorption	2,665	20,497	360	13,278	1,359
Shopping Center					
Centers					
	6	7	7	8	9
Establishments					
Total	109	121	120	131	141
Vacant	7	10	5	12	19
Square Footage					
Total	515,305	592,260	592,260	646,173	685,732
Vacant	10,359	16,610	5,882	72,990	38,977
Vacancy Rate	2.01%	2.80%	0.99%	11.30%	5.68%
Change in Supply	5,700	76,955	0	53,913	39,559
Absorption	651	70,704	10,728	(13,195)	73,572
Retail Permits					
Buildings	2	6	3	7	11
Square Feet	20,419	76,122	14,478	97,421	407,857

MTLUS Retail History

Total Tucson Area	4/05	2/06	4/06	2/07	4/07
Street-side Commercial					
Establishments					
Total	5,305	5,305	5,304	5,319	5,338
Vacant	559	538	549	503	544
Square Footage					
Total	17,661,651	17,741,523	17,815,227	17,879,412	17,938,157
Vacant	1,442,570	1,438,701	1,433,834	1,357,473	1,504,553
Vacancy Rate	8.17%	8.11%	8.05%	7.59%	8.39%
Change in Supply	304,882	79,872	73,704	64,185	58,745
Absorption	450,297	83,741	78,571	140,546	(88,335)
Shopping Center					
Centers					
	204	207	209	212	216
Establishments					
Total	4,260	4,350	4,371	4,424	4,471
Vacant	559	583	546	543	575
Square Footage					
Total	23,917,318	24,502,706	24,793,627	25,169,352	25,356,439
Vacant	1,964,048	2,225,519	1,969,590	1,987,547	1,942,919
Vacancy Rate	8.21%	9.08%	7.94%	7.90%	7.66%
Change in Supply	441,195	585,388	290,921	375,725	187,087
Absorption	552,684	323,917	546,850	357,768	231,715
Retail Permits					
Buildings	40	47	44	48	46
Square Feet	493,876+	799,389+	338,526+	601,611+	765,466+

MTLUS Single Family Detached History

4: Oro Valley - Catalina	1/06	2/06	3/06	4/06	1/07	2/07	3/07	4/07
Inventory	18,715	19,013	19,013	19,344	19,343	19,628	19,628	19,925
Absorption of New Inventory		298		331		285		298
Building Permits	170	155	423	132	115	153	125	89

MTLUS Single Family Detached History

Total Tucson Area	1/06	2/06	3/06	4/06	1/07	2/07	3/07	4/07
Inventory	230,907	234,932	234,912	239,462	239,437	243,723	243,710	246,877
Absorption of New Inventory		4,043		4,567		4,309		3,182
Building Permits	2,542	2,638	1,602	1,049	1,245	1,703	1,199	699

**Goodman Water Company
Docket No. W-02500A-10-0382**

**JOHN FERENCHAK, III
REBUTTAL TESTIMONY**

May 2, 2011

APPENDIX B

SUMMARY APPRAISAL REPORT
OF
FOUR WATER PLANT LAND PARCELS

LOCATED
**WITHIN THE MASTER PLANNED COMMUNITY
OF EAGLE CREST RANCH**

APPRAISED AS OF
VARIOUS RETROSPECTIVE DATES

PREPARED FOR
GOODMAN WATER COMPANY
MR. JAMES SHINER
6840 NORTH CAMPBELL AVENUE
SUITE 278
TUCSON, ARIZONA 85718

BY
BURDICK & FERENCHAK
P.O. BOX 19169
TUCSON, ARIZONA 85731

BURDICK & FERENCHAK
REAL ESTATE APPRAISING AND CONSULTING

JOHN BURDICK, MAI
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FAX (520) 885-1935

April 29, 2011

Goodman Water Company
Mr. James Shiner
6840 North Campbell Avenue
Tucson, Arizona 85718

Re: Four Water Plant Land Parcels;
Located within the master planned community of Eagle Crest Ranch,
Saddlebrooke, Pinal County, Arizona 85739
Burdick & Ferenchak File No. BF-1997

Dear Mr. Shiner:

In accordance with your request, I have prepared an appraisal of the above-referenced subject property in a summary report format. The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. This appraisal report contains an opinion of retrospective market value, "as if vacant", for each of the four water plant sites as of the date each water plant was put into service. (Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004). The ownership and legal description of this property are set forth in the following report.

The purpose of this appraisal is to provide a retrospective opinion of the market value of the fee simple fee estate for the above-referenced subject parcels. Market value, as used herein, is defined as "the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus". Further comment on market value is made in the following report.

By reason of a thorough analysis of the neighborhood environment, physical, social, political and economic factors affecting the value of the subject, including a personal inspection of the subject property, and by the analysis highlighted in this report, my opinions of market value for the four subject parcels as of the date each water plant was put into service are:

EAGLE CREST RANCH WATER PLANT SITES "AS IF VACANT"			
WATER PLANT/ TAX ID	SITE SIZE	RETROSPECTIVE DATE OF VALUE	MARKET VALUE OPINION
Water Plant #1 (Ptn of 305-31-013W)	31,363 sf	May 1, 2002	\$140,000
Water Plant #2 (305-31-013Q)	10,890 sf	August 1, 2005	\$65,000
Water Plant #3 (305-93-6040)	27,443 sf	January 1, 2008	\$165,000
Water Plant #4 (305-93-219B)	16,988 sf	October 1, 2004	\$85,000

A typical marketing/exposure period for properties similar to the subject of 12 months was concluded as reasonable.

The reader should note that the "As If Vacant" opinion of market value for the subject water plant sites stated in this report is based upon a **HYPOTHETICAL CONDITION** which assumes the parcels do not have any improvements upon them. It is noted that at the time of inspection (April 12, 2011), each water plant site had water facility improvements completed and in use

This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraisers are not responsible for unauthorized use of this report.

Within the constraints of adequate available data, the full appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).

No potential environmental hazards which might affect the use and value of the subject property were noted upon inspection, however these appraisers lack the experience to investigate hazardous materials and we recommend that a complete Environmental Survey be performed on the subject property to confirm the presence or absence of any environmental hazards. As a

result, the value opinions contained in this appraisal report **DO NOT** consider any loss in value due to any potentially hazardous environmental substances which may or may not be present on or near the subject property.

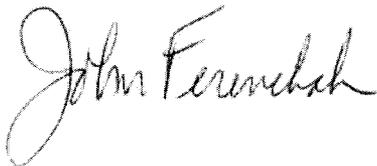
Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of such substances, such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimated is predicated on the assumption that there is no such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.

No engineering or soils report was available, and therefore no information was provided with respect to the utility or constructability of the existing improvements, or any unusual soil or drainage conditions which are not readily apparent. This appraisal assumes no soils challenge's associated with the subject property.

Please refer to the Limiting Conditions and Assumptions included in the Addendum section which accompany this summary appraisal report.

The authentic copies of this report are signed in blue, without which they are unauthorized and may have been altered.

Sincerely,

A handwritten signature in blue ink that reads "John Ferenczak". The signature is written in a cursive, flowing style.

John Ferenczak
State of Arizona Certified General
Real Estate Appraiser #30344

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Comparable Sale Photographs/Maps	
Copy of the CI-1 and CR-3 Zoning Ordinances	
Limiting Conditions and Assumptions	
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SUMMARY OF IMPORTANT FACTS AND CONCLUSIONS

REPORT NUMBER: Burdick & Ferenchak File No. BF-1997

APPRAISAL PREPARED FOR: Goodman Water Company
Mr. James Shiner

EFFECTIVE DATE OF VALUATION: This appraisal report contains an opinion of retrospective market value, "as if vacant", for each of the four water plant sites as of the date each water plant was put into service. (Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004).

DATE OF INSPECTION: April 12, 2011

DATE OF REPORT: April 29, 2011

TYPE OF REPORT: Summary Appraisal Report

PROPERTY RIGHTS APPRAISED: Fee Simple

PROPERTY IDENTIFICATION: The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch.

LOCATION: The Eagle Crest Ranch community is found within Pinal County, just north of the Pima County line. This community is located on the east side of Oracle Road, north of Edwin Road.

SITE SIZE: Water Plant #1 – 31,363 sq.ft.
Water Plant #2 – 10,890 sq.ft.
Water Plant #3 – 27,443 sq.ft.
Water Plant #4 – 16,988 sq.ft.

ZONING: CI-1; CR-3 (Pinal County)

TAX PARCEL NUMBERS: Water Plant #1 – Ptn of 305-31-013W
Water Plant #2 – 305-31-013Q
Water Plant #3 – 305-93-6040
Water Plant #4 – 305-93-219B

SPECIAL POINTS REGARDING THE APPRAISAL:

Within the constraints of adequate available data, this appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).

FINANCING ASSUMPTIONS:

The value opinion is based upon financing assumptions of all cash, or equivalent. Financing equivalent to all cash is considered to be typical new conventional financing which would result in all cash being paid to the seller.

RECONCILED CONCLUSIONS OF VALUE:

EAGLE CREST RANCH WATER PLANT SITES "AS IF VACANT"			
WATER PLANT/ TAX ID	SITE SIZE	RETROSPECTIVE DATE OF VALUE	MARKET VALUE OPINION
Water Plant #1 (Ptn of 305-31-013W)	31,363 sf	May 1, 2002	\$140,000
Water Plant #2 (305-31-013Q)	10,890 sf	August 1, 2005	\$65,000
Water Plant #3 (305-93-6040)	27,443 sf	January 1, 2008	\$165,000
Water Plant #4 (305-93-219B)	16,988 sf	October 1, 2004	\$85,000

A typical marketing/exposure period for properties similar to the subject of 12 months was concluded as reasonable.

The reader should note that the "As If Vacant" opinion of market value for the subject water plant sites stated in this report is based upon a **HYPOTHETICAL CONDITION** which assumes the parcels do not have any improvements upon them. It is noted that at the time of inspection (April 12, 2011), each water plant site had water facility improvements completed and in use

SUMMARY REPORT

Definition of Assignment:

In accordance with your request, we have prepared an appraisal of the subject property in a summary report format. The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. Within the constraints of adequate available data, the full appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).

A Summary Appraisal Report is defined as:

A written report prepared under Standards Rule 2-2(b) or 8-2(b). (USPAP, 2010-2011 edition)

Purpose of the Report:

The purpose of this assignment is to provide opinions of retrospective market value, “as if vacant”, for each of the four water plant sites as of the date each water plant was put into service. (Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004).

Intended Use of the Appraisal:

The intended use of this appraisal is to provide a basis for land valuations of the four water plant sites for my client, Goodman Water Company. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. This appraiser is not responsible for unauthorized use of this report.

Intended Users of the Appraisal:

This report is intended for use only by my client, Goodman Water Company. Use of this report by others is not intended by the appraisers.

Date of Valuation/Report:

The date of inspection was April 12, 2011. The effective date of value for the four subject parcels is Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004. The date of the appraisal report is April 29, 2011.

Interest to be Appraised:

The interest to be appraised is that interest arising from fee simple ownership, which includes the various rights which actually consider the present worth of future benefits resulting from the ownership of the subject property. Fee simple estate is defined in *The Thirteenth Edition of The Appraisal of Real Estate* as the “absolute ownership unencumbered by any other interest or estate, subject only to limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat”.

Scope of the Report:

In preparing this appraisal, the appraiser:

- ① Inspected and photographed each water plant site;
- ② Gathered and analyzed information regarding general market conditions in the Eagle Crest Ranch area and subject neighborhood impacting properties similar to the subject;
- ③ Gathered comparable sale data of vacant sites similar to the subject parcels to arrive at a retrospective value opinion for the each water plant site, “as if vacant”.

This Summary Appraisal Report is a brief recapitulation of the appraiser’s data, analyses, and conclusions.

Assumptions and Limiting Conditions:

- 1) This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser’s opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser’s file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraisers are not responsible for unauthorized use of this report.
- 2) The reader should note that the “As If Vacant” opinion of market value for the subject water plant sites stated in this report is based upon a **HYPOTHETICAL CONDITION** which assumes the parcels do not have any improvements upon them. It is noted that at the time of inspection (April 12, 2011), each water plant site had water facility improvements completed and in use.
- 3) Within the constraints of adequate available data, the full appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).
- 4) No potential environmental hazards which might affect the use and value of the subject property were noted upon inspection, however these appraisers lack the experience to investigate hazardous materials and we recommend that a complete Environmental Survey be performed on the subject property to confirm the presence or absence of any environmental hazards. As a result, the value opinions contained in this appraisal report **DO NOT** consider any loss in value due to any potentially hazardous environmental substances which may or may not be present on or near the subject property.

- 5) Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of such substances, such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimated is predicated on the assumption that there is no such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.
- 6) No engineering or soils report was available, and therefore no information was provided with respect to the utility or constructability of the existing improvements, or any unusual soil or drainage conditions which are not readily apparent. This appraisal assumes no soils challenge's associated with the subject property.
- 7) Please refer to the Limiting Conditions and Assumptions included in the Addendum section which accompany this summary appraisal report.

Definition of Market Value:

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- a. buyer and seller are typically motivated;
- b. both parties are well informed or well advised, and each acting in what they consider their own best interest;
- c. a reasonable time is allowed for exposure in the open market;
- d. payment is made in terms of cash in U.S. dollars or in terms of financial agreements comparable thereto; and
- e. the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

(SOURCE: *Office of the Comptroller of the Currency under 12 CFR, Part 34, Subpart C-Appraisals, 34.42 Definitions [f] and FDIC under 12 CFR, Part 323, Subpart 323.2 Definitions [f].*)

The value opinion is based upon financing assumptions of all cash, or equivalent. Financing equivalent to all cash is considered to be typical new conventional financing which would result in all cash being paid to the seller.

Property Identification:

The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. The Eagle Crest Ranch community is found within Pinal County, just north of the Pima County line. This community is located on the east side of Oracle Road, north of Edwin Road.

Water Plant #1 is found on the west side of Eagle Crest Ranch Boulevard, south of Eagle Ranch Road, with a physical address of 39544 South Eagle Crest Ranch Boulevard. This parcel is further identified as a portion of Pinal County Tax ID Number 305-31-013W. According to information provided by the client, the legal description for this parcel is as follows:

All of that portion of the Southwest Quarter of Section 32, Township 10 South, Range 14 East, Gila and Salt River Base and Meridian, Pinal County, Arizona, being a portion of Eagle Crest Ranch Tracts "A" through "N" and Common Area "A" (Private Streets), a subdivision of Pinal County, Arizona, recorded in Cabinet "C" in Slide 173 on October 25, 2000, more particularly described as follows:

Commencing at the Southeast corner of Tract "D" of said Eagle Crest Ranch Tracts "A" through "N" as it adjoins Tract "E" and Eagle Crest Ranch Boulevard, said point falling on a curve from which the radius bears South 83 degrees 55 minutes 51 seconds West;

Thence Northerly along said curve to the left on the Westerly right-of-way of Eagle Crest Ranch Boulevard, having a radius of 1150.00 feet and a central angle of 03 degrees 36 minutes 30 seconds, an arc distance of 72.42 feet to the POINT OF BEGINNING;

Thence departing said curve, West, on a non-tangent line, a distance of 36.10 feet;

Thence South 45 degrees 00 minutes 00 seconds West, a distance of 92.02 feet;

Thence West, a distance of 46.69 feet;

Thence North 10 degrees 49 minutes 04 seconds West, a distance of 60.09 feet;

Thence South 79 degrees 10 minutes 56 seconds West, a distance of 75.26 feet;

Thence North, a distance of 113.17 feet;

Thence East, a distance of 213.60 feet to a point on the Westerly right-of-way of said Eagle Crest Ranch Boulevard;

Thence South 12 degrees 56 minutes 33 seconds East along said Westerly right-of-way, a distance of 29.49 feet to a point of curvature;

Thence Southerly along said curve to the right, having a radius of 1150.00 feet and a central angle of 03 degrees 15 minutes 55 seconds, an arc distance of 65.54 feet to the POINT OF BEGINNING;

Water Plant #2 is found on the west side of Eagle Crest Ranch Boulevard, north of Eagle Heights Drive, with a physical address of 39930 South Eagle Crest Ranch Boulevard. This parcel is further identified under Pinal County Tax ID Number 305-31-013Q. According to public records, this parcel is found in the northwest portion of Tract "F" of Eagle Crest Ranch.

Water Plant #3 is found on the northeast corner of Eagle Ridge Drive and Eagle Mountain Drive, with a physical address of 61025 East Eagle Mountain Drive. This parcel is further identified under Pinal County Tax ID Number 305-93-6040. According to public records, this parcel is identified as Tract E, Eagle Crest Ranch IV-A.

Water Plant #4 is found on the west side of Mountain Shadow Drive, north of Eagle Heights Drive, with a physical address of 39904 South Mountain Shadow Drive. This parcel is further identified under Pinal County Tax ID Number 305-93-219B. According to public records, this parcel is identified as Tract B, Eagle Crest Ranch I.

Property History/Ownership:

The purpose of this assignment is to provide opinions of retrospective market value, "as if vacant", for each of the four water plant sites as of the date each water plant was put into service. (Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004).

According to public records, the water plant sites are owned by the Goodman Water Company. No prior sales were found within the past three years and the sites are not currently listed for sale.

Summary of Tucson Regional Data:

Tucson has been one of the fastest growing cities of its size in the United States since 1970, both through the attraction of new industry and a growing retirement segment of the population. All signs point to Tucson continuing as an important trade center to serve not only Southern Arizona, but the entire southwestern United States. Tucson's major "selling points" include its sunbelt location and climate, good transportation systems and educational institutions such as the University of Arizona. In addition, Tucson offers a relatively young, well-educated labor force which helps to attract new business. The climate and amenities available in the region will also continue to attract a retirement population, as well as encourage growth in the tourism industry.

The long-term outlook for the metropolitan area is one of continued growth. Most economic indicators demonstrate that the local economy has historically been led by steady population growth, relatively low unemployment and moderate inflation levels. Bright spots in the local economic picture include tourism, and the continued desirability of the region to "winter visitors" and retirees. The local housing market was particularly active from 2002 through 2005 in terms of units sold and increasing home values, fueled largely by low interest rates. Growth in the population base has also encouraged new commercial development in many locations.

However, the housing frenzy began to cool in 2006, and this trend has continued to the present. This is similar to the trend being experienced on a regional and national level as well. While the long-term outlook is for continued growth of the Tucson metro area, growth in the short term is being adversely affected by the downturn in the housing market and corresponding impacts on

the local economy. Therefore, the rate of growth for Tucson over the next several years may be well below that of recent years.

According to the most recent local population statistics available (July, 2009), the City of Tucson has an estimated population of about 543,566 within the city limits. This can be compared to the larger Pima County population of 1,018,012 as of July, 2009. Published reports indicate that Pima County reached 1,000,000 people in late 2006. About 98 percent of the population in the county is found within the Tucson metropolitan area. One of the most significant aspects of the Tucson area population has been its growth. The population growth rate in Pima County over the past 15-20 years has fallen in the range of 1.4-3.5 percent, with an average near 2.5 percent per year. It is noted that population growth from 1980 to 2000 of 2.4 percent represented a significant decline from the average growth rate during the preceding ten years of 4.2 percent per year. The average growth in population between 1990 and 2000 was approximately 19,400 persons per year.

However, the growth in population for Pima County has declined significantly in 2008 and 2009 according to published statistics. Population growth was only 3,989 during the most recent 12-month period of 2008-2009. This can be compared with growth of 10,788 during 2007-2008, 22,125 during 2006-2007, 25,310 during 2005-2006, 21,898 during 2004-2005, 22,952 during 2003-2004, and 20,160 during 2002-2003. This data suggests local population growth has been adversely impacted by local and national economic conditions. A long-term growth rate near 2.5+- percent per year or about 25,000 people per year is indicated by historical population trends. However, short-term projections may be more modest due to the current downturn in the housing market and the related impact on the local economy.

The labor market in Pima County has grown significantly during the past three decades. The total civilian labor force increased from 225,500 in 1980 to 489,200 in 2009, representing an average annual increase of 2.8 percent. Total employment has increased at a similar pace, with unemployment remaining relatively low in until very recently. Personal income levels have also realized substantial gains since 1970.

However, a noteworthy trend has been a gradual increase in unemployment over the past 24-36 months. This trend can be linked originally to declines in the housing market and construction, as well as related industries. However, the impact of the housing downturn on the general economy is now more widespread and is affecting other sectors of employment such as financial services, retail sales, etc. In addition, general economic conditions deteriorated locally and nationally during 2008 and 2009. For example, unemployment in Pima County was 4.1 percent in 2007 and the country formally entered into a recession in late 2007. Unemployment has gradually increased throughout 2008 and 2009, both nationally and locally. Nationally, the U.S. economy lost 524,000 jobs in December of 2008 and 2.6 million for all of 2008. The national unemployment figures released recently indicate that unemployment reached 9.5 percent as of June 2009, and then continued to increase to 10.2 percent as of October, 2009, then declined slightly to 10.0 percent in November and December, 2009 and is currently at 8.8 percent (March 2011). For all of Arizona, unemployment was reported at 9.6 percent as of the most recent February 2011 statistics, which is a decrease from the 10.0 percent in July and an increase from the 8.9 percent reported in November of 2009. Again, the long-term outlook with respect to increases in the Tucson employment base is considered average to good, but the short-term outlook still has the potential for unemployment rates to fluctuate as they stabilize.

The housing market in Tucson experienced a downturn during the late 1980's and early 1990's. However, since 1990 the new housing market in Tucson gradually improved and reached a peak in 2005. In particular, 2003, 2004 and 2005 represented three successive peak years in terms of new home sales. According to *Bright Future Business Consultants (The Orange Reports)*, 54,844 new housing units were sold in the greater Tucson area between 1999 and 2007, resulting in an average of 6,856 per year. After 6,197 new home sales were reported in 2000, sales subsided somewhat in 2001 and 2002. Sales in 2003 rebounded with a 12 percent increase over 2002, or 6,549 units. Sales in 2004 continued to increase when compared to 2003, finishing with 7,438 units or a 14 percent increase over 2003. Sales continued strong in 2005 with 8,623 units sold, representing an increase near 16 percent from 2004. The dramatic improvement in new housing sales was driven by various factors, though principally a strong local economy, population growth and low interest rates for new home buyers. There was also greater participation in the market on the part of investors.

An adjustment in the local housing market began in 2006, which coincided with regional and national trends. The 8,149 units sold in 2006 was a slight decline from 2005, although the decline took place primarily in the second half of 2006. A decline in units sold continued into 2007, with 6,185 sales reported for 2007 or a 24.1 percent decline. In 2008, only 3,339 new homes sold and closed, representing a 54 percent decline from 2007 and indicating a continued decline in new home sales. This downward trend continued in 2009, with only 2,249 new homes sold. As of the most recent data available (December, 2010) there were 1,778 units sold, which continues the slide for new home sales.

The *Bright Future Business Consultants* also reported that there were 987 resale home closings for the Tucson Area as of June 2010 and this included 272 foreclosures. This compares to 1,304 resale closings in May of 2010, of which 385 were foreclosures. In addition, according to a RealtyTrac U.S. Foreclosure Year End Market Report 2010, Arizona's new foreclosure activity numbers were 13,651 units in December of 2010. RealtyTrac also reported that there were 1,162 foreclosures in Pima County as of December 2010 with one in every 262. A California group called ForeclosureRadar.com is also tracking Arizona's housing market. According to its data, foreclosure filings in Tucson fell 43 percent in March 2011 from February's level. ForeclosureRadar filings include both notice-of-trustee sales and trustee sales. However, during the January-November 2010 period, Arizona recorded a total of 65,911 foreclosures, representing a 12 percent surge when compared with the whole 2009. According to housing industry analysts, 2011 will be much the same for the region, with foreclosures in the state expected to hit record levels. Analysts stated that the unemployment rate of Arizona is part of the reason for the bleak 2011 forecast.

According to the monthly statistics produced by the Tucson Association of Realtors and the MLS, as of April 2011 the active inventory was reported as 8,036, a 19 percent increase from March 2010. There were 1,170 closing in March 2011, a 3 percent above March 2010. Months of inventory was 6.9 up from 6.0 in March 2010. Median price of sold homes was \$125,000 for the month of March 2011, down 21 percent from March 2010. Also having had an impact on the local housing market have been the financial difficulties experienced in the home mortgage business, and the failures of several national home mortgage companies such as AHM Mortgage and First Magnus. In the short-term, this situation has limited financing alternatives for some potential buyers, further impacting sale levels for both existing and new homes.

Nevertheless, the housing market in Tucson will continue to be driven by a combination of population growth, employment growth and relatively low interest rates. Continued demand for new housing will be tied to the overall performance of the Tucson economy and population growth, and may be tempered in the short-term by recent developments in the housing market. However, a moderate rate of future growth in the Tucson area is still anticipated over the long-term.

NEW HOUSING SALES (ACTIVE NEW HOME PROJECTS)		
YEAR	TOTAL SALES	% INCREASE
1995	3,210	-16%
1996	3,962	23%
1997	4,777	21%
1998	5,517	16%
1999	6,192	12%
2000	6,197	1%
2001	5,857	-6%
2002	5,846	<1%
2003	6,549	12%
2004	7,438	14%
2005	8,623	16%
2006	8,149	-5.5%
2007	6,185	-24.1%
2008	3,339	-46%
2009	2,249	-33%
2010	1,778	-21%

The commercial sub-markets within the local real estate market suffered after the downturn during the late 1980's and early 1990's, although subsequently recovered and the general trend was one of improvement from the mid-1990's until recently. New construction of various types of commercial real estate has taken place across the Tucson metro area in recent years. Much of the new development which has taken place has been driven by user demand and pre-leased space, with speculative construction more limited. New retail and office inventory has been developed primarily around the periphery of Tucson, following the residential growth which has taken place in these areas. Re-development of existing older properties has also taken place in more central locations. The industrial sub-market has performed reasonably well in recent years, with much of the existing inventory found on the south side of Tucson due to the proximity of Tucson International Airport, or near the interstate highway system (I-10/I-19) which traverses the metro area. Growth in the multi-family sub-market has been hindered in recent years first as a result of financing alternatives available to new and existing home buyers and then following unemployment figures as renters were forced to moved back home.

The following table summarizes average vacancy levels for various types of income-producing properties (leasable inventory) in the Tucson area.

VACANCY RATES FOR COMMERCIAL MARKET SEGMENTS (GREATER TUCSON)			
	RETAIL	OFFICE	INDUSTRIAL
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.9% 1 st Quarter, 2011	12.4% 1 st Quarter, 2011	12.4% 1 st Quarter, 2011
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.6% 4 th Quarter, 2010	10.6% 4 th Quarter, 2010	12.2% 4 th Quarter, 2010
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.4% 3 rd Quarter, 2010	12.4% 3 rd Quarter, 2010	10.9% 3 rd Quarter, 2010
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.8% 2 nd Quarter, 2010	12.0% 2 nd Quarter, 2010	11.2% 2 nd Quarter, 2010
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.5% 1 st Quarter, 2010	12.1% 1 st Quarter, 2010	11.4% 1 st Quarter, 2010

Source: CoStar Group//Excludes Owner-Occupied Inventory

The preceding factors suggest a moderate level of growth in the Tucson population and overall economy should continue over the long-term, and this should have a positive impact upon general property values including properties similar to the subject. However, the short-term outlook for properties such as the subject is more guarded due to the recent downturn in the housing market and economy as a whole.

Neighborhood Data:

The Eagle Crest Ranch community is located north of Tucson, on the periphery of the Tucson metropolitan area about one mile north of the Pinal/Pima County boundary. This location is found near the southern perimeter of Pinal County, with the Tucson metropolitan area in Pima County to the south being the nearest major city. Due to the sparse population in the surrounding area within Pinal County, this community relies primarily upon support services in Pima County and the Tucson metropolitan area to the south. The boundaries of the subject neighborhood are roughly considered to be Coronado National Forest to the east, Tangerine Road to the south, and the Tucson Mountains and Sandario Road alignment serve as a rough boundary on the west. The northern boundary of the neighborhood is less definite due to the great amount of open range, although extends into Pinal County. These boundaries delineate an expansive area which is predominantly a combination of existing residential uses and vacant land. Tucson continues to grow in a north/northwesterly direction, led by a number of master planned communities. Commercial-oriented uses are slowly developing in the neighborhood, primarily along the major traffic routes, in response to population increases. Substantial quantities of vacant land still remain throughout the subject neighborhood, particularly in the northern portion, with existing improvements found mostly in the southern portion and spreading to the north.

The northwest side of Tucson has grown dramatically since the 1970's, due in large part to the availability of land for development. Growth of the city is somewhat restricted in other directions. For example, to the north/northeast of Tucson are the Santa Catalina Mountains, to the west are the Tucson Mountains, and to the south is Davis-Monthan Air Force Base and Tucson International Airport. These have served as barriers to residential growth to a certain

extent. As a result, residential growth has historically been led by the northwest and east/southeast sides of Tucson and these continue to be growth areas in the region. The larger Tucson area experienced unprecedented residential growth in recent years between the late 1990's through 2005. This growth resulted from a robust economy, positive job growth and low interest rates which have favored buying versus renting. The level of growth, coupled with other factors such as increasing land prices and environmental constraints, drove developers/builders to the periphery of Tucson in search of land available for development and more affordable land prices. The most active areas were the southeast, south, southwest and northwest of the metro area. Development was also driven to neighboring counties which have historically been more rural in nature such as Cochise County to the east, Santa Cruz County to the south and Pinal County to the north.

The two primary routes into Pinal County from Pima County are Interstate 10 and State Highway 77, which is also known as Oracle Road. State Highway 77 travels through Oracle Junction in a north/northeasterly direction, and is the route to other towns such as Oracle, Mammoth, Winkleman and Globe. Oracle Road connects the midtown and downtown areas of the city with northwest Tucson. There is a good balance of land uses on Oracle Road, which is predominantly commercial in nature. Land uses include office, retail, restaurant, resorts/hotels with multi-family, with single family residences further north of Magee Road. Commercial development continues to grow north to provide support services to the expanding residential base.

Notable developments further south along Oracle Road in Pima County include the Hilton El Conquistador Resort, Oro Valley Country Club, Foothills Business Park and the Honeywell manufacturing facility. Several major points of new commercial development include neighborhood shopping centers located on Oracle Road at the intersections of Golder Ranch Road and near First Avenue. The Rancho Vistoso master planned community, which is located along Oracle Road near Tangerine Road, has a neighborhood center anchored by a Safeway grocery store and a Walgreen's drug store, with an older center located at Oracle and Rancho Vistoso Boulevard. A new neighborhood center is located at Oracle and Golder Ranch Road, anchored by a Basha's grocery store. In addition, a new neighborhood shopping center known as Steam Pump Ranch is currently under development further south. The most recent addition to the commercial base of the neighborhood is a new power center at the southwest corner of Oracle Road and Tangerine Road, known as Oro Valley Marketplace. This center will eventually consist of about 869,000 square feet of commercial space when completed on a 120-acre site. Major tenants now include Wal-Mart, Petco, Best Buy and Linens N' Things, along with a variety of smaller retail tenants, restaurants and offices. Also, a number of smaller commercial enterprises can be found along Oracle Road in the un-incorporated community of Catalina, which is near the Pima County/Pinal County line. Properties along Oracle Road account for a large portion of the developed commercial sites in the subject neighborhood, although a number of vacant sites with potential commercial use can still be found along this route. In general, commercial and industrial improvements in both the neighborhood and greater Tucson have grown gradually with the population base.

Among the major employers on the northwest side of Tucson, the Hilton Tucson El Conquistador Resort was built in the early 1980's and is located on the east side of Oracle Road, about four miles north of Ina Road. The hotel contains 428 rooms, including 180 casitas, and features 18 tennis courts, four indoor racquetball courts, and a nine-hole golf course. Other amenities include pool and spa facilities, riding stables and a health club. This resort draws a variety of conventioners and vacationers. In 1989, the 36-hole Canada Hills Golf Course and

Country Club, located farther to the west, was purchased by Sheraton. Now known as the El Conquistador Country Club, this facility provides an additional amenity for the Hilton (former Sheraton) resort. The Hilton Tucson El Conquistador currently employs approximately 675 people according to the personnel department.

Another resort located in the subject neighborhood which attracts visitors is the Tucson National Resort and Spa. The Tucson National Golf Club was recognized as one of the more affluent settings in Tucson for many years, and the golf course served as the site for the annual Tucson Open PGA golf tournament for over fifteen years. Several years ago, Tucson National was transformed from a private club to a resort with 167 rooms available. Amenities include 27 holes of championship golf, a European class health spa, swimming pool/Jacuzzi and six lighted tennis courts. Finally, development of a Ritz-Carlton destination resort in the Dove Mountain master planned community was completed in late 2009.

Also, the Honeywell (formerly Allied Signal Corporation and Garrett AiResearch) manufacturing facility is located on the east side of Oracle Road, to the north of the Sheraton El Conquistador. The facility contains approximately 355,000 square feet and was originally opened in January of 1987. Original plans detailed an 84 acre industrial campus that would eventually include over 1,000,000 square feet of improvements. Employment began at approximately 2,000 and was originally expected to reach 4,000. However, Honeywell, which merged with Allied-Signal in 1999, employs only about 800 people currently at this facility.

Other major employers in the northwest Tucson area include Phelps Dodge Mining Company which employs 4,900 people, and the Northwest Health System which employs 1,808 people.

According to The Costar Group, North/Oro Valley accounts for about 4.8 percent of the completed leasable retail space in the greater Tucson area, with an aggregate vacancy of 13.8 percent compared to the city average of 8.9 percent (1st quarter, 2011). For office inventory, the subject area accounts for about 1.9 percent of the Tucson inventory with a vacancy of 34.2 percent compared with 12.4 percent for greater Tucson. Industrial leasable inventory in the surrounding area of the subject is limited mainly to pockets near Oracle Road, and represents mainly light industrial or tech-park space. Other industrial developments are found to the south and west of the subject neighborhood, primarily along the I-10 corridor.

Until recently, the subject neighborhood has experienced unprecedented population growth. According to Pima County statistics, the population in northwest Tucson had growth at a rate of 4.5 percent per year between the years of 1980 and 1987. While growth in the neighborhood has since slowed to more modest levels, it is still expected to lead all others in future metropolitan population growth. The demographics near Eagle Crest Ranch are reflected in census data (2000) available by zip code. The subject property falls within zip code 85739, and this zip code had a reported population of 12,088 persons in 2000, with an average household size of 2.31 persons. An average median household income of \$47,001 and a median owner-occupied home value of \$166,200 were also reported. Although Eagle Crest Ranch is considered to be within the Tucson metro area, it is located in the southern portion of Pinal County. According to the U.S. Census Bureau, the population of Pinal County for 2006 was approximately 271,059 which is a 51% increase from 2000. The median household income in 2004 for Pinal County was \$40,255.

Residential growth in the subject neighborhood has been influenced by the number of master planned communities located in or near the neighborhood. Existing projects in northwest Tucson include Canada Hills, Copper Creek, North Ranch, La Reserve, Continental Ranch, Gladden Farms, Dove Mountain, Rancho Vistoso, Eagle Crest Ranch, SaddleBrooke Ranch and SaddleBrooke. The largest master planned project in the area is Rancho Vistoso, and is located toward the southern perimeter of the neighborhood. Rancho Vistoso is a master-planned community that contains approximately 8,000 acres. Canada Hills, Copper Creek, North Ranch, La Reserve and Continental Ranch are older projects which have been sold out for some time. Rancho Vistoso and SaddleBrooke are largely built out, though with some inventory still available. Further west, Dove Mountain and particularly Gladden Farms have significant inventory still available. A variety of national and local production builders operate throughout the neighborhood, with custom home projects also found throughout. Please refer to the subsequent Market Overview section of this report for a more complete discussion of the housing market in Tucson and the neighborhood.

As previously discussed, the larger Tucson area experienced unprecedented residential growth in recent years between the late 1990's through 2005. This growth resulted from a robust economy, positive job growth and low interest rates which have favored buying versus renting. The level of growth, coupled with other factors such as increasing land prices and environmental constraints, drove developers/builders to the periphery of Tucson in search of land available for development and more affordable land prices. The most active areas were the southeast, south, southwest and northwest of the metro area. Development was also driven to neighboring counties which have historically been more rural in nature such as Cochise County to the east, Santa Cruz County to the south and Pinal County to the north. Looking specifically at the subject area, a number of future developments are planned in Southern Pinal County. According to MTLUS information, future projects in the general vicinity of Eagle Crest Ranch include SaddleBrooke Ranch, Falcon Valley Ranch, Coronado Highlands, Cielo, Biosphere, San Manuel Project and Willow Springs. These projects could potentially add nearly 50,000 lots in southeastern Pinal County in the coming years and demonstrate the anticipated demand for new housing in the area.

Four separate governmental entities have jurisdiction in the subject neighborhood. There are two incorporated communities that influence the subject neighborhood. The first is the Town of Oro Valley, which has expanded its boundaries to the north to include the Rancho Vistoso development. The second is the Town of Marana, which has also adopted a pro-growth stance and has annexed western and central portions of the neighborhood. Most portions of the subject neighborhood that are not under the jurisdiction of the previously mentioned entities fall under the jurisdiction of Pima County. The subject property is located just north of the Pima/Pinal County line, falling under the jurisdiction of Pinal County.

For many years the subject neighborhood relied primarily on the greater metropolitan area for medical needs, with the only hospital in the area being Northwest Hospital near La Cholla Boulevard and Orange Grove Road. However, Northwest Hospital has more recently opened a new 4-story, 257,000 square foot, 96-bed hospital in Rancho Vistoso which has improved medical support services for the northern portion of the neighborhood, including residents of Eagle Crest Ranch.

Recreational facilities in the neighborhood include a number of golf courses. These are specifically located in SaddleBrooke, plus three courses in Rancho Vistoso, the Oro Valley Country Club, the Hilton El Conquistador Hotel and Resort, the El Conquistador Country Club and the Tucson National Golf and Country Club. There is also a public course, located at Arthur Pack Park. The Catalina State Park is a recreational facility which contains approximately 8,600 acres, located south of the subject along the east side of Oracle Road. Catalina State Park provides visitors numerous trails for hiking and several areas for picnics and camping. Additionally the park has designated open areas that are intended for the preservation of area wildlife.

The neighborhood is served primarily by three separate school districts. They include the Marana School District Number 6, the Amphitheater School District Number 10 and the Flowing Wells School District Number 8. Places of worship for most denominations can also be found throughout the subject neighborhood for the religious needs of the area residents.

Overall, the subject neighborhood continues to become more established due to steady population growth. In fact, northwest Tucson continues to be one of the fastest growing portions of the metropolitan area. The combination of available land suitable for development, coupled with an expanding economic base, has had a positive influence on future growth trends in the neighborhood. This growth is now extending into Pinal County with a number of master planned communities on the drawing board. The housing market in Tucson and northwest Tucson improved dramatically since the early 1990's, and was particularly strong between 2000 and 2005. This resulted from a combination of factors such as low interest rates, employment and population growth.

Unfortunately, the neighborhood has been adversely impacted by the recent downturn in the housing market, similar to the Tucson area as a whole, and this will adversely affect growth trends in the neighborhood in the short-term. The housing market is currently experiencing a correction and is adversely impacting the subject property in the short-term. However, when taking a long-term view the outlook is better. Steady residential growth in northwest Tucson is anticipated over the long term, which in turn will motivate commercial development in the form of support services. As the population base increases, commercial development providing support services to area residents is following and shopping alternatives are becoming more convenient. In terms of retirement housing, the subject neighborhood should continue to remain desirable for retirement buyers for a number of years to come. The location of the Eagle Crest Ranch community on the northwest periphery of Tucson is a desirable characteristic impacting absorption and overall performance.

Site Data:**Location**

The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. The Eagle Crest Ranch community is found within Pinal County, just north of the Pima County line. This community is located on the east side of Oracle Road, north of Edwin Road.

Water Plant #1 is found on the west side of Eagle Crest Ranch Boulevard, south of Eagle Ranch Road, with a physical address of 39544 South Eagle Crest Ranch Boulevard. **Water Plant #2** is found on the west side of Eagle Crest Ranch Boulevard, north of Eagle Heights Drive, with a physical address of 39930 South Eagle Crest Ranch Boulevard. **Water Plant #3** is found on the northeast corner of Eagle Ridge Drive and Eagle Mountain Drive, with a physical address of 61025 East Eagle Mountain Drive. **Water Plant #4** is found on the west side of Mountain Shadow Drive, north of Eagle Heights Drive, with a physical address of 39904 South Mountain Shadow Drive.

Site Shape/Size

The subject water plant sites are irregular in shape although the shapes are not considered adverse for their current use. Per public records, the size of each parcel are as follows:

Water Plant #1 – 31,363 sq.ft.

Water Plant #2 – 10,890 sq.ft.

Water Plant #3 – 27,443 sq.ft.

Water Plant #4 – 16,988 sq.ft.

**Access
and Visibility**

All four of the subject parcels are accessed via interior feeder streets found within the Eagle Crest Ranch subdivision. Visibility is considered adequate for these interior parcels which are not high profile locations. All of the streets within the project are two lane, asphalt paved roadways, with curbs and sidewalks noted.

**Topography
and Drainage**

Each of the subject parcels are mostly level, however have different elevations from street grade. No significant drainage or soil conditions were apparent by visual observation which would prevent the highest and best use of the sites, although no soil study or engineering report were available to confirm this observation. No engineering or soils report was available, and therefore no information was provided with respect to the utility or constructability of the existing improvements, or any unusual soil or drainage conditions which are not readily apparent. This appraisal assumes no significant soils challenge's associated with the subject parcels. An examination of the FEMA Flood Insurance Rate Map shows that the subject is located within "Zone X", which is not a special flood hazard area as designated by FEMA Map Number 04021C2475E dated December 4, 2007.

Assessments	There are no assessments due against the subject site per confirmation with the Pinal County.
Easements and Encroachments	No encroachments were noted. The site is subject to various easements which are related primarily to access, utilities, drainage, etc., and which are typical of similar properties and are not considered adverse.
Surrounding Uses	Water Plant sites 1 and 2 are surrounded on two sides by vacant land zoned for commercial uses and two side by residential uses. Water Plant sites 3 and 4 are primarily surrounded by residential uses.
Environmental Concerns	<p>No potential environmental hazards which might affect the use and value of the subject property were noted upon inspection, however these appraisers lack the experience to investigate hazardous materials and we recommend that a complete Environmental Survey be performed on the subject property to confirm the presence or absence of any environmental hazards. As a result, the value opinions contained in this appraisal report <u>DO NOT</u> consider any loss in value due to any potentially hazardous environmental substances which may or may not be present on or near the subject property.</p> <p>Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of such substances, such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimated is predicated on the assumption that there is no such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.</p>
Utilities	All typical utilities are available and in place to each of the subject water plant sites.

Tax Data

The subject parcels are identified under the following tax parcel numbers:

Water Plant #1 – Ptn of 305-31-013W

Water Plant #2 – 305-31-013Q

Water Plant #3 – 305-93-6040

Water Plant #4 – 305-93-219B

Water Plant #1 is a portion of a larger 9.32 acre site that has a current full cash value of \$223,680, and 2010 real estate taxes of \$2,960.18. No delinquent taxes were reported.

Water Plant #2 has a current full cash value of \$46,874, and 2010 real estate taxes of \$1,021.24. No delinquent taxes were reported.

Water Plant #3 has a current full cash value of \$500, and 2010 real estate taxes of \$6.94. No delinquent taxes were reported.

Water Plant #4 has a current full cash value of \$28,000, and 2010 real estate taxes of \$411.22. No delinquent taxes were reported.

Zoning

Water Plants 1 and 2 are found under the CI-1 (Light Industry and Warehouse Zone) and Water Plants 3 and 4 are found under the CR-3 (Single Family Residence Zone), per the Pinal County zoning ordinances.

The CI-1 zone allows for industrial and manufacturing uses, along with all business uses allowed under the CB-1 and CB-2 zones. Residential uses are also allowed. There is no minimum lot area, although a maximum building height of 35 feet is noted, along with a minimum front yard of 15 feet and a minimum rear yard of 10 feet.

The CR-3 zone is a residential zone with a minimum lot area of 7,000 square feet, a minimum lot width of 60 feet, minimum front yard of 20 feet, minimum rear yard of 25 feet, minimum side yards of eight feet each, and a maximum building height of 30 feet.

Summary

In conclusion, the physical characteristics of each of the subject parcels are considered relatively conducive to most types of development. The parcels are generally level and do not display any visible signs of adverse drainage conditions. The degree of access afforded the subject parcels is considered adequate and the sites benefit from the visibility afforded these locations, however, none of the streets are considered a major traffic routes in the neighborhood. All typical municipal services and utilities are available. The existing improvements to each parcel appear to be consistent with the physical and legal constraints of the sites, and the parcels should continue to serve well as the location of these improvements within the foreseeable future.

Highest and Best Use:

As Though Vacant The analysis of the highest and best use of a site, as though vacant, assumes that the parcel in question is either vacant or can be made vacant by demolishing any improvements. By applying this assumption, the uses that create value in the marketplace can be identified. Once the highest and best use of the site, as though vacant, is identified, an estimate of site value can be concluded.

The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. Water Plants 1 and 2 are found under the CI-1 (Light Industry and Warehouse Zone) and Water Plants 3 and 4 are found under the CR-3 (Single Family Residence Zone), per the Pinal County zoning ordinances. The degree of access afforded the subject parcels is considered adequate and the sites benefit from the visibility afforded these locations, however, none of the streets are considered a major traffic routes in the neighborhood. All typical municipal services and utilities are available.

Legally permissible uses under the CI-1 zoning classification allow a range of commercial oriented businesses, and well as some residential uses. The CR-3 zoning is primarily a residential zone. Both of these zonings will allow a water plant use. The physically possible uses are mainly limited by the physical sizes of the parcels, although the sites could accommodate a wide variety of uses. Therefore, the legally permissible and physically possible uses of the site are wide ranging and would include a combination of residential or commercial business uses. However, current market conditions do not clearly demonstrate that construction of any particular type of commercial improvements would be financially feasible at the present time. Therefore, the maximally productive use, and the highest and best use, of the CI-1 water plant sites “as though vacant”, is considered to be either an investment use with the potential for a variety of future uses or any use that would conform to the CI-1 zoning, be physically possible, and be proven to be financially feasible and maximally productive in the current market. The CR-3 zoned water plant sites are limited to a residential uses, although the size of these two sites are larger than a typical lot would be at 7,000 square feet.

As water plant sites are allowed under both the CI-1 and CR-3 zonings within the Eagle Crest Ranch project, these uses are allowable and considered to be the current Highest and Best Use of each parcel.

The Appraisal Process:

The determination of a market value opinion for real property is an orderly process by which: (1) the problem is defined; (2) the work necessary to solve the problem planned; and (3) the data involved is acquired, classified, analyzed and interpreted into an opinion of value. Inherent in this process is a consideration of the four major forces in our economy which affect value: environmental, social, economic and governmental forces. Such consideration facilitates the determination of the highest and best use of the subject property, the basis upon which the value is opinion is determined.

Three approaches are typically considered, each of which derives information from the market in one form or another. These include the Cost Approach, the Sales Comparison Approach, and the Income Capitalization Approach. Each approach is not necessarily equally as important in every appraisal.

Due to the nature of the subject property, being considered as vacant land parcels, only the Sales Comparison Approach was considered appropriate for estimating the value of the each parcel. The Cost Approach and Income Capitalization Approach were not applicable and not utilized.

A search was conducted for sales of vacant land parcels for comparison to the subject parcels, resulting in an opinion of value by the Sales Comparison Approach. The use of comparable sales is the application of the principle of substitution, which affirms that the value of the subject tends to be set by the cost of acquisition of an equally desirable property, assuming no costly delays are encountered in making the substitution. The most persuasive indications of a reasonable market value for the subject site are the sales prices of similar properties that have been recently sold. No prudent purchaser pays more than an amount necessary to get ownership; he, economically, will pay no more for one property than the cost of acquisition of similar property with similar utility and desirability.

A search of the public records was conducted, and interviews with real estate agents and brokers were made by these appraisers. Because no two properties are ever exactly the same, adjustments are made and considered to reflect the differences between the comparable properties and the subject site, as currently vacant. Adjustments are considered for such factors as relative size, location, date of sale, terms and conditions of sale, environmental appeal, potential use and productivity, service available, topography and other factors which would affect market value. These adjustments to comparable sale prices are explained in the Land Value Analysis.

The valuation process for each water plant site begins on the following page with a summary of the comparable land sale data.

COMPARABLE LAND SALE TABULATION						
WATER PLANT #1 (DATE OF SERVICE - MAY 1, 2002)						
SALE	SALE DATE	LOCATION (TAX ID NUMBER)	SALE PRICE	PARCEL SIZE (SQ.FT.)	SALE PRICE PER SQ.FT.	ZONING
1	6/02	East side of Oracle Road, north of Pinal Street (222-16-111A)	\$268,000	48,000	\$5.58	CB-1
2	10/01	East side of Oracle Road, north of Pinal Street (222-16-1070)	\$58,000	16,000	\$3.63	TR
3	10/00	East side of Oracle Road, north of Pinal Street (222-16-1060)	\$65,000	16,000	\$4.06	TR
4	6/00	West side of Oracle Road, north of Mainsail Boulevard (222-12-0660)	\$47,500	10,260	\$4.63	CB-2
SUBJECT		Water Plant #1 (Ptn of 305-31-013W); West side of Eagle Crest Ranch Boulevard, south of Eagle Ranch Road		31,363		CI-1

Note: All sale price data presented in this table is based upon the cash equivalent sale prices of the respective transactions

Land Valuation Analysis and Conclusion:

Water Plant #1 is found on the west side of Eagle Crest Ranch Boulevard, south of Eagle Ranch Road, with a physical address of 39544 South Eagle Crest Ranch Boulevard. This site is irregular in shape, contains 31,363 square feet, and is zoned CI-1 by Pinal County. The purpose of this assignment is to provide an opinion of retrospective market value, "as if vacant", for the water plant sites as of the date each water plant was put into service. For Water Plant #1, the date of service was May 1, 2002.

Market conditions do not clearly demonstrate that construction of any particular type of commercial improvements would be financially feasible at the time of service. The highest and best use of this water plant site "as though vacant", is considered to be either an investment use with the potential for a variety of future uses. As water plant sites are allowed under CI-1 zoning within the Eagle Crest Ranch project, this use is considered to be the Highest and Best Use of the parcel.

A search for comparable land sales was conducted and a limited supply of comparable data was found for the date of value of May 1, 2002. Four sales were selected which were considered the best available comparisons to the subject. I have selected the best combination land sales in comparison to the subject based upon the highest and best use of the parcels. Each sale has undergone a cash equivalency analysis designed to identify comparable sales which sold under atypical financing terms, and then adjusted if necessary to reflect cash terms or equivalent. In addition, other adjustments are made to the sales resulting from differences between the subject and the comparable such as size, topography, location or utility. The primary unit of comparison used in this analysis is sales price per square foot, since this unit is typically utilized by buyers and sellers in the market for properties similar to the subject. **Individual plat maps and photographs for each comparable sale can be found in the Addendum of this report.** Here follows the analysis of the comparable sales.

Adjustments:

Due to differences between the subject property and the comparable sales, adjustments were made to the comparable sales in an attempt to reflect those differences in the ultimate price that was paid. Typically, the adjustments to each sale are considered in the following sequence:

- 1) property rights conveyed
- 2) financing terms
- 3) conditions of sale
- 4) market conditions (time)
- 5) location and physical characteristics

An attempt was made to extract market-derived adjustments from the comparable sale data through the use of paired sale analysis, as explained in the following discussion. However, due to the limited amount of sale data with respect to vacant parcels similar to the subject, it was necessary to consider more general market information which has been discussed elsewhere in this report, as well as our general knowledge of local market conditions affecting properties similar to the subject based upon discussions with agents/brokers and other market participants. As a result, the adjustments made reflect a certain amount of appraiser judgment, and might vary from appraiser to appraiser. The following table summarizes our analysis of the comparable sale data.

LAND SALE ADJUSTMENT GRID		SALE 1	SALE 2	SALE 3	SALE 4
SUBJECT PROPERTY: Water Plant #1					
PARCEL DATA	SUBJECT				
DATE OF SALE		6/02	10/01	10/00	6/00
PARCEL SIZE	31,363 sq.ft.	48,000 sq.ft.	16,000 sq.ft.	16,000 sq.ft.	10,260 sq.ft.
ZONING	CI-1	CB-1	TR	TR	CB-2
CONTRACT SALE PRICE/SQ.FT.		\$5.58	\$3.63	\$4.06	\$4.63
ELEMENTS OF COMPARISON					
PROPERTY RIGHTS CONVEYED	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple
		0.0%	0.0%	0.0%	0.0%
ADJUSTED CONTRACT SALE PRICE/SQ.FT.		\$5.58	\$3.63	\$4.06	\$4.63
FINANCING	Cash or Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.
		0.0%	0.0%	0.0%	0.0%
CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.58	\$3.63	\$4.06	\$4.63
CONDITIONS OF SALE		0.0%	0.0%	0.0%	0.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.58	\$3.63	\$4.06	\$4.63
DATE OF SALE		0.0%	15.0%	15.0%	15.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.58	\$4.17	\$4.67	\$5.32
LOCATIONAL CHARACTERISTICS		-5.0%	-5.0%	-5.0%	-5.0%
PARCEL SIZE		5.0%	-5.0%	-5.0%	-5.0%
PHYSICAL CHARACTERISTICS		0.0%	0.0%	0.0%	0.0%
PROXIMITY TO UTILITIES		0.0%	0.0%	0.0%	0.0%
ZONING/HIGHEST & BEST USE		-5.0%	-5.0%	-5.0%	-5.0%
INDICATED SALE PRICE/SQ.FT.		\$5.30	\$3.54	\$3.97	\$4.52

Summary – Water Plant #1:

The four comparable sales ranged in value from \$4.06 to \$5.58 per square foot on a cash equivalent basis. After adjustments to the comparable sales, a range of value for Water Plant #1 is suggested from \$3.54 to \$5.30 per square foot. It is my opinion that a value within this range, above \$4.00, below \$5.00, and near \$4.50 per square foot is reasonable. Then, multiplying \$4.50 times the 31,363 square feet found within Water Plant #1, results in a value opinion of \$141,134, rounded to \$140,000.

Therefore, my final opinion of retrospective market value “as if vacant” for the Water Plant #1 site is concluded to be \$140,000, or near \$4.50 per square foot, as of May 1, 2002.

COMPARABLE LAND SALE TABULATION WATER PLANT #2 (DATE OF SERVICE - AUGUST 1, 2005)						
SALE	SALE DATE	LOCATION (TAX ID NUMBER)	SALE PRICE	PARCEL SIZE (SQ.FT.)	SALE PRICE PER SQ.FT.	ZONING
1	7/05	Northeast corner of Oracle Road and Pinal Street (222-11-0470)	\$310,000	37,897	\$8.18	CB-2
2	4/05	West side of Oracle Road, north of Pinal Street (222-11-017B)	\$260,000	51,129	\$5.09	GR-1
3	12/04	East side of Oracle Road, north of Pinal Street (222-16-1060)	\$92,500	16,000	\$5.78	TR
4	10/04	East side of Oracle Road, north of Pinal Street (222-16-1120)	\$92,500	16,667	\$5.10	TR
5	6/04	West side of Oracle Road, north of Mainsail Boulevard (222-12-0660)	\$50,000	10,260	\$4.87	CB-2
SUBJECT		Water Plant #2 (305-31-013Q) West side of Eagle Crest Ranch Boulevard, north of Eagle Heights Drive		10,890		CI-1

Note: All sale price data presented in this table is based upon the cash equivalent sale prices of the respective transactions

Land Valuation Analysis and Conclusion:

Water Plant #2 is found on the west side of Eagle Crest Ranch Boulevard, north of Eagle Heights Drive, with a physical address of 39930 South Eagle Crest Ranch Boulevard. This site is irregular in shape, contains 10,890 square feet, and is zoned CI-1 by Pinal County. The purpose of this assignment is to provide an opinion of retrospective market value, "as if vacant", for the water plant sites as of the date each water plant was put into service. For Water Plant #2, the date of service was August 1, 2005.

Market conditions do not clearly demonstrate that construction of any particular type of commercial improvements would be financially feasible at the time of service. The highest and best use of this water plant site "as though vacant", is considered to be either an investment use with the potential for a variety of future uses. As water plant sites are allowed under CI-1 zoning within the Eagle Crest Ranch project, this use is considered to be the Highest and Best Use of the parcel.

A search for comparable land sales was conducted and a limited supply of comparable data was found for the date of value of August 1, 2005. Five sales were selected which were considered the best available comparisons to the subject. I have selected the best combination land sales in comparison to the subject based upon the highest and best use of the parcels. Each sale has undergone a cash equivalency analysis designed to identify comparable sales which sold under atypical financing terms, and then adjusted if necessary to reflect cash terms or equivalent. In addition, other adjustments are made to the sales resulting from differences between the subject and the comparable such as size, topography, location or utility. The primary unit of comparison used in this analysis is sales price per square foot, since this unit is typically utilized by buyers and sellers in the market for properties similar to the subject. **Individual plat maps and photographs for each comparable sale can be found in the Addendum of this report.** Here follows the analysis of the comparable sales.

Adjustments:

Due to differences between the subject property and the comparable sales, adjustments were made to the comparable sales in an attempt to reflect those differences in the ultimate price that was paid. Typically, the adjustments to each sale are considered in the following sequence:

- 1) property rights conveyed
- 2) financing terms
- 3) conditions of sale
- 4) market conditions (time)
- 5) location and physical characteristics

An attempt was made to extract market-derived adjustments from the comparable sale data through the use of paired sale analysis, as explained in the following discussion. However, due to the limited amount of sale data with respect to vacant parcels similar to the subject, it was necessary to consider more general market information which has been discussed elsewhere in this report, as well as our general knowledge of local market conditions affecting properties similar to the subject based upon discussions with agents/brokers and other market participants. As a result, the adjustments made reflect a certain amount of appraiser judgment, and might vary from appraiser to appraiser. The following table summarizes our analysis of the comparable sale data.

LAND SALE ADJUSTMENT GRID		SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
SUBJECT PROPERTY: Water Plant #2						
PARCEL DATA	SUBJECT					
DATE OF SALE		7/05	4/05	12/04	10/04	6/04
PARCEL SIZE	10,890 sq. ft.	37,897 sq. ft.	51,129 sq. ft.	16,000 sq. ft.	16,667 sq. ft.	10,260 sq. ft.
ZONING	CJ-1	CB-2	GR-1	TR	TR	CB-2
CONTRACT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$5.78	\$5.10	\$4.87
ELEMENTS OF COMPARISON						
PROPERTY RIGHTS CONVEYED	Fee Simple					
		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CONTRACT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$5.78	\$5.10	\$4.87
FINANCING	Cash or Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.
		0.0%	0.0%	0.0%	0.0%	0.0%
CASH EQUIVALENT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$5.78	\$5.10	\$4.87
CONDITIONS OF SALE		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$5.78	\$5.10	\$4.87
DATE OF SALE		0.0%	0.0%	5.0%	10.0%	10.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$6.07	\$5.61	\$5.36
LOCATIONAL CHARACTERISTICS		-15.0%	-5.0%	-5.0%	-5.0%	-5.0%
PARCEL SIZE		10.0%	10.0%	5.0%	5.0%	0.0%
PHYSICAL CHARACTERISTICS		0.0%	0.0%	0.0%	0.0%	0.0%
PROXIMITY TO UTILITIES		0.0%	0.0%	0.0%	0.0%	0.0%
ZONING/HIGHEST & BEST USE		-15.0%	10.0%	-5.0%	-5.0%	-5.0%
INDICATED SALE PRICE/SQ.FT.		\$6.54	\$5.85	\$5.77	\$5.33	\$4.82

Summary – Water Plant #2:

The five comparable sales ranged in value from \$4.87 to \$8.18 per square foot on a cash equivalent basis. After adjustments to the comparable sales, a range of value for Water Plant #2 is suggested from \$4.82 to \$6.54 per square foot. It is my opinion that a value within this range, above \$5.00, below \$6.50, and near \$5.75 per square foot is reasonable. Then, multiplying \$5.75 times the 10,890 square feet found within Water Plant #2, results in a value opinion of \$62,618, rounded to \$65,000.

Therefore, my final opinion of retrospective market value “as if vacant” for the Water Plant #2 site is concluded to be \$65,000, or near \$5.75 per square foot, as of August 1, 2005.

COMPARABLE LAND SALE TABULATION WATER PLANT #3 (DATE OF SERVICE - JANUARY 1, 2008)						
SALE	SALE DATE	LOCATION (TAX ID NUMBER)	SALE PRICE	PARCEL SIZE (SQ.FT.)	SALE PRICE PER SQ.FT.	ZONING
1	11/07	East side of Avenida Del Canada, north of Mainsail Boulevard (222-19-0100)	\$60,000	12,000	\$5.00	GR-1
2	8/07	West side of Bowman Road, south of Golder Ranch Road (222-42-001J)	\$157,000	43,568	\$3.60	GR-1
3	12/06	South side of Graham Street, east of Oracle Road (222-19-0260)	\$50,000	12,000	\$4.17	GR-1
4	4/06	West side of Oracle Road, north of Pinal Street (222-11-017A)	\$330,000	52,912	\$6.24	GR-1
5	2/06	Northeast corner of Oracle Road and Hawser Street (222-22-0080)	\$350,000	54,886	\$6.83	TR
SUBJECT		Water Plant #3 (305-93-6040); Northeast corner of Eagle Ridge Drive and Eagle Mountain Drive		27,443		CR-3

Note: All sale price data presented in this table is based upon the cash equivalent sale prices of the respective transactions

Land Valuation Analysis and Conclusion:

Water Plant #3 is found on the northeast corner of Eagle Ridge Drive and Eagle Mountain Drive, with a physical address of 61025 East Eagle Mountain Drive. This site is irregular in shape, contains 27,443 square feet, and is zoned CR-3 by Pinal County. The purpose of this assignment is to provide an opinion of retrospective market value, "as if vacant", for the water plant sites as of the date each water plant was put into service. For Water Plant #3, the date of service was January 1, 2008.

The highest and best use of this water plant site "as though vacant", is considered to be either an investment use with the potential for a variety of future residential uses. As water plant sites are allowed under CR-3 zoning within the Eagle Crest Ranch project, this use is considered to be the Highest and Best Use of the parcel.

A search for comparable land sales was conducted and a limited supply of comparable data was found for the date of value of January 1, 2008. Five sales were selected which were considered the best available comparisons to the subject. I have selected the best combination land sales in comparison to the subject based upon the highest and best use of the parcels. Each sale has undergone a cash equivalency analysis designed to identify comparable sales which sold under atypical financing terms, and then adjusted if necessary to reflect cash terms or equivalent. In addition, other adjustments are made to the sales resulting from differences between the subject and the comparable such as size, topography, location or utility. The primary unit of comparison used in this analysis is sales price per square foot, since this unit is typically utilized by buyers and sellers in the market for properties similar to the subject. **Individual plat maps and photographs for each comparable sale can be found in the Addendum of this report.** Here follows the analysis of the comparable sales.

Adjustments:

Due to differences between the subject property and the comparable sales, adjustments were made to the comparable sales in an attempt to reflect those differences in the ultimate price that was paid. Typically, the adjustments to each sale are considered in the following sequence:

- 1) property rights conveyed
- 2) financing terms
- 3) conditions of sale
- 4) market conditions (time)
- 5) location and physical characteristics

An attempt was made to extract market-derived adjustments from the comparable sale data through the use of paired sale analysis, as explained in the following discussion. However, due to the limited amount of sale data with respect to vacant parcels similar to the subject, it was necessary to consider more general market information which has been discussed elsewhere in this report, as well as our general knowledge of local market conditions affecting properties similar to the subject based upon discussions with agents/brokers and other market participants. As a result, the adjustments made reflect a certain amount of appraiser judgment, and might vary from appraiser to appraiser. The following table summarizes our analysis of the comparable sale data.

LAND SALE ADJUSTMENT GRID						
SUBJECT PROPERTY: Water Plat #3						
PARCEL DATA	SUBJECT	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
DATE OF SALE		11/07	8/07	12/06	4/06	2/06
PARCEL SIZE	27,443 sq. ft.	12,000 sq. ft.	43,568 sq. ft.	12,000 sq. ft.	52,912 sq. ft.	54,886 sq. ft.
ZONING	CR-3	GR-1	GR-1	GR-1	GR-1	TR
CONTRACT SALE PRICE/SQ.FT.		\$5.00	\$3.60	\$4.17	\$6.24	\$6.38
ELEMENTS OF COMPARISON						
PROPERTY RIGHTS CONVEYED	Fee Simple					
		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CONTRACT SALE PRICE/SQ.FT.		\$5.00	\$3.60	\$4.17	\$6.24	\$6.38
FINANCING	Cash or Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.
		0.0%	0.0%	0.0%	0.0%	0.0%
CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.00	\$3.60	\$4.17	\$6.24	\$6.38
CONDITIONS OF SALE		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.00	\$3.60	\$4.17	\$6.24	\$6.38
DATE OF SALE		0.0%	5.0%	10.0%	10.0%	10.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.00	\$3.78	\$4.59	\$6.86	\$7.02
LOCATIONAL CHARACTERISTICS		5.0%	5.0%	5.0%	-10.0%	-10.0%
PARCEL SIZE		-5.0%	5.0%	-5.0%	5.0%	5.0%
PHYSICAL CHARACTERISTICS		0.0%	0.0%	0.0%	0.0%	0.0%
PROXIMITY TO UTILITIES		0.0%	0.0%	0.0%	0.0%	0.0%
ZONING/HIGHEST & BEST USE		10.0%	10.0%	10.0%	0.0%	-5.0%
INDICATED SALE PRICE/SQ.FT.		\$5.50	\$4.54	\$5.05	\$6.52	\$6.32

Summary – Water Plant #3:

The five comparable sales ranged in value from \$3.60 to \$6.83 per square foot on a cash equivalent basis. After adjustments to the comparable sales, a range of value for Water Plant #3 is suggested from \$4.54 to \$6.52 per square foot. It is my opinion that a value within this range, above \$5.00, below \$6.50, and near \$6.00 per square foot is reasonable. Then, multiplying \$6.00 times the 27,443 square feet found within Water Plant #3, results in a value opinion of \$164,658, rounded to \$165,000.

Therefore, my final opinion of retrospective market value “as if vacant” for the Water Plant #3 site is concluded to be \$165,000, or near \$6.00 per square foot, as of January 1, 2008.

COMPARABLE LAND SALE TABULATION WATER PLANT #4 (DATE OF SERVICE - OCTOBER 1, 2004)						
SALE	SALE DATE	LOCATION (TAX ID NUMBER)	SALE PRICE	PARCEL SIZE (SQ.FT.)	SALE PRICE PER SQ.FT.	ZONING
1	12/04	East side of Oracle Road, north of Pinal Street (222-16-1060)	\$92,500	16,000	\$5.78	TR
2	10/04	East side of Oracle Road, north of Pinal Street (222-16-1120)	\$85,000	16,667	\$5.10	TR
3	7/04	West side of Oracle Road, north of Pinal Street (222-11-017B)	\$225,000	51,129	\$4.40	GR-1
4	6/04	West side of Oracle Road, north of Mainsail Boulevard (222-12-0660)	\$50,000	10,260	\$4.87	CB-2
5	3/04	West side of Oracle Road, south of Mainsail Boulevard (222-21-042A)	\$153,762	25,825	\$5.95	CB-2
6	9/03	West side of Oracle Road, north of Pinal Street (222-11-018B)	\$220,000	48,352	\$4.55	CB-2
SUBJECT		Water Plant #4 (305-93-219B) West side of Mountain Shadow Drive, north of Eagle Heights Drive		16,988		CR-3

Note: All sale price data presented in this table is based upon the cash equivalent sale prices of the respective transactions

Land Valuation Analysis and Conclusion:

Water Plant #4 is found on the west side of Mountain Shadow Drive, north of Eagle Heights Drive, with a physical address of 39904 South Mountain Shadow Drive. This site is irregular in shape, contains 16,988 square feet, and is zoned CR-3 by Pinal County. The purpose of this assignment is to provide an opinion of retrospective market value, "as if vacant", for the water plant sites as of the date each water plant was put into service. For Water Plant #4, the date of service was October 1, 2004.

The highest and best use of this water plant site "as though vacant", is considered to be either an investment use with the potential for a variety of future residential uses. As water plant sites are allowed under CR-3 zoning within the Eagle Crest Ranch project, this use is considered to be the Highest and Best Use of the parcel.

A search for comparable land sales was conducted and a limited supply of comparable data was found for the date of value of October 1, 2004. Six sales were selected which were considered the best available comparisons to the subject. I have selected the best combination land sales in comparison to the subject based upon the highest and best use of the parcels. Each sale has undergone a cash equivalency analysis designed to identify comparable sales which sold under atypical financing terms, and then adjusted if necessary to reflect cash terms or equivalent. In addition, other adjustments are made to the sales resulting from differences between the subject and the comparable such as size, topography, location or utility. The primary unit of comparison used in this analysis is sales price per square foot, since this unit is typically utilized by buyers and sellers in the market for properties similar to the subject. **Individual plat maps and photographs for each comparable sale can be found in the Addendum of this report.** Here follows the analysis of the comparable sales.

Adjustments:

Due to differences between the subject property and the comparable sales, adjustments were made to the comparable sales in an attempt to reflect those differences in the ultimate price that was paid. Typically, the adjustments to each sale are considered in the following sequence:

- 1) property rights conveyed
- 2) financing terms
- 3) conditions of sale
- 4) market conditions (time)
- 5) location and physical characteristics

An attempt was made to extract market-derived adjustments from the comparable sale data through the use of paired sale analysis, as explained in the following discussion. However, due to the limited amount of sale data with respect to vacant parcels similar to the subject, it was necessary to consider more general market information which has been discussed elsewhere in this report, as well as our general knowledge of local market conditions affecting properties similar to the subject based upon discussions with agents/brokers and other market participants. As a result, the adjustments made reflect a certain amount of appraiser judgment, and might vary from appraiser to appraiser. The following table summarizes our analysis of the comparable sale data.

LAND SALE ADJUSTMENT GRID						
SUBJECT PROPERTY: Water Plant #4						
PARCEL DATA	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5	SALE 6
DATE OF SALE	12/04	10/04	7/04	6/04	3/04	9/03
PARCEL SIZE	16,000 sq.ft.	16,667 sq.ft.	51,129 sq.ft.	10,260 sq.ft.	25,825 sq.ft.	48,352 sq.ft.
ZONING	TR	TR	GR-1	CB-2	CB-2	CB-2
CONTRACT SALE PRICE/SQ.FT.	\$5.78	\$5.10	\$4.40	\$4.87	\$5.95	\$4.55
ELEMENTS OF COMPARISON						
PROPERTY RIGHTS CONVEYED	Fee Simple					
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CONTRACT SALE PRICE/SQ.FT.	\$5.78	\$5.10	\$4.40	\$4.87	\$5.95	\$4.55
FINANCING	Cash Equiv.					
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CASH EQUIVALENT SALE PRICE/SQ.FT.	\$5.78	\$5.10	\$4.40	\$4.87	\$5.95	\$4.55
CONDITIONS OF SALE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.	\$5.78	\$5.10	\$4.40	\$4.87	\$5.95	\$4.55
DATE OF SALE	0.0%	0.0%	5.0%	5.0%	5.0%	10.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.	\$5.78	\$5.10	\$4.62	\$5.11	\$6.25	\$5.01
LOCATIONAL CHARACTERISTICS	-5.0%	-5.0%	-5.0%	-5.0%	-10.0%	-5.0%
PARCEL SIZE	0.0%	0.0%	10.0%	-5.0%	5.0%	10.0%
PHYSICAL CHARACTERISTICS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PROXIMITY TO UTILITIES	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ZONING/HIGHEST & BEST USE	-5.0%	-5.0%	10.0%	-5.0%	-5.0%	-5.0%
INDICATED SALE PRICE/SQ.FT.	\$5.20	\$4.59	\$5.31	\$4.34	\$5.63	\$5.01

Summary – Water Plant #4:

The six comparable sales ranged in value from \$4.40 to \$5.95 per square foot on a cash equivalent basis. After adjustments to the comparable sales, a range of value for Water Plant #4 is suggested from \$4.34 to \$5.63 per square foot. It is my opinion that a value within this range, above \$4.50, below \$5.50, and near \$5.00 per square foot is reasonable. Then, multiplying \$5.00 times the 16,988 square feet found within Water Plant #4, results in a value opinion of \$84,940, rounded to \$85,000.

Therefore, my final opinion of retrospective market value “as if vacant” for the Water Plant #4 site is concluded to be \$85,000, or near \$5.00 per square foot, as of October 1, 2004.

Estimated Exposure/Marketing Time:

A reasonable marketing period is intended to represent the period of time it might take to sell the subject parcels at market value in the period immediately following the retrospective dates of the appraisal. Marketing time differs from exposure time, which is always presumed to precede the effective date of the appraisal. In an effort to estimate a reasonable marketing period for the subject property, the following factors were considered: exposure times for comparable sale properties, interviews with market participants and anticipated changes in market conditions.

The comparable sales summarized in this report which were actively marketed had market times that ranged mostly under 12 months. Interviews with local brokers and market participants and general market conditions for this type of property suggest the any of the subject parcels could be sold within a 12-month period at a reasonable listing price.

The preceding data with respect to exposure times, opinions of market participants and general market conditions suggest that an exposure time of 12 months should be adequate for the subject parcels, “as if vacant”. Consequently, I believe that an estimated marketing time for the subject sites of one year is reasonable given the data available and a reasonable asking price.

Certification of Value:

I do hereby certify that to the best of my knowledge and belief...

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the property that is the subject of this report, and no personal interest with respect to the parties involved.

I have no bias with respect to the property that is the subject of this report, or to the parties involved with this assignment.

My engagement in this assignment was not contingent upon developing or reporting predetermined results.

My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute, as well as the Uniform Standards of Professional Appraisal Practice.

John Ferenchak have made a personal inspection of the property that is the subject of this report, and has the knowledge and experience necessary to complete the assignment competently.

No one has provided significant real property appraisal assistance to the person signing this certification.

The appraisal assignment, my value conclusions, as well as other opinions expressed herein, are not based upon a requested minimum valuation, a specific valuation, or the approval of a loan.

The use of this report is subject to the requirements of the Appraisal Institute relating to review by a duly authorized representative.

I assume no responsibility for matters legal, structural, mechanical, architectural or engineering.

Any opinions of value presented in this report, unless otherwise stated, are formulated under the assumption that hazardous materials or conditions do not adversely affect the subject property. I do not assume any responsibility for any loss in value that is the result of such materials or conditions since we do not possess the expertise for their discovery.

My opinion of value for the subject property as of April 11, 2011 under financing and assumptions described in this report is:

EAGLE CREST RANCH WATER PLANT SITES "AS IF VACANT"			
WATER PLANT/ TAX ID	SITE SIZE	RETROSPECTIVE DATE OF VALUE	MARKET VALUE OPINION
Water Plant #1 (Ptn of 305-31-013W)	31,363 sf	May 1, 2002	\$140,000
Water Plant #2 (305-31-013Q)	10,890 sf	August 1, 2005	\$65,000
Water Plant #3 (305-93-6040)	27,443 sf	January 1, 2008	\$165,000
Water Plant #4 (305-93-219B)	16,988 sf	October 1, 2004	\$85,000

A typical marketing/exposure period for properties similar to the subject of 12 months was concluded as reasonable.

The reader should note that the "As If Vacant" opinion of market value for the subject water plant sites stated in this report is based upon a **HYPOTHETICAL CONDITION** which assumes the parcels do not have any improvements upon them. It is noted that at the time of inspection (April 12, 2011), each water plant site had water facility improvements completed and in use

This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraisers are not responsible for unauthorized use of this report.

Within the constraints of adequate available data, the full appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).

No potential environmental hazards which might affect the use and value of the subject property were noted upon inspection, however these appraisers lack the experience to investigate hazardous materials and we recommend that a complete Environmental Survey be performed on the subject property to confirm the presence or absence of any environmental hazards. As a result, the value opinions contained in this appraisal report **DO NOT** consider any loss in value due to any potentially hazardous environmental substances which may or may not be present on or near the subject property.

Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of such substances, such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimated is predicated on the assumption that there is no such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.

No engineering or soils report was available, and therefore no information was provided with respect to the utility or constructability of the existing improvements, or any unusual soil or drainage conditions which are not readily apparent. This appraisal assumes no soils challenge's associated with the subject property.

Please refer to the Limiting Conditions and Assumptions included in the Addendum section which accompany this summary appraisal report.

The authentic copies of this report are signed in blue, without which they are unauthorized and may have been altered.

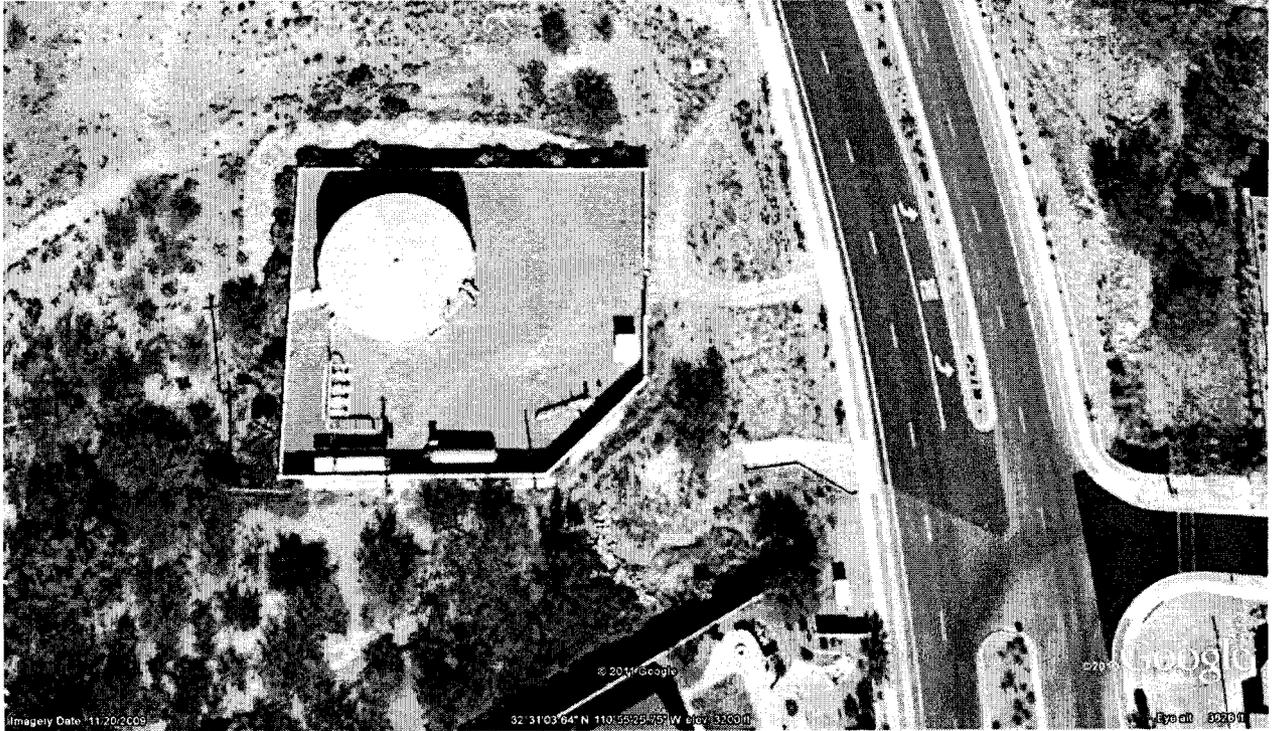
This Certification is signed and dated on April 29, 2011. The authentic copies of this report are signed in blue, without which they are unauthorized and may have been altered.

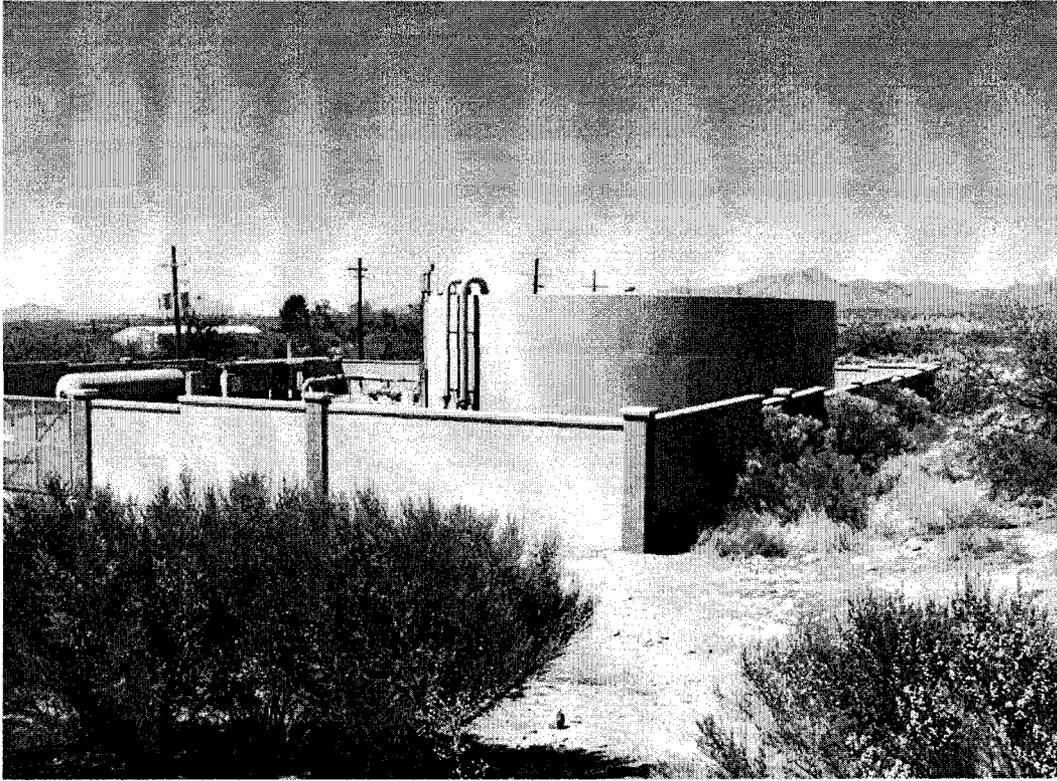
Sincerely,

A handwritten signature in blue ink that reads "John Ferenchak". The signature is written in a cursive, flowing style.

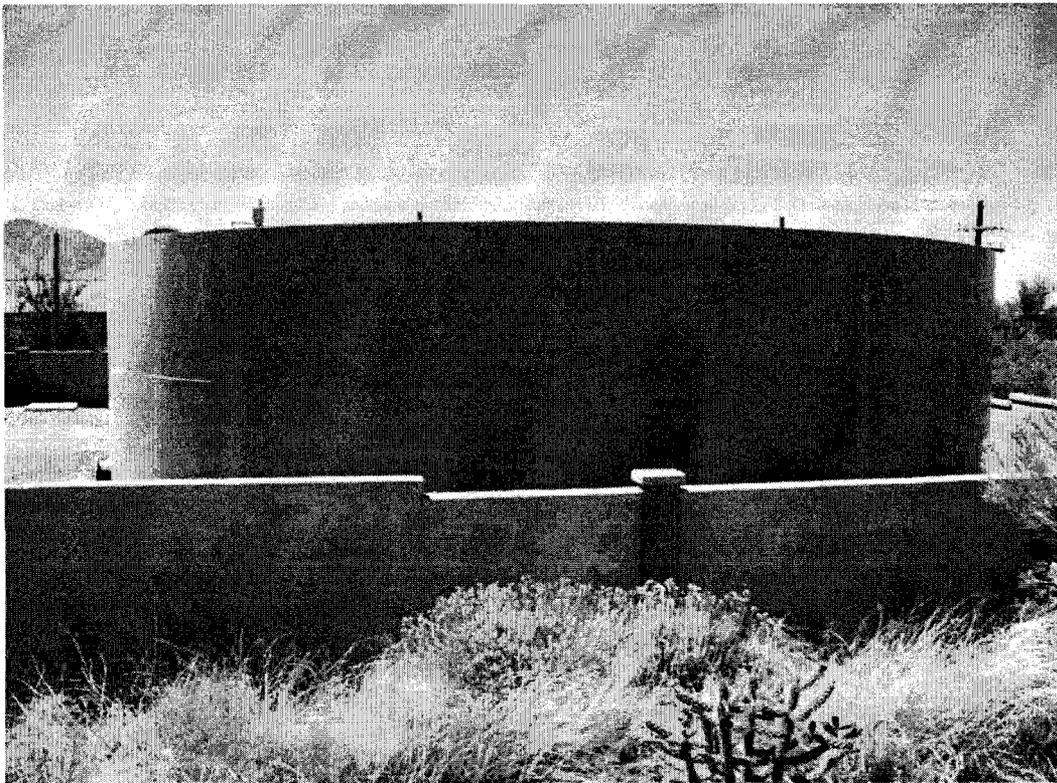
John Ferenchak
State of Arizona Certified General
Real Estate Appraiser #30344

SUBJECT PROPERTY PHOTOGRAPHS – WATER PLANT #1

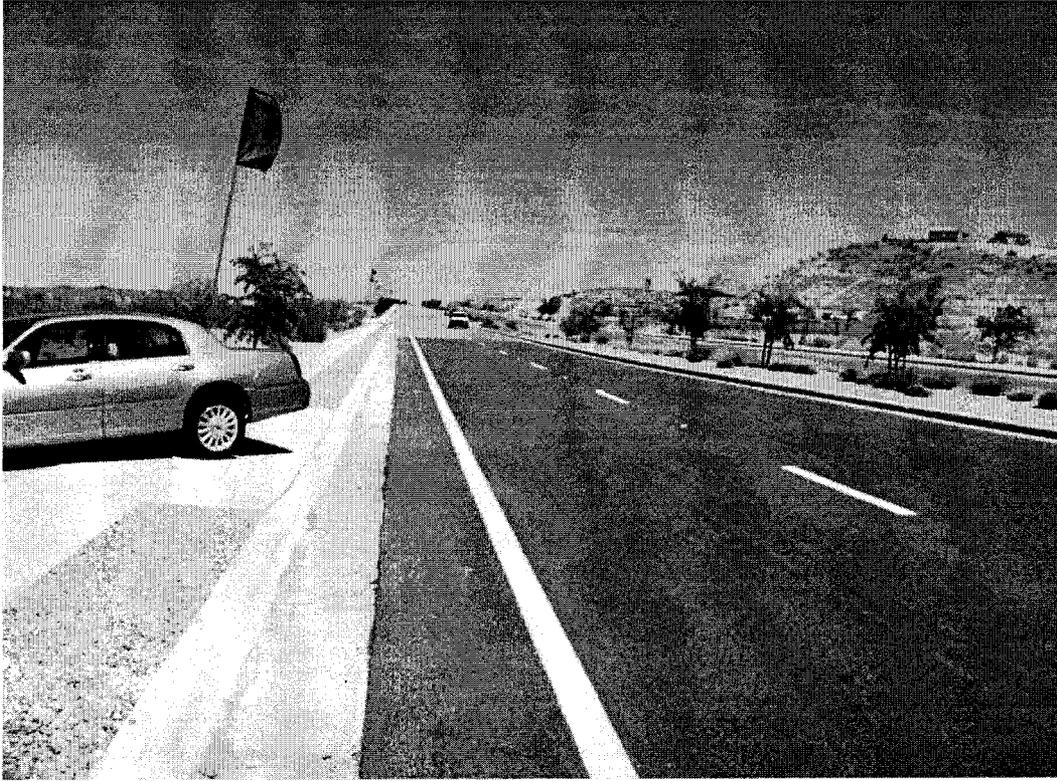




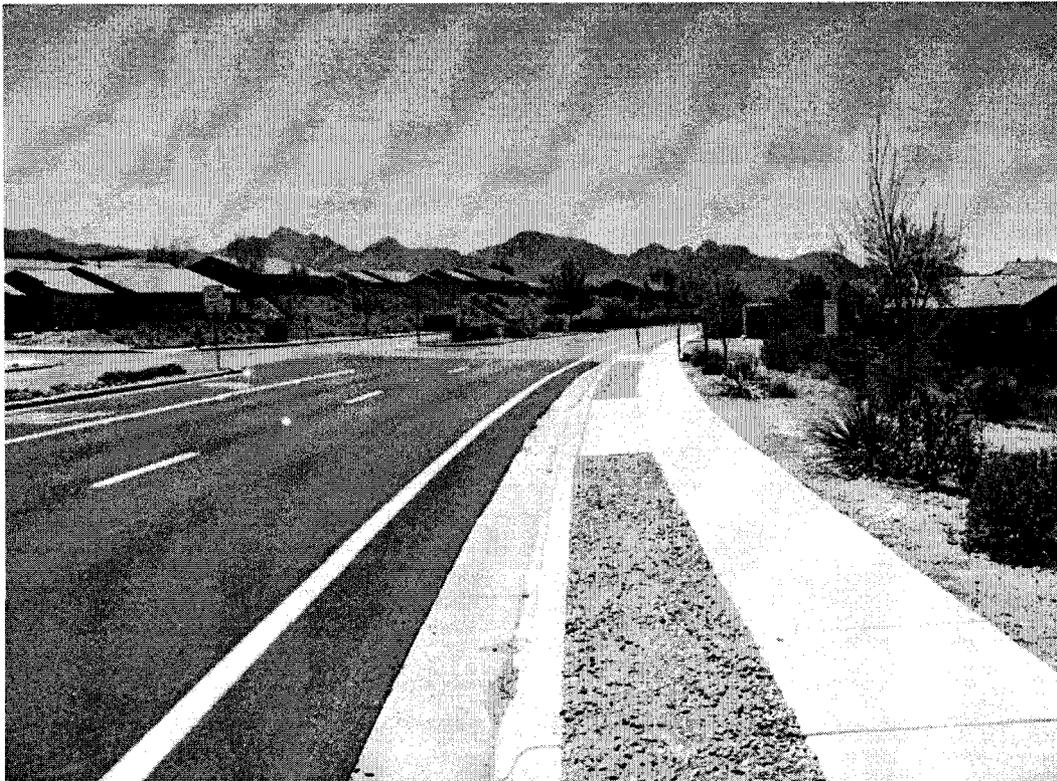
NORTHEAST ELEVATION



WEST ELEVATION

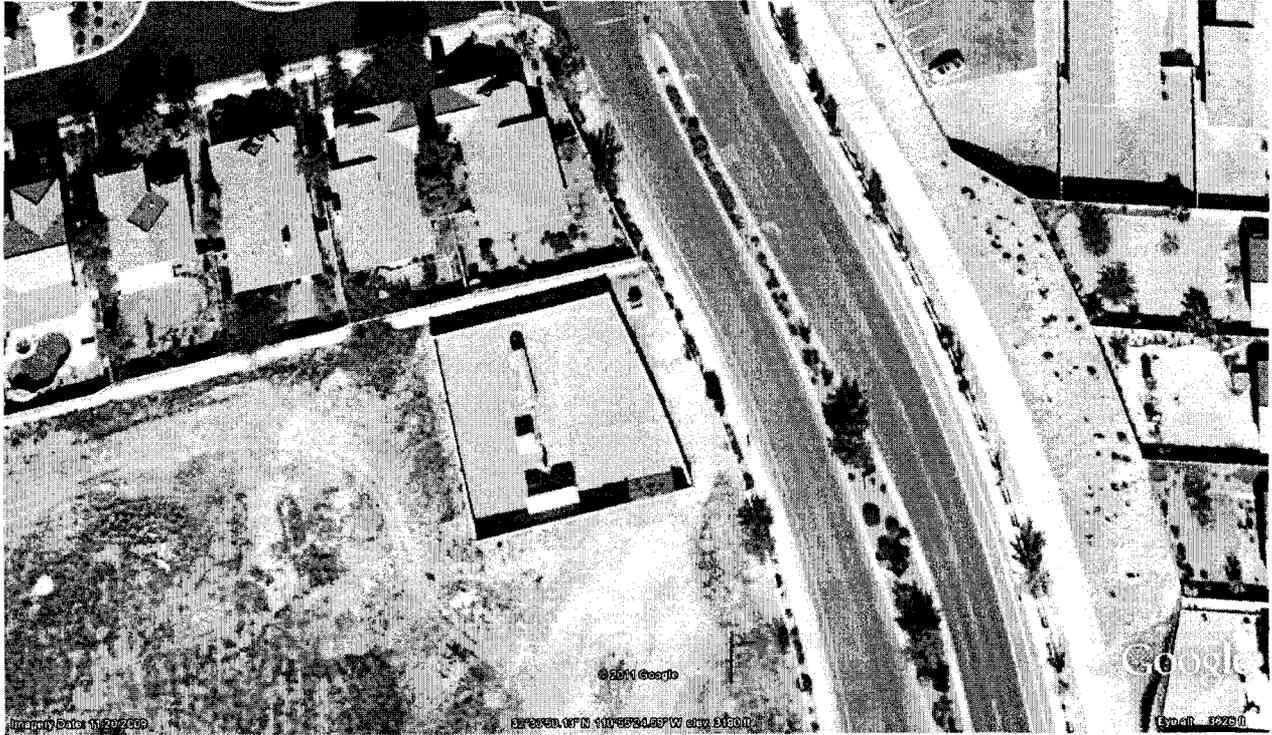


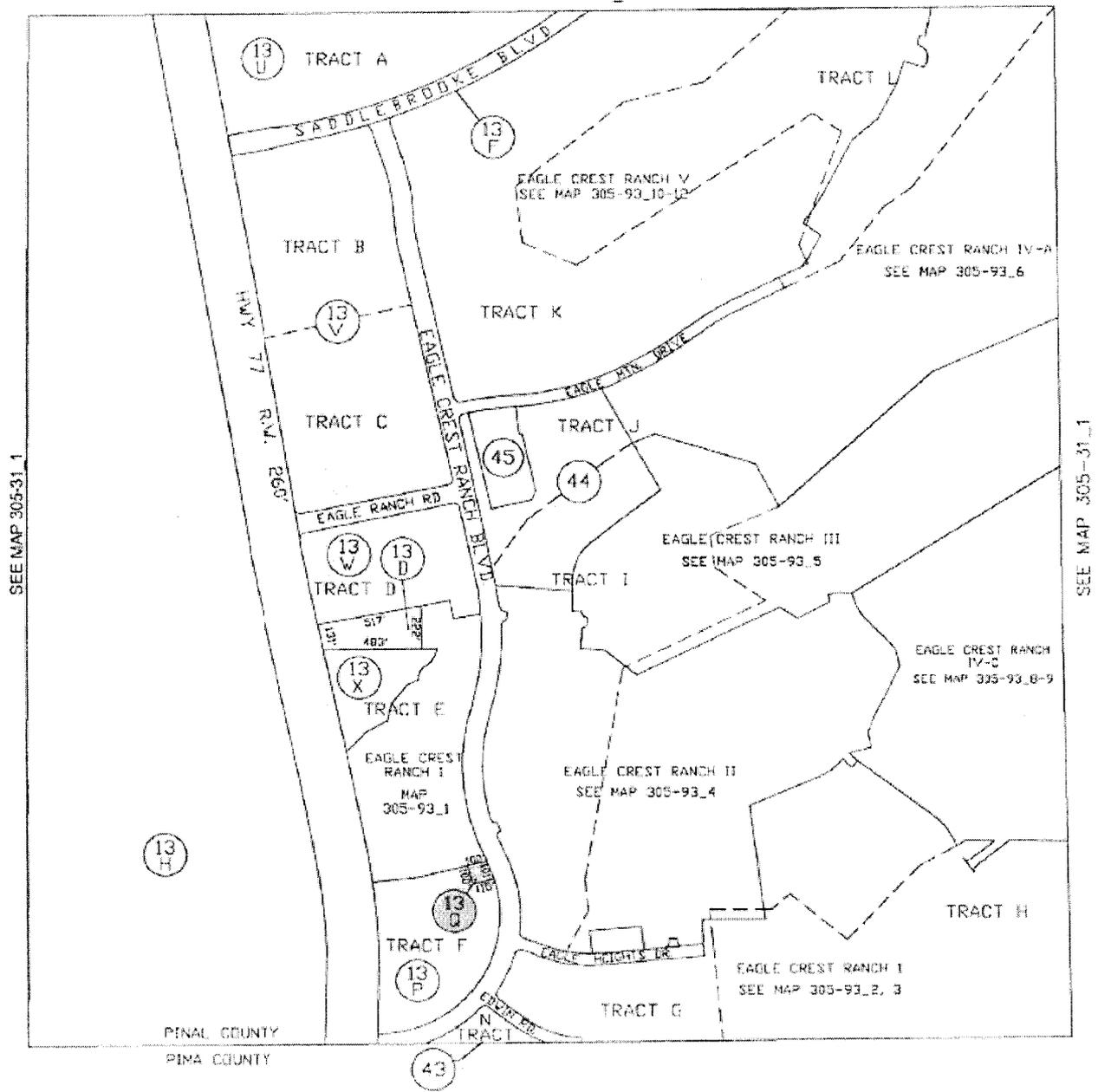
EAGLE CREST RANCH BOULEVARD TO THE NORTH

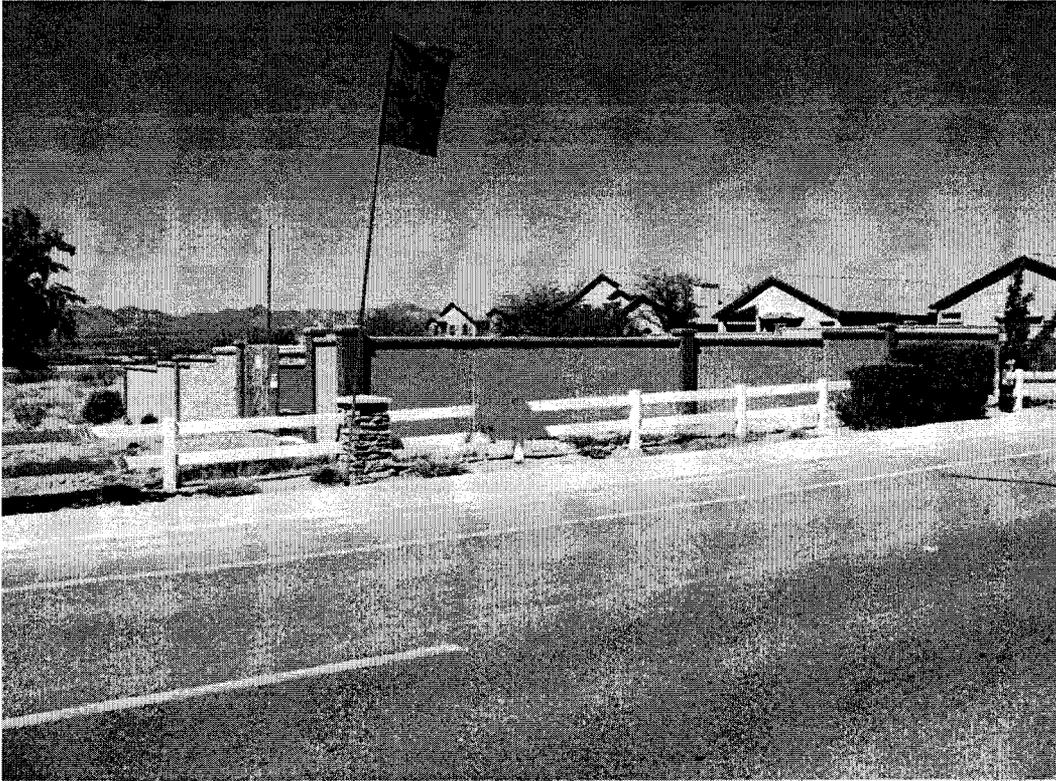


EAGLE CREST RANCH BOULEVARD TO THE SOUTH

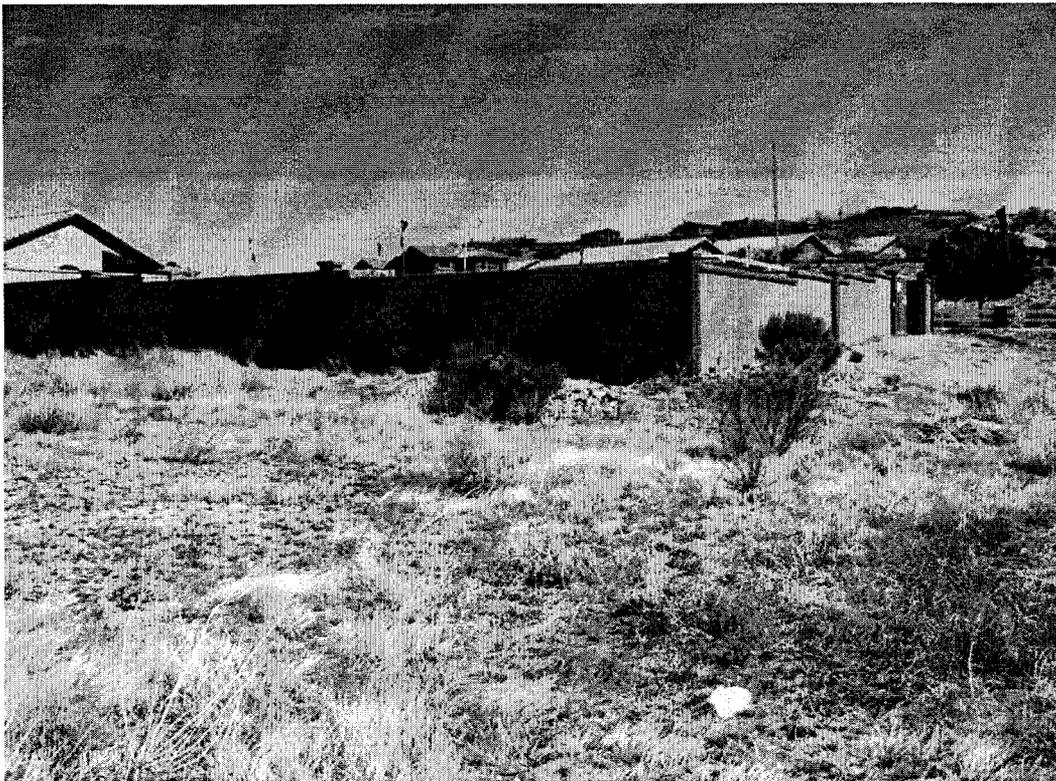
SUBJECT PROPERTY PHOTOGRAPHS/MAPS – WATER PLANT #2



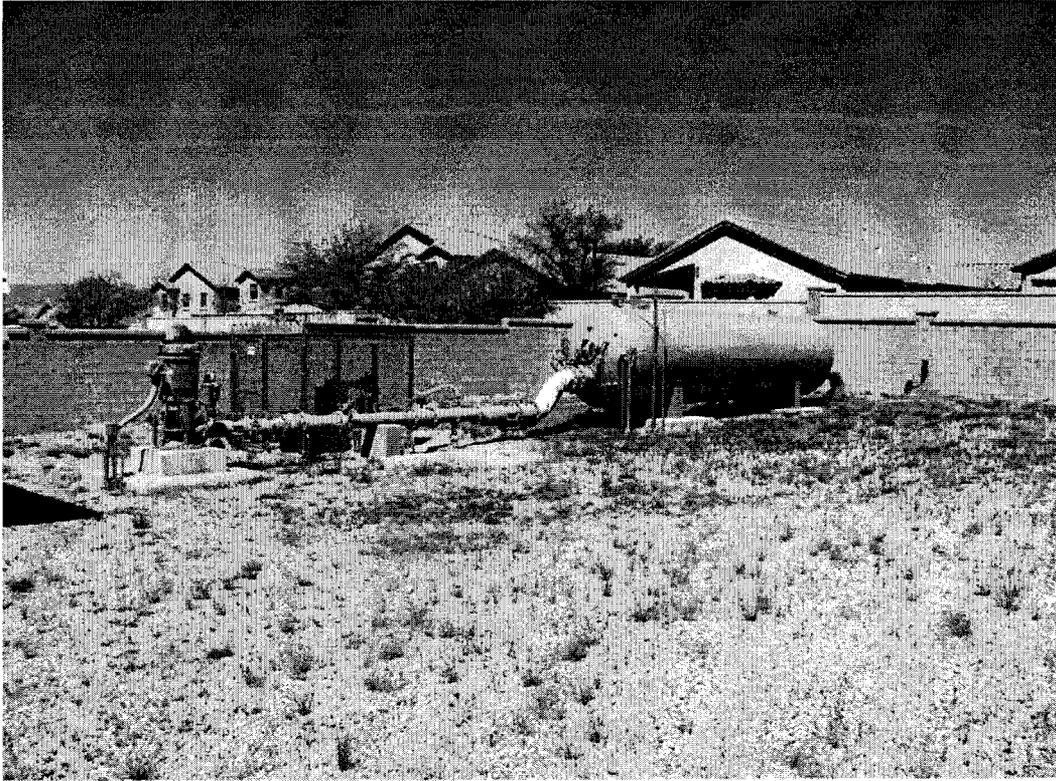




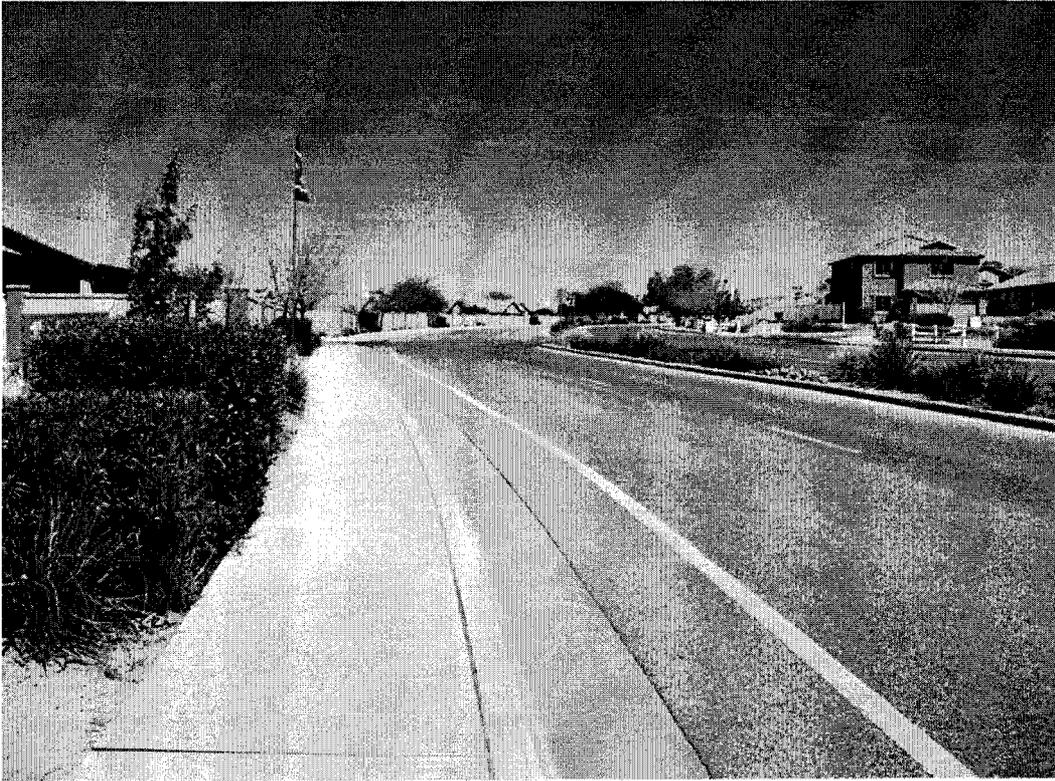
SOUTHEAST ELEVATION



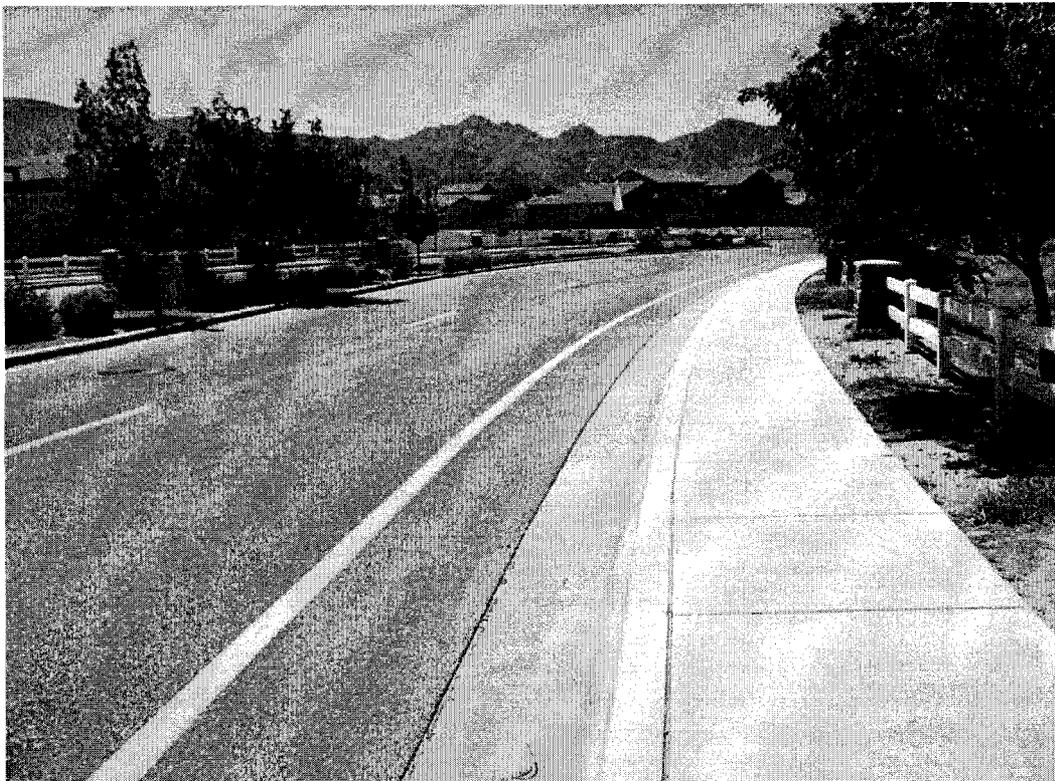
SOUTHWEST ELEVATION



INTERIOR VIEW



EAGLE CREST RANCH BOULEVARD TO THE NORTH



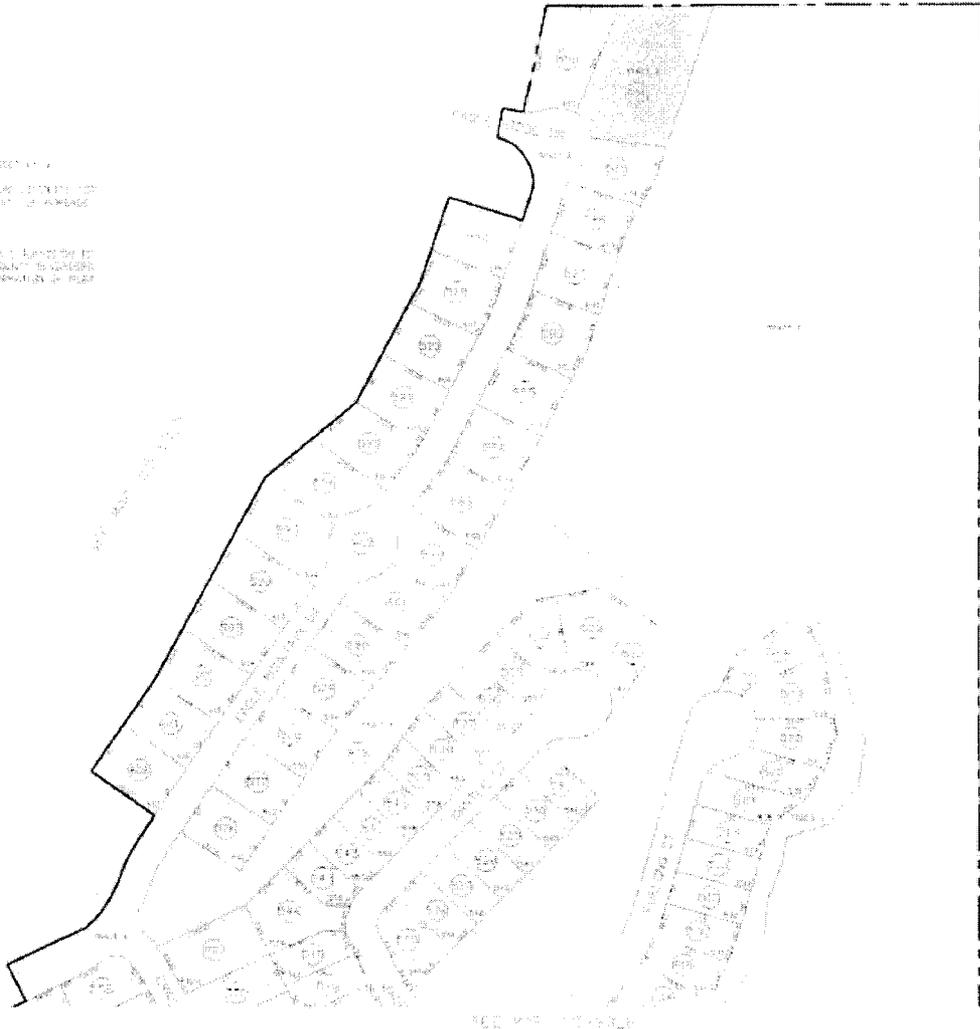
EAGLE CREST RANCH BOULEVARD TO THE SOUTH

SUBJECT PROPERTY PHOTOGRAPHS – WATER PLANT #3



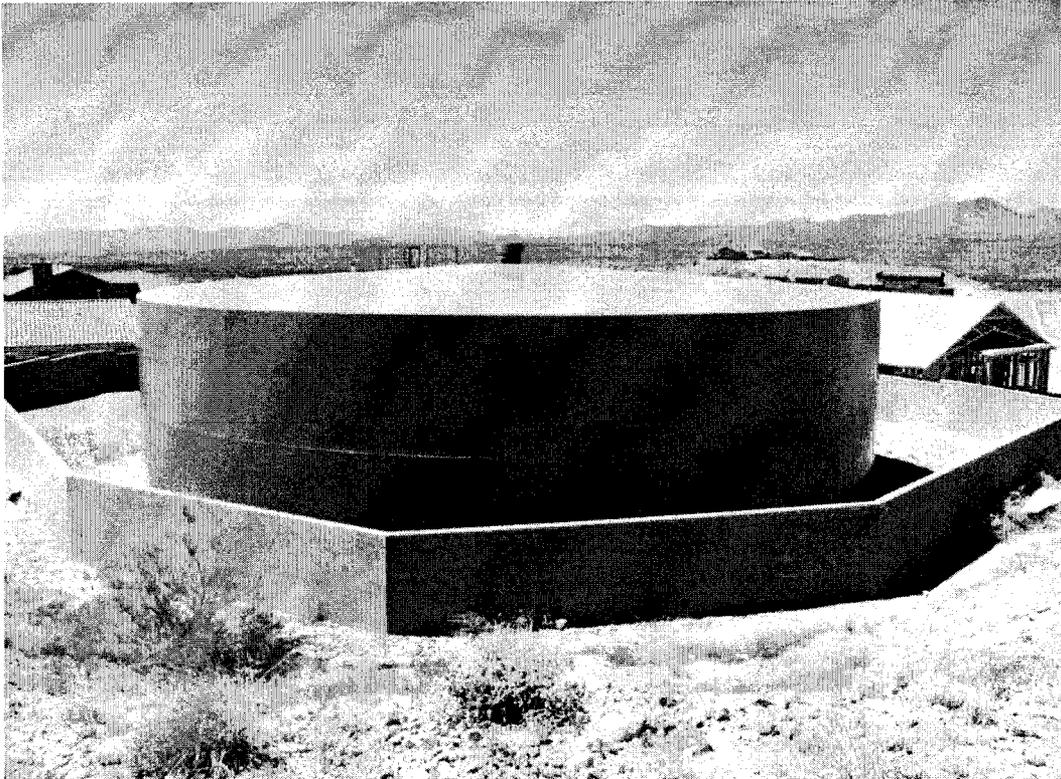
SECTION 35, T1N10S, R514E

THESE ARE THE ORIGINAL RECORDS OF THE
THE OFFICE WILL NOT ASSUME LIABILITY FOR
REPRODUCTION OF THESE RECORDS.
THE ORIGINAL RECORDS OF THESE RECORDS
SHALL BE FILED WITH THE PUBLIC CLERK TO VERIFY
THEIR ACCURACY AND COMPLETENESS.
DRAWN BY: [illegible]
DATE: [illegible]

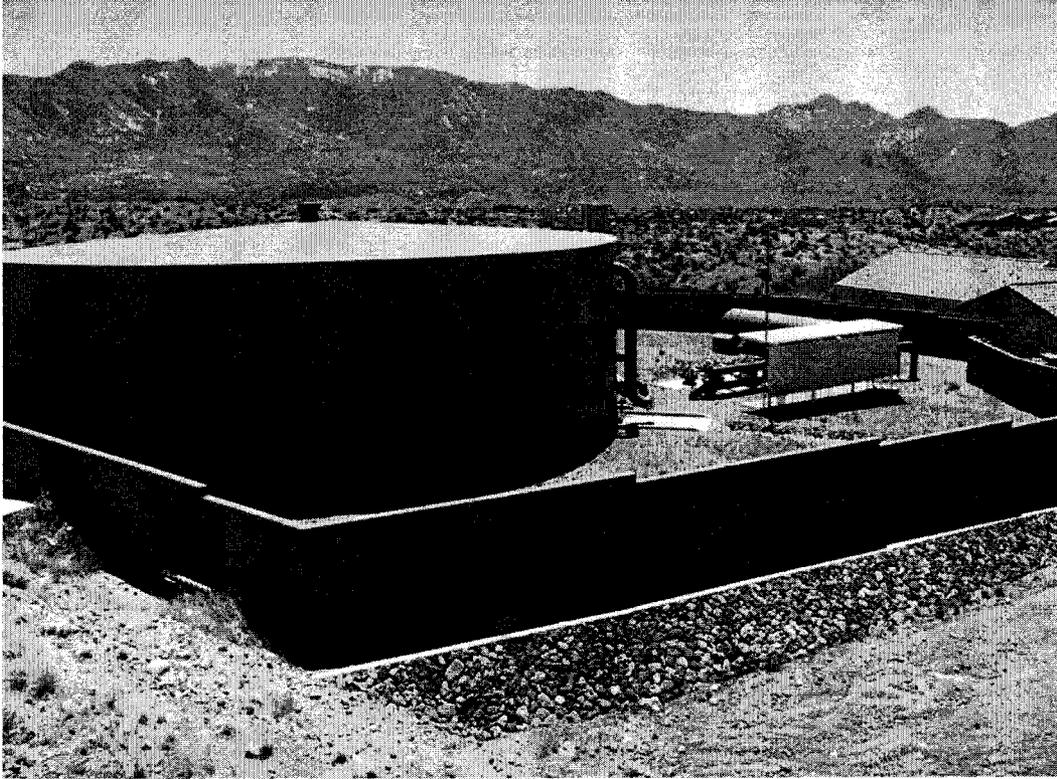




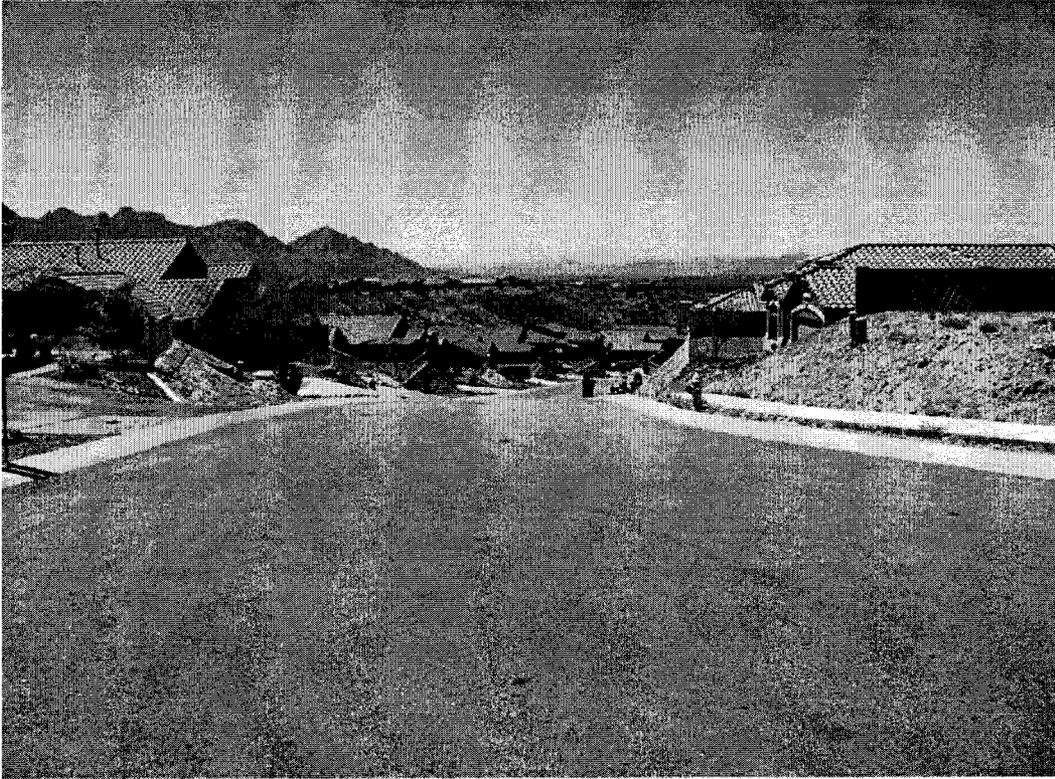
SOUTHWEST ELEVATION



NORTHEAST ELEVATION



NORTHWEST ELEVATION

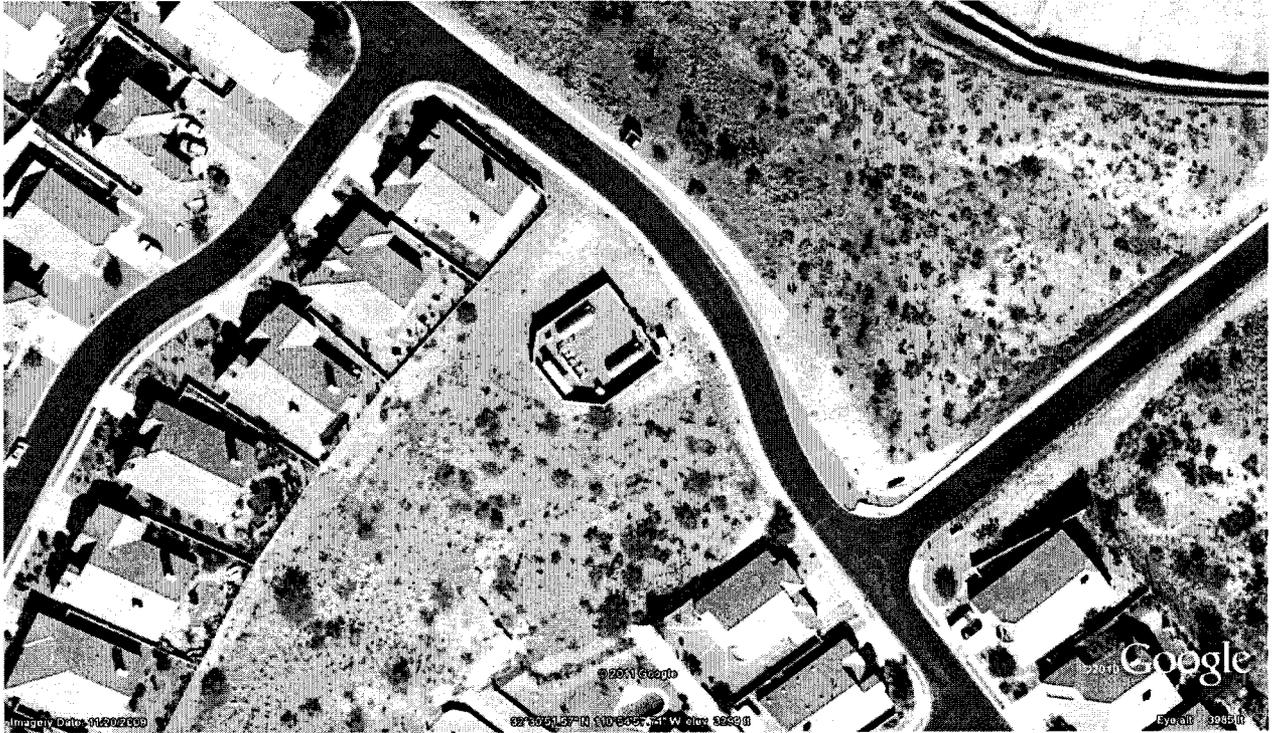


EAGLE MOUNTAIN DRIVE TO THE SOUTH



EAGLE RIDGE DRIVE TO THE WEST

SUBJECT PROPERTY PHOTOGRAPHS – WATER PLANT #4



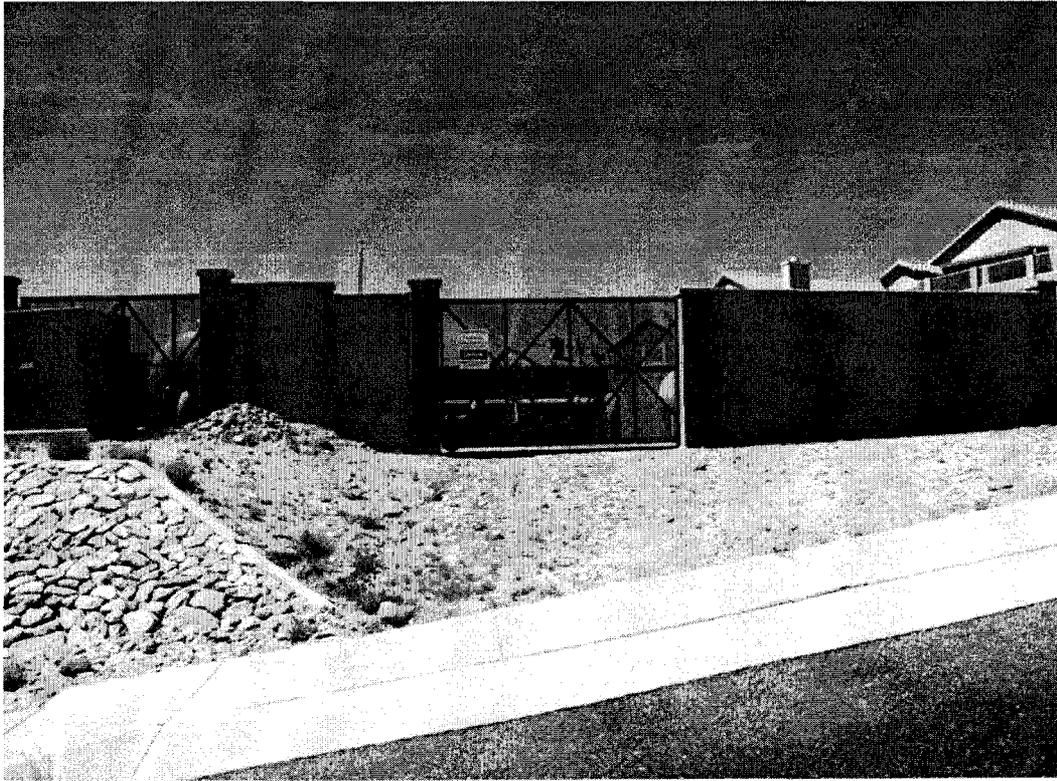
SEC. 32 TN.10S RG.14E

THIS MAP IS FOR VALUATION PURPOSES ONLY.
THIS OFFICE WILL NOT ASSUME LIABILITY FOR
REPRESENTATION, MEASUREMENTS OR ADJUSTMENTS
SURVEYS & SUBDIVISION PLATS ARE ON FILE
WITH THE PINAL COUNTY RECORDERS OFFICE
CANCELED PARCELS
305-51-0735

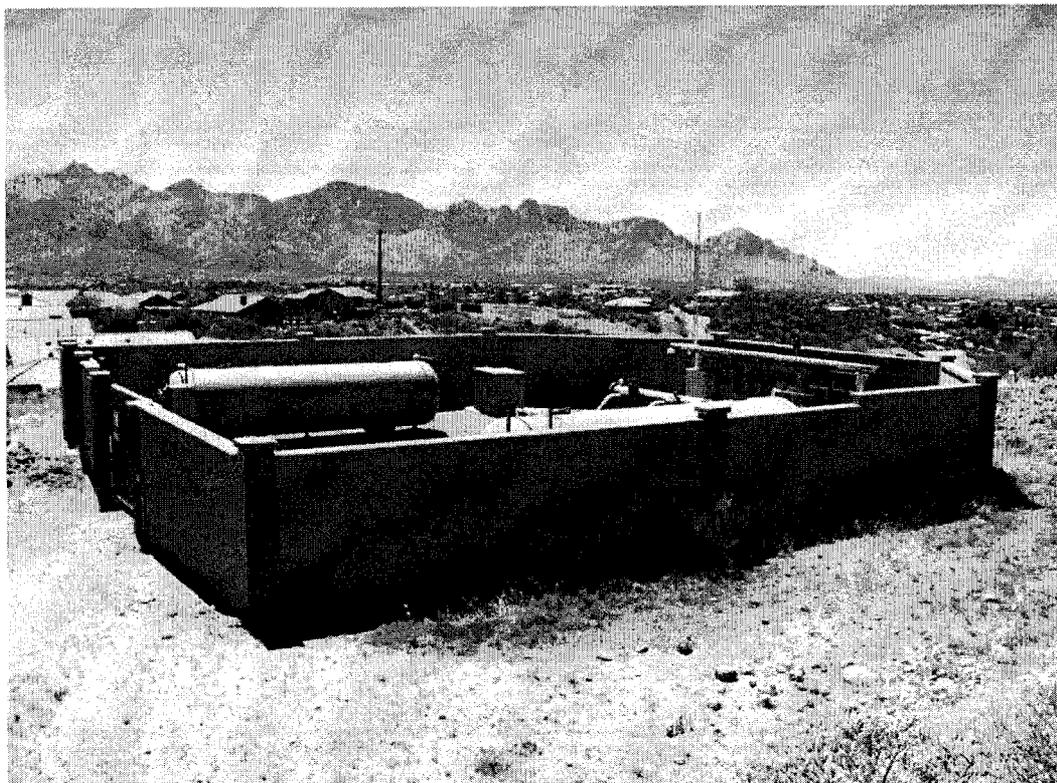
EAGLE CREST RANCH I - TRACTS C THRU V
ARE UNDER PARCEL # 305-93-219C

SEE MAP 305-31 1





WEST ELEVATION



NORTHWEST ELEVATION

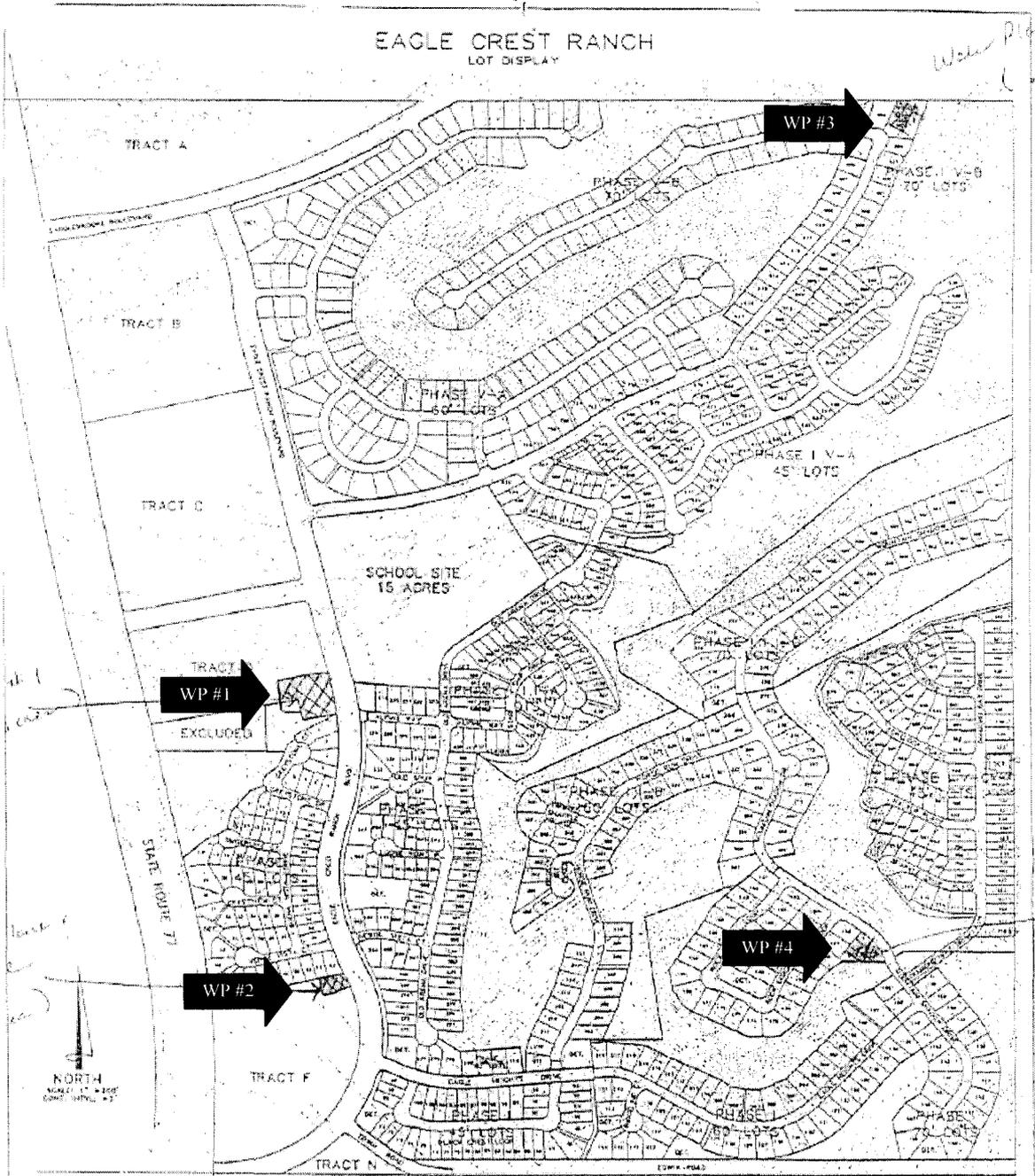


MOUNTAIN SHADOW DRIVE TO THE SOUTH



MOUNTAIN SHADOW DRIVE TO THE NORTH

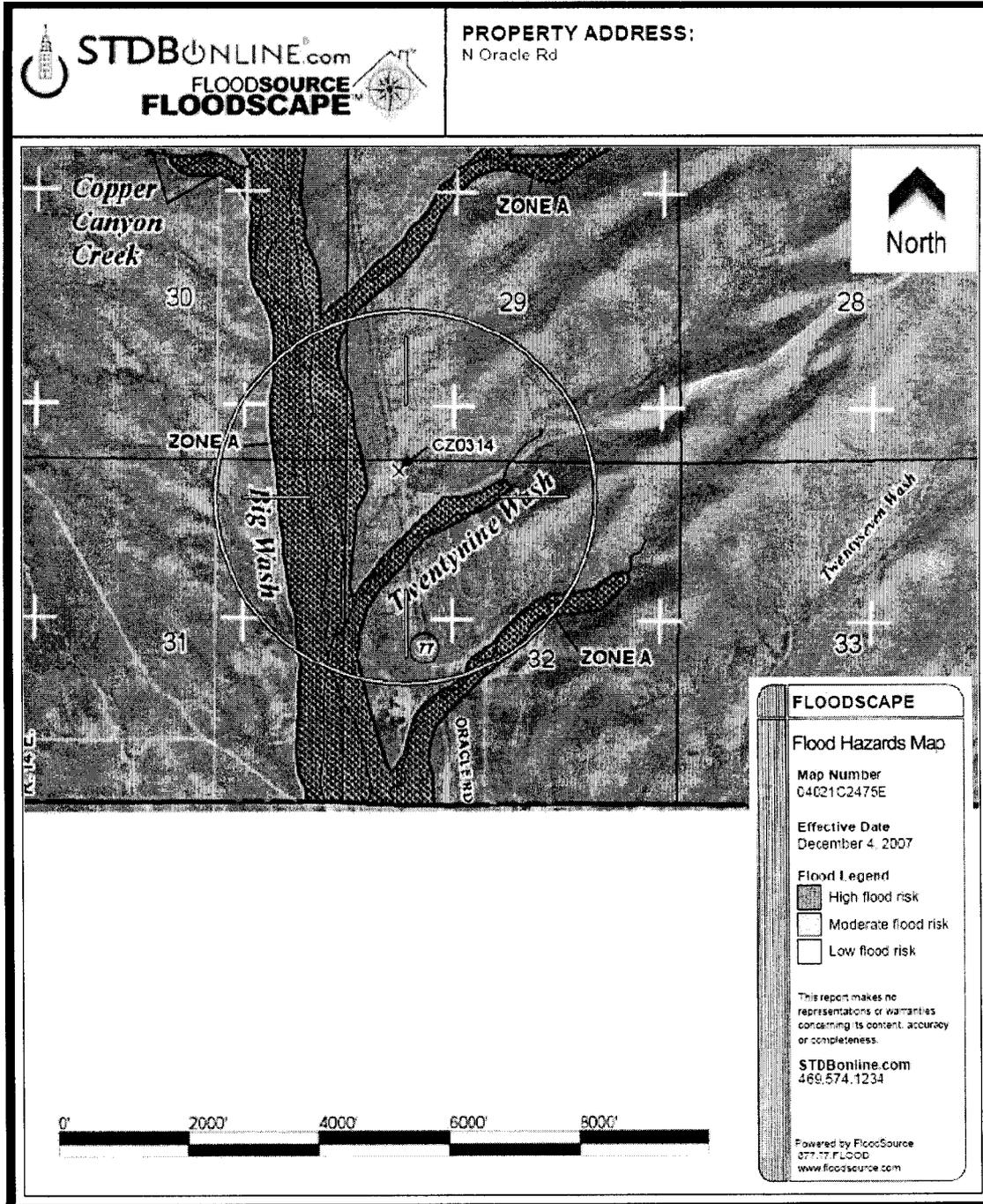
SITE PLAN



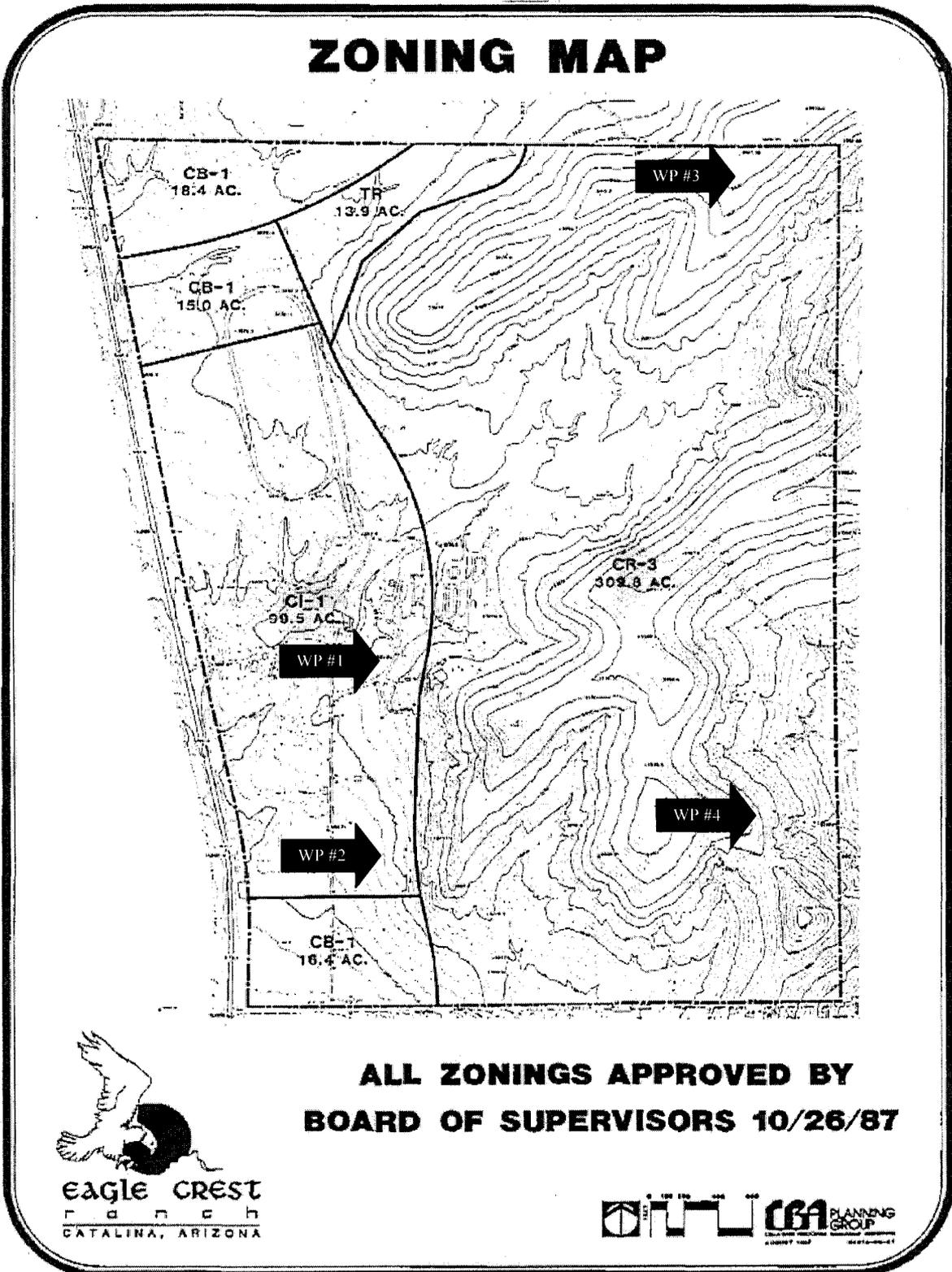
LOT SUMMARY	45'	60'	70'	TOTAL
PHASE I V-A	58	57	57	212
PHASE I V-B	84	-	-	158
PHASE I V-C	-	54	21	159
PHASE I V-D	58	-	-	100
PHASE I V-E	-	-	43	43
PHASE I V-F	113	-	-	241
PHASE I V-G	-	-	57	57
PHASE I V-H	103	-	-	246
PHASE I V-I	-	130	-	130
PHASE I V-J	-	-	20	246
PHASE I V-K	42	-	-	42

EAGLE CREST RANCH
 LOT DISPLAY
 OPW ENGINEERING, L.L.C.
 ENGINEERING SURVEYING PLANNING

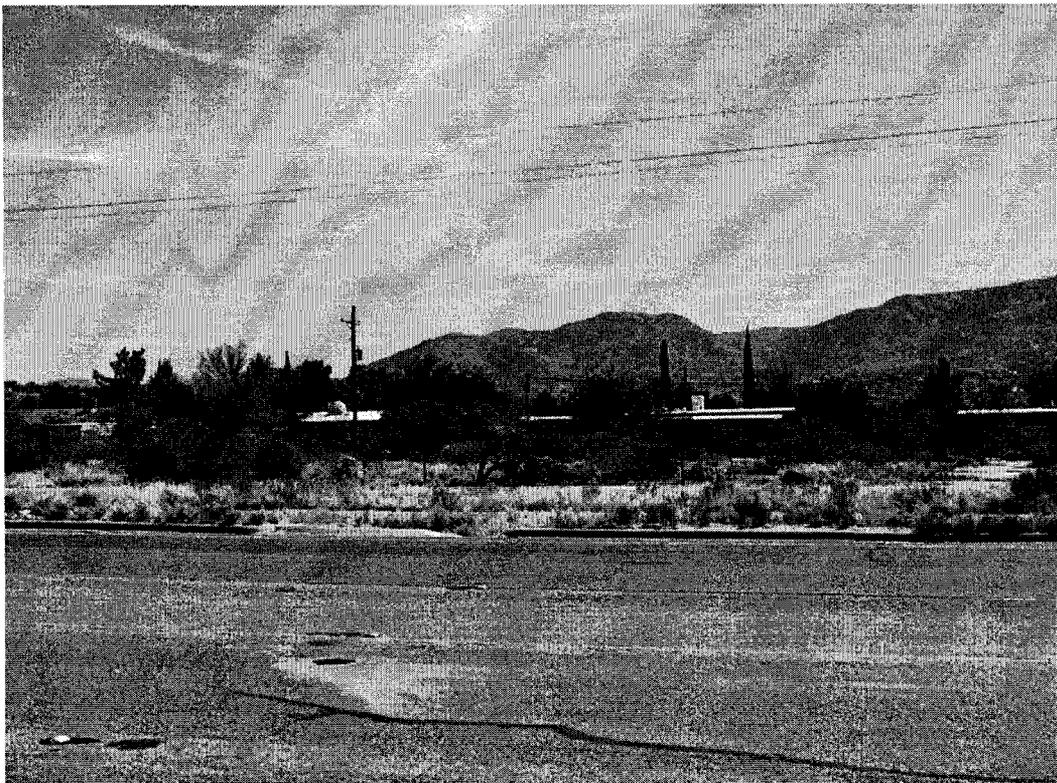
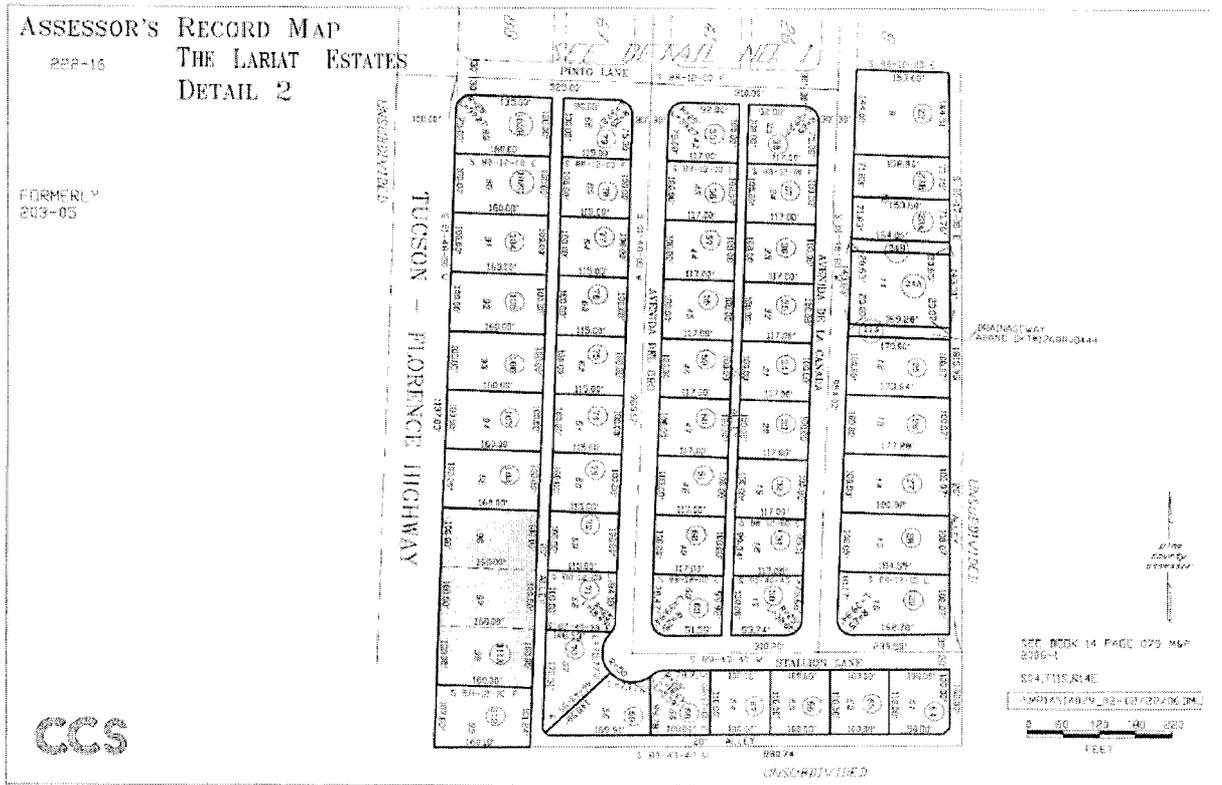
FLOOD MAP



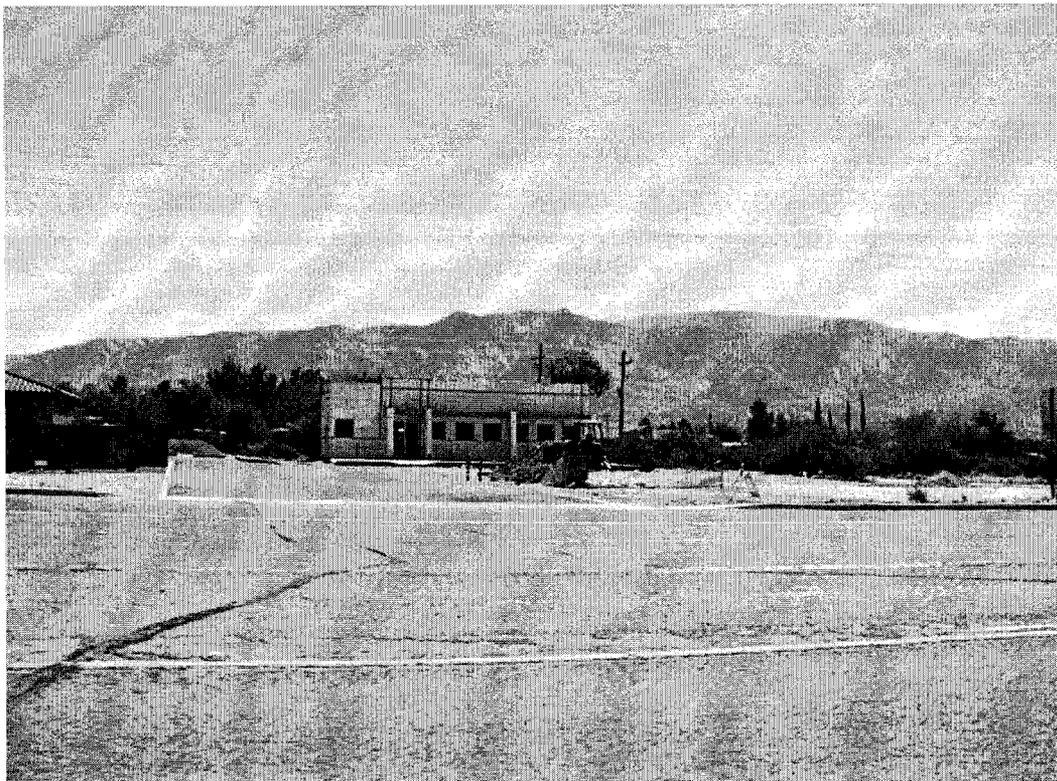
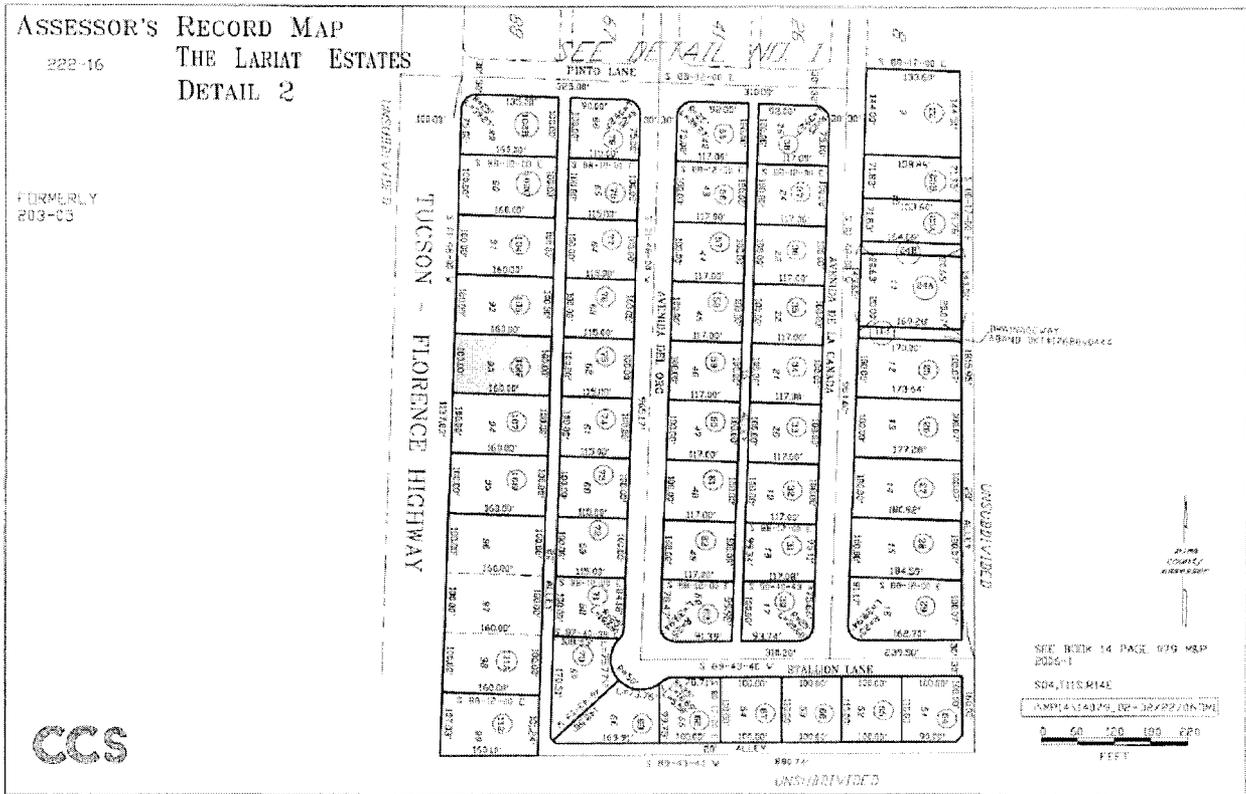
ZONING MAP



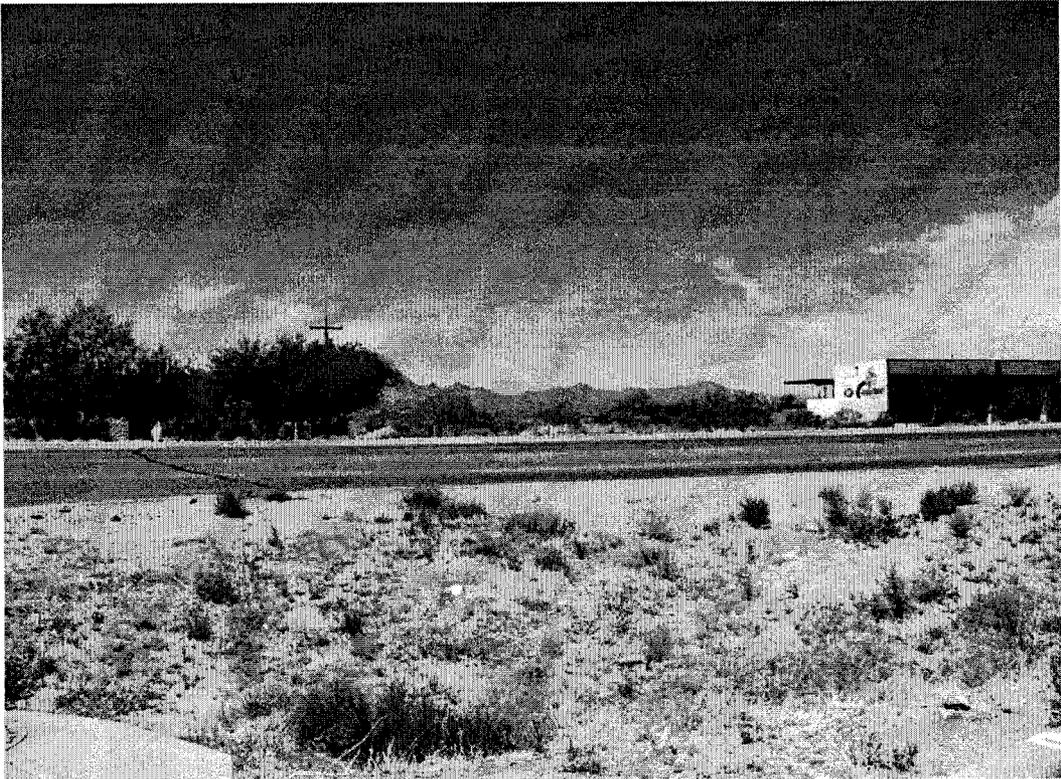
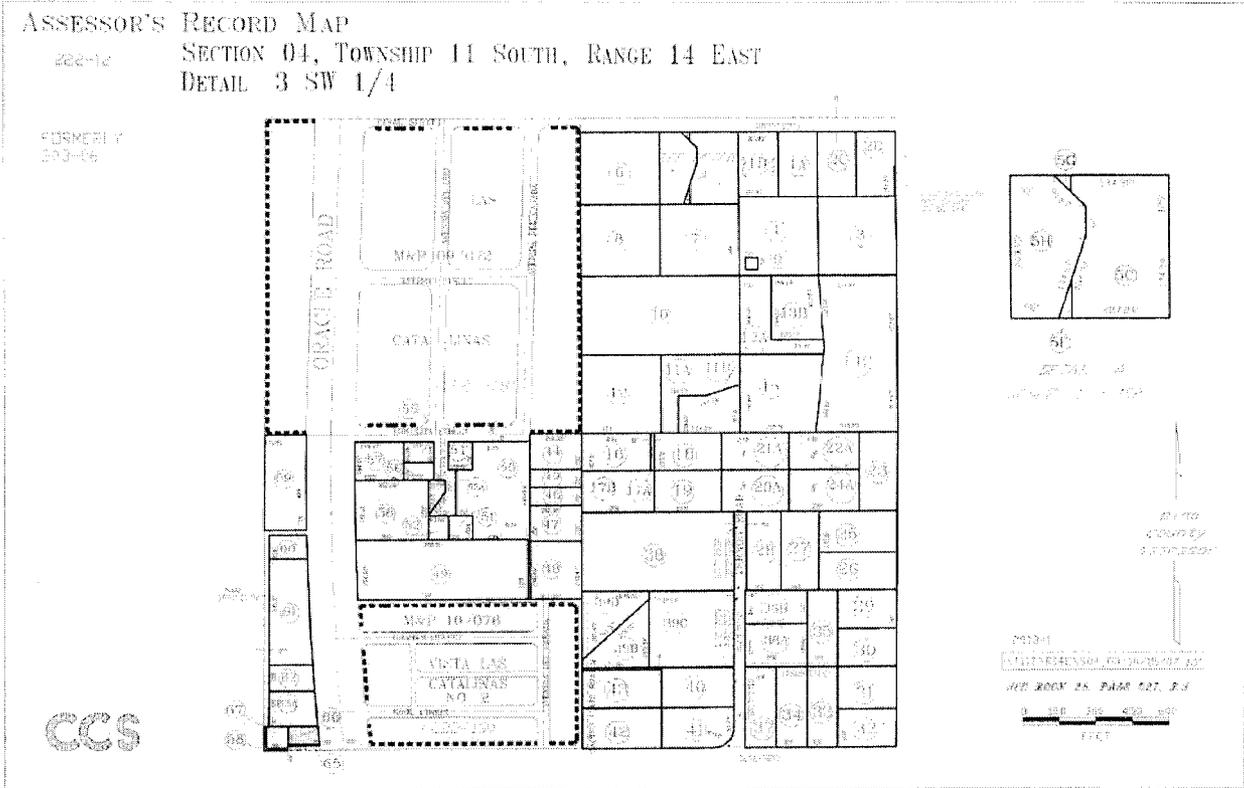
COMPARABLE SALE MAPS/PHOTOGRAPHS – WATER PLANT #1



COMPARABLE SALE ONE

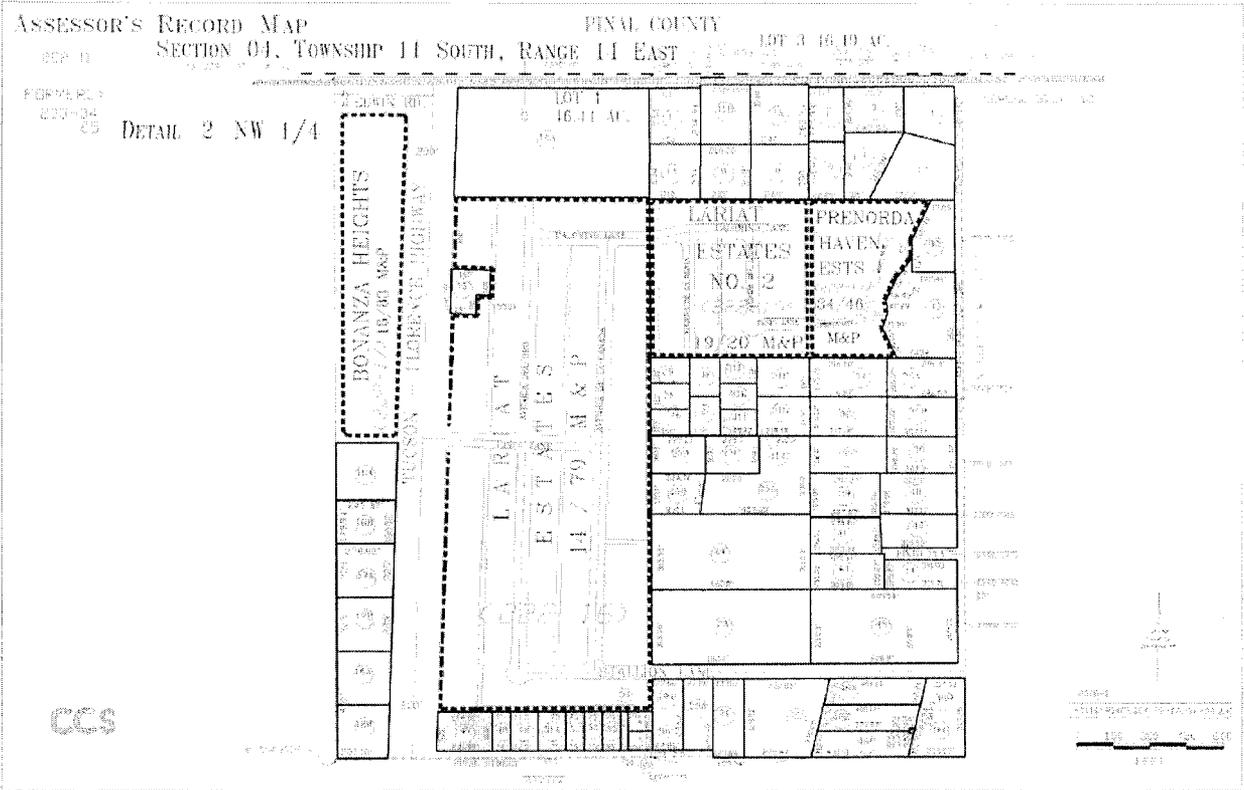


COMPARABLE SALE THREE

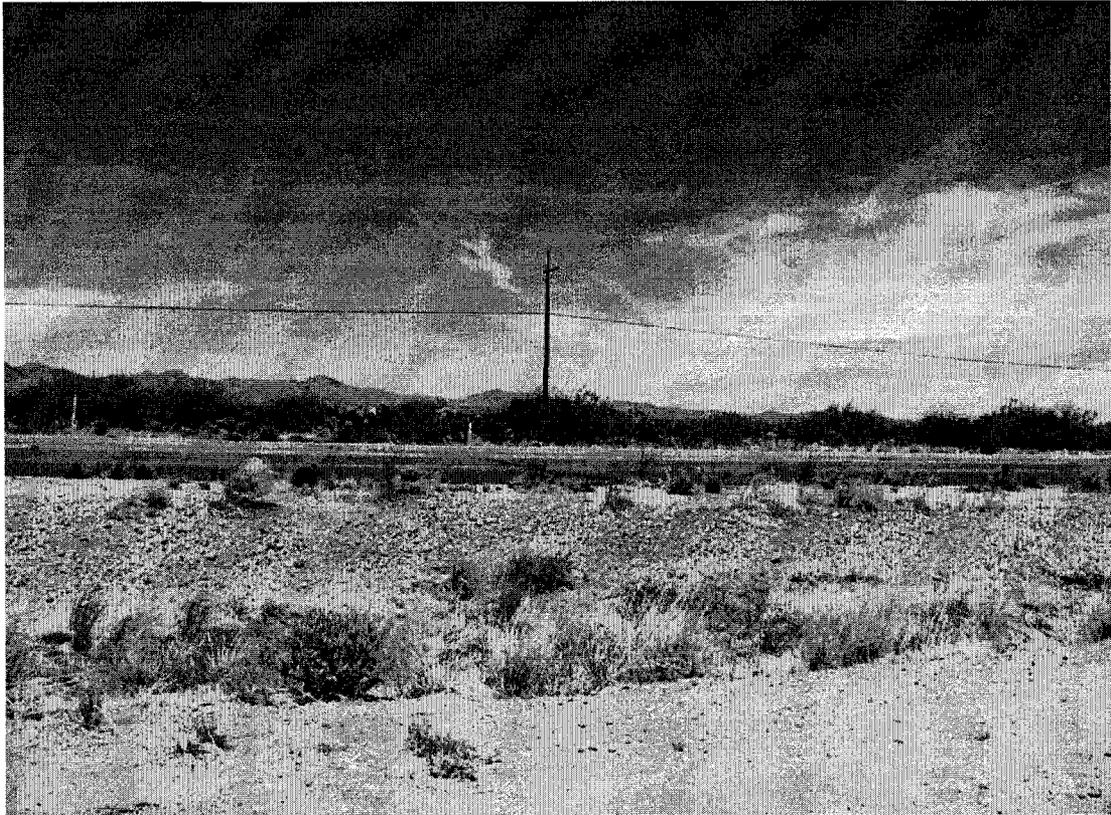
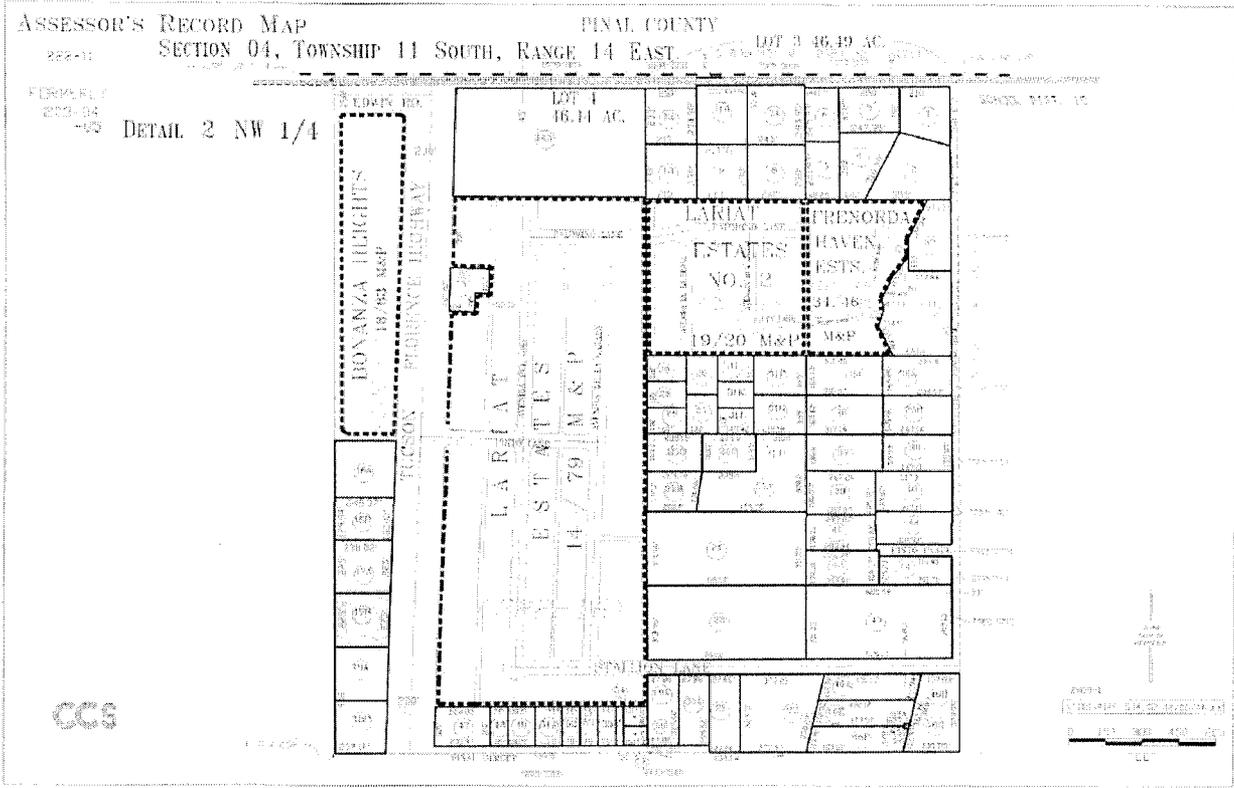


COMPARABLE SALE FOUR

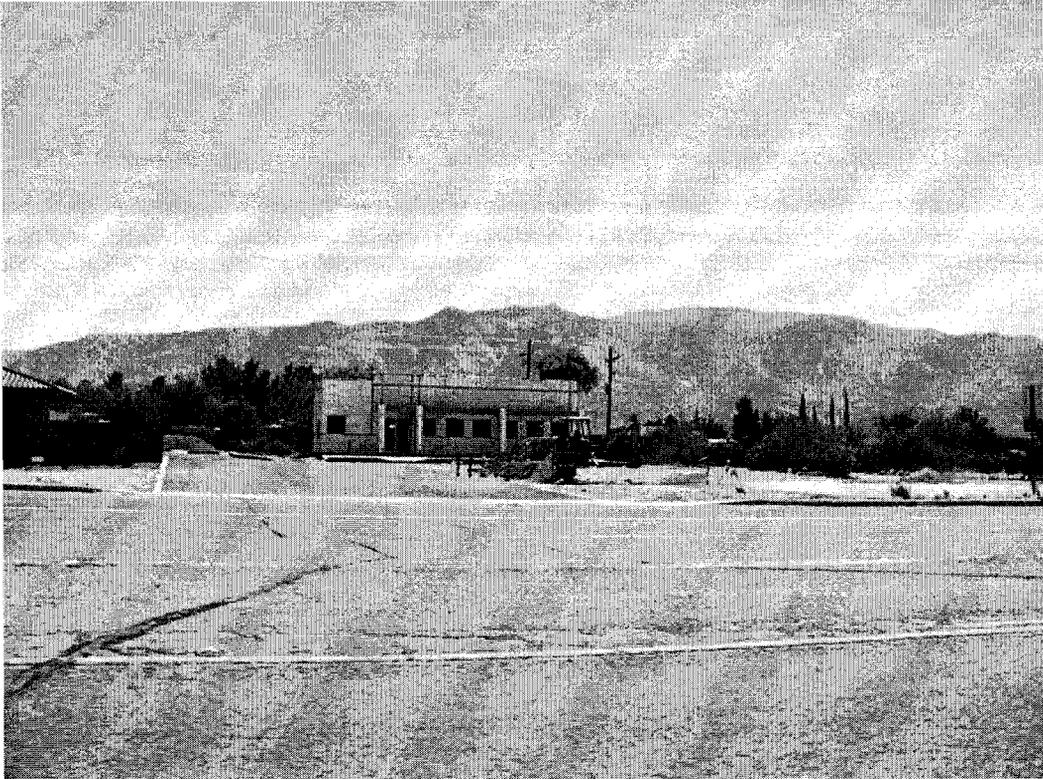
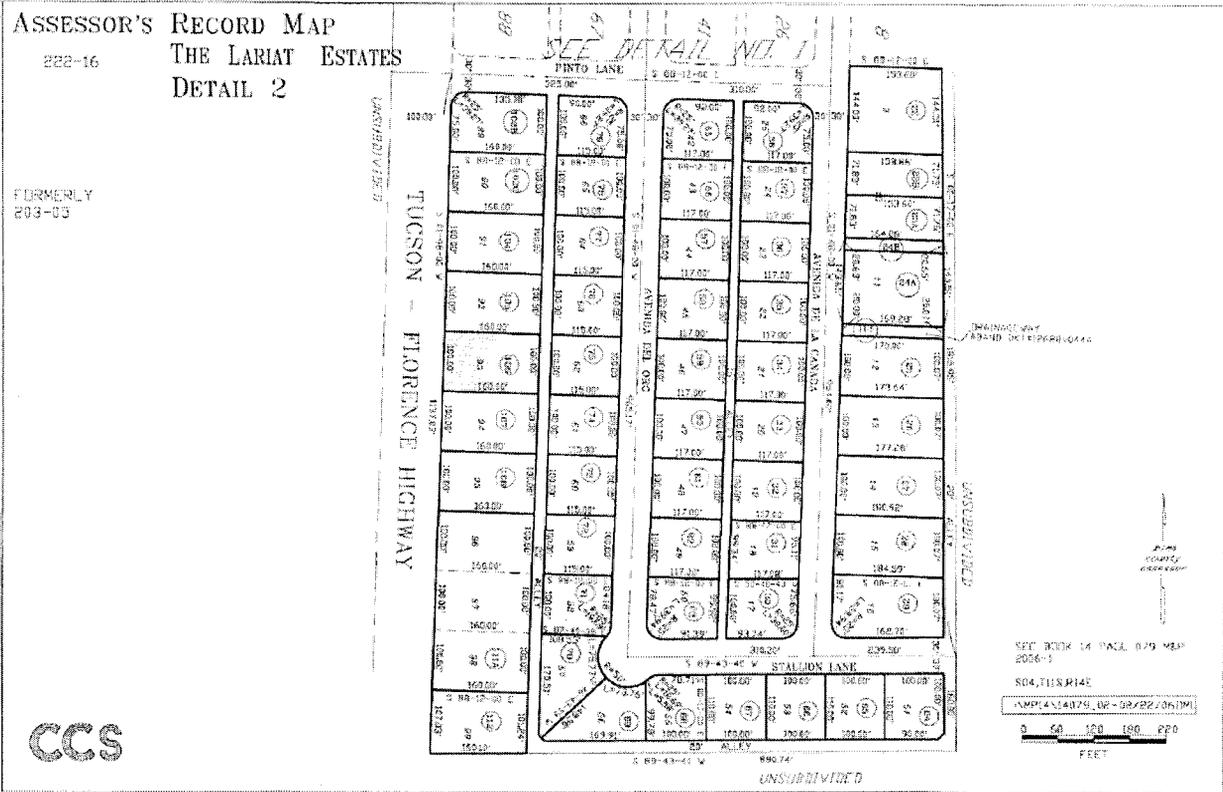
COMPARABLE SALE MAPS/PHOTOGRAPHS – WATER PLANT #2



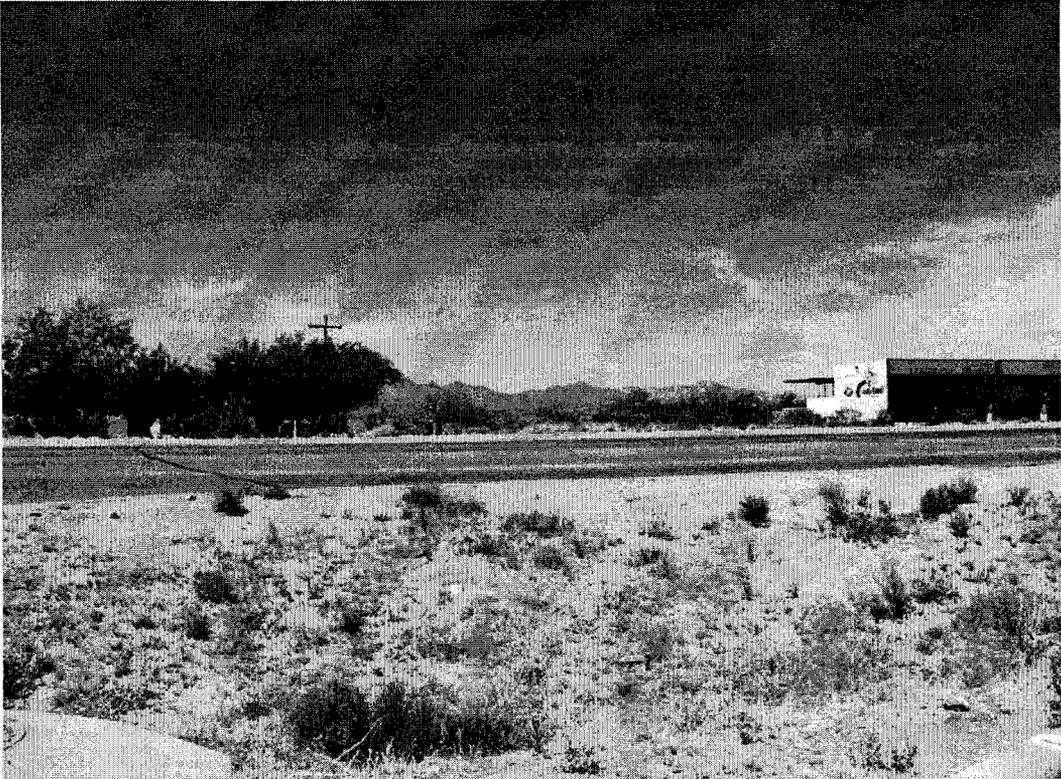
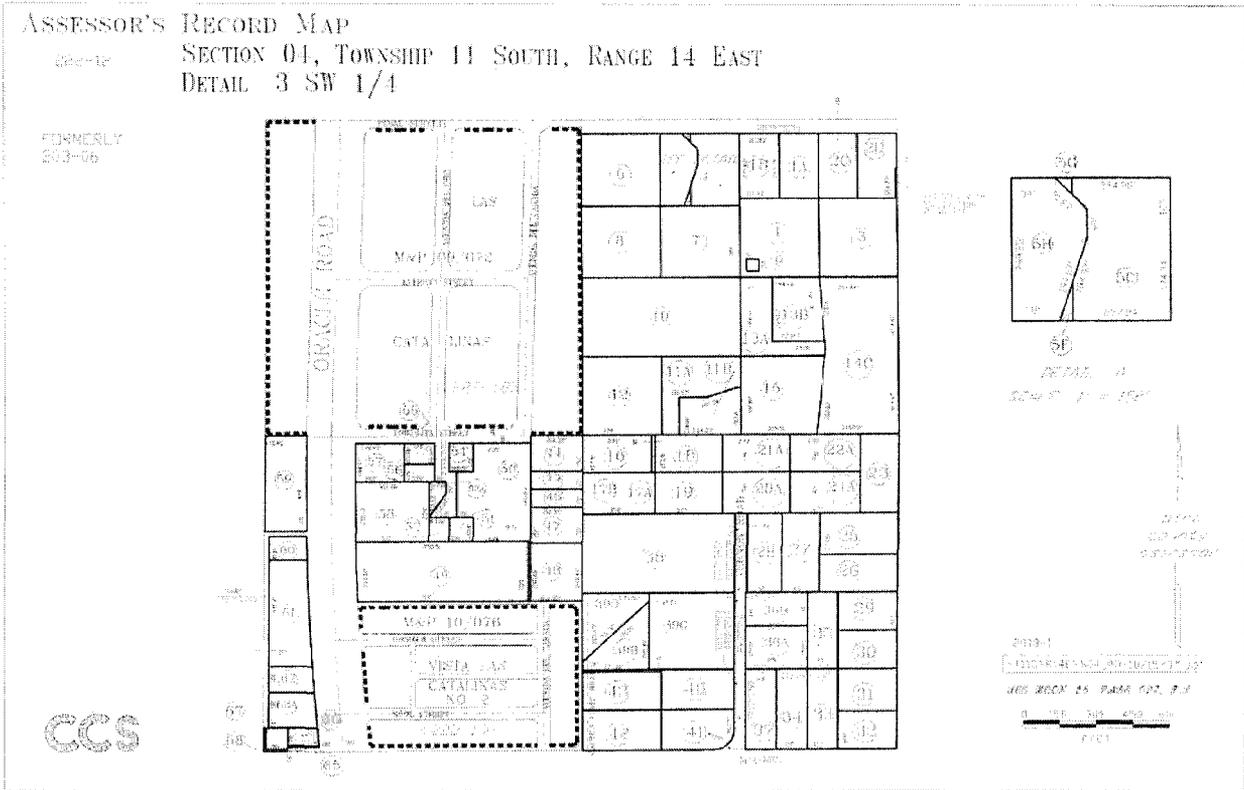
COMPARABLE SALE ONE



COMPARABLE SALE TWO

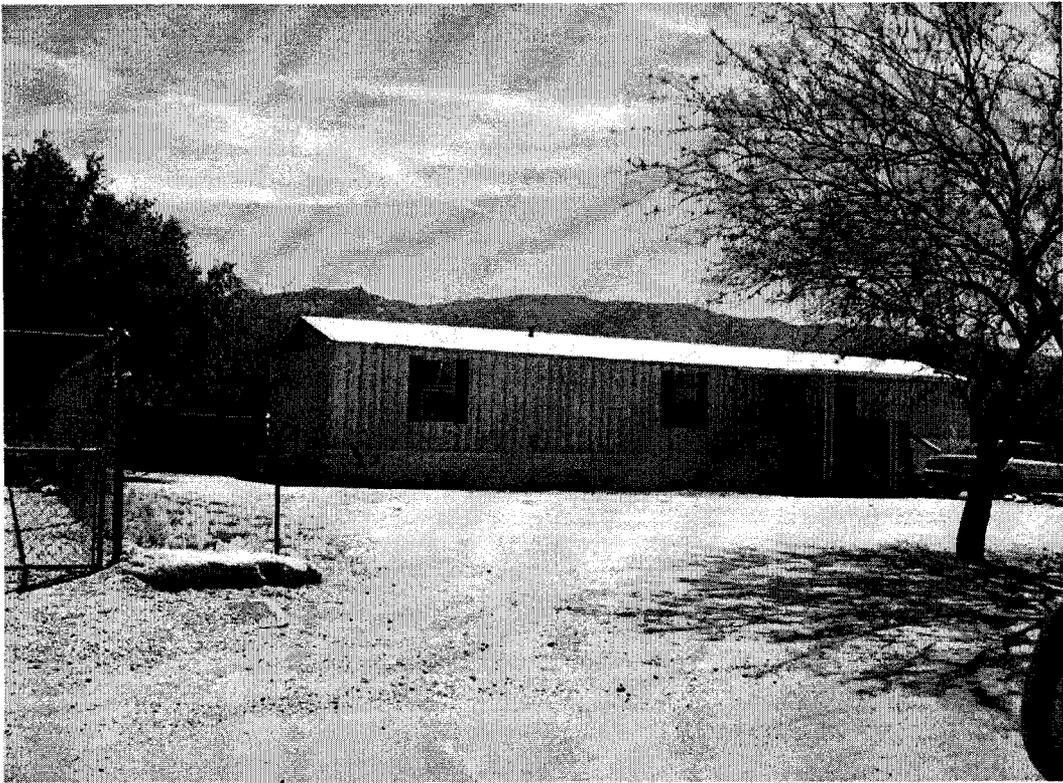
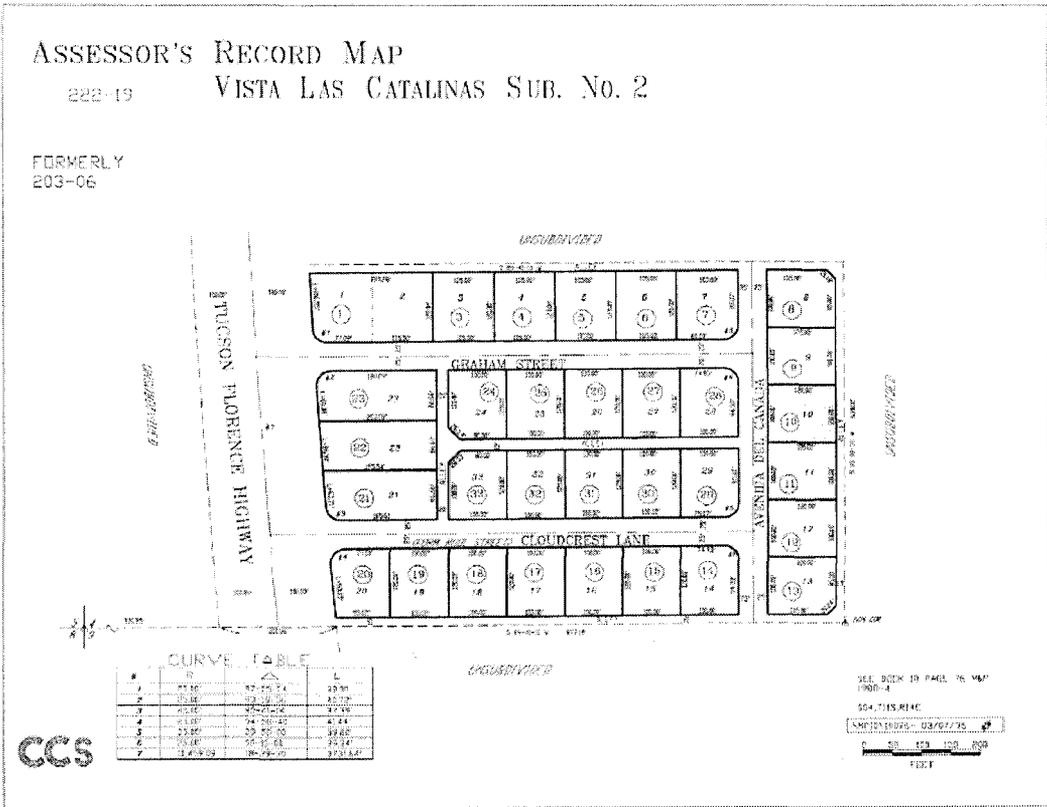


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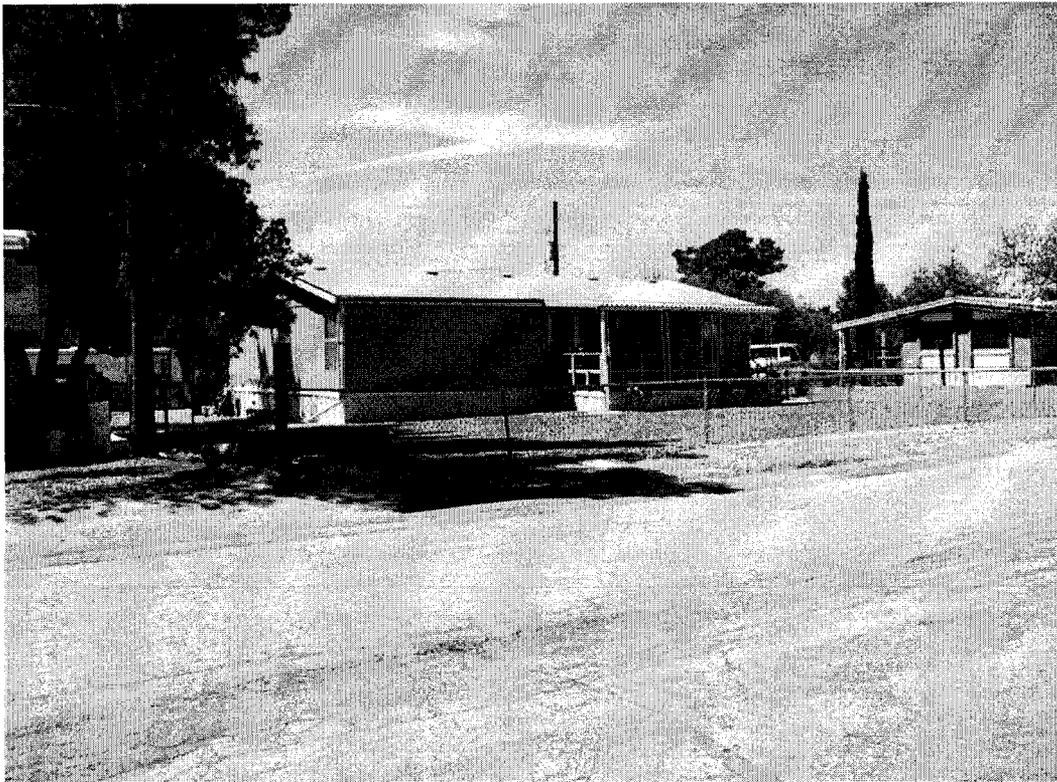
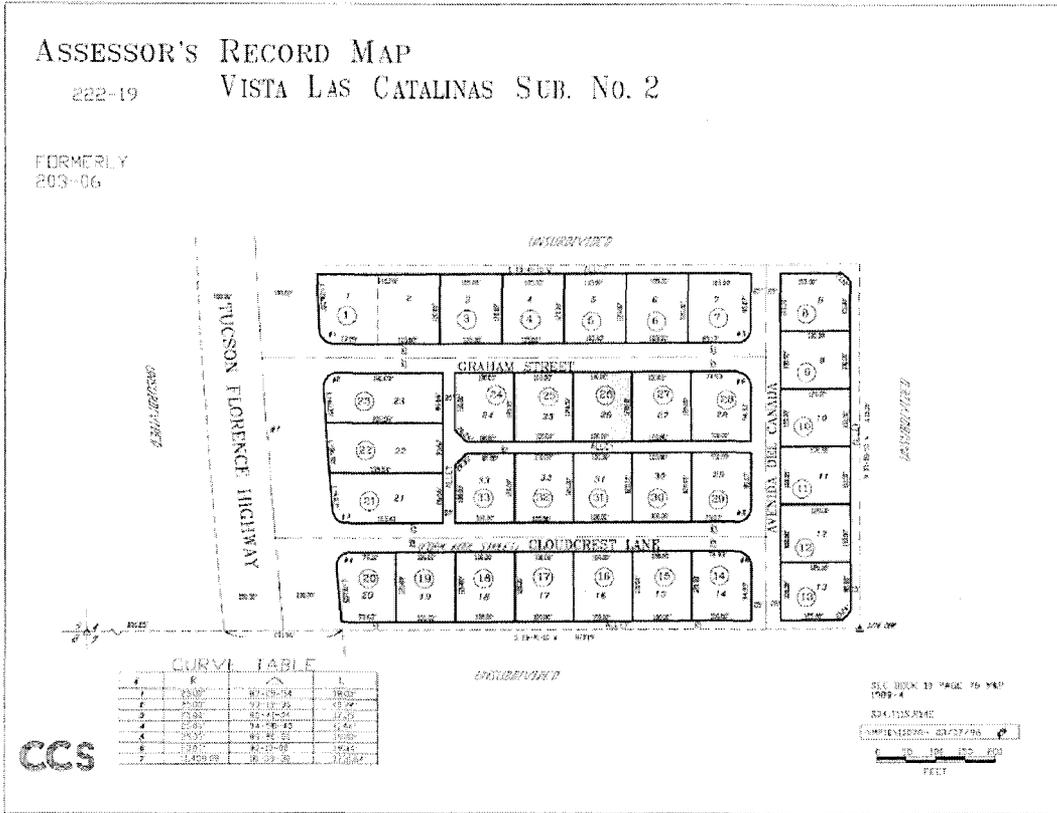


COMPARABLE SALE FIVE

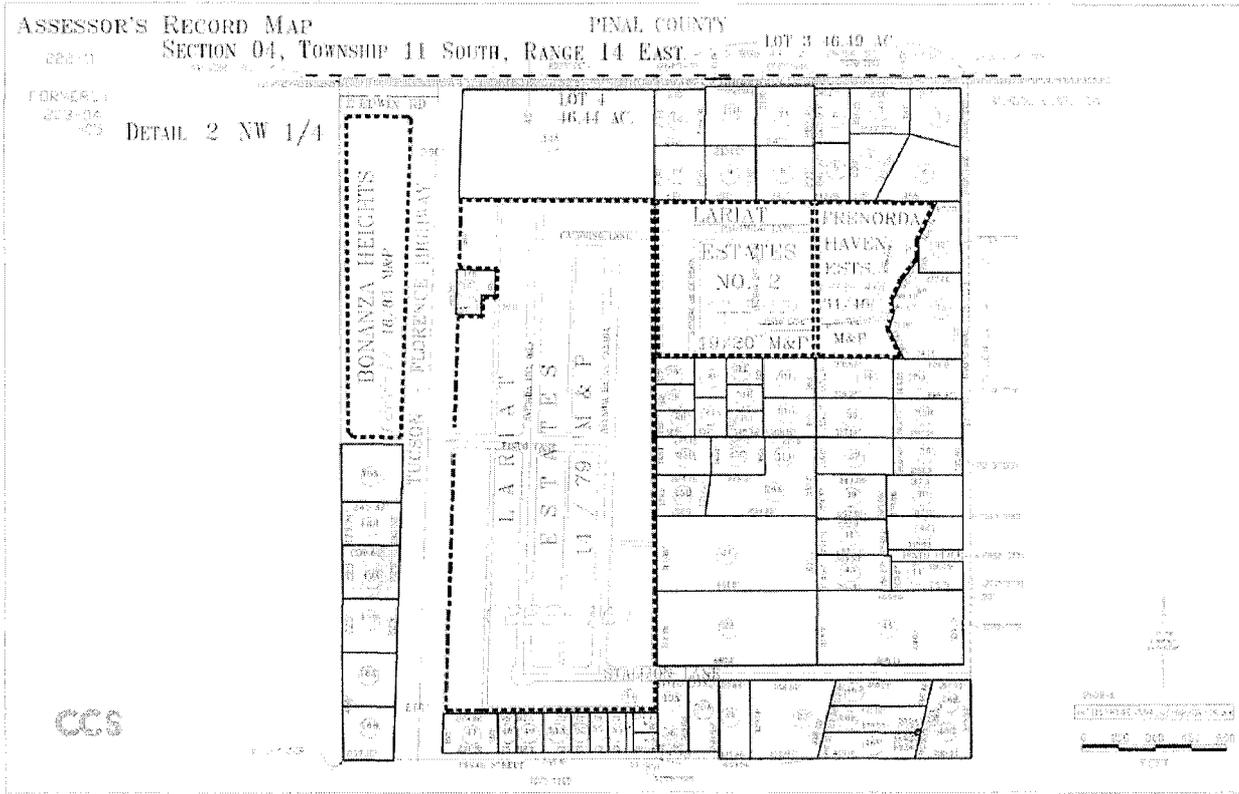
COMPARABLE SALE MAPS/PHOTOGRAPHS – WATER PLANT #3



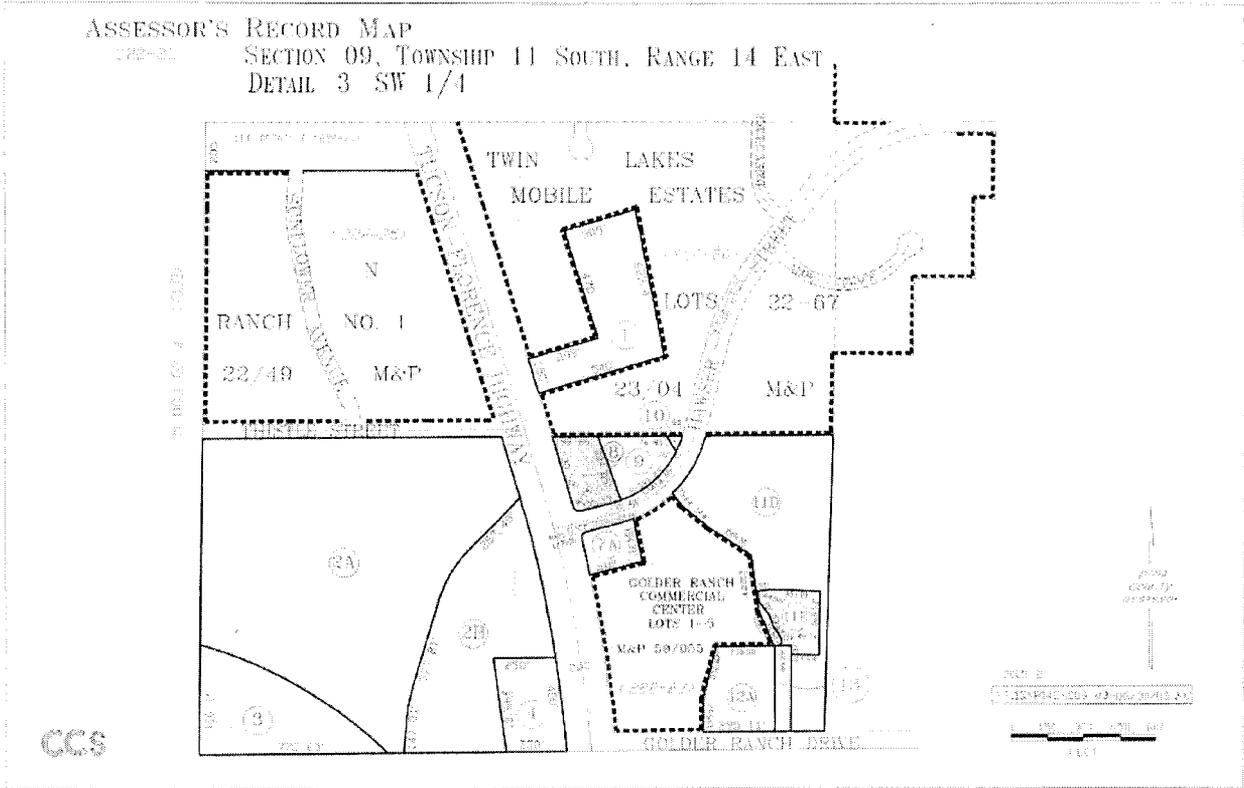
COMPARABLE SALE ONE



COMPARABLE SALE THREE

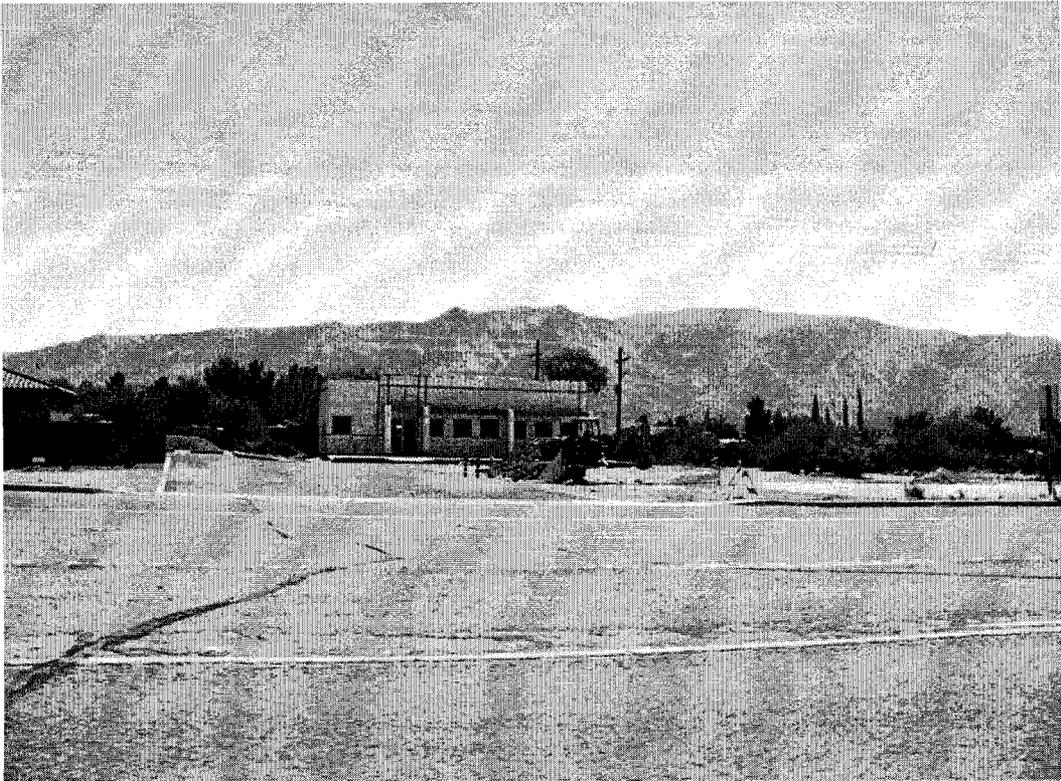
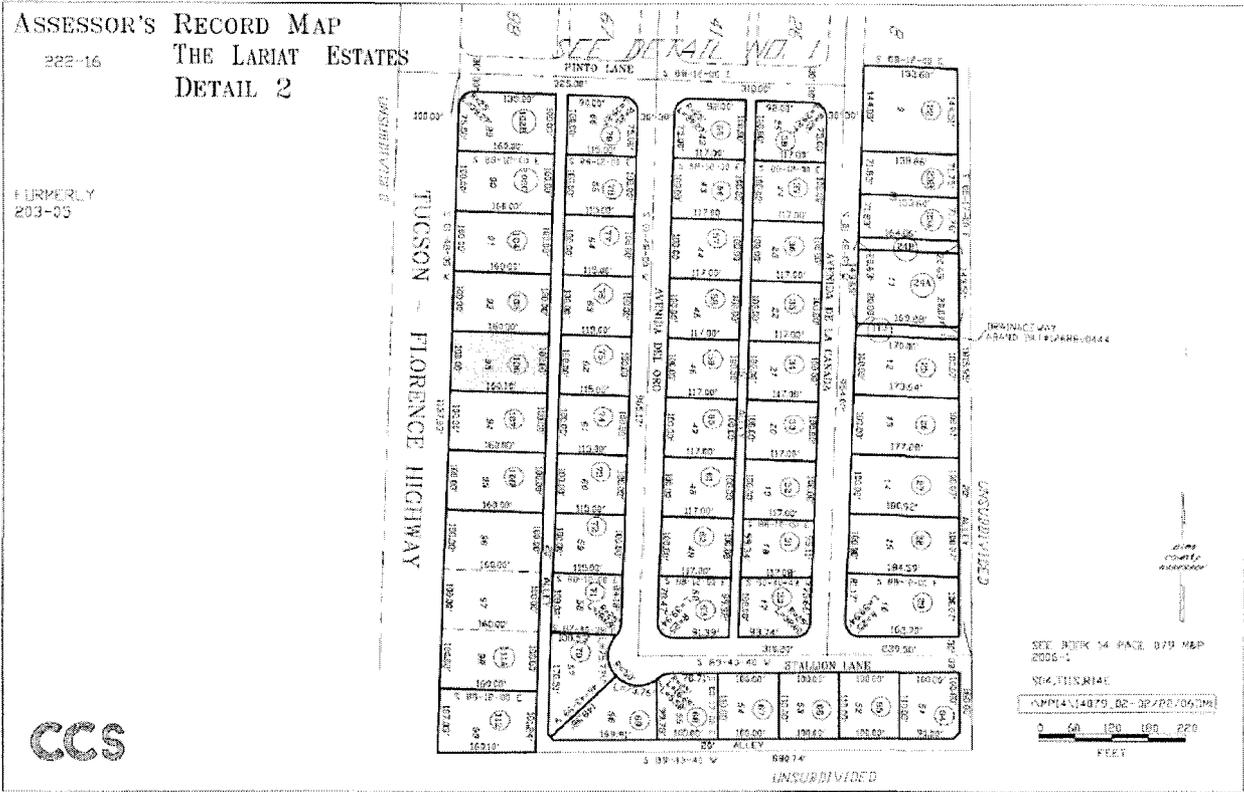


COMPARABLE SALE FOUR

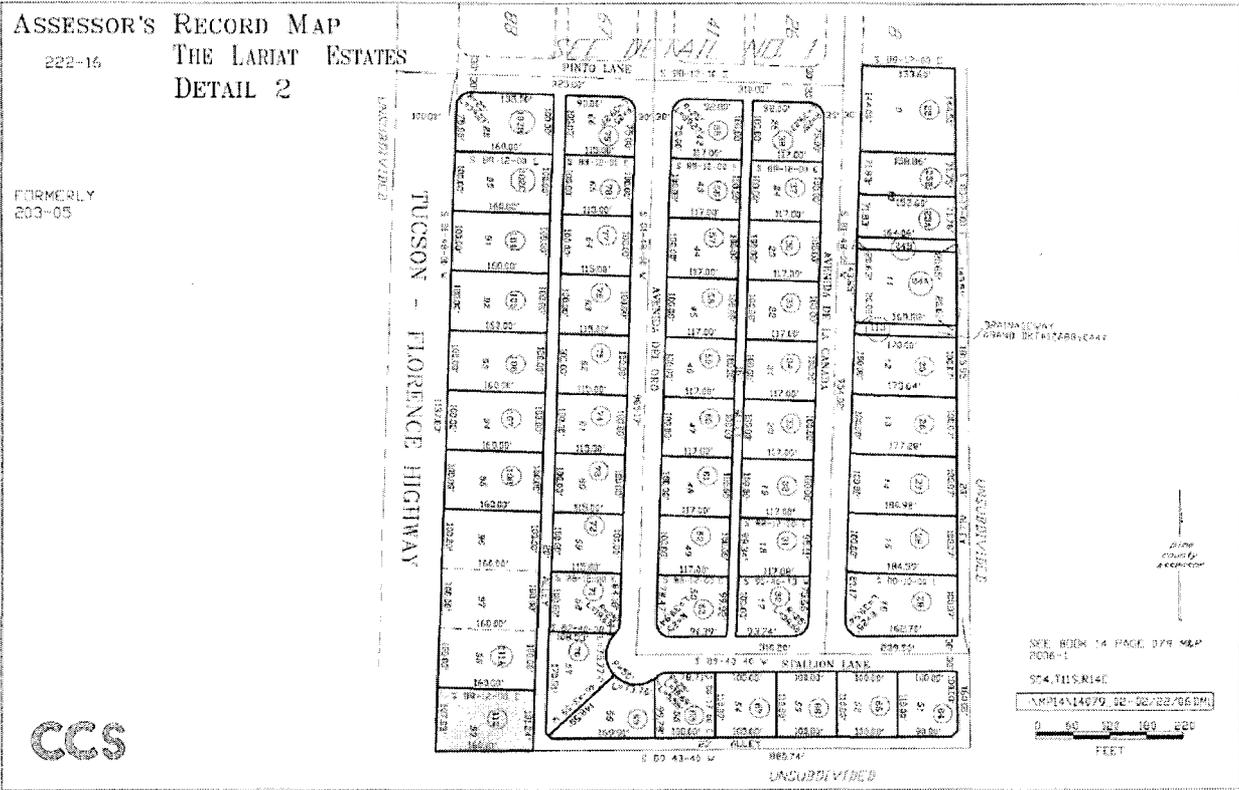


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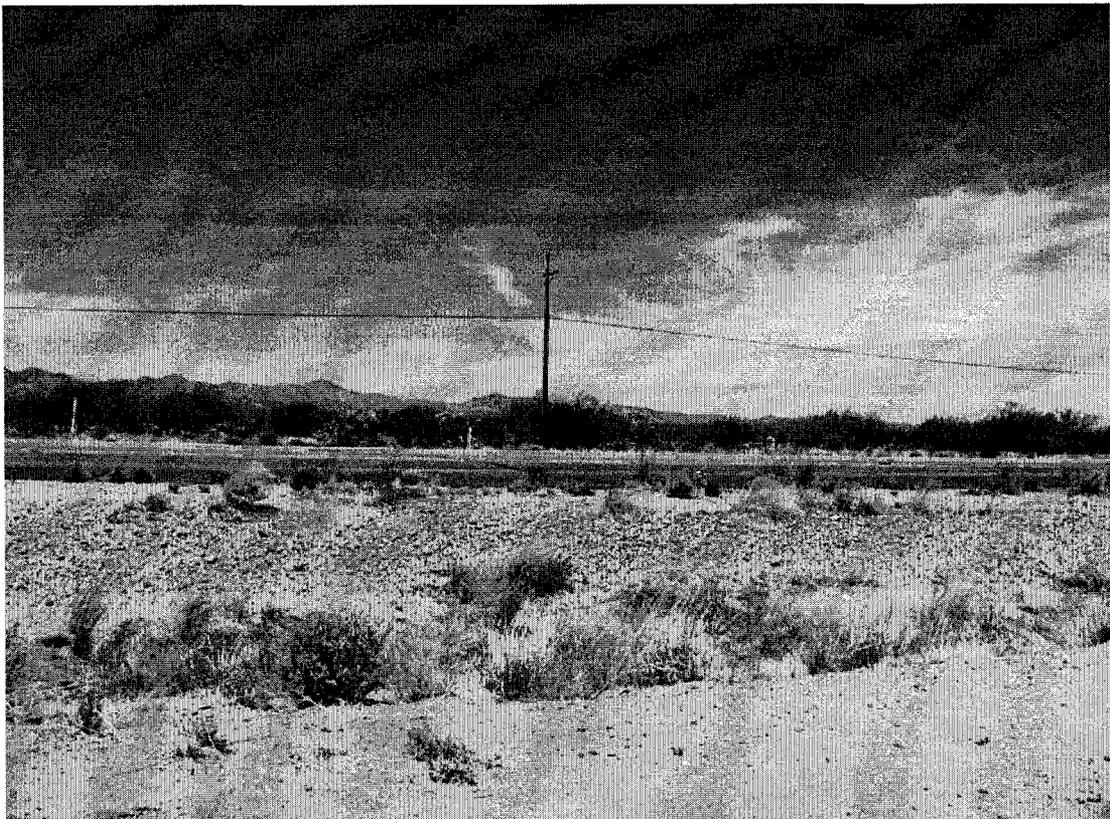
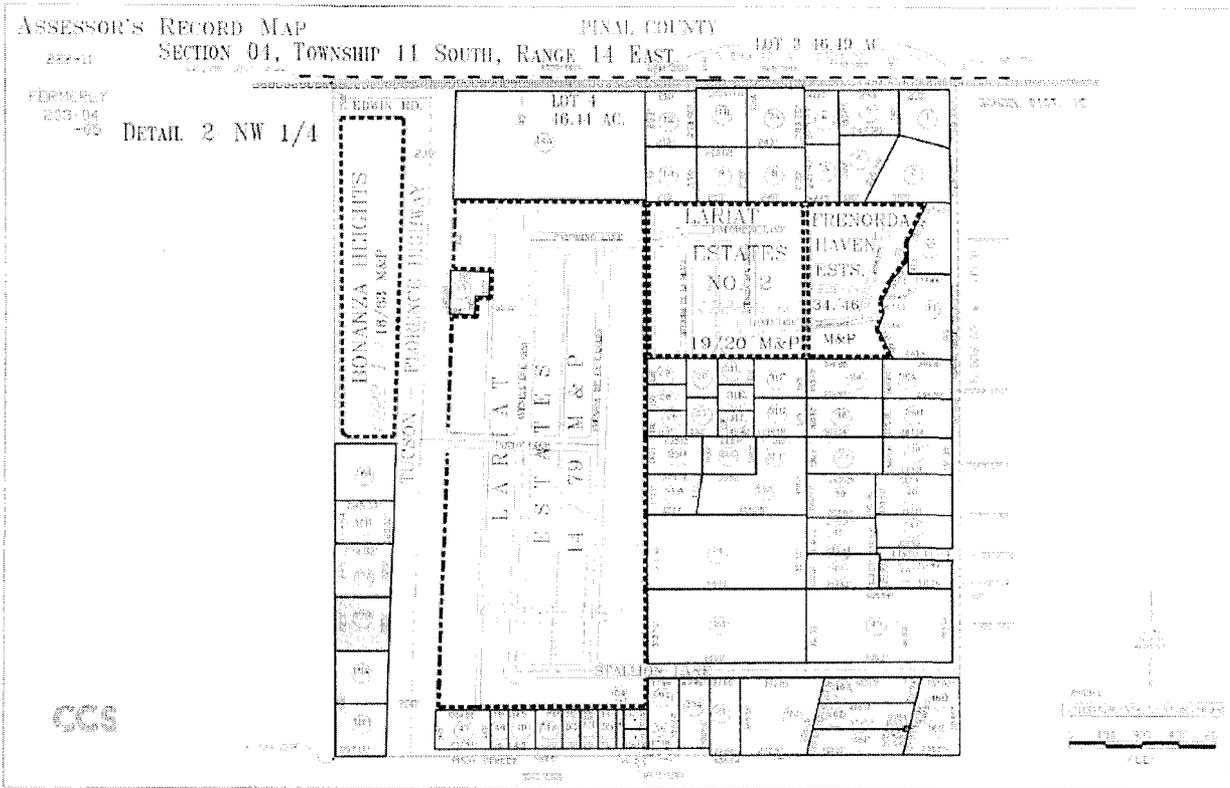
COMPARABLE SALE MAPS/PHOTOGRAPHS - WATER PLANT #4



COMPARABLE SALE ONE



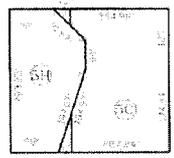
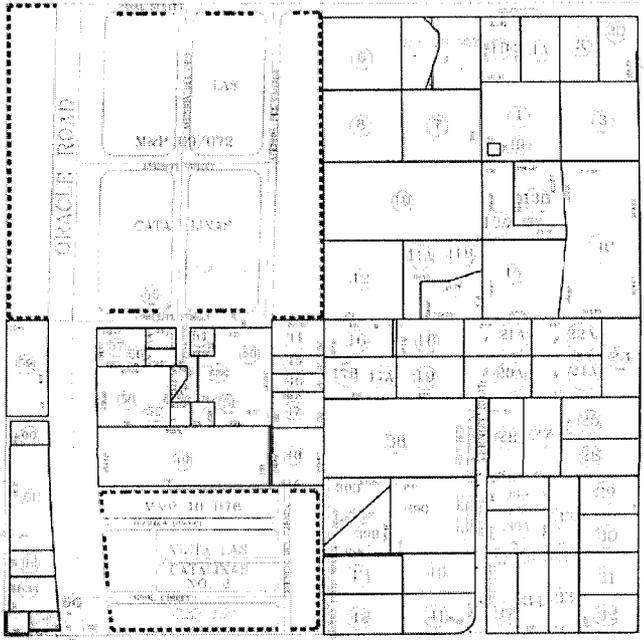
COMPARABLE SALE TWO



COMPARABLE SALE THREE

ASSESSOR'S RECORD MAP
SECTION 04, TOWNSHIP 11 SOUTH, RANGE 14 EAST
DETAIL 3 SW 1/4

REVISION 1
2/2/19



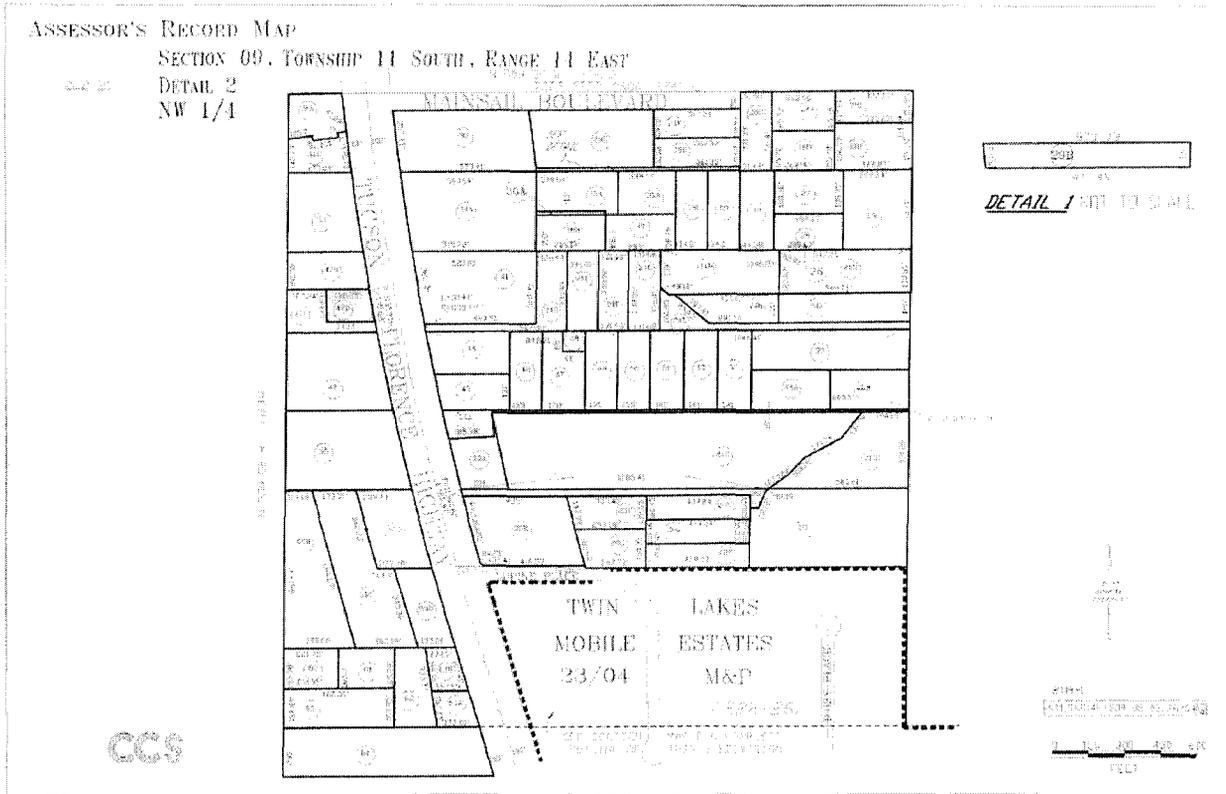
DETAIL 3
2/2/19

CCS

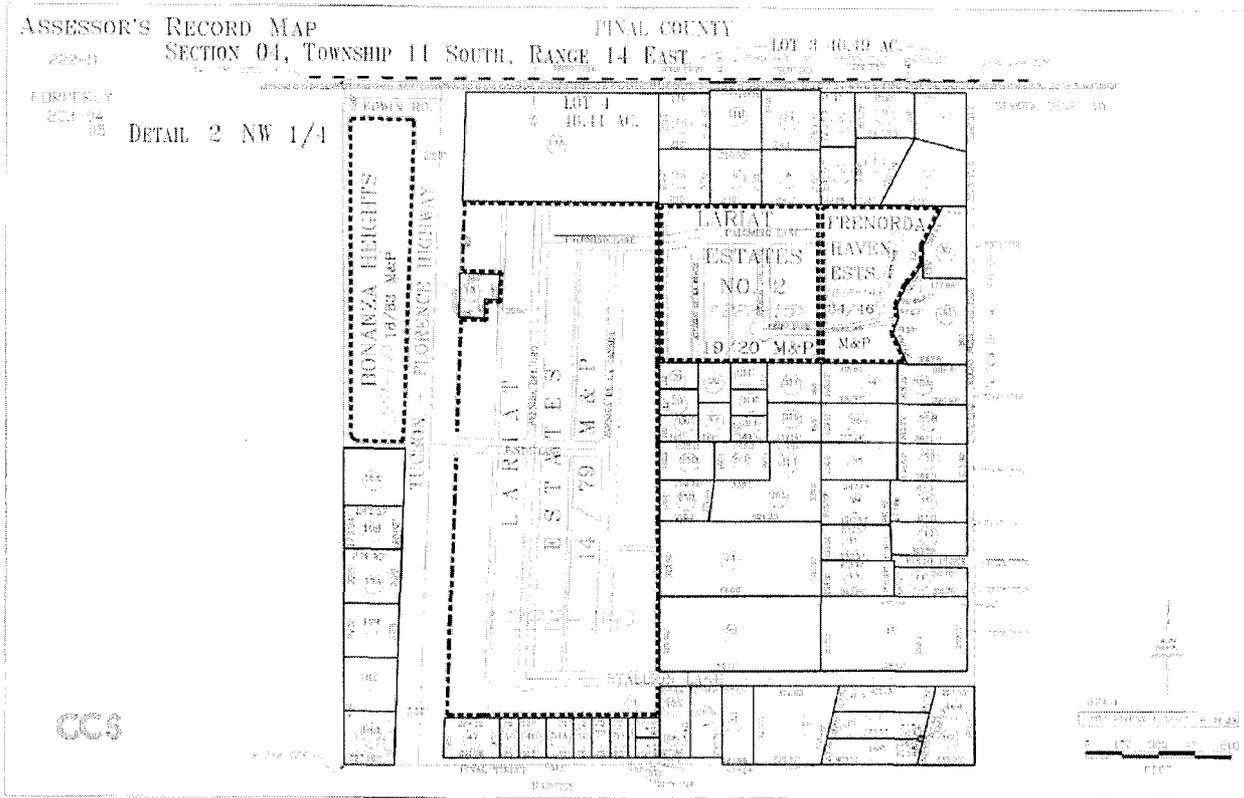
SCALE
1" = 100' (APPROXIMATE)
SEE BOOK IN PAGE 102, 103



COMPARABLE SALE FOUR



COMPARABLE SALE FIVE



COMPARABLE SALE SIX

Chapter 2.70
CR-3 SINGLE RESIDENCE ZONE

Sections:

- 2.70.010 Uses permitted.
- 2.70.020 Site development standards.
- 2.70.030 Detached accessory buildings.

2.70.010 Uses permitted.

- A. One-family dwelling, conventional construction.
- B. Public park, public or parochial school.
- C. Church, provided the minimum off-street parking requirements, as set forth in PCDSC 2.140.020(E), are met.
- D. A travel trailer or recreational vehicle (RV) for not more than 90 days during construction of a residence on the same premises, which period may be extended for an additional period of 90 days upon application to the zoning inspector.
- E. Horticulture, flower and vegetable gardening, nursery or greenhouse used only for propagation and culture and not for retail sales.
- F. Home occupation.
- G. Accessory building or use. [Ord. 61862 § 1101].

2.70.020 Site development standards.

- A. Building height: maximum height of any structure shall be 30 feet.
- B. Minimum lot area: 7,000 square feet.
- C. Minimum lot width: 60 feet.
- D. Minimum area per dwelling unit: 7,000 square feet.
- E. Minimum front yard: 20 feet.
- F. Minimum side yards: eight feet each.
- G. Minimum rear yard: 25 feet to the rear lot line.
- H. Minimum distance between main buildings: 16 feet, except as required in PCDSC 2.150.140 for a rear dwelling.
- I. Buildable area: not to exceed 40 percent of the lot, including all structures, except swimming pools. [Ord. 61862 §§ 1102 – 1110].

2.70.030 Detached accessory buildings.

- A. Permitted coverage: one-third of the total area of the rear and side yards.

- B. Maximum height: 20 feet.
- C. Minimum distance to main building: seven feet.
- D. Minimum distance to front lot line: 60 feet.
- E. Minimum distance to side and rear lot lines: four feet.
- F. Accessory buildings shall be detached from the main building except that they may be attached by means of an unenclosed structure that has only one wall not over six feet high which shall be placed on only one side of the structure. [Ord. 61862 § 1111].

This page of the Pinal County Development Services Code is current through Ordinance 022311-PZ-C-008-10, passed February 23, 2011.

Disclaimer: The Clerk of the Board's Office has the official version of the Pinal County Development Services Code. Users should contact the Clerk of the Board's Office for ordinances passed subsequent to the ordinance cited above.

County Website: <http://pinalcountyz.gov/>
(<http://pinalcountyz.gov/>)
County Telephone: (800) 208-6897
Code Publishing Company
(<http://www.codepublishing.com/>)

Chapter 2.105
CI-1 LIGHT INDUSTRY AND WAREHOUSE ZONE

Sections:

- 2.105.010 Uses permitted.
- 2.105.020 Site development standards.
- 2.105.030 Industrial buffer required.
- 2.105.040 Detached accessory buildings.

2.105.010 Uses permitted.

- A. Any use permitted in PCDSC 2.90.010(B) (CB-1 local business zone) and in PCDSC 2.95.010(B) and (C) (CB-2 general business zone).
- B. One-family dwelling unit, conventional construction, or manufactured home or mobile home as watchman or caretaker's quarters in conjunction with an established, permitted use.
- C. Any of the following if conducted wholly within a completely enclosed building:
1. Manufacture, compounding, processing, packaging or treatment of: bakery goods, candy, cosmetics, dairy products, drugs and pharmaceutical products, soap (cold process only), and food products, except fish or meat products, sauerkraut, vinegar, yeast, and the rendering or refining of fats and oils.
 2. Manufacture, compounding, assembling or treatment of articles or merchandise from the following previously prepared materials: bone, broom corn, cellophane, canvas, cloth, cork, feathers, felt, fiber, fur, glass, hair or bristles, horn, leather, paper, plastics or plastic products, precious or semi-precious metals or stones, shell textiles, tobacco, wax (paraffin, tallow, etc.), wood (excluding sawmill or planing mill), yarns, paint (not employing a boiling process).
 3. Manufacture of: glass, pottery or other similar ceramic products (using only previously prepared sand or pulverized clay and kilns fired only by electricity or gas), musical instruments, toys, novelties, rubber or metal stamps.
 4. Manufacture and maintenance of: electric and neon signs, billboards, commercial advertising structures and displays, light sheet metal products, including heating or cooling and ventilating ducts and equipment, cornices, eaves and the like.
 5. Automobile or trailer assembling, painting, upholstering, rebuilding, reconditioning, sale of used parts, truck repair or overhauling, tire rebuilding or recapping, battery manufacture and the like.
 6. Blacksmith and welding shop or machine shop (excluding punch presses over 20 tons rated capacity, and drop hammer), foundry casting, electroplating and electro-winding lightweight nonferrous metals not causing noxious fumes or odors.

7. Laundry, cleaning or dyeing works, carpet and rug cleaning.
8. Distribution plant, ice and cold storage plant, beverage bottling plant.
9. Wholesale business, storage building or warehouse.
10. Assembly of electrical appliances: radios and phonographs, including the manufacture of small parts only, such as coils, condensers, transformers, crystal holders and the like.
11. Laboratory: experimental, photo or motion picture film or testing.
12. Veterinary or cat or dog hospital or kennels.
13. Poultry or rabbit killing incidental to a retail business on the same premises.

D. Any of the following if conducted wholly within a completely enclosed building or within an area enclosed on all sides with a solid wall, compact evergreen hedge or uniformly painted board fence, not less than six feet in height.

1. Building material sales yard, contractor's equipment sales yard (only) or rental of equipment commonly used by contractors.
2. Retail lumber yard, including only incidental mill work, feed yard.
3. Draying, freighting or truck yard or terminal.
4. Motion picture studio.
5. Automobile or automotive body and fender shop.
6. Public utility service yard.

E. Accessory building or use when located on the same building site.

F. Airport, airstrip or landing field, subject to the conditions set forth in PCDSC 2.20.010(J).

G. 1. Gasoline or flammables bulk station, provided said products, gasoline, or petroleum shall not be stored in tanks of more than 10,000 gallons capacity each, located not less than 25 feet from building or lot line and no closer than 100 feet to a residential zone.

2. Liquefied petroleum gases (LPG) bulk station shall be designed, constructed and maintained in compliance with provisions of National Fire Protection Association NFPA Standards No. 58. [Ord. 61862 § 1701].

2.105.020 Site development standards.

A. Building height: maximum height of any structure shall be 35 feet.

B. Minimum lot area: none.

- C. Minimum lot width: none.
- D. Minimum lot area per dwelling unit: none.
- E. Minimum front yard: 15 feet, except as provided in PCDSC 2.105.030.
- F. Minimum side yards: none, except as provided in PCDSC 2.105.030.
- G. Minimum rear yard: 10 feet, except as provided in PCDSC 2.105.030. [Ord. 61862 §§ 1702 – 1708].

2.105.030 Industrial buffer required.

Where industry adjoins, faces or confronts residential property or a major or secondary thoroughfare, such industrial use shall provide a yard of not less than 10 percent of the lot depth or width on the side or sides abutting, facing or confronting said uses, but such yard need not exceed 50 feet unless a greater depth or width is required by the general setback provisions of this title, or general or special setback provisions of any existing setback ordinance. Such yard shall be improved with one or more of the following:

- A. Landscaping.
- B. Parking lot, wherein a minimum width of 10 feet along the lot line(s) closest to the residential property or major or secondary thoroughfare, shall be landscaped; and a decorative screening device of opaque fencing, walls, landscaped earth berms or any combination thereof, shall be installed between the landscaped area and the parking lot, to a minimum height of three feet.
- C. Recreational space for employees, wherein a minimum width of 10 feet along the lot line(s) closest to the residential property or major or secondary thoroughfare, shall be landscaped. [Ord. 61862 § 1709].

2.105.040 Detached accessory buildings.

- A. Permitted coverage: 40 percent of the required rear yard and any additional space within the buildable area.
 - B. Maximum building height: 20 feet within the required rear yard; 35 feet within the buildable area.
 - C. Minimum distance to main building: seven feet.
 - D. Minimum distance to front lot line: 15 feet, except as provided in PCDSC 2.105.030.
 - E. Minimum distance to side lot lines: none, except as provided in PCDSC 2.105.030.
 - F. Minimum distance to rear lot line: four feet, except as provided in PCDSC 2.105.030. [Ord. 61862 § 1710].
-

This page of the Pinal County Development Services Code is current through Ordinance 022311-PZ-C-008-10, passed February 23, 2011.

Disclaimer: The Clerk of the Board's Office has the official version of the Pinal County Development Services Code. Users should contact the Clerk of the Board's Office for ordinances passed subsequent to the ordinance cited above.

County Website: <http://pinalcountyz.gov/>
(<http://pinalcountyz.gov/>)
County Telephone: (800) 208-6897
Code Publishing Company
(<http://www.codepublishing.com/>)

LIMITING CONDITIONS AND ASSUMPTIONS

1. **LIMIT OF LIABILITY:**

The liability of Burdick & Ferenchak, Inc., and its employees and independent contractors, is limited to the client who ordered the appraisal assignment. There is no accountability, obligation, or liability to any third party.

This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraisers are not responsible for unauthorized use of this report.

2. **COPIES, PUBLICATION, DISTRIBUTION, USE OF REPORT:**

Possession of this report or any copy thereof does not carry with it the right of publication, nor may it be used for other than its intended use; the physical report(s) remain the property of the appraiser for the use of the client, the fee being for the analytical services only. The report may not be used for any purpose by any person or corporation other than the client or the party to whom it is addressed or copied without the written consent of an officer of the appraisal firm, and then only in its entirety.

Neither all nor any part of the contents of this report shall be conveyed to the public through advertising, public relations efforts, news, sales, prospectus, brochure, or other media, without the written consent and approval of John Burdick, MAI, or John Ferenchak, nor may any reference be made in such a public communication to the Appraisal Institute or the SRA or MAI designations.

Appraisal reports prepared by Burdick & Ferenchak, Inc. are intended for mortgage loan purposes and for estimation of fair market values, and are not permitted to be used for real estate syndication purposes. Acceptance and use of value estimates and appraisal reports prepared by Burdick & Ferenchak, Inc. constitutes acceptance of the preceding statement.

3. **CONFIDENTIALITY:**

The appraiser may not divulge the material (evaluation) contents of the report, analytical findings or conclusions, or give a copy of the report to anyone other than the client or his designee as specified in writing except as may be required by the Appraisal Institute as they may request in confidence for ethics enforcement, or by a court of law or body with the power of subpoena.

This appraisal is to be used only in its entirety and no part is to be used without the whole report. All conclusions and opinions concerning the analysis as set forth in the report were prepared by the Appraiser(s) whose signature(s) appears on the appraisal report, unless indicated as "Review Appraiser".

No change of any item in the report shall be made by anyone other than the Appraiser and/or officer of the firm. The Appraiser and firm shall have no responsibility if any such unauthorized change is made.

Possession of the appraisal report or a copy thereof does not carry with it the right of publication. The appraisal report is a privileged communication between the appraiser(s) and client, and may not be used for any other purpose without the written permission from the appraiser(s).

4. **TRADE SECRET:**

This appraisal was obtained from Burdick & Ferenchak, Inc., or related companies and/or its individuals or related independent contractors, and consists of "trade secrets and commercial or financial information" which is privileged and confidential and exempted from disclosure under 5 U.S.C. 552 (b) (4). Notify the appraiser(s) signing the report of any request to reproduce this appraisal in whole or part.

5. **INFORMATION USED:**

No responsibility is assumed for accuracy of information furnished by or from others, the client, his designee, or public records. We are not liable for such information or the work of possible subcontractors. The comparable data relied upon in this report has been confirmed with one or more parties familiar with the transaction or from affidavit; all are considered appropriate for inclusion to the best of our factual judgment and knowledge.

6. **TESTIMONY, CONSULTATION, COMPLETION OF CONTRACT FOR APPRAISAL SERVICES:**

The contract for appraisal, consultation or analytical service, are fulfilled and the total fee payable upon completion of the report. The appraiser(s) or those assisting in preparation of the report will not be asked or required to give testimony in court or hearing because of having made the appraisal, in full or in part, nor engage in post appraisal consultation with client or third parties except under separate and special arrangement and at additional fee.

7. **EXHIBITS:**

The sketches and maps in this report are included to assist the reader in visualizing the property and are not necessarily to scale. Various photos, if any, are included for the same purpose and are not intended to represent the property in other than actual status, as of the date of the photos. Site plans are not surveys unless shown from separate surveyor.

8. **LEGAL, ENGINEERING, FINANCIAL, STRUCTURAL, HAZARDOUS MATERIAL, OR MECHANICAL NATURE HIDDEN COMPONENTS, SOIL:**

No responsibility is assumed for matters legal in character or nature, nor matters of survey, nor of any architectural, structural, mechanical, or engineering nature. No opinion is rendered as to the title, which is presumed to be good and merchantable. The property is appraised as if free and clear, unless otherwise stated in particular parts of the report.

The legal description is assumed to be correct as used in this report as furnished by the client, his designee, or as derived by the appraiser.

The appraiser has inspected as far as possible, by observation, the land and the improvements thereon; however it was not possible to personally observe conditions beneath the soil or hidden structural, or other components. We have not critically inspected mechanical components within the improvements and no representations are made herein as to these matters unless specifically stated and considered in the report. The value estimate assumes that there are no such conditions that would cause a loss of value. The land or the soil of the area being appraised appears firm, however subsidence in the area is unknown. The appraiser(s) do not warrant against this condition or occurrence or problems arising from soil conditions.

The appraisal is based on there being no hidden, unapparent, or apparent conditions of the property site, subsoil, or structures which would render it more or less valuable. No responsibility is assumed for any such conditions or for any expertise or engineering to discover them.

All mechanical components are assumed to be in operable condition and status, standard for properties of the subject type. The condition of the heating, cooling, ventilating, electrical and plumbing equipment is considered to be commensurate with the condition of the balance of the improvements unless otherwise stated. No judgment is made as to adequacy of insulation, type of insulation, or energy efficiency of the improvements or equipment.

Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property, was not observed by the appraiser. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

9. **LEGALITY OF USE:**

The appraisal is based on the premise that, there is full compliance with all applicable federal, state and local environmental regulations and laws unless otherwise stated in the report; further that all applicable zoning, building and use regulations and restrictions of all types have been compiled with unless otherwise stated in the report; further, it is assumed that all required licenses, consents, permits, or other legislative or administrative authority, local, state, federal and/or private entity or organization have been or can be obtained or renewed for any use considered in the value estimate.

10. **COMPONENT VALUES:**

The distribution of the total valuation of this report between land and improvements applies only under the existing program of utilization. The separate valuations for land and building must not be used in conjunction with any other appraisal and are invalid if so used.

11. **AUXILIARY AND RELATED STUDIES:**

No environmental or impact study, special market study or analysis, highest and best use analysis or feasibility study has been requested or made unless otherwise specified in an agreement for services or in the report. The appraiser reserves the unlimited right to alter, amend, revise or rescind any of the statements, findings, opinions, values, estimates, or conclusions upon any subsequent such study or analysis or previous study or analysis subsequently becoming known to him.

12. **DOLLAR VALUE, PURCHASING POWER:**

The market value estimated, and the costs used, are as of the date of the estimate of value. All dollar amounts are based on the purchasing power and price of the dollar as of the date of the value estimate.

13. **INCLUSIONS:**

Furnishings and equipment, or business operations, except as specifically indicated and typically considered as a part of real estate, have been disregarded with only the real estate being considered in the value estimate, unless otherwise stated.

14. **PROPOSED IMPROVEMENTS, CONDITIONED VALUE:**

Proposed improvements, if any, on or off-site, as well as any repairs required, are considered for purposes of this appraisal, to be completed in good and workmanlike manner according to information submitted and/or considered by the appraiser. In cases of proposed construction, the appraisal is subject to change upon inspection of the property after construction is completed. This estimate of market value is as of the date shown, as proposed, as if completed and operating at levels shown and projected.

15. **VALUE CHANGE, DYNAMIC MARKET, INFLUENCES:**
The estimated market value is subject to change with market changes over time; value is highly related to exposure, time, promotional effort, terms, motivation, and conditions surrounding the offering. The value estimate considers the productivity and relative attractiveness of the property physically and economically in the marketplace. The "Estimate of Market Value" in the appraisal report is not based in whole or in part upon the race, color, or national origin of the present owners, or occupants of the properties in the vicinity of the property appraised.
- In cases of appraisals involving the capitalization of income benefits, the estimate of market value is a reflection of such benefits and the appraiser's interpretation of income and yields and other factors derived from general and specific market information. Such estimates are as of the date of the estimate of value; they are thus subject to change as the market is naturally dynamic.
16. **MANAGEMENT OF THE PROPERTY:**
It is assumed that the property which is the subject of this report will be under prudent and competent ownership and management; neither inefficient nor super-efficient.
17. **CONTINUING EDUCATION CURRENT:**
As of the date of this report, John Burdick has completed the requirements of the continuing education program of the Appraisal Institute.
18. **FEES:**
The fee for this appraisal or study is for the service rendered and not only for the time spent on the physical report.
19. **AUTHENTIC COPIES:**
The authentic copies of this report are signed in blue ink. Any copy that does not have the above is unauthorized and may have been altered.
20. **INSULATION:**
Unless otherwise stated in this report, the appraiser(s) signing this report have no knowledge concerning the presence or absence of ureaformaldehyde foam insulation in existing improvements; if such insulation is present the value of the property may be adversely affected and re-appraisal, at additional cost, may be necessary to estimate the effects of such insulation.
21. **NOTE:**
ACCEPTANCE OF, AND/OR USE OF, THIS APPRAISAL REPORT CONSTITUTES ACCEPTANCE OF THE ABOVE CONDITIONS.

22.

AMERICANS WITH DISABILITIES ACT OF 1990:

The ADA became effective on January 26, 1992. We have not made a specific compliance survey and analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect on the value of the property. Since we have no direct evidence relating to this issue, we did not consider noncompliance with the requirements of ADA in estimating the value of the property.

QUALIFICATIONS OF JOHN FERENCHAK III

PROFESSIONAL MEMBERSHIPS

State of Arizona Certified General Real Estate Appraiser #30344 (August, 2012, since August, 1991)

PROFESSIONAL EXPERIENCE

June, 1995 - Present

Burdick & Ferenchak, Inc. - Real Estate Appraising and Consulting, as Partner

June, 1987 - June, 1995

The Pagel Company, Real Estate Appraisers and Consultants, as an Associate Appraiser

EDUCATION:

Bachelor of Arts Degree in Management
University of Phoenix

March, 1993

APPRAISAL COURSEWORK SUCCESSFULLY COMPLETED

Real Estate Appraisal Principles: 1A-1, 1B-1
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Case Studies in Real Estate Valuation
Report Writing and Valuation Analysis
Standards of Professional Practice (USPAP - Update)

Fall, 1987
Spring, 1988
Spring, 1990
Summer, 1991
Spring, 1992
Spring, 2010

PARTIAL LIST OF SEMINARS ATTENDED

▶ Fair Lending and Appraisers	October, 1993
▶ NAFTA Seminar	April, 1994
▶ Subdivision Analysis Seminar	March, 1996
▶ Loss Prevention Program	October, 1997
▶ New Industrial Valuation Seminar	May, 1998
▶ How Stigmas Affect Property	July, 2000
▶ Fair Housing in Property Management	July, 2000
▶ Residential Lot Valuation Issues	May, 2002
▶ Pricing Small Apartments	July, 2002
▶ Appraisal Consulting	October, 2003
▶ Building Operation Costs	May, 2004
▶ Re-Appraising, Re-Addressing, Re-Assigning	April, 2005
▶ Water in Arizona: Laws, Agencies & Issues	July, 2006
▶ Condominiums, Co-Ops, and PUDs	October, 2006
▶ Legal Aspects of Foreclosures	February, 2007
▶ Practical Issues in Fair Housing	May, 2008
▶ Supervising Appraisers	June, 2008
▶ Disclosure	July, 2008
▶ Business Practice and Ethics	January, 2010

PROFESSIONAL AFFILIATIONS

Associate member of the Appraisal Institute

SCOPE OF APPRAISAL ACTIVITY

Appraisal/consulting assignments have included a wide variety of residential and commercial appraisals, subdivision analysis, market trend studies, and land appraisals.

STATE OF ARIZONA
BOARD OF APPRAISAL

BE IT KNOWN THAT
JOHN A. FERENCHAK
HAS MET ALL THE REQUIREMENTS AS A

Certified General Real Estate Appraiser

In accordance with Arizona Revised Statutes and on authority of the Board of Appraisal, State of Arizona.

This certificate shall remain evidence thereof unless or until the same is suspended, revoked or expires in accordance with the provisions of law.

CERTIFICATE NUMBER

30344

EXPIRATION DATE

August 31, 2012



In witness whereof the Arizona Board of Appraisal caused to be signed by the Chair of the Board and the Executive Director


Chair, Board of Appraisal 8/19/2010
Date


Executive Director of the Board of Appraisal 8/19/2010
Date

SHALL REMAIN PROPERTY OF ARIZONA BOARD OF APPRAISAL

1 LAWRENCE V. ROBERTSON, JR.
Attorney At Law
2 P.O. Box 1448
Tubac, Arizona 85646
3 (520) 398-0411
4 Attorney for Applicant

5
6 **BEFORE THE ARIZONA CORPORATION COMMISSION**

7
8 IN THE MATTER OF THE APPLICATION
OF GOODMAN WATER COMPANY, AN
9 ARIZONA CORPORATION, FOR (i) A
10 DETERMINATION OF THE FAIR VALUE
OF ITS UTILITY PLANT AND PROPERTY
11 AND (ii) AN INCREASE IN ITS WATER
RATES AND CHARGES FOR UTILITY
12 SERVICE BASED THEREON.

DOCKET NO. W-02500A-10-0382

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16
17 **REBUTTAL TESTIMONY OF**

18
19 **JOHN FERENCHAK, III**

20 **ON BEHALF OF GOODMAN WATER COMPANY**

21 **May 2, 2011**
22
23
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25
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1 **Q.1 Please state your name and business affiliation.**

2 A.1 My name is John Ferenchak, III. I am a partner in the Real Estate Appraising and
3 Consulting firm of Burdick & Ferenchak, Inc. The firm has offices in Tucson, Arizona.
4

5 **Q.2 Does Appendix "A" to this prepared Rebuttal Testimony set forth a summary
6 of your educational background and professional experience?**

7 A.2 Yes, it does. It also includes a copy of my current certification as a Certified
8 General Real Estate Appraiser from the State of Arizona Board of Appraisal.
9

10 **Q.3 What specifically does such certification mean; and, what is required in order
11 for someone to obtain such a certification?**

12 A.3 As a Certified General Real Estate Appraiser within the state of Arizona, I am
13 licensed to appraise any property type (residential or commercial) in this state. I
14 was certified and licensed in 1991 after completing experience credits, and testing.
15

16 **Q.4 You have been retained by Goodman Water Company ("Company") in
17 connection with its currently pending rate case, is that correct?**

18 A.4 Yes.
19

20 **Q.5 What is your understanding as to why the Company retained you to prepare
21 an appraisal in connection with its currently pending rate case?**

22 A.5 By way of background, it is my understanding that the Company originally
23 retained Mr. Michael J. Naifeh to prepare an appraisal of the market value of four
24 (4) parcels of land acquired by the Company in 2008 on which certain of the
25 Company's water utility system facilities are located. The year 2008 was selected
26 by the Company since that was the year in which it actually acquired title to the

1 four (4) parcels in question. Mr. Naifeh's 2008 Appraisal was thereafter used by
2 the Company in connection with the preparation of its rate increase request which
3 is the subject of this proceeding.

4 It is further my understanding that at least one (1) of the other parties in this
5 case has taken the position that the four (4) parcels of real estate in question should
6 be appraised as to their market value for the year in which each such parcel was
7 "devoted to public service" in connection with the Company's water utility
8 operations. Accordingly, and with the intent of removing that issue from this case,
9 the Company decided to retain a separate real estate appraiser to appraise the land
10 values for the aforesaid parcels using the years in which each was "devoted to
11 public service."

12 In that regard, only one (1) of the parcels in question was devoted to public
13 service during calendar year 2008. More specifically, Water Plant No. 1 was
14 devoted to public service on May 1, 2002. Water Plant No. 2 was devoted to
15 public service on August 1, 2005. Water Plant No. 3 was devoted to public service
16 on January 1, 2008. Water Plant No. 4 was devoted to public service on October 1,
17 2004. Accordingly, those were the years I used in my appraisal for purposes of
18 determining the market values of the parcels in question at those points in time.

19
20 **Q.6 Please summarize the appraisal methodology you determined to use in**
21 **connection with the preparation of your appraisal; and, in so doing, please**
22 **explain why you deemed that particular methodology to be appropriate for**
23 **purposes of your assignment.**

24 **A.6** Due to the nature of the subject property, being considered as vacant land parcels,
25 the Sales Comparison Approach was considered the most appropriate method for
26 estimating the value of the each parcel. The use of comparable sales is the

1 application of the principle of substitution, which affirms that the value of the
2 subject tends to be set by the cost of acquisition of an equally desirable property,
3 assuming no costly delays are encountered in making the substitution. The most
4 persuasive indications of a reasonable market value for the subject sites are the
5 sales prices of similar properties that have been recently sold. No prudent
6 purchaser pays more than an amount necessary to get ownership; he, economically,
7 will pay no more for one property than the cost of acquisition of similar property
8 with similar utility and desirability.

9
10 Q.7 Is a copy of your completed appraisal attached to your prepared Rebuttal
11 Testimony as Appendix "B"?

12 A.7 Yes.

13
14 **Q.8 Please describe the type of data you used in connection with preparation of**
15 **your appraisal and arriving at your opinion as to the market value for each of**
16 **the four (4) parcels in question; and, in that regard, also describe the sources**
17 **from which and means by which such data was obtained.**

18 A.8 A search was conducted for sales of vacant land parcels for comparison to the
19 subject parcels, resulting in an opinion of value by the Sales Comparison Approach
20 for each parcel. Data sources included but were not limited to CoStar Data, Tucson
21 Multiple Listing Service (MLS), and the Pima and Pinal County Assessors Offices.

22
23 **Q.9 Did you at any time either prior to or during the course of preparation of your**
24 **appraisal have occasion to discuss Mr. Naifeh's 2008 Appraisal with him?**

25 A.9 No.

1 **Q.10 Did you at any time either prior to or during the course of preparation of your**
2 **appraisal have occasion to review Mr. Naifeh's 2008 Appraisal?**

3 A.10 No.
4

5 **Q.11 Why did you neither confer with Mr. Naifeh nor review his 2008 Appraisal?**

6 A.11 Because I believed it was both important and appropriate that my appraisal activity
7 and the formulation of my opinion remain completely independent of any appraisal
8 work he may have done or evaluation opinions he may have expressed.
9

10 **Q.12 What were the market value conclusions you reached with regard to Parcel**
11 **Nos. 1 through 4?**

12 A.12 My opinion as to the market value of the parcel on which Water Plant No. 1 is
13 located is \$140,000. My market value opinion as to the land on which Water Plant
14 No. 2 is located is \$65,000. My market value opinion as to the land on which
15 Water Plant No. 3 is located is \$165,000. My market value opinion as to the land
16 on which Water Plant No. 4 is located is \$85,000. The aggregate value of these
17 four (4) parcels is \$455,000, based upon the respective year in which each was
18 devoted to public service.
19

20 **Q.13 Commission Staff witness Gary T. McMurry in his March 21, 2011 prepared**
21 **Direct Testimony expressed the opinion that the Commission should use the**
22 **Pinal County Assessor's 2009 "market value" data for the four (4) parcels in**
23 **question for purposes of ratemaking recognition in this case, inasmuch as Mr.**
24 **McMurry did not have access to actual market value information for the years**
25 **in which the parcels in question were "devoted to public service." Do you**
26 **believe that the appraisal that you have prepared provides that information as**

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to market value for the parcels in question during the years in question which was not available to Mr. McMurry?

A.13 Yes, I do. In fact, my appraisal is intended by the Company to provide that information to the Commission in connection with the decision it will be reaching on the Company's rate increase request.

Q.14 The Company will also be filing prepared Rebuttal Testimony by Mr. Naifeh with regard to his 2008 Appraisal and criticisms of the same that were expressed by Mr. McMurry in his March 21, 2011 prepared Direct Testimony. In his prepared Rebuttal Testimony, Mr. Naifeh discusses the reasons why he believes the use of Pinal County Assessor's data to assess the market value of the four (4) parcels of real estate in question would be inappropriate for purposes of this proceeding. In his prepared Direct Testimony, Mr. McMurry had recommended use of the Pinal County Assessor's "market value" data. Do you agree with Mr. Naifeh that the use of Pinal County Assessor's data for the purpose of establishing "market value" in this proceeding would be inappropriate?

A.14 Yes, I do.

Q.15 Please explain why you believe the use of such data for such purpose would be inappropriate.

A.15 The Assessor's office estimates a Full Cash Value for each parcel utilizing a mass appraisal model, and not through the use of direct comparable sales. I do not consider this Full Cash Value to be a market value opinion.

1 **Q.16 Does this conclude your Rebuttal Testimony?**

2 A.16 Yes, it does.

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**Goodman Water Company
Docket No. W-02500A-10-0382**

**JOHN FERENCHAK, III
REBUTTAL TESTIMONY**

May 2, 2011

APPENDIX A

QUALIFICATIONS OF JOHN FERENCHAK III

PROFESSIONAL MEMBERSHIPS

State of Arizona Certified General Real Estate Appraiser #30344 (August, 2012, since August, 1991)

PROFESSIONAL EXPERIENCE

June, 1995 - Present

Burdick & Ferenchak, Inc. - Real Estate Appraising and Consulting, as Partner

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March, 1993

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Fall, 1987

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Spring, 1988

Capitalization Theory and Techniques, Part B

Spring, 1990

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Summer, 1991

Report Writing and Valuation Analysis

Spring, 1992

Standards of Professional Practice (USPAP - Update)

Spring, 2010

PARTIAL LIST OF SEMINARS ATTENDED

- ▶ Fair Lending and Appraisers October, 1993
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- ▶ Subdivision Analysis Seminar March, 1996
- ▶ Loss Prevention Program October, 1997
- ▶ New Industrial Valuation Seminar May, 1998
- ▶ How Stigmas Affect Property July, 2000
- ▶ Fair Housing in Property Management July, 2000
- ▶ Residential Lot Valuation Issues May, 2002
- ▶ Pricing Small Apartments July, 2002
- ▶ Appraisal Consulting October, 2003
- ▶ Building Operation Costs May, 2004
- ▶ Re-Appraising, Re-Addressing, Re-Assigning April, 2005
- ▶ Water in Arizona: Laws, Agencies & Issues July, 2006
- ▶ Condominiums, Co-Ops, and PUDs October, 2006
- ▶ Legal Aspects of Foreclosures February, 2007
- ▶ Practical Issues in Fair Housing May, 2008
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- ▶ Disclosure July, 2008
- ▶ Business Practice and Ethics January, 2010

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Associate member of the Appraisal Institute

SCOPE OF APPRAISAL ACTIVITY

Appraisal/consulting assignments have included a wide variety of residential and commercial appraisals, subdivision analysis, market trend studies, and land appraisals.

STATE OF ARIZONA
BOARD OF APPRAISAL

BE IT KNOWN THAT
JOHN A. FERENCHAK

HAS MET ALL THE REQUIREMENTS AS A
Certified General Real Estate Appraiser

In accordance with Arizona Revised Statutes and on authority of the Board of Appraisal, State of Arizona.
This certificate shall remain evidence thereof unless or until the same is suspended, revoked or expires in accordance with the provisions of law.

CERTIFICATE NUMBER
30344
EXPIRATION DATE
August 31, 2012



In witness whereof the Arizona Board of Appraisal caused to be signed by the Chair of the Board and the Executive Director


Chair, Board of Appraisal
8/19/2010
Date


Executive Director of the Board of Appraisal
8/19/2010
Date

SHALL REMAIN PROPERTY OF ARIZONA BOARD OF APPRAISAL

**Goodman Water Company
Docket No. W-02500A-10-0382**

**JOHN FERENCHAK, III
REBUTTAL TESTIMONY**

May 2, 2011

APPENDIX B

SUMMARY APPRAISAL REPORT
OF
FOUR WATER PLANT LAND PARCELS

LOCATED
**WITHIN THE MASTER PLANNED COMMUNITY
OF EAGLE CREST RANCH**

APPRAISED AS OF
VARIOUS RETROSPECTIVE DATES

PREPARED FOR

GOODMAN WATER COMPANY
MR. JAMES SHINER
6840 NORTH CAMPBELL AVENUE
SUITE 278
TUCSON, ARIZONA 85718

BY

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April 29, 2011

Goodman Water Company
Mr. James Shiner
6840 North Campbell Avenue
Tucson, Arizona 85718

Re: Four Water Plant Land Parcels;
Located within the master planned community of Eagle Crest Ranch,
Saddlebrooke, Pinal County, Arizona 85739
Burdick & Ferenchak File No. BF-1997

Dear Mr. Shiner:

In accordance with your request, I have prepared an appraisal of the above-referenced subject property in a summary report format. The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. This appraisal report contains an opinion of retrospective market value, "as if vacant", for each of the four water plant sites as of the date each water plant was put into service. (Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004). The ownership and legal description of this property are set forth in the following report.

The purpose of this appraisal is to provide a retrospective opinion of the market value of the fee simple fee estate for the above-referenced subject parcels. Market value, as used herein, is defined as "the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus". Further comment on market value is made in the following report.

By reason of a thorough analysis of the neighborhood environment, physical, social, political and economic factors affecting the value of the subject, including a personal inspection of the subject property, and by the analysis highlighted in this report, my opinions of market value for the four subject parcels as of the date each water plant was put into service are:

**EAGLE CREST RANCH WATER PLANT SITES
"AS IF VACANT"**

WATER PLANT/ TAX ID	SITE SIZE	RETROSPECTIVE DATE OF VALUE	MARKET VALUE OPINION
Water Plant #1 (Ptn of 305-31-013W)	31,363 sf	May 1, 2002	\$140,000
Water Plant #2 (305-31-013Q)	10,890 sf	August 1, 2005	\$65,000
Water Plant #3 (305-93-6040)	27,443 sf	January 1, 2008	\$165,000
Water Plant #4 (305-93-219B)	16,988 sf	October 1, 2004	\$85,000

A typical marketing/exposure period for properties similar to the subject of 12 months was concluded as reasonable.

The reader should note that the "As If Vacant" opinion of market value for the subject water plant sites stated in this report is based upon a **HYPOTHETICAL CONDITION** which assumes the parcels do not have any improvements upon them. It is noted that at the time of inspection (April 12, 2011), each water plant site had water facility improvements completed and in use

This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraisers are not responsible for unauthorized use of this report.

Within the constraints of adequate available data, the full appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).

No potential environmental hazards which might affect the use and value of the subject property were noted upon inspection, however these appraisers lack the experience to investigate hazardous materials and we recommend that a complete Environmental Survey be performed on the subject property to confirm the presence or absence of any environmental hazards. As a

result, the value opinions contained in this appraisal report **DO NOT** consider any loss in value due to any potentially hazardous environmental substances which may or may not be present on or near the subject property.

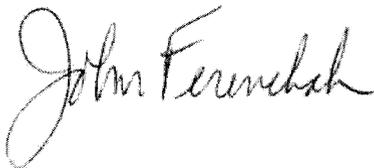
Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of such substances, such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimated is predicated on the assumption that there is no such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.

No engineering or soils report was available, and therefore no information was provided with respect to the utility or constructability of the existing improvements, or any unusual soil or drainage conditions which are not readily apparent. This appraisal assumes no soils challenge's associated with the subject property.

Please refer to the Limiting Conditions and Assumptions included in the Addendum section which accompany this summary appraisal report.

The authentic copies of this report are signed in blue, without which they are unauthorized and may have been altered.

Sincerely,

A handwritten signature in blue ink that reads "John Ferenchak". The signature is written in a cursive style with a large initial "J" and "F".

John Ferenchak
State of Arizona Certified General
Real Estate Appraiser #30344

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REPORT NUMBER: Burdick & Ferenchak File No. BF-1997

APPRAISAL PREPARED FOR: Goodman Water Company
Mr. James Shiner

EFFECTIVE DATE OF VALUATION: This appraisal report contains an opinion of retrospective market value, "as if vacant", for each of the four water plant sites as of the date each water plant was put into service. (Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004).

DATE OF INSPECTION: April 12, 2011

DATE OF REPORT: April 29, 2011

TYPE OF REPORT: Summary Appraisal Report

PROPERTY RIGHTS APPRAISED: Fee Simple

PROPERTY IDENTIFICATION: The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch.

LOCATION: The Eagle Crest Ranch community is found within Pinal County, just north of the Pima County line. This community is located on the east side of Oracle Road, north of Edwin Road.

SITE SIZE: Water Plant #1 – 31,363 sq.ft.
Water Plant #2 – 10,890 sq.ft.
Water Plant #3 – 27,443 sq.ft.
Water Plant #4 – 16,988 sq.ft.

ZONING: CI-1; CR-3 (Pinal County)

TAX PARCEL NUMBERS: Water Plant #1 – Ptn of 305-31-013W
Water Plant #2 – 305-31-013Q
Water Plant #3 – 305-93-6040
Water Plant #4 – 305-93-219B

SPECIAL POINTS REGARDING THE APPRAISAL:

Within the constraints of adequate available data, this appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).

FINANCING ASSUMPTIONS:

The value opinion is based upon financing assumptions of all cash, or equivalent. Financing equivalent to all cash is considered to be typical new conventional financing which would result in all cash being paid to the seller.

RECONCILED CONCLUSIONS OF VALUE:

EAGLE CREST RANCH WATER PLANT SITES "AS IF VACANT"			
WATER PLANT/ TAX ID	SITE SIZE	RETROSPECTIVE DATE OF VALUE	MARKET VALUE OPINION
Water Plant #1 (Ptn of 305-31-013W)	31,363 sf	May 1, 2002	\$140,000
Water Plant #2 (305-31-013Q)	10,890 sf	August 1, 2005	\$65,000
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Water Plant #4 (305-93-219B)	16,988 sf	October 1, 2004	\$85,000

A typical marketing/exposure period for properties similar to the subject of 12 months was concluded as reasonable.

The reader should note that the "As If Vacant" opinion of market value for the subject water plant sites stated in this report is based upon a **HYPOTHETICAL CONDITION** which assumes the parcels do not have any improvements upon them. It is noted that at the time of inspection (April 12, 2011), each water plant site had water facility improvements completed and in use

SUMMARY REPORT

Definition of Assignment:

In accordance with your request, we have prepared an appraisal of the subject property in a summary report format. The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. Within the constraints of adequate available data, the full appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).

A Summary Appraisal Report is defined as:

A written report prepared under Standards Rule 2-2(b) or 8-2(b). (USPAP, 2010-2011 edition)

Purpose of the Report:

The purpose of this assignment is to provide opinions of retrospective market value, “as if vacant”, for each of the four water plant sites as of the date each water plant was put into service. (Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004).

Intended Use of the Appraisal:

The intended use of this appraisal is to provide a basis for land valuations of the four water plant sites for my client, Goodman Water Company. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. This appraiser is not responsible for unauthorized use of this report.

Intended Users of the Appraisal:

This report is intended for use only by my client, Goodman Water Company. Use of this report by others is not intended by the appraisers.

Date of Valuation/Report:

The date of inspection was April 12, 2011. The effective date of value for the four subject parcels is Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004. The date of the appraisal report is April 29, 2011.

Interest to be Appraised:

The interest to be appraised is that interest arising from fee simple ownership, which includes the various rights which actually consider the present worth of future benefits resulting from the ownership of the subject property. Fee simple estate is defined in *The Thirteenth Edition of The Appraisal of Real Estate* as the “absolute ownership unencumbered by any other interest or estate, subject only to limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat”.

Scope of the Report:

In preparing this appraisal, the appraiser:

- ① Inspected and photographed each water plant site;
- ② Gathered and analyzed information regarding general market conditions in the Eagle Crest Ranch area and subject neighborhood impacting properties similar to the subject;
- ③ Gathered comparable sale data of vacant sites similar to the subject parcels to arrive at a retrospective value opinion for the each water plant site, “as if vacant”.

This Summary Appraisal Report is a brief recapitulation of the appraiser’s data, analyses, and conclusions.

Assumptions and Limiting Conditions:

- 1) This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser’s opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser’s file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraisers are not responsible for unauthorized use of this report.
- 2) The reader should note that the “As If Vacant” opinion of market value for the subject water plant sites stated in this report is based upon a **HYPOTHETICAL CONDITION** which assumes the parcels do not have any improvements upon them. It is noted that at the time of inspection (April 12, 2011), each water plant site had water facility improvements completed and in use.
- 3) Within the constraints of adequate available data, the full appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).
- 4) No potential environmental hazards which might affect the use and value of the subject property were noted upon inspection, however these appraisers lack the experience to investigate hazardous materials and we recommend that a complete Environmental Survey be performed on the subject property to confirm the presence or absence of any environmental hazards. As a result, the value opinions contained in this appraisal report **DO NOT** consider any loss in value due to any potentially hazardous environmental substances which may or may not be present on or near the subject property.

- 5) Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of such substances, such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimated is predicated on the assumption that there is no such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.
- 6) No engineering or soils report was available, and therefore no information was provided with respect to the utility or constructability of the existing improvements, or any unusual soil or drainage conditions which are not readily apparent. This appraisal assumes no soils challenge's associated with the subject property.
- 7) Please refer to the Limiting Conditions and Assumptions included in the Addendum section which accompany this summary appraisal report.

Definition of Market Value:

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- a. buyer and seller are typically motivated;
- b. both parties are well informed or well advised, and each acting in what they consider their own best interest;
- c. a reasonable time is allowed for exposure in the open market;
- d. payment is made in terms of cash in U.S. dollars or in terms of financial agreements comparable thereto; and
- e. the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

(SOURCE: *Office of the Comptroller of the Currency under 12 CFR, Part 34, Subpart C-Appraisals, 34.42 Definitions [f] and FDIC under 12 CFR, Part 323, Subpart 323.2 Definitions [f].*)

The value opinion is based upon financing assumptions of all cash, or equivalent. Financing equivalent to all cash is considered to be typical new conventional financing which would result in all cash being paid to the seller.

Property Identification:

The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. The Eagle Crest Ranch community is found within Pinal County, just north of the Pima County line. This community is located on the east side of Oracle Road, north of Edwin Road.

Water Plant #1 is found on the west side of Eagle Crest Ranch Boulevard, south of Eagle Ranch Road, with a physical address of 39544 South Eagle Crest Ranch Boulevard. This parcel is further identified as a portion of Pinal County Tax ID Number 305-31-013W. According to information provided by the client, the legal description for this parcel is as follows:

All of that portion of the Southwest Quarter of Section 32, Township 10 South, Range 14 East, Gila and Salt River Base and Meridian, Pinal County, Arizona, being a portion of Eagle Crest Ranch Tracts "A" through "N" and Common Area "A" (Private Streets), a subdivision of Pinal County, Arizona, recorded in Cabinet "C" in Slide 173 on October 25, 2000, more particularly described as follows:

Commencing at the Southeast corner of Tract "D" of said Eagle Crest Ranch Tracts "A" through "N" as it adjoins Tract "E" and Eagle Crest Ranch Boulevard, said point falling on a curve from which the radius bears South 83 degrees 55 minutes 51 seconds West;

Thence Northerly along said curve to the left on the Westerly right-of-way of Eagle Crest Ranch Boulevard, having a radius of 1150.00 feet and a central angle of 03 degrees 36 minutes 30 seconds, an arc distance of 72.42 feet to the POINT OF BEGINNING;

Thence departing said curve, West, on a non-tangent line, a distance of 36.10 feet;

Thence South 45 degrees 00 minutes 00 seconds West, a distance of 92.02 feet;

Thence West, a distance of 46.69 feet;

Thence North 10 degrees 49 minutes 04 seconds West, a distance of 60.09 feet;

Thence South 79 degrees 10 minutes 56 seconds West, a distance of 75.26 feet;

Thence North, a distance of 113.17 feet;

Thence East, a distance of 213.60 feet to a point on the Westerly right-of-way of said Eagle Crest Ranch Boulevard;

Thence South 12 degrees 56 minutes 33 seconds East along said Westerly right-of-way, a distance of 29.49 feet to a point of curvature;

Thence Southerly along said curve to the right, having a radius of 1150.00 feet and a central angle of 03 degrees 15 minutes 55 seconds, an arc distance of 65.54 feet to the POINT OF BEGINNING;

Water Plant #2 is found on the west side of Eagle Crest Ranch Boulevard, north of Eagle Heights Drive, with a physical address of 39930 South Eagle Crest Ranch Boulevard. This parcel is further identified under Pinal County Tax ID Number 305-31-013Q. According to public records, this parcel is found in the northwest portion of Tract "F" of Eagle Crest Ranch.

Water Plant #3 is found on the northeast corner of Eagle Ridge Drive and Eagle Mountain Drive, with a physical address of 61025 East Eagle Mountain Drive. This parcel is further identified under Pinal County Tax ID Number 305-93-6040. According to public records, this parcel is identified as Tract E, Eagle Crest Ranch IV-A.

Water Plant #4 is found on the west side of Mountain Shadow Drive, north of Eagle Heights Drive, with a physical address of 39904 South Mountain Shadow Drive. This parcel is further identified under Pinal County Tax ID Number 305-93-219B. According to public records, this parcel is identified as Tract B, Eagle Crest Ranch I.

Property History/Ownership:

The purpose of this assignment is to provide opinions of retrospective market value, "as if vacant", for each of the four water plant sites as of the date each water plant was put into service. (Water Plant #1 – May 1, 2002; Water Plant #2 – August 1, 2005; Water Plant #3 – January 1, 2008; and Water Plant #4 – October 1, 2004).

According to public records, the water plant sites are owned by the Goodman Water Company. No prior sales were found within the past three years and the sites are not currently listed for sale.

Summary of Tucson Regional Data:

Tucson has been one of the fastest growing cities of its size in the United States since 1970, both through the attraction of new industry and a growing retirement segment of the population. All signs point to Tucson continuing as an important trade center to serve not only Southern Arizona, but the entire southwestern United States. Tucson's major "selling points" include its sunbelt location and climate, good transportation systems and educational institutions such as the University of Arizona. In addition, Tucson offers a relatively young, well-educated labor force which helps to attract new business. The climate and amenities available in the region will also continue to attract a retirement population, as well as encourage growth in the tourism industry.

The long-term outlook for the metropolitan area is one of continued growth. Most economic indicators demonstrate that the local economy has historically been led by steady population growth, relatively low unemployment and moderate inflation levels. Bright spots in the local economic picture include tourism, and the continued desirability of the region to "winter visitors" and retirees. The local housing market was particularly active from 2002 through 2005 in terms of units sold and increasing home values, fueled largely by low interest rates. Growth in the population base has also encouraged new commercial development in many locations.

However, the housing frenzy began to cool in 2006, and this trend has continued to the present. This is similar to the trend being experienced on a regional and national level as well. While the long-term outlook is for continued growth of the Tucson metro area, growth in the short term is being adversely affected by the downturn in the housing market and corresponding impacts on

the local economy. Therefore, the rate of growth for Tucson over the next several years may be well below that of recent years.

According to the most recent local population statistics available (July, 2009), the City of Tucson has an estimated population of about 543,566 within the city limits. This can be compared to the larger Pima County population of 1,018,012 as of July, 2009. Published reports indicate that Pima County reached 1,000,000 people in late 2006. About 98 percent of the population in the county is found within the Tucson metropolitan area. One of the most significant aspects of the Tucson area population has been its growth. The population growth rate in Pima County over the past 15-20 years has fallen in the range of 1.4-3.5 percent, with an average near 2.5 percent per year. It is noted that population growth from 1980 to 2000 of 2.4 percent represented a significant decline from the average growth rate during the preceding ten years of 4.2 percent per year. The average growth in population between 1990 and 2000 was approximately 19,400 persons per year.

However, the growth in population for Pima County has declined significantly in 2008 and 2009 according to published statistics. Population growth was only 3,989 during the most recent 12-month period of 2008-2009. This can be compared with growth of 10,788 during 2007-2008, 22,125 during 2006-2007, 25,310 during 2005-2006, 21,898 during 2004-2005, 22,952 during 2003-2004, and 20,160 during 2002-2003. This data suggests local population growth has been adversely impacted by local and national economic conditions. A long-term growth rate near 2.5+- percent per year or about 25,000 people per year is indicated by historical population trends. However, short-term projections may be more modest due to the current downturn in the housing market and the related impact on the local economy.

The labor market in Pima County has grown significantly during the past three decades. The total civilian labor force increased from 225,500 in 1980 to 489,200 in 2009, representing an average annual increase of 2.8 percent. Total employment has increased at a similar pace, with unemployment remaining relatively low in until very recently. Personal income levels have also realized substantial gains since 1970.

However, a noteworthy trend has been a gradual increase in unemployment over the past 24-36 months. This trend can be linked originally to declines in the housing market and construction, as well as related industries. However, the impact of the housing downturn on the general economy is now more widespread and is affecting other sectors of employment such as financial services, retail sales, etc. In addition, general economic conditions deteriorated locally and nationally during 2008 and 2009. For example, unemployment in Pima County was 4.1 percent in 2007 and the country formally entered into a recession in late 2007. Unemployment has gradually increased throughout 2008 and 2009, both nationally and locally. Nationally, the U.S. economy lost 524,000 jobs in December of 2008 and 2.6 million for all of 2008. The national unemployment figures released recently indicate that unemployment reached 9.5 percent as of June 2009, and then continued to increase to 10.2 percent as of October, 2009, then declined slightly to 10.0 percent in November and December, 2009 and is currently at 8.8 percent (March 2011). For all of Arizona, unemployment was reported at 9.6 percent as of the most recent February 2011 statistics, which is a decrease from the 10.0 percent in July and an increase from the 8.9 percent reported in November of 2009. Again, the long-term outlook with respect to increases in the Tucson employment base is considered average to good, but the short-term outlook still has the potential for unemployment rates to fluctuate as they stabilize.

The housing market in Tucson experienced a downturn during the late 1980's and early 1990's. However, since 1990 the new housing market in Tucson gradually improved and reached a peak in 2005. In particular, 2003, 2004 and 2005 represented three successive peak years in terms of new home sales. According to *Bright Future Business Consultants (The Orange Reports)*, 54,844 new housing units were sold in the greater Tucson area between 1999 and 2007, resulting in an average of 6,856 per year. After 6,197 new home sales were reported in 2000, sales subsided somewhat in 2001 and 2002. Sales in 2003 rebounded with a 12 percent increase over 2002, or 6,549 units. Sales in 2004 continued to increase when compared to 2003, finishing with 7,438 units or a 14 percent increase over 2003. Sales continued strong in 2005 with 8,623 units sold, representing an increase near 16 percent from 2004. The dramatic improvement in new housing sales was driven by various factors, though principally a strong local economy, population growth and low interest rates for new home buyers. There was also greater participation in the market on the part of investors.

An adjustment in the local housing market began in 2006, which coincided with regional and national trends. The 8,149 units sold in 2006 was a slight decline from 2005, although the decline took place primarily in the second half of 2006. A decline in units sold continued into 2007, with 6,185 sales reported for 2007 or a 24.1 percent decline. In 2008, only 3,339 new homes sold and closed, representing a 54 percent decline from 2007 and indicating a continued decline in new home sales. This downward trend continued in 2009, with only 2,249 new homes sold. As of the most recent data available (December, 2010) there were 1,778 units sold, which continues the slide for new home sales.

The *Bright Future Business Consultants* also reported that there were 987 resale home closings for the Tucson Area as of June 2010 and this included 272 foreclosures. This compares to 1,304 resale closings in May of 2010, of which 385 were foreclosures. In addition, according to a RealtyTrac U.S. Foreclosure Year End Market Report 2010, Arizona's new foreclosure activity numbers were 13,651 units in December of 2010. RealtyTrac also reported that there were 1,162 foreclosures in Pima County as of December 2010 with one in every 262. A California group called ForeclosureRadar.com is also tracking Arizona's housing market. According to its data, foreclosure filings in Tucson fell 43 percent in March 2011 from February's level. ForeclosureRadar filings include both notice-of-trustee sales and trustee sales. However, during the January-November 2010 period, Arizona recorded a total of 65,911 foreclosures, representing a 12 percent surge when compared with the whole 2009. According to housing industry analysts, 2011 will be much the same for the region, with foreclosures in the state expected to hit record levels. Analysts stated that the unemployment rate of Arizona is part of the reason for the bleak 2011 forecast.

According to the monthly statistics produced by the Tucson Association of Realtors and the MLS, as of April 2011 the active inventory was reported as 8,036, a 19 percent increase from March 2010. There were 1,170 closing in March 2011, a 3 percent above March 2010. Months of inventory was 6.9 up from 6.0 in March 2010. Median price of sold homes was \$125,000 for the month of March 2011, down 21 percent from March 2010. Also having had an impact on the local housing market have been the financial difficulties experienced in the home mortgage business, and the failures of several national home mortgage companies such as AHM Mortgage and First Magnus. In the short-term, this situation has limited financing alternatives for some potential buyers, further impacting sale levels for both existing and new homes.

Nevertheless, the housing market in Tucson will continue to be driven by a combination of population growth, employment growth and relatively low interest rates. Continued demand for new housing will be tied to the overall performance of the Tucson economy and population growth, and may be tempered in the short-term by recent developments in the housing market. However, a moderate rate of future growth in the Tucson area is still anticipated over the long-term.

NEW HOUSING SALES (ACTIVE NEW HOME PROJECTS)		
YEAR	TOTAL SALES	% INCREASE
1995	3,210	-16%
1996	3,962	23%
1997	4,777	21%
1998	5,517	16%
1999	6,192	12%
2000	6,197	1%
2001	5,857	-6%
2002	5,846	<1%
2003	6,549	12%
2004	7,438	14%
2005	8,623	16%
2006	8,149	-5.5%
2007	6,185	-24.1%
2008	3,339	-46%
2009	2,249	-33%
2010	1,778	-21%

The commercial sub-markets within the local real estate market suffered after the downturn during the late 1980's and early 1990's, although subsequently recovered and the general trend was one of improvement from the mid-1990's until recently. New construction of various types of commercial real estate has taken place across the Tucson metro area in recent years. Much of the new development which has taken place has been driven by user demand and pre-leased space, with speculative construction more limited. New retail and office inventory has been developed primarily around the periphery of Tucson, following the residential growth which has taken place in these areas. Re-development of existing older properties has also taken place in more central locations. The industrial sub-market has performed reasonably well in recent years, with much of the existing inventory found on the south side of Tucson due to the proximity of Tucson International Airport, or near the interstate highway system (I-10/I-19) which traverses the metro area. Growth in the multi-family sub-market has been hindered in recent years first as a result of financing alternatives available to new and existing home buyers and then following unemployment figures as renters were forced to moved back home.

The following table summarizes average vacancy levels for various types of income-producing properties (leasable inventory) in the Tucson area.

VACANCY RATES FOR COMMERCIAL MARKET SEGMENTS (GREATER TUCSON)			
	RETAIL	OFFICE	INDUSTRIAL
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.9% 1 st Quarter, 2011	12.4% 1 st Quarter, 2011	12.4% 1 st Quarter, 2011
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.6% 4 th Quarter, 2010	10.6% 4 th Quarter, 2010	12.2% 4 th Quarter, 2010
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.4% 3 rd Quarter, 2010	12.4% 3 rd Quarter, 2010	10.9% 3 rd Quarter, 2010
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.8% 2 nd Quarter, 2010	12.0% 2 nd Quarter, 2010	11.2% 2 nd Quarter, 2010
AGGREGATE VACANCY RATE\ EFFECTIVE DATE	8.5% 1 st Quarter, 2010	12.1% 1 st Quarter, 2010	11.4% 1 st Quarter, 2010

Source: CoStar Group//Excludes Owner-Occupied Inventory

The preceding factors suggest a moderate level of growth in the Tucson population and overall economy should continue over the long-term, and this should have a positive impact upon general property values including properties similar to the subject. However, the short-term outlook for properties such as the subject is more guarded due to the recent downturn in the housing market and economy as a whole.

Neighborhood Data:

The Eagle Crest Ranch community is located north of Tucson, on the periphery of the Tucson metropolitan area about one mile north of the Pinal/Pima County boundary. This location is found near the southern perimeter of Pinal County, with the Tucson metropolitan area in Pima County to the south being the nearest major city. Due to the sparse population in the surrounding area within Pinal County, this community relies primarily upon support services in Pima County and the Tucson metropolitan area to the south. The boundaries of the subject neighborhood are roughly considered to be Coronado National Forest to the east, Tangerine Road to the south, and the Tucson Mountains and Sandario Road alignment serve as a rough boundary on the west. The northern boundary of the neighborhood is less definite due to the great amount of open range, although extends into Pinal County. These boundaries delineate an expansive area which is predominantly a combination of existing residential uses and vacant land. Tucson continues to grow in a north/northwesterly direction, led by a number of master planned communities. Commercial-oriented uses are slowly developing in the neighborhood, primarily along the major traffic routes, in response to population increases. Substantial quantities of vacant land still remain throughout the subject neighborhood, particularly in the northern portion, with existing improvements found mostly in the southern portion and spreading to the north.

The northwest side of Tucson has grown dramatically since the 1970's, due in large part to the availability of land for development. Growth of the city is somewhat restricted in other directions. For example, to the north/northeast of Tucson are the Santa Catalina Mountains, to the west are the Tucson Mountains, and to the south is Davis-Monthan Air Force Base and Tucson International Airport. These have served as barriers to residential growth to a certain

extent. As a result, residential growth has historically been led by the northwest and east/southeast sides of Tucson and these continue to be growth areas in the region. The larger Tucson area experienced unprecedented residential growth in recent years between the late 1990's through 2005. This growth resulted from a robust economy, positive job growth and low interest rates which have favored buying versus renting. The level of growth, coupled with other factors such as increasing land prices and environmental constraints, drove developers/builders to the periphery of Tucson in search of land available for development and more affordable land prices. The most active areas were the southeast, south, southwest and northwest of the metro area. Development was also driven to neighboring counties which have historically been more rural in nature such as Cochise County to the east, Santa Cruz County to the south and Pinal County to the north.

The two primary routes into Pinal County from Pima County are Interstate 10 and State Highway 77, which is also known as Oracle Road. State Highway 77 travels through Oracle Junction in a north/northeasterly direction, and is the route to other towns such as Oracle, Mammoth, Winkleman and Globe. Oracle Road connects the midtown and downtown areas of the city with northwest Tucson. There is a good balance of land uses on Oracle Road, which is predominantly commercial in nature. Land uses include office, retail, restaurant, resorts/hotels with multi-family, with single family residences further north of Magee Road. Commercial development continues to grow north to provide support services to the expanding residential base.

Notable developments further south along Oracle Road in Pima County include the Hilton El Conquistador Resort, Oro Valley Country Club, Foothills Business Park and the Honeywell manufacturing facility. Several major points of new commercial development include neighborhood shopping centers located on Oracle Road at the intersections of Golder Ranch Road and near First Avenue. The Rancho Vistoso master planned community, which is located along Oracle Road near Tangerine Road, has a neighborhood center anchored by a Safeway grocery store and a Walgreen's drug store, with an older center located at Oracle and Rancho Vistoso Boulevard. A new neighborhood center is located at Oracle and Golder Ranch Road, anchored by a Basha's grocery store. In addition, a new neighborhood shopping center known as Steam Pump Ranch is currently under development further south. The most recent addition to the commercial base of the neighborhood is a new power center at the southwest corner of Oracle Road and Tangerine Road, known as Oro Valley Marketplace. This center will eventually consist of about 869,000 square feet of commercial space when completed on a 120-acre site. Major tenants now include Wal-Mart, Petco, Best Buy and Linens N' Things, along with a variety of smaller retail tenants, restaurants and offices. Also, a number of smaller commercial enterprises can be found along Oracle Road in the un-incorporated community of Catalina, which is near the Pima County/Pinal County line. Properties along Oracle Road account for a large portion of the developed commercial sites in the subject neighborhood, although a number of vacant sites with potential commercial use can still be found along this route. In general, commercial and industrial improvements in both the neighborhood and greater Tucson have grown gradually with the population base.

Among the major employers on the northwest side of Tucson, the Hilton Tucson El Conquistador Resort was built in the early 1980's and is located on the east side of Oracle Road, about four miles north of Ina Road. The hotel contains 428 rooms, including 180 casitas, and features 18 tennis courts, four indoor racquetball courts, and a nine-hole golf course. Other amenities include pool and spa facilities, riding stables and a health club. This resort draws a variety of conventioners and vacationers. In 1989, the 36-hole Canada Hills Golf Course and

Country Club, located farther to the west, was purchased by Sheraton. Now known as the El Conquistador Country Club, this facility provides an additional amenity for the Hilton (former Sheraton) resort. The Hilton Tucson El Conquistador currently employs approximately 675 people according to the personnel department.

Another resort located in the subject neighborhood which attracts visitors is the Tucson National Resort and Spa. The Tucson National Golf Club was recognized as one of the more affluent settings in Tucson for many years, and the golf course served as the site for the annual Tucson Open PGA golf tournament for over fifteen years. Several years ago, Tucson National was transformed from a private club to a resort with 167 rooms available. Amenities include 27 holes of championship golf, a European class health spa, swimming pool/Jacuzzi and six lighted tennis courts. Finally, development of a Ritz-Carlton destination resort in the Dove Mountain master planned community was completed in late 2009.

Also, the Honeywell (formerly Allied Signal Corporation and Garrett AiResearch) manufacturing facility is located on the east side of Oracle Road, to the north of the Sheraton El Conquistador. The facility contains approximately 355,000 square feet and was originally opened in January of 1987. Original plans detailed an 84 acre industrial campus that would eventually include over 1,000,000 square feet of improvements. Employment began at approximately 2,000 and was originally expected to reach 4,000. However, Honeywell, which merged with Allied-Signal in 1999, employs only about 800 people currently at this facility.

Other major employers in the northwest Tucson area include Phelps Dodge Mining Company which employs 4,900 people, and the Northwest Health System which employs 1,808 people.

According to The Costar Group, North/Oro Valley accounts for about 4.8 percent of the completed leasable retail space in the greater Tucson area, with an aggregate vacancy of 13.8 percent compared to the city average of 8.9 percent (1st quarter, 2011). For office inventory, the subject area accounts for about 1.9 percent of the Tucson inventory with a vacancy of 34.2 percent compared with 12.4 percent for greater Tucson. Industrial leasable inventory in the surrounding area of the subject is limited mainly to pockets near Oracle Road, and represents mainly light industrial or tech-park space. Other industrial developments are found to the south and west of the subject neighborhood, primarily along the I-10 corridor.

Until recently, the subject neighborhood has experienced unprecedented population growth. According to Pima County statistics, the population in northwest Tucson had growth at a rate of 4.5 percent per year between the years of 1980 and 1987. While growth in the neighborhood has since slowed to more modest levels, it is still expected to lead all others in future metropolitan population growth. The demographics near Eagle Crest Ranch are reflected in census data (2000) available by zip code. The subject property falls within zip code 85739, and this zip code had a reported population of 12,088 persons in 2000, with an average household size of 2.31 persons. An average median household income of \$47,001 and a median owner-occupied home value of \$166,200 were also reported. Although Eagle Crest Ranch is considered to be within the Tucson metro area, it is located in the southern portion of Pinal County. According to the U.S. Census Bureau, the population of Pinal County for 2006 was approximately 271,059 which is a 51% increase from 2000. The median household income in 2004 for Pinal County was \$40,255.

Residential growth in the subject neighborhood has been influenced by the number of master planned communities located in or near the neighborhood. Existing projects in northwest Tucson include Canada Hills, Copper Creek, North Ranch, La Reserve, Continental Ranch, Gladden Farms, Dove Mountain, Rancho Vistoso, Eagle Crest Ranch, SaddleBrooke Ranch and SaddleBrooke. The largest master planned project in the area is Rancho Vistoso, and is located toward the southern perimeter of the neighborhood. Rancho Vistoso is a master-planned community that contains approximately 8,000 acres. Canada Hills, Copper Creek, North Ranch, La Reserve and Continental Ranch are older projects which have been sold out for some time. Rancho Vistoso and SaddleBrooke are largely built out, though with some inventory still available. Further west, Dove Mountain and particularly Gladden Farms have significant inventory still available. A variety of national and local production builders operate throughout the neighborhood, with custom home projects also found throughout. Please refer to the subsequent Market Overview section of this report for a more complete discussion of the housing market in Tucson and the neighborhood.

As previously discussed, the larger Tucson area experienced unprecedented residential growth in recent years between the late 1990's through 2005. This growth resulted from a robust economy, positive job growth and low interest rates which have favored buying versus renting. The level of growth, coupled with other factors such as increasing land prices and environmental constraints, drove developers/builders to the periphery of Tucson in search of land available for development and more affordable land prices. The most active areas were the southeast, south, southwest and northwest of the metro area. Development was also driven to neighboring counties which have historically been more rural in nature such as Cochise County to the east, Santa Cruz County to the south and Pinal County to the north. Looking specifically at the subject area, a number of future developments are planned in Southern Pinal County. According to MTLUS information, future projects in the general vicinity of Eagle Crest Ranch include SaddleBrooke Ranch, Falcon Valley Ranch, Coronado Highlands, Cielo, Biosphere, San Manuel Project and Willow Springs. These projects could potentially add nearly 50,000 lots in southeastern Pinal County in the coming years and demonstrate the anticipated demand for new housing in the area.

Four separate governmental entities have jurisdiction in the subject neighborhood. There are two incorporated communities that influence the subject neighborhood. The first is the Town of Oro Valley, which has expanded its boundaries to the north to include the Rancho Vistoso development. The second is the Town of Marana, which has also adopted a pro-growth stance and has annexed western and central portions of the neighborhood. Most portions of the subject neighborhood that are not under the jurisdiction of the previously mentioned entities fall under the jurisdiction of Pima County. The subject property is located just north of the Pima/Pinal County line, falling under the jurisdiction of Pinal County.

For many years the subject neighborhood relied primarily on the greater metropolitan area for medical needs, with the only hospital in the area being Northwest Hospital near La Cholla Boulevard and Orange Grove Road. However, Northwest Hospital has more recently opened a new 4-story, 257,000 square foot, 96-bed hospital in Rancho Vistoso which has improved medical support services for the northern portion of the neighborhood, including residents of Eagle Crest Ranch.

Recreational facilities in the neighborhood include a number of golf courses. These are specifically located in SaddleBrooke, plus three courses in Rancho Vistoso, the Oro Valley Country Club, the Hilton El Conquistador Hotel and Resort, the El Conquistador Country Club and the Tucson National Golf and Country Club. There is also a public course, located at Arthur Pack Park. The Catalina State Park is a recreational facility which contains approximately 8,600 acres, located south of the subject along the east side of Oracle Road. Catalina State Park provides visitors numerous trails for hiking and several areas for picnics and camping. Additionally the park has designated open areas that are intended for the preservation of area wildlife.

The neighborhood is served primarily by three separate school districts. They include the Marana School District Number 6, the Amphitheater School District Number 10 and the Flowing Wells School District Number 8. Places of worship for most denominations can also be found throughout the subject neighborhood for the religious needs of the area residents.

Overall, the subject neighborhood continues to become more established due to steady population growth. In fact, northwest Tucson continues to be one of the fastest growing portions of the metropolitan area. The combination of available land suitable for development, coupled with an expanding economic base, has had a positive influence on future growth trends in the neighborhood. This growth is now extending into Pinal County with a number of master planned communities on the drawing board. The housing market in Tucson and northwest Tucson improved dramatically since the early 1990's, and was particularly strong between 2000 and 2005. This resulted from a combination of factors such as low interest rates, employment and population growth.

Unfortunately, the neighborhood has been adversely impacted by the recent downturn in the housing market, similar to the Tucson area as a whole, and this will adversely affect growth trends in the neighborhood in the short-term. The housing market is currently experiencing a correction and is adversely impacting the subject property in the short-term. However, when taking a long-term view the outlook is better. Steady residential growth in northwest Tucson is anticipated over the long term, which in turn will motivate commercial development in the form of support services. As the population base increases, commercial development providing support services to area residents is following and shopping alternatives are becoming more convenient. In terms of retirement housing, the subject neighborhood should continue to remain desirable for retirement buyers for a number of years to come. The location of the Eagle Crest Ranch community on the northwest periphery of Tucson is a desirable characteristic impacting absorption and overall performance.

Site Data:**Location**

The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. The Eagle Crest Ranch community is found within Pinal County, just north of the Pima County line. This community is located on the east side of Oracle Road, north of Edwin Road.

Water Plant #1 is found on the west side of Eagle Crest Ranch Boulevard, south of Eagle Ranch Road, with a physical address of 39544 South Eagle Crest Ranch Boulevard. **Water Plant #2** is found on the west side of Eagle Crest Ranch Boulevard, north of Eagle Heights Drive, with a physical address of 39930 South Eagle Crest Ranch Boulevard. **Water Plant #3** is found on the northeast corner of Eagle Ridge Drive and Eagle Mountain Drive, with a physical address of 61025 East Eagle Mountain Drive. **Water Plant #4** is found on the west side of Mountain Shadow Drive, north of Eagle Heights Drive, with a physical address of 39904 South Mountain Shadow Drive.

Site Shape/Size

The subject water plant sites are irregular in shape although the shapes are not considered adverse for their current use. Per public records, the size of each parcel are as follows:

Water Plant #1 – 31,363 sq.ft.

Water Plant #2 – 10,890 sq.ft.

Water Plant #3 – 27,443 sq.ft.

Water Plant #4 – 16,988 sq.ft.

**Access
and Visibility**

All four of the subject parcels are accessed via interior feeder streets found within the Eagle Crest Ranch subdivision. Visibility is considered adequate for these interior parcels which are not high profile locations. All of the streets within the project are two lane, asphalt paved roadways, with curbs and sidewalks noted.

**Topography
and Drainage**

Each of the subject parcels are mostly level, however have different elevations from street grade. No significant drainage or soil conditions were apparent by visual observation which would prevent the highest and best use of the sites, although no soil study or engineering report were available to confirm this observation. No engineering or soils report was available, and therefore no information was provided with respect to the utility or constructability of the existing improvements, or any unusual soil or drainage conditions which are not readily apparent. This appraisal assumes no significant soils challenge's associated with the subject parcels. An examination of the FEMA Flood Insurance Rate Map shows that the subject is located within "Zone X", which is not a special flood hazard area as designated by FEMA Map Number 04021C2475E dated December 4, 2007.

Assessments	There are no assessments due against the subject site per confirmation with the Pinal County.
Easements and Encroachments	No encroachments were noted. The site is subject to various easements which are related primarily to access, utilities, drainage, etc., and which are typical of similar properties and are not considered adverse.
Surrounding Uses	Water Plant sites 1 and 2 are surrounded on two sides by vacant land zoned for commercial uses and two side by residential uses. Water Plant sites 3 and 4 are primarily surrounded by residential uses.
Environmental Concerns	<p>No potential environmental hazards which might affect the use and value of the subject property were noted upon inspection, however these appraisers lack the experience to investigate hazardous materials and we recommend that a complete Environmental Survey be performed on the subject property to confirm the presence or absence of any environmental hazards. As a result, the value opinions contained in this appraisal report <u>DO NOT</u> consider any loss in value due to any potentially hazardous environmental substances which may or may not be present on or near the subject property.</p> <p>Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of such substances, such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimated is predicated on the assumption that there is no such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.</p>
Utilities	All typical utilities are available and in place to each of the subject water plant sites.

Tax Data

The subject parcels are identified under the following tax parcel numbers:

Water Plant #1 – Ptn of 305-31-013W

Water Plant #2 – 305-31-013Q

Water Plant #3 – 305-93-6040

Water Plant #4 – 305-93-219B

Water Plant #1 is a portion of a larger 9.32 acre site that has a current full cash value of \$223,680, and 2010 real estate taxes of \$2,960.18. No delinquent taxes were reported.

Water Plant #2 has a current full cash value of \$46,874, and 2010 real estate taxes of \$1,021.24. No delinquent taxes were reported.

Water Plant #3 has a current full cash value of \$500, and 2010 real estate taxes of \$6.94. No delinquent taxes were reported.

Water Plant #4 has a current full cash value of \$28,000, and 2010 real estate taxes of \$411.22. No delinquent taxes were reported.

Zoning

Water Plants 1 and 2 are found under the CI-1 (Light Industry and Warehouse Zone) and Water Plants 3 and 4 are found under the CR-3 (Single Family Residence Zone), per the Pinal County zoning ordinances.

The CI-1 zone allows for industrial and manufacturing uses, along with all business uses allowed under the CB-1 and CB-2 zones. Residential uses are also allowed. There is no minimum lot area, although a maximum building height of 35 feet is noted, along with a minimum front yard of 15 feet and a minimum rear yard of 10 feet.

The CR-3 zone is a residential zone with a minimum lot area of 7,000 square feet, a minimum lot width of 60 feet, minimum front yard of 20 feet, minimum rear yard of 25 feet, minimum side yards of eight feet each, and a maximum building height of 30 feet.

Summary

In conclusion, the physical characteristics of each of the subject parcels are considered relatively conducive to most types of development. The parcels are generally level and do not display any visible signs of adverse drainage conditions. The degree of access afforded the subject parcels is considered adequate and the sites benefit from the visibility afforded these locations, however, none of the streets are considered a major traffic routes in the neighborhood. All typical municipal services and utilities are available. The existing improvements to each parcel appear to be consistent with the physical and legal constraints of the sites, and the parcels should continue to serve well as the location of these improvements within the foreseeable future.

Highest and Best Use:

As Though Vacant The analysis of the highest and best use of a site, as though vacant, assumes that the parcel in question is either vacant or can be made vacant by demolishing any improvements. By applying this assumption, the uses that create value in the marketplace can be identified. Once the highest and best use of the site, as though vacant, is identified, an estimate of site value can be concluded.

The subject consists of four water plant sites located within the master planned community of Eagle Crest Ranch. Water Plants 1 and 2 are found under the CI-1 (Light Industry and Warehouse Zone) and Water Plants 3 and 4 are found under the CR-3 (Single Family Residence Zone), per the Pinal County zoning ordinances. The degree of access afforded the subject parcels is considered adequate and the sites benefit from the visibility afforded these locations, however, none of the streets are considered a major traffic routes in the neighborhood. All typical municipal services and utilities are available.

Legally permissible uses under the CI-1 zoning classification allow a range of commercial oriented businesses, and well as some residential uses. The CR-3 zoning is primarily a residential zone. Both of these zonings will allow a water plant use. The physically possible uses are mainly limited by the physical sizes of the parcels, although the sites could accommodate a wide variety of uses. Therefore, the legally permissible and physically possible uses of the site are wide ranging and would include a combination of residential or commercial business uses. However, current market conditions do not clearly demonstrate that construction of any particular type of commercial improvements would be financially feasible at the present time. Therefore, the maximally productive use, and the highest and best use, of the CI-1 water plant sites “as though vacant”, is considered to be either an investment use with the potential for a variety of future uses or any use that would conform to the CI-1 zoning, be physically possible, and be proven to be financially feasible and maximally productive in the current market. The CR-3 zoned water plant sites are limited to a residential uses, although the size of these two sites are larger than a typical lot would be at 7,000 square feet.

As water plant sites are allowed under both the CI-1 and CR-3 zonings within the Eagle Crest Ranch project, these uses are allowable and considered to be the current Highest and Best Use of each parcel.

The Appraisal Process:

The determination of a market value opinion for real property is an orderly process by which: (1) the problem is defined; (2) the work necessary to solve the problem planned; and (3) the data involved is acquired, classified, analyzed and interpreted into an opinion of value. Inherent in this process is a consideration of the four major forces in our economy which affect value: environmental, social, economic and governmental forces. Such consideration facilitates the determination of the highest and best use of the subject property, the basis upon which the value is opinion is determined.

Three approaches are typically considered, each of which derives information from the market in one form or another. These include the Cost Approach, the Sales Comparison Approach, and the Income Capitalization Approach. Each approach is not necessarily equally as important in every appraisal.

Due to the nature of the subject property, being considered as vacant land parcels, only the Sales Comparison Approach was considered appropriate for estimating the value of the each parcel. The Cost Approach and Income Capitalization Approach were not applicable and not utilized.

A search was conducted for sales of vacant land parcels for comparison to the subject parcels, resulting in an opinion of value by the Sales Comparison Approach. The use of comparable sales is the application of the principle of substitution, which affirms that the value of the subject tends to be set by the cost of acquisition of an equally desirable property, assuming no costly delays are encountered in making the substitution. The most persuasive indications of a reasonable market value for the subject site are the sales prices of similar properties that have been recently sold. No prudent purchaser pays more than an amount necessary to get ownership; he, economically, will pay no more for one property than the cost of acquisition of similar property with similar utility and desirability.

A search of the public records was conducted, and interviews with real estate agents and brokers were made by these appraisers. Because no two properties are ever exactly the same, adjustments are made and considered to reflect the differences between the comparable properties and the subject site, as currently vacant. Adjustments are considered for such factors as relative size, location, date of sale, terms and conditions of sale, environmental appeal, potential use and productivity, service available, topography and other factors which would affect market value. These adjustments to comparable sale prices are explained in the Land Value Analysis.

The valuation process for each water plant site begins on the following page with a summary of the comparable land sale data.

COMPARABLE LAND SALE TABULATION WATER PLANT #1 (DATE OF SERVICE - MAY 1, 2002)						
SALE	SALE DATE	LOCATION (TAX ID NUMBER)	SALE PRICE	PARCEL SIZE (SQ.FT.)	SALE PRICE PER SQ.FT.	ZONING
1	6/02	East side of Oracle Road, north of Pinal Street (222-16-111A)	\$268,000	48,000	\$5.58	CB-1
2	10/01	East side of Oracle Road, north of Pinal Street (222-16-1070)	\$58,000	16,000	\$3.63	TR
3	10/00	East side of Oracle Road, north of Pinal Street (222-16-1060)	\$65,000	16,000	\$4.06	TR
4	6/00	West side of Oracle Road, north of Mainsail Boulevard (222-12-0660)	\$47,500	10,260	\$4.63	CB-2
SUBJECT		Water Plant #1 (Ptn of 305-31-013W); West side of Eagle Crest Ranch Boulevard, south of Eagle Ranch Road		31,363		CI-1

Note: All sale price data presented in this table is based upon the cash equivalent sale prices of the respective transactions

Land Valuation Analysis and Conclusion:

Water Plant #1 is found on the west side of Eagle Crest Ranch Boulevard, south of Eagle Ranch Road, with a physical address of 39544 South Eagle Crest Ranch Boulevard. This site is irregular in shape, contains 31,363 square feet, and is zoned CI-1 by Pinal County. The purpose of this assignment is to provide an opinion of retrospective market value, "as if vacant", for the water plant sites as of the date each water plant was put into service. For Water Plant #1, the date of service was May 1, 2002.

Market conditions do not clearly demonstrate that construction of any particular type of commercial improvements would be financially feasible at the time of service. The highest and best use of this water plant site "as though vacant", is considered to be either an investment use with the potential for a variety of future uses. As water plant sites are allowed under CI-1 zoning within the Eagle Crest Ranch project, this use is considered to be the Highest and Best Use of the parcel.

A search for comparable land sales was conducted and a limited supply of comparable data was found for the date of value of May 1, 2002. Four sales were selected which were considered the best available comparisons to the subject. I have selected the best combination land sales in comparison to the subject based upon the highest and best use of the parcels. Each sale has undergone a cash equivalency analysis designed to identify comparable sales which sold under atypical financing terms, and then adjusted if necessary to reflect cash terms or equivalent. In addition, other adjustments are made to the sales resulting from differences between the subject and the comparable such as size, topography, location or utility. The primary unit of comparison used in this analysis is sales price per square foot, since this unit is typically utilized by buyers and sellers in the market for properties similar to the subject. **Individual plat maps and photographs for each comparable sale can be found in the Addendum of this report.** Here follows the analysis of the comparable sales.

Adjustments:

Due to differences between the subject property and the comparable sales, adjustments were made to the comparable sales in an attempt to reflect those differences in the ultimate price that was paid. Typically, the adjustments to each sale are considered in the following sequence:

- 1) property rights conveyed
- 2) financing terms
- 3) conditions of sale
- 4) market conditions (time)
- 5) location and physical characteristics

An attempt was made to extract market-derived adjustments from the comparable sale data through the use of paired sale analysis, as explained in the following discussion. However, due to the limited amount of sale data with respect to vacant parcels similar to the subject, it was necessary to consider more general market information which has been discussed elsewhere in this report, as well as our general knowledge of local market conditions affecting properties similar to the subject based upon discussions with agents/brokers and other market participants. As a result, the adjustments made reflect a certain amount of appraiser judgment, and might vary from appraiser to appraiser. The following table summarizes our analysis of the comparable sale data.

LAND SALE ADJUSTMENT GRID		SALE 1	SALE 2	SALE 3	SALE 4
SUBJECT PROPERTY: Water Plant #1					
PARCEL DATA	SUBJECT				
DATE OF SALE		6/02	10/01	10/00	6/00
PARCEL SIZE	31,363 sq. ft.	48,000 sq. ft.	16,000 sq. ft.	16,000 sq. ft.	10,260 sq. ft.
ZONING	CI-1	CB-1	TR	TR	CB-2
CONTRACT SALE PRICE/SQ.FT.		\$5.58	\$3.63	\$4.06	\$4.63
ELEMENTS OF COMPARISON					
PROPERTY RIGHTS CONVEYED	Fee Simple				
		0.0%	0.0%	0.0%	0.0%
ADJUSTED CONTRACT SALE PRICE/SQ.FT.		\$5.58	\$3.63	\$4.06	\$4.63
FINANCING	Cash or Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.
		0.0%	0.0%	0.0%	0.0%
CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.58	\$3.63	\$4.06	\$4.63
CONDITIONS OF SALE		0.0%	0.0%	0.0%	0.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.58	\$3.63	\$4.06	\$4.63
DATE OF SALE		0.0%	15.0%	15.0%	15.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.58	\$4.17	\$4.67	\$5.32
LOCATIONAL CHARACTERISTICS		-5.0%	-5.0%	-5.0%	-5.0%
PARCEL SIZE		5.0%	-5.0%	-5.0%	-5.0%
PHYSICAL CHARACTERISTICS		0.0%	0.0%	0.0%	0.0%
PROXIMITY TO UTILITIES		0.0%	0.0%	0.0%	0.0%
ZONING/HIGHEST & BEST USE		-5.0%	-5.0%	-5.0%	-5.0%
INDICATED SALE PRICE/SQ.FT.		\$5.30	\$3.54	\$3.97	\$4.52

Summary – Water Plant #1:

The four comparable sales ranged in value from \$4.06 to \$5.58 per square foot on a cash equivalent basis. After adjustments to the comparable sales, a range of value for Water Plant #1 is suggested from \$3.54 to \$5.30 per square foot. It is my opinion that a value within this range, above \$4.00, below \$5.00, and near \$4.50 per square foot is reasonable. Then, multiplying \$4.50 times the 31,363 square feet found within Water Plant #1, results in a value opinion of \$141,134, rounded to \$140,000.

Therefore, my final opinion of retrospective market value “as if vacant” for the Water Plant #1 site is concluded to be \$140,000, or near \$4.50 per square foot, as of May 1, 2002.

COMPARABLE LAND SALE TABULATION WATER PLANT #2 (DATE OF SERVICE - AUGUST 1, 2005)						
SALE	SALE DATE	LOCATION (TAX ID NUMBER)	SALE PRICE	PARCEL SIZE (SQ.FT.)	SALE PRICE PER SQ.FT.	ZONING
1	7/05	Northeast corner of Oracle Road and Pinal Street (222-11-0470)	\$310,000	37,897	\$8.18	CB-2
2	4/05	West side of Oracle Road, north of Pinal Street (222-11-017B)	\$260,000	51,129	\$5.09	GR-1
3	12/04	East side of Oracle Road, north of Pinal Street (222-16-1060)	\$92,500	16,000	\$5.78	TR
4	10/04	East side of Oracle Road, north of Pinal Street (222-16-1120)	\$92,500	16,667	\$5.10	TR
5	6/04	West side of Oracle Road, north of Mainsail Boulevard (222-12-0660)	\$50,000	10,260	\$4.87	CB-2
SUBJECT		Water Plant #2 (305-31-013Q) West side of Eagle Crest Ranch Boulevard, north of Eagle Heights Drive		10,890		CI-1

Note: All sale price data presented in this table is based upon the cash equivalent sale prices of the respective transactions

Land Valuation Analysis and Conclusion:

Water Plant #2 is found on the west side of Eagle Crest Ranch Boulevard, north of Eagle Heights Drive, with a physical address of 39930 South Eagle Crest Ranch Boulevard. This site is irregular in shape, contains 10,890 square feet, and is zoned CI-1 by Pinal County. The purpose of this assignment is to provide an opinion of retrospective market value, "as if vacant", for the water plant sites as of the date each water plant was put into service. For Water Plant #2, the date of service was August 1, 2005.

Market conditions do not clearly demonstrate that construction of any particular type of commercial improvements would be financially feasible at the time of service. The highest and best use of this water plant site "as though vacant", is considered to be either an investment use with the potential for a variety of future uses. As water plant sites are allowed under CI-1 zoning within the Eagle Crest Ranch project, this use is considered to be the Highest and Best Use of the parcel.

A search for comparable land sales was conducted and a limited supply of comparable data was found for the date of value of August 1, 2005. Five sales were selected which were considered the best available comparisons to the subject. I have selected the best combination land sales in comparison to the subject based upon the highest and best use of the parcels. Each sale has undergone a cash equivalency analysis designed to identify comparable sales which sold under atypical financing terms, and then adjusted if necessary to reflect cash terms or equivalent. In addition, other adjustments are made to the sales resulting from differences between the subject and the comparable such as size, topography, location or utility. The primary unit of comparison used in this analysis is sales price per square foot, since this unit is typically utilized by buyers and sellers in the market for properties similar to the subject. **Individual plat maps and photographs for each comparable sale can be found in the Addendum of this report.** Here follows the analysis of the comparable sales.

Adjustments:

Due to differences between the subject property and the comparable sales, adjustments were made to the comparable sales in an attempt to reflect those differences in the ultimate price that was paid. Typically, the adjustments to each sale are considered in the following sequence:

- 1) property rights conveyed
- 2) financing terms
- 3) conditions of sale
- 4) market conditions (time)
- 5) location and physical characteristics

An attempt was made to extract market-derived adjustments from the comparable sale data through the use of paired sale analysis, as explained in the following discussion. However, due to the limited amount of sale data with respect to vacant parcels similar to the subject, it was necessary to consider more general market information which has been discussed elsewhere in this report, as well as our general knowledge of local market conditions affecting properties similar to the subject based upon discussions with agents/brokers and other market participants. As a result, the adjustments made reflect a certain amount of appraiser judgment, and might vary from appraiser to appraiser. The following table summarizes our analysis of the comparable sale data.

LAND SALE ADJUSTMENT GRID		SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
SUBJECT PROPERTY: Water Plant #2						
PARCEL DATA	SUBJECT					
DATE OF SALE		7/05	4/05	12/04	10/04	6/04
PARCEL SIZE	10,890 sq. ft.	37,897 sq. ft.	51,129 sq. ft.	16,000 sq. ft.	16,667 sq. ft.	10,260 sq. ft.
ZONING	CI-1	CB-2	GR-1	TR	TR	CB-2
CONTRACT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$5.78	\$5.10	\$4.87
ELEMENTS OF COMPARISON						
PROPERTY RIGHTS CONVEYED	Fee Simple					
		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CONTRACT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$5.78	\$5.10	\$4.87
FINANCING	Cash or Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.
		0.0%	0.0%	0.0%	0.0%	0.0%
CASH EQUIVALENT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$5.78	\$5.10	\$4.87
CONDITIONS OF SALE		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$5.78	\$5.10	\$4.87
DATE OF SALE		0.0%	0.0%	5.0%	10.0%	10.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$8.18	\$5.09	\$6.07	\$5.61	\$5.36
LOCATIONAL CHARACTERISTICS		-15.0%	-5.0%	-5.0%	-5.0%	-5.0%
PARCEL SIZE		10.0%	10.0%	5.0%	5.0%	0.0%
PHYSICAL CHARACTERISTICS		0.0%	0.0%	0.0%	0.0%	0.0%
PROXIMITY TO UTILITIES		0.0%	0.0%	0.0%	0.0%	0.0%
ZONING/HIGHEST & BEST USE		-15.0%	10.0%	-5.0%	-5.0%	-5.0%
INDICATED SALE PRICE/SQ.FT.		\$6.54	\$5.85	\$5.77	\$5.33	\$4.82

Summary – Water Plant #2:

The five comparable sales ranged in value from \$4.87 to \$8.18 per square foot on a cash equivalent basis. After adjustments to the comparable sales, a range of value for Water Plant #2 is suggested from \$4.82 to \$6.54 per square foot. It is my opinion that a value within this range, above \$5.00, below \$6.50, and near \$5.75 per square foot is reasonable. Then, multiplying \$5.75 times the 10,890 square feet found within Water Plant #2, results in a value opinion of \$62,618, rounded to \$65,000.

Therefore, my final opinion of retrospective market value “as if vacant” for the Water Plant #2 site is concluded to be \$65,000, or near \$5.75 per square foot, as of August 1, 2005.

COMPARABLE LAND SALE TABULATION WATER PLANT #3 (DATE OF SERVICE - JANUARY 1, 2008)						
SALE	SALE DATE	LOCATION (TAX ID NUMBER)	SALE PRICE	PARCEL SIZE (SQ.FT.)	SALE PRICE PER SQ.FT.	ZONING
1	11/07	East side of Avenida Del Canada, north of Mainsail Boulevard (222-19-0100)	\$60,000	12,000	\$5.00	GR-1
2	8/07	West side of Bowman Road, south of Golder Ranch Road (222-42-001J)	\$157,000	43,568	\$3.60	GR-1
3	12/06	South side of Graham Street, east of Oracle Road (222-19-0260)	\$50,000	12,000	\$4.17	GR-1
4	4/06	West side of Oracle Road, north of Pinal Street (222-11-017A)	\$330,000	52,912	\$6.24	GR-1
5	2/06	Northeast corner of Oracle Road and Hawser Street (222-22-0080)	\$350,000	54,886	\$6.83	TR
SUBJECT		Water Plant #3 (305-93-6040); Northeast corner of Eagle Ridge Drive and Eagle Mountain Drive		27,443		CR-3

Note: All sale price data presented in this table is based upon the cash equivalent sale prices of the respective transactions

Land Valuation Analysis and Conclusion:

Water Plant #3 is found on the northeast corner of Eagle Ridge Drive and Eagle Mountain Drive, with a physical address of 61025 East Eagle Mountain Drive. This site is irregular in shape, contains 27,443 square feet, and is zoned CR-3 by Pinal County. The purpose of this assignment is to provide an opinion of retrospective market value, "as if vacant", for the water plant sites as of the date each water plant was put into service. For Water Plant #3, the date of service was January 1, 2008.

The highest and best use of this water plant site "as though vacant", is considered to be either an investment use with the potential for a variety of future residential uses. As water plant sites are allowed under CR-3 zoning within the Eagle Crest Ranch project, this use is considered to be the Highest and Best Use of the parcel.

A search for comparable land sales was conducted and a limited supply of comparable data was found for the date of value of January 1, 2008. Five sales were selected which were considered the best available comparisons to the subject. I have selected the best combination land sales in comparison to the subject based upon the highest and best use of the parcels. Each sale has undergone a cash equivalency analysis designed to identify comparable sales which sold under atypical financing terms, and then adjusted if necessary to reflect cash terms or equivalent. In addition, other adjustments are made to the sales resulting from differences between the subject and the comparable such as size, topography, location or utility. The primary unit of comparison used in this analysis is sales price per square foot, since this unit is typically utilized by buyers and sellers in the market for properties similar to the subject. **Individual plat maps and photographs for each comparable sale can be found in the Addendum of this report.** Here follows the analysis of the comparable sales.

Adjustments:

Due to differences between the subject property and the comparable sales, adjustments were made to the comparable sales in an attempt to reflect those differences in the ultimate price that was paid. Typically, the adjustments to each sale are considered in the following sequence:

- 1) property rights conveyed
- 2) financing terms
- 3) conditions of sale
- 4) market conditions (time)
- 5) location and physical characteristics

An attempt was made to extract market-derived adjustments from the comparable sale data through the use of paired sale analysis, as explained in the following discussion. However, due to the limited amount of sale data with respect to vacant parcels similar to the subject, it was necessary to consider more general market information which has been discussed elsewhere in this report, as well as our general knowledge of local market conditions affecting properties similar to the subject based upon discussions with agents/brokers and other market participants. As a result, the adjustments made reflect a certain amount of appraiser judgment, and might vary from appraiser to appraiser. The following table summarizes our analysis of the comparable sale data.

LAND SALE ADJUSTMENT GRID						
SUBJECT PROPERTY: Water Plat #3						
PARCEL DATA	SUBJECT	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
DATE OF SALE		11/07	8/07	12/06	4/06	2/06
PARCEL SIZE	27,443 sq.ft.	12,000 sq.ft.	43,568 sq.ft.	12,000 sq.ft.	52,912 sq.ft.	54,886 sq.ft.
ZONING	CR-3	GR-1	GR-1	GR-1	GR-1	TR
CONTRACT SALE PRICE/SQ.FT.		\$5.00	\$3.60	\$4.17	\$6.24	\$6.38
ELEMENTS OF COMPARISON						
PROPERTY RIGHTS CONVEYED	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple
ADJUSTED CONTRACT SALE PRICE/SQ.FT.		\$5.00	\$3.60	\$4.17	\$6.24	\$6.38
FINANCING	Cash or Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.	Cash Equiv.
CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.00	\$3.60	\$4.17	\$6.24	\$6.38
CONDITIONS OF SALE		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.00	\$3.60	\$4.17	\$6.24	\$6.38
DATE OF SALE		0.0%	5.0%	10.0%	10.0%	10.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.00	\$3.78	\$4.59	\$6.86	\$7.02
LOCATIONAL CHARACTERISTICS		5.0%	5.0%	5.0%	-10.0%	-10.0%
PARCEL SIZE		-5.0%	5.0%	-5.0%	5.0%	5.0%
PHYSICAL CHARACTERISTICS		0.0%	0.0%	0.0%	0.0%	0.0%
PROXIMITY TO UTILITIES		0.0%	0.0%	0.0%	0.0%	0.0%
ZONING/HIGHEST & BEST USE		10.0%	10.0%	10.0%	0.0%	-5.0%
INDICATED SALE PRICE/SQ.FT.		\$5.50	\$4.54	\$5.05	\$6.52	\$6.32

Summary – Water Plant #3:

The five comparable sales ranged in value from \$3.60 to \$6.83 per square foot on a cash equivalent basis. After adjustments to the comparable sales, a range of value for Water Plant #3 is suggested from \$4.54 to \$6.52 per square foot. It is my opinion that a value within this range, above \$5.00, below \$6.50, and near \$6.00 per square foot is reasonable. Then, multiplying \$6.00 times the 27,443 square feet found within Water Plant #3, results in a value opinion of \$164,658, rounded to \$165,000.

Therefore, my final opinion of retrospective market value “as if vacant” for the Water Plant #3 site is concluded to be \$165,000, or near \$6.00 per square foot, as of January 1, 2008.

COMPARABLE LAND SALE TABULATION WATER PLANT #4 (DATE OF SERVICE - OCTOBER 1, 2004)						
SALE	SALE DATE	LOCATION (TAX ID NUMBER)	SALE PRICE	PARCEL SIZE (SQ.FT.)	SALE PRICE PER SQ.FT.	ZONING
1	12/04	East side of Oracle Road, north of Pinal Street (222-16-1060)	\$92,500	16,000	\$5.78	TR
2	10/04	East side of Oracle Road, north of Pinal Street (222-16-1120)	\$85,000	16,667	\$5.10	TR
3	7/04	West side of Oracle Road, north of Pinal Street (222-11-017B)	\$225,000	51,129	\$4.40	GR-1
4	6/04	West side of Oracle Road, north of Mainsail Boulevard (222-12-0660)	\$50,000	10,260	\$4.87	CB-2
5	3/04	West side of Oracle Road, south of Mainsail Boulevard (222-21-042A)	\$153,762	25,825	\$5.95	CB-2
6	9/03	West side of Oracle Road, north of Pinal Street (222-11-018B)	\$220,000	48,352	\$4.55	CB-2
SUBJECT		Water Plant #4 (305-93-219B) West side of Mountain Shadow Drive, north of Eagle Heights Drive		16,988		CR-3

Note: All sale price data presented in this table is based upon the cash equivalent sale prices of the respective transactions

Land Valuation Analysis and Conclusion:

Water Plant #4 is found on the west side of Mountain Shadow Drive, north of Eagle Heights Drive, with a physical address of 39904 South Mountain Shadow Drive. This site is irregular in shape, contains 16,988 square feet, and is zoned CR-3 by Pinal County. The purpose of this assignment is to provide an opinion of retrospective market value, "as if vacant", for the water plant sites as of the date each water plant was put into service. For Water Plant #4, the date of service was October 1, 2004.

The highest and best use of this water plant site "as though vacant", is considered to be either an investment use with the potential for a variety of future residential uses. As water plant sites are allowed under CR-3 zoning within the Eagle Crest Ranch project, this use is considered to be the Highest and Best Use of the parcel.

A search for comparable land sales was conducted and a limited supply of comparable data was found for the date of value of October 1, 2004. Six sales were selected which were considered the best available comparisons to the subject. I have selected the best combination land sales in comparison to the subject based upon the highest and best use of the parcels. Each sale has undergone a cash equivalency analysis designed to identify comparable sales which sold under atypical financing terms, and then adjusted if necessary to reflect cash terms or equivalent. In addition, other adjustments are made to the sales resulting from differences between the subject and the comparable such as size, topography, location or utility. The primary unit of comparison used in this analysis is sales price per square foot, since this unit is typically utilized by buyers and sellers in the market for properties similar to the subject. **Individual plat maps and photographs for each comparable sale can be found in the Addendum of this report.** Here follows the analysis of the comparable sales.

Adjustments:

Due to differences between the subject property and the comparable sales, adjustments were made to the comparable sales in an attempt to reflect those differences in the ultimate price that was paid. Typically, the adjustments to each sale are considered in the following sequence:

- 1) property rights conveyed
- 2) financing terms
- 3) conditions of sale
- 4) market conditions (time)
- 5) location and physical characteristics

An attempt was made to extract market-derived adjustments from the comparable sale data through the use of paired sale analysis, as explained in the following discussion. However, due to the limited amount of sale data with respect to vacant parcels similar to the subject, it was necessary to consider more general market information which has been discussed elsewhere in this report, as well as our general knowledge of local market conditions affecting properties similar to the subject based upon discussions with agents/brokers and other market participants. As a result, the adjustments made reflect a certain amount of appraiser judgment, and might vary from appraiser to appraiser. The following table summarizes our analysis of the comparable sale data.

LAND SALE ADJUSTMENT GRID						
SUBJECT PROPERTY: Water Plant #4						
PARCEL DATA	SUBJECT	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
DATE OF SALE		12/04	10/04	7/04	6/04	3/04
PARCEL SIZE	16,988 sq.ft.	16,000 sq.ft.	16,667 sq.ft.	51,129 sq.ft.	10,260 sq.ft.	25,825 sq.ft.
ZONING	CR-3	TR	TR	GR-1	CB-2	CB-2
CONTRACT SALE PRICE/SQ.FT.		\$5.78	\$5.10	\$4.40	\$4.87	\$5.95
ELEMENTS OF COMPARISON						
PROPERTY RIGHTS CONVEYED	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple
		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CONTRACT SALE PRICE/SQ.FT.		\$5.78	\$5.10	\$4.40	\$4.87	\$5.95
FINANCING	Cash or Equiv.	0.0%	0.0%	0.0%	0.0%	0.0%
CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.78	\$5.10	\$4.40	\$4.87	\$5.95
CONDITIONS OF SALE		0.0%	0.0%	0.0%	0.0%	0.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.78	\$5.10	\$4.40	\$4.87	\$5.95
DATE OF SALE		0.0%	0.0%	5.0%	5.0%	10.0%
ADJUSTED CASH EQUIVALENT SALE PRICE/SQ.FT.		\$5.78	\$5.10	\$4.62	\$5.11	\$6.25
LOCATIONAL CHARACTERISTICS		-5.0%	-5.0%	-5.0%	-5.0%	-10.0%
PARCEL SIZE		0.0%	0.0%	10.0%	-5.0%	5.0%
PHYSICAL CHARACTERISTICS		0.0%	0.0%	0.0%	0.0%	0.0%
PROXIMITY TO UTILITIES		0.0%	0.0%	0.0%	0.0%	0.0%
ZONING/HIGHEST & BEST USE		-5.0%	-5.0%	10.0%	-5.0%	-5.0%
INDICATED SALE PRICE/SQ.FT.		\$5.20	\$4.59	\$5.31	\$4.34	\$5.63
						\$5.01

Summary – Water Plant #4:

The six comparable sales ranged in value from \$4.40 to \$5.95 per square foot on a cash equivalent basis. After adjustments to the comparable sales, a range of value for Water Plant #4 is suggested from \$4.34 to \$5.63 per square foot. It is my opinion that a value within this range, above \$4.50, below \$5.50, and near \$5.00 per square foot is reasonable. Then, multiplying \$5.00 times the 16,988 square feet found within Water Plant #4, results in a value opinion of \$84,940, rounded to \$85,000.

Therefore, my final opinion of retrospective market value “as if vacant” for the Water Plant #4 site is concluded to be \$85,000, or near \$5.00 per square foot, as of October 1, 2004.

Estimated Exposure/Marketing Time:

A reasonable marketing period is intended to represent the period of time it might take to sell the subject parcels at market value in the period immediately following the retrospective dates of the appraisal. Marketing time differs from exposure time, which is always presumed to precede the effective date of the appraisal. In an effort to estimate a reasonable marketing period for the subject property, the following factors were considered: exposure times for comparable sale properties, interviews with market participants and anticipated changes in market conditions.

The comparable sales summarized in this report which were actively marketed had market times that ranged mostly under 12 months. Interviews with local brokers and market participants and general market conditions for this type of property suggest the any of the subject parcels could be sold within a 12-month period at a reasonable listing price.

The preceding data with respect to exposure times, opinions of market participants and general market conditions suggest that an exposure time of 12 months should be adequate for the subject parcels, “as if vacant”. Consequently, I believe that an estimated marketing time for the subject sites of one year is reasonable given the data available and a reasonable asking price.

Certification of Value:

I do hereby certify that to the best of my knowledge and belief...

The statements of fact contained in this report are true and correct.

The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the property that is the subject of this report, and no personal interest with respect to the parties involved.

I have no bias with respect to the property that is the subject of this report, or to the parties involved with this assignment.

My engagement in this assignment was not contingent upon developing or reporting predetermined results.

My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute, as well as the Uniform Standards of Professional Appraisal Practice.

John Ferenchak have made a personal inspection of the property that is the subject of this report, and has the knowledge and experience necessary to complete the assignment competently.

No one has provided significant real property appraisal assistance to the person signing this certification.

The appraisal assignment, my value conclusions, as well as other opinions expressed herein, are not based upon a requested minimum valuation, a specific valuation, or the approval of a loan.

The use of this report is subject to the requirements of the Appraisal Institute relating to review by a duly authorized representative.

I assume no responsibility for matters legal, structural, mechanical, architectural or engineering.

Any opinions of value presented in this report, unless otherwise stated, are formulated under the assumption that hazardous materials or conditions do not adversely affect the subject property. I do not assume any responsibility for any loss in value that is the result of such materials or conditions since we do not possess the expertise for their discovery.

My opinion of value for the subject property as of April 11, 2011 under financing and assumptions described in this report is:

EAGLE CREST RANCH WATER PLANT SITES "AS IF VACANT"			
WATER PLANT/ TAX ID	SITE SIZE	RETROSPECTIVE DATE OF VALUE	MARKET VALUE OPINION
Water Plant #1 (Ptn of 305-31-013W)	31,363 sf	May 1, 2002	\$140,000
Water Plant #2 (305-31-013Q)	10,890 sf	August 1, 2005	\$65,000
Water Plant #3 (305-93-6040)	27,443 sf	January 1, 2008	\$165,000
Water Plant #4 (305-93-219B)	16,988 sf	October 1, 2004	\$85,000

A typical marketing/exposure period for properties similar to the subject of 12 months was concluded as reasonable.

The reader should note that the "As If Vacant" opinion of market value for the subject water plant sites stated in this report is based upon a **HYPOTHETICAL CONDITION** which assumes the parcels do not have any improvements upon them. It is noted that at the time of inspection (April 12, 2011), each water plant site had water facility improvements completed and in use

This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraisers are not responsible for unauthorized use of this report.

Within the constraints of adequate available data, the full appraisal report intends to conform to the appraisal standards required by Title XI of FIRREA (Federal Financial Institutions Reform, Recovery and Enforcement Act of 1989), the OCC (Office of the Comptroller of the Currency) and the Uniform Standards of Professional Appraisal Practice (USPAP).

No potential environmental hazards which might affect the use and value of the subject property were noted upon inspection, however these appraisers lack the experience to investigate hazardous materials and we recommend that a complete Environmental Survey be performed on the subject property to confirm the presence or absence of any environmental hazards. As a result, the value opinions contained in this appraisal report **DO NOT** consider any loss in value due to any potentially hazardous environmental substances which may or may not be present on or near the subject property.

Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test such substances or conditions. If the presence of such substances, such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the value of the property, the value estimated is predicated on the assumption that there is no such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, nor for any expertise or engineering knowledge required to discover them.

No engineering or soils report was available, and therefore no information was provided with respect to the utility or constructability of the existing improvements, or any unusual soil or drainage conditions which are not readily apparent. This appraisal assumes no soils challenge's associated with the subject property.

Please refer to the Limiting Conditions and Assumptions included in the Addendum section which accompany this summary appraisal report.

The authentic copies of this report are signed in blue, without which they are unauthorized and may have been altered.

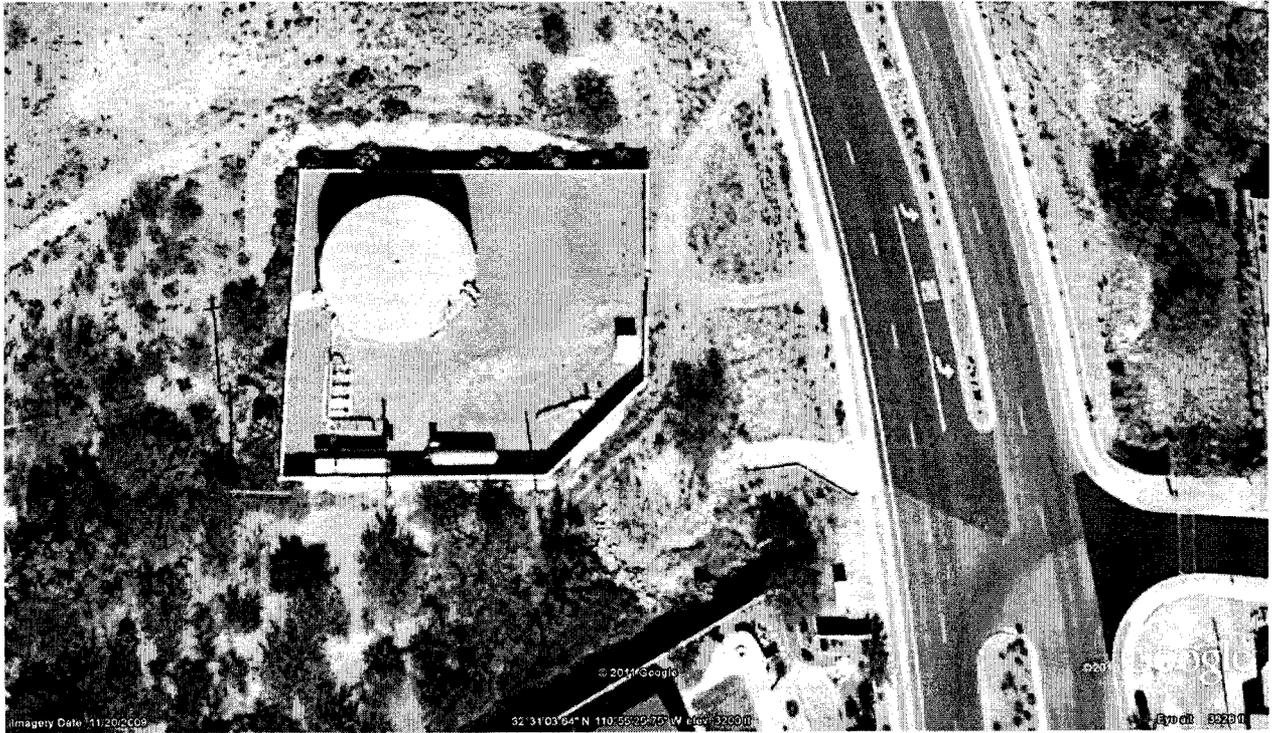
This Certification is signed and dated on April 29, 2011. The authentic copies of this report are signed in blue, without which they are unauthorized and may have been altered.

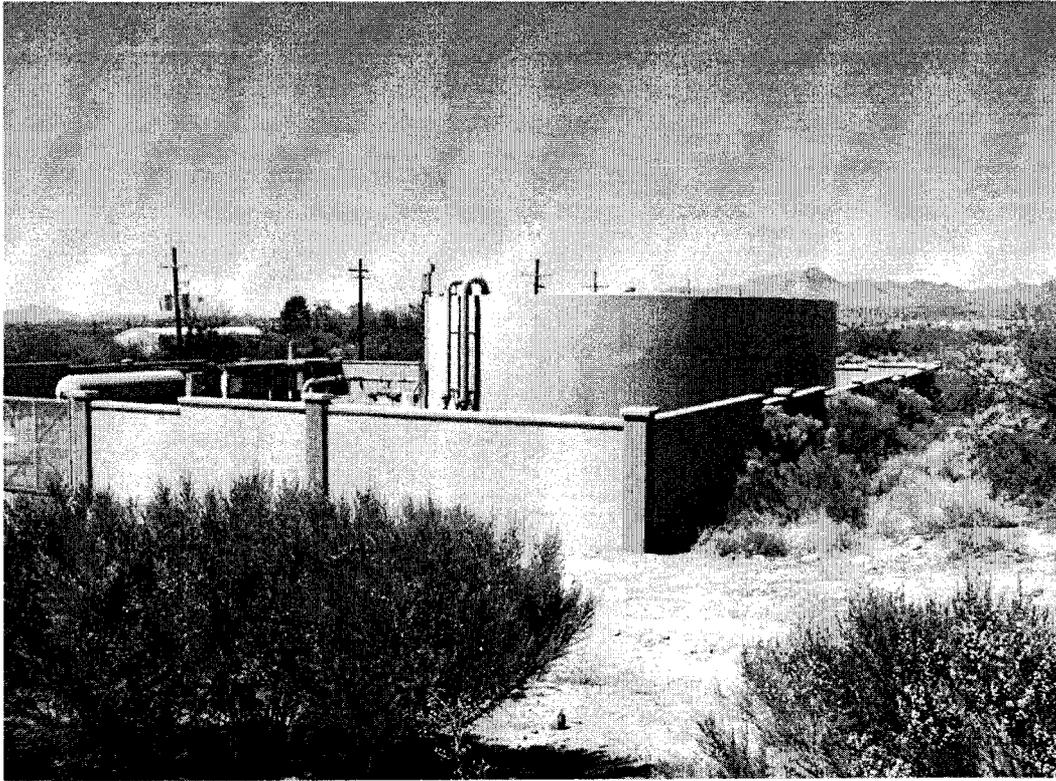
Sincerely,

A handwritten signature in blue ink that reads "John Ferenchak". The signature is written in a cursive, flowing style.

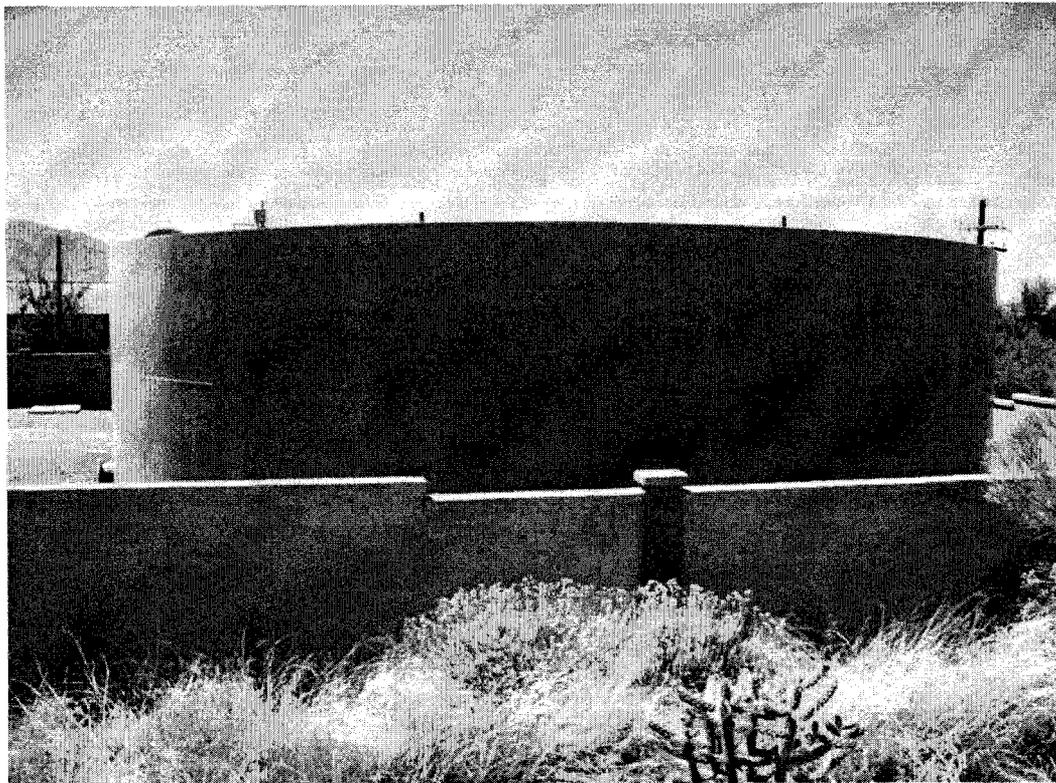
John Ferenchak
State of Arizona Certified General
Real Estate Appraiser #30344

SUBJECT PROPERTY PHOTOGRAPHS – WATER PLANT #1





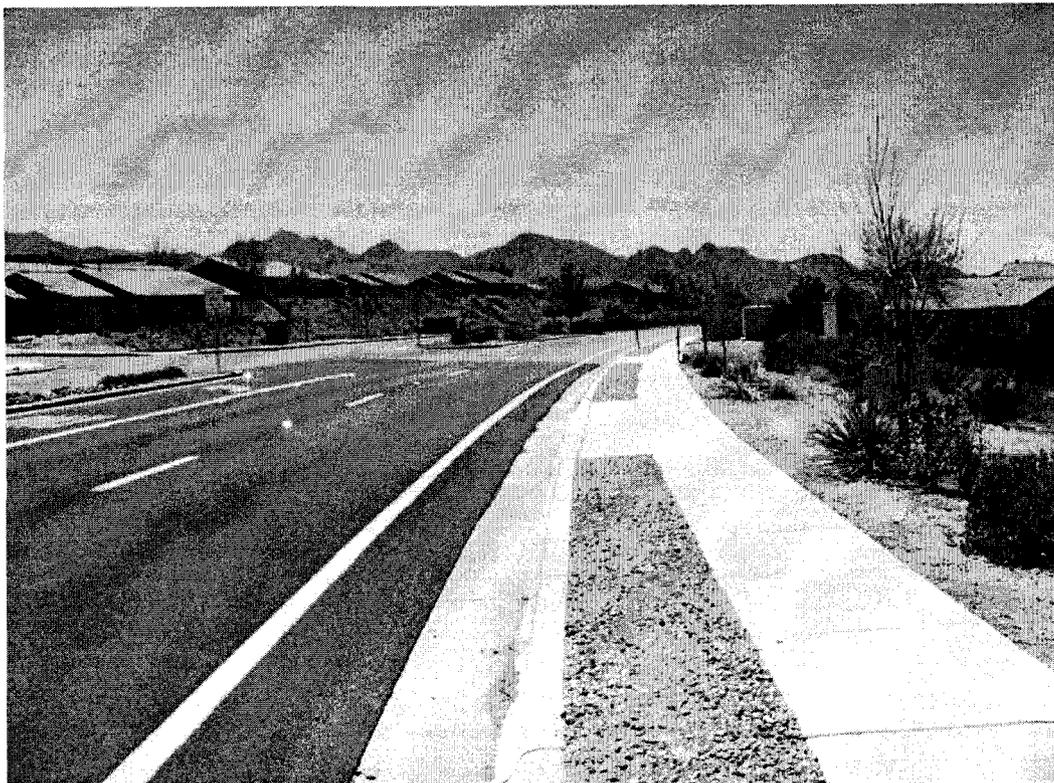
NORTHEAST ELEVATION



WEST ELEVATION

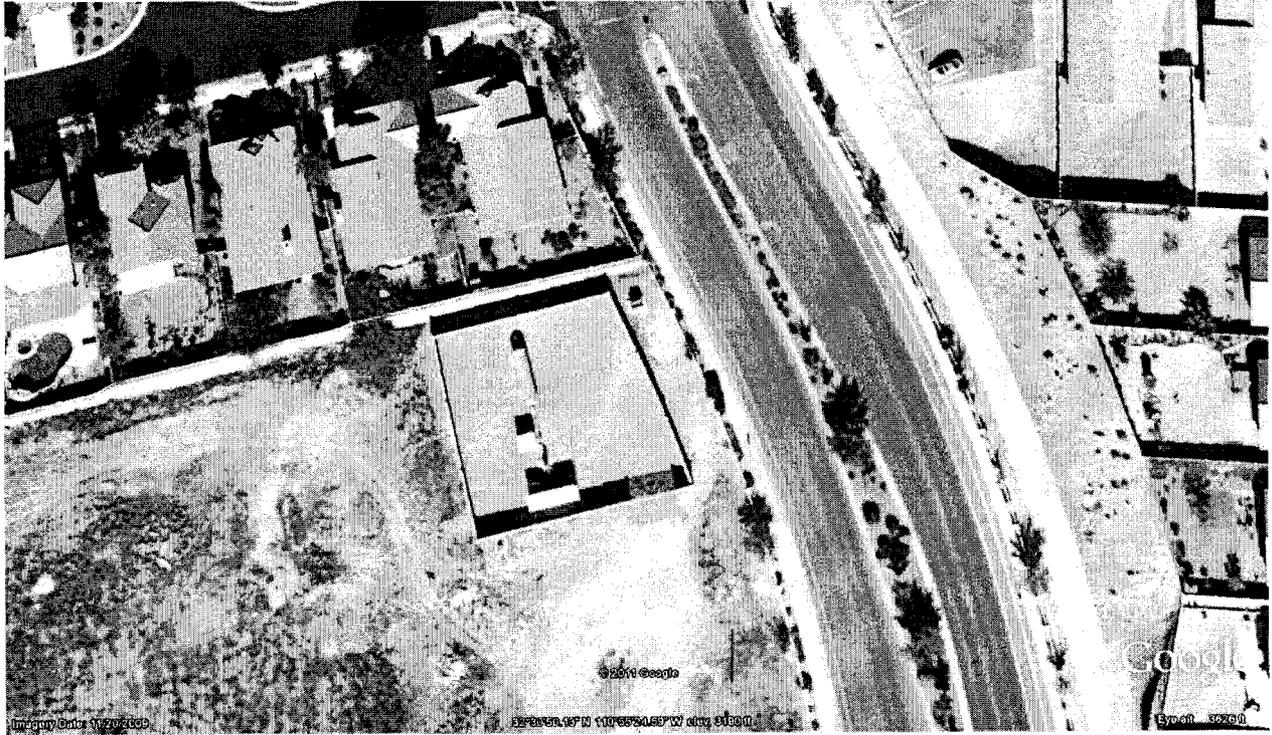


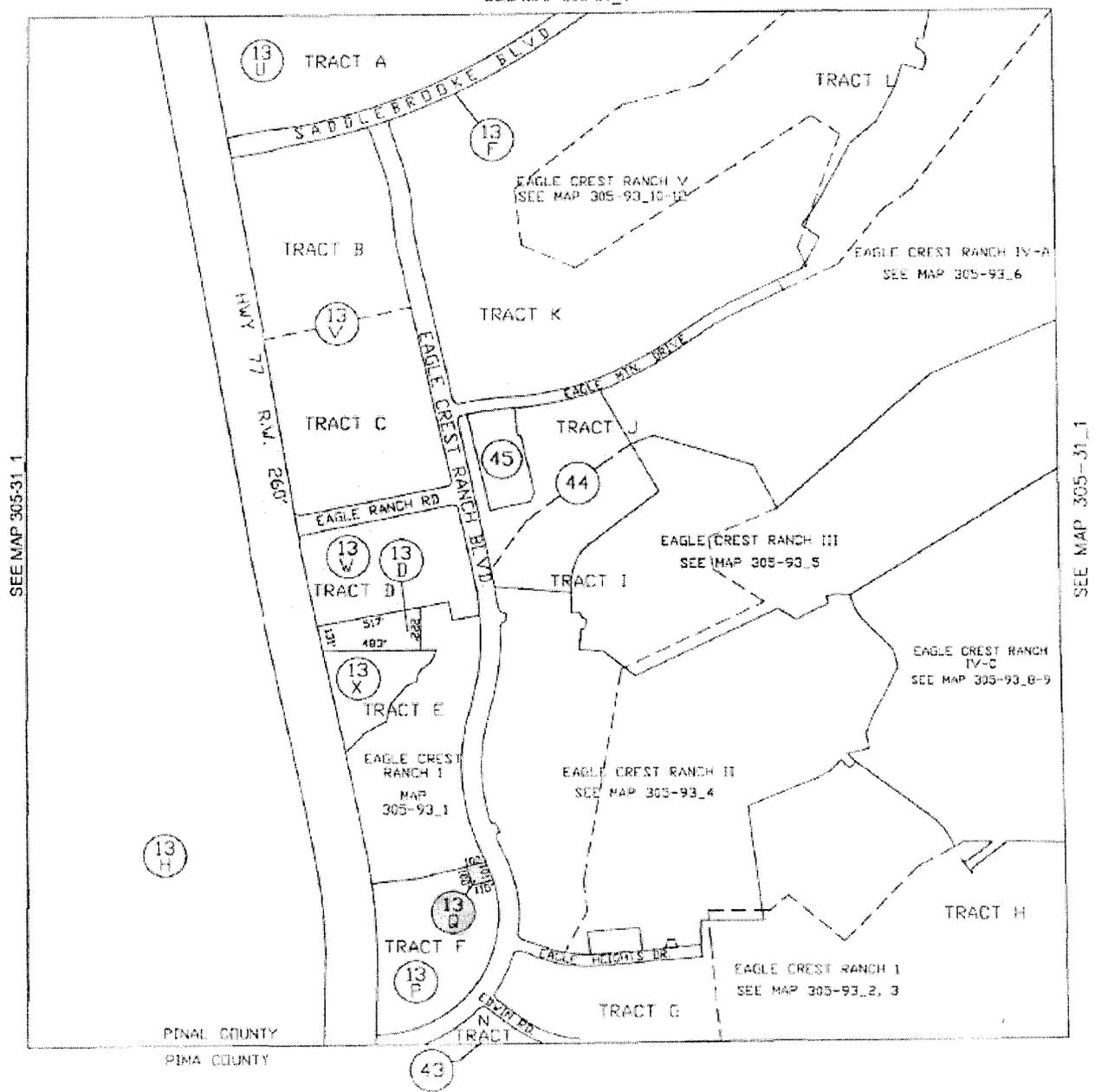
EAGLE CREST RANCH BOULEVARD TO THE NORTH

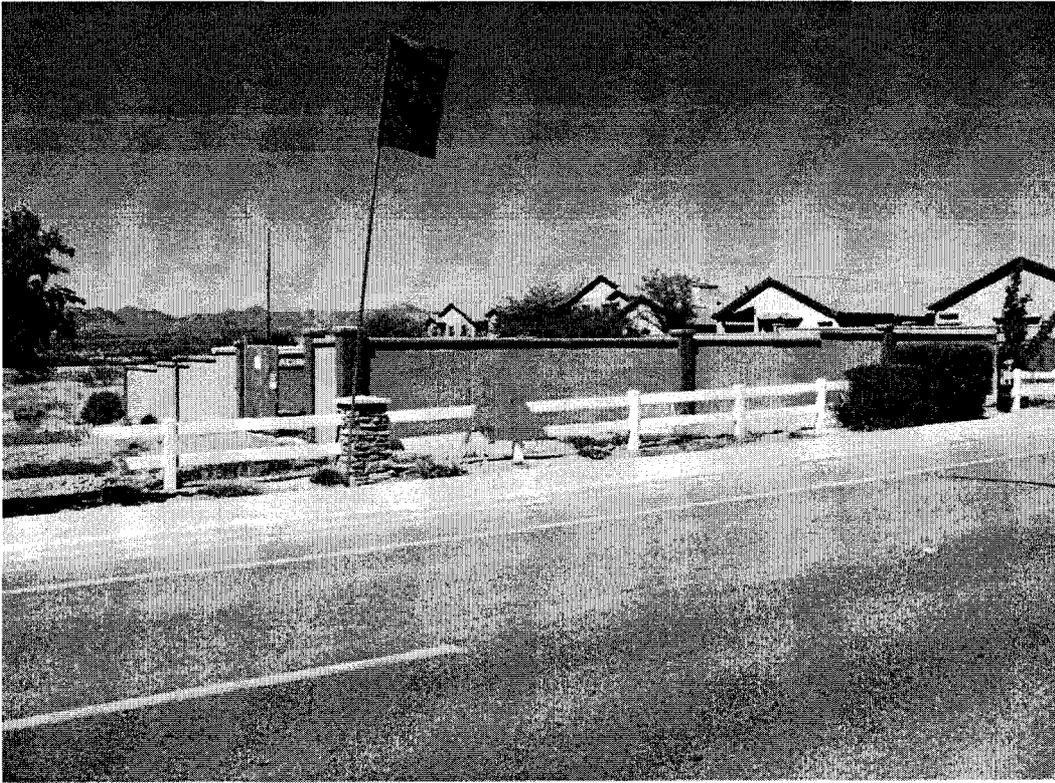


EAGLE CREST RANCH BOULEVARD TO THE SOUTH

SUBJECT PROPERTY PHOTOGRAPHS/MAPS – WATER PLANT #2



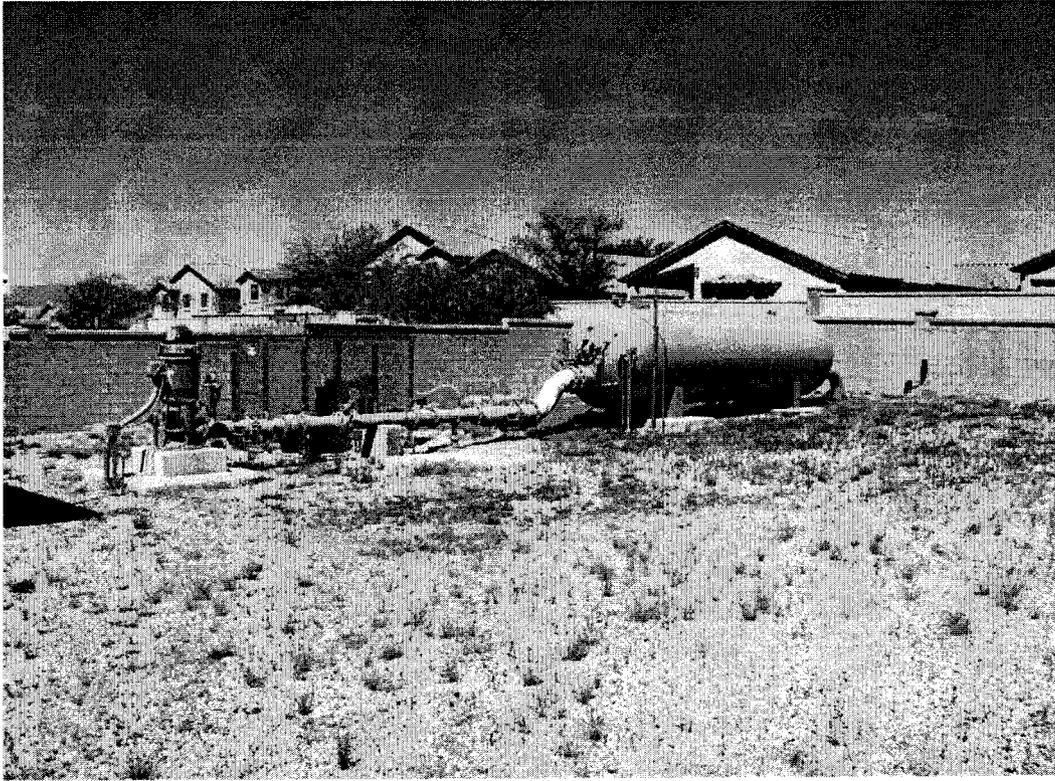




SOUTHEAST ELEVATION



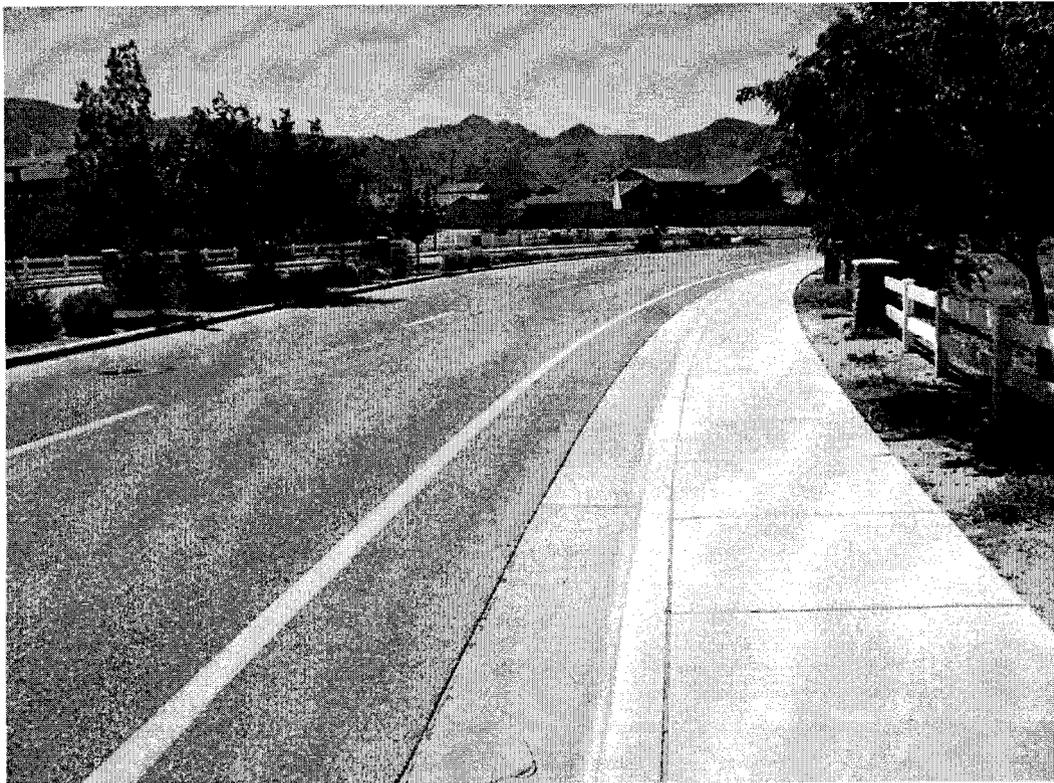
SOUTHWEST ELEVATION



INTERIOR VIEW



EAGLE CREST RANCH BOULEVARD TO THE NORTH



EAGLE CREST RANCH BOULEVARD TO THE SOUTH

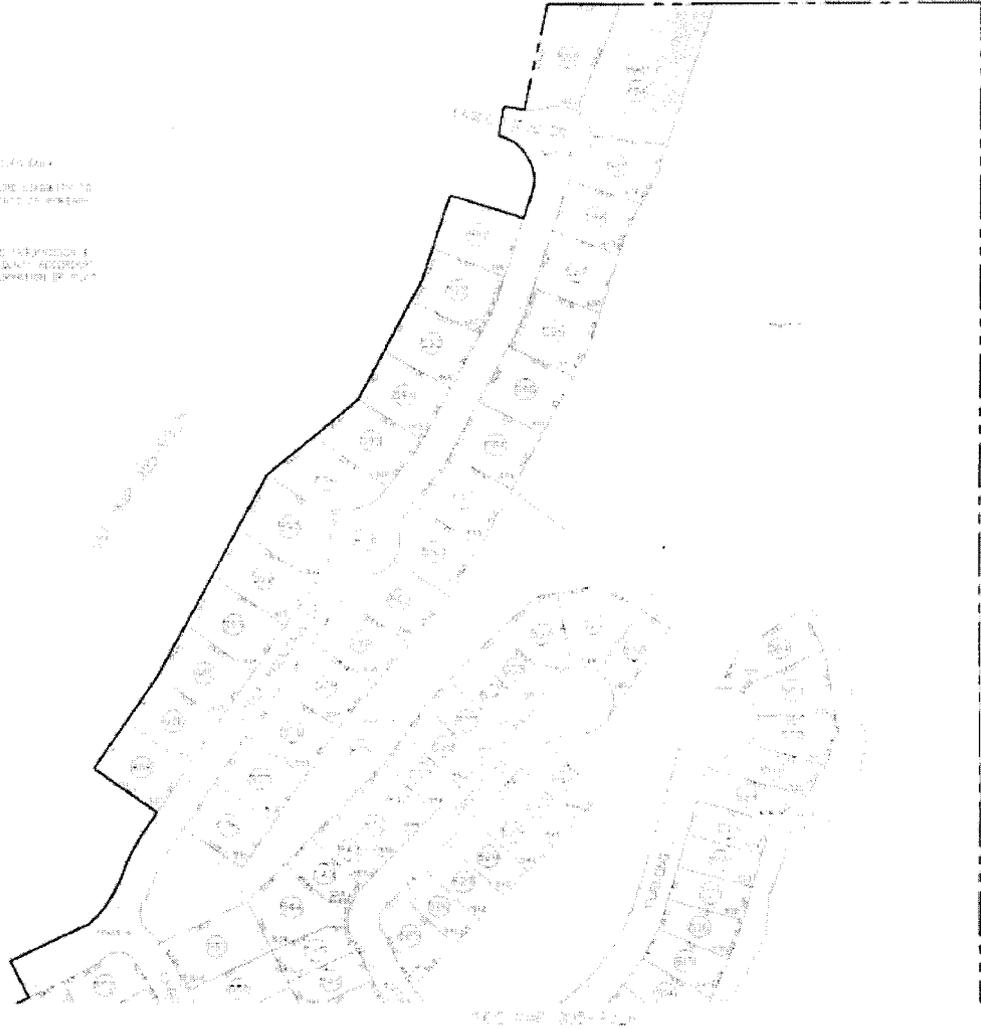
SUBJECT PROPERTY PHOTOGRAPHS – WATER PLANT #3

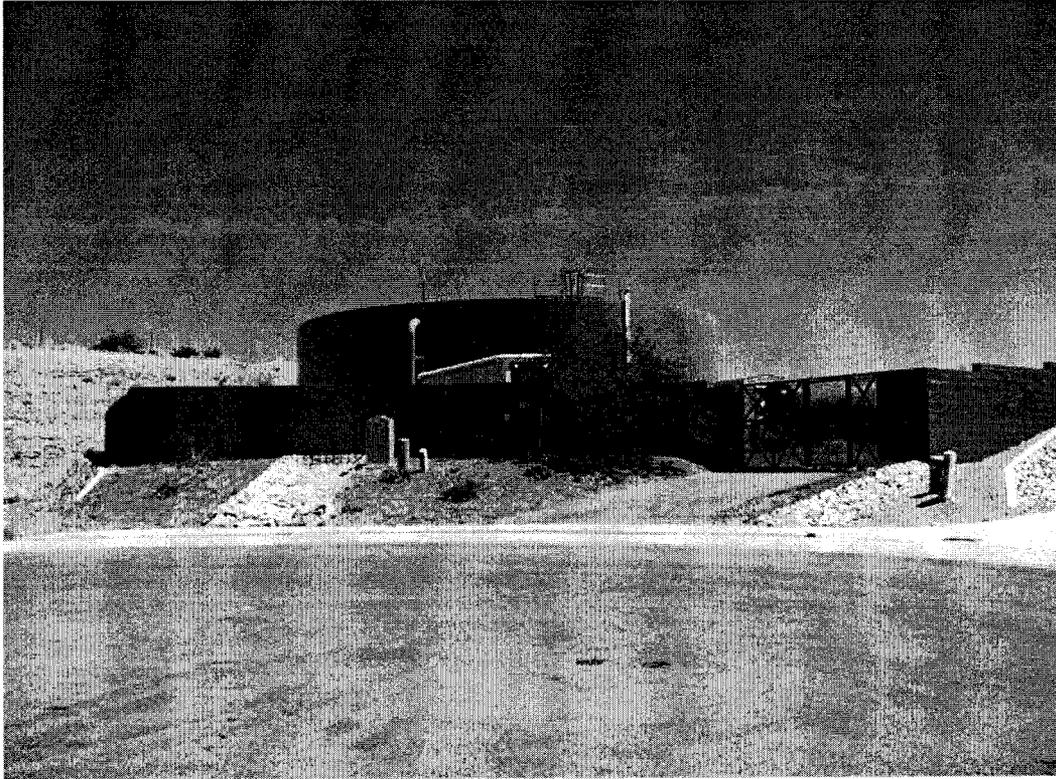


SEE SE FINDING PAGE

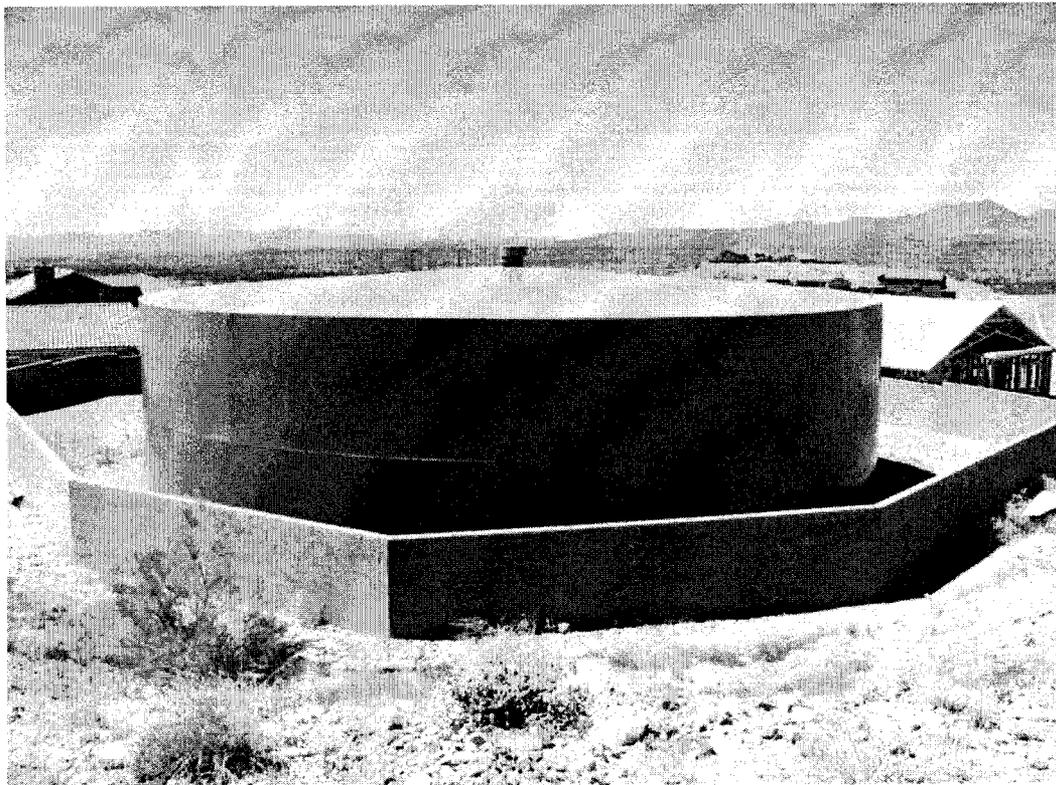
THIS OFFICE DOES NOT ASSUME LIABILITY TO ANY PERSONS FOR ANY DAMAGES OR LOSSES THAT MAY BE INCURRED BY ANY PERSONS USING THIS INFORMATION FOR ANY PURPOSES.

CONDUCTED BY: [illegible]
DATE: [illegible]

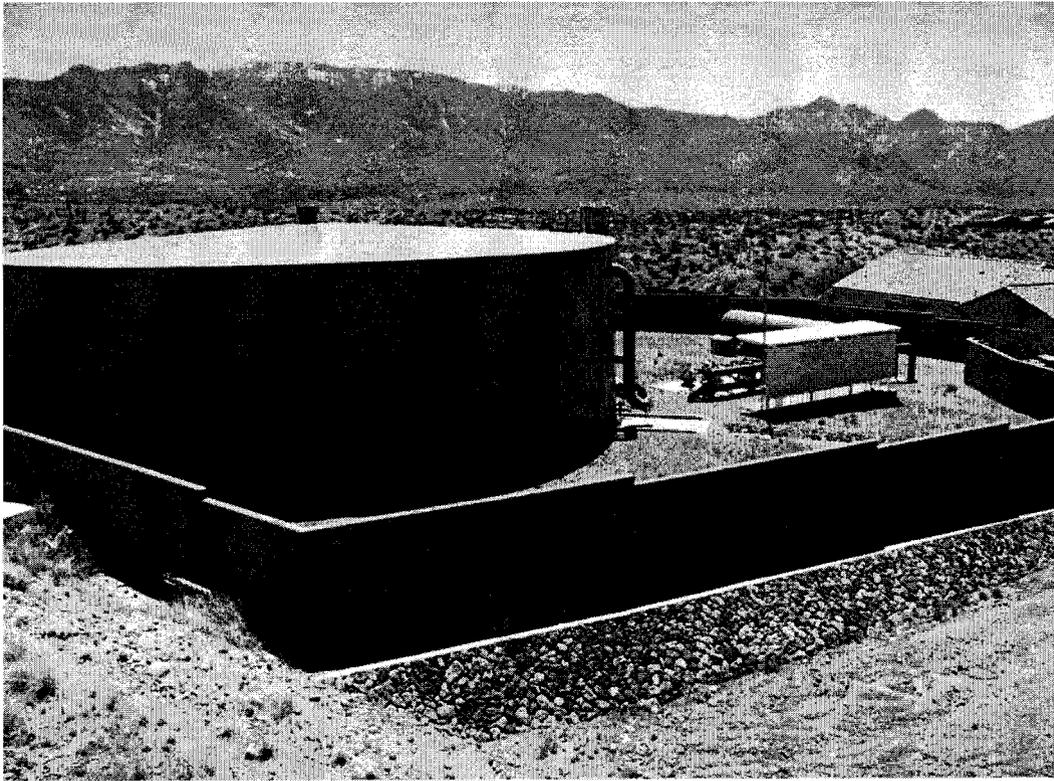




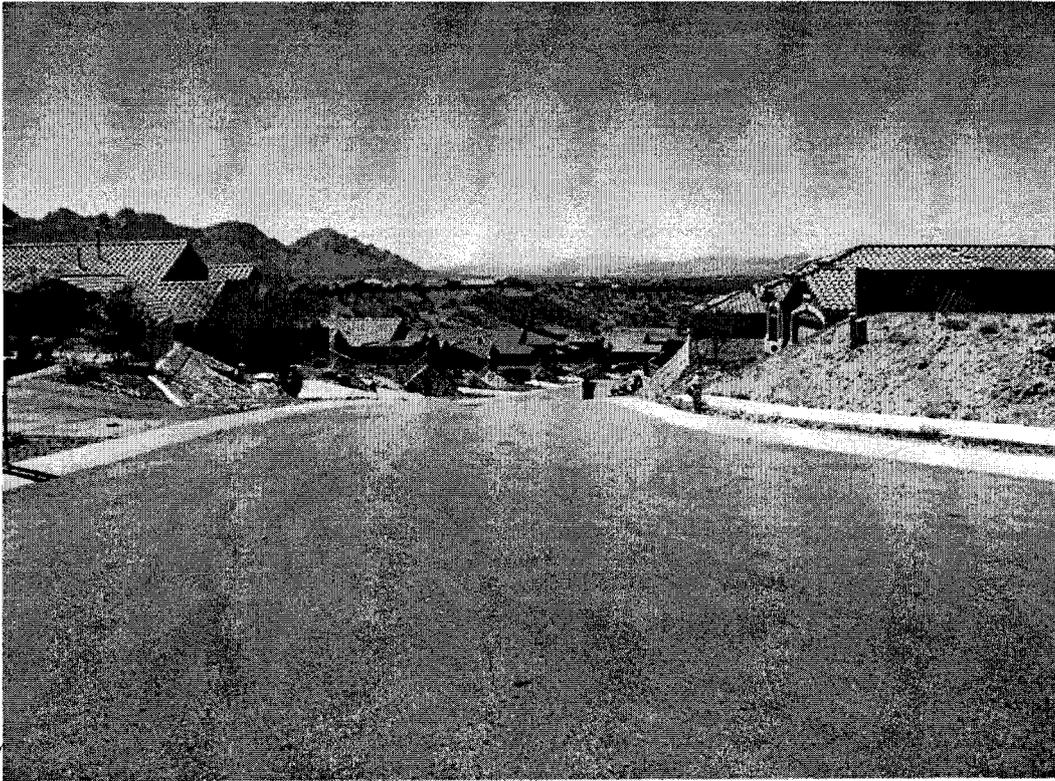
SOUTHWEST ELEVATION



NORTHEAST ELEVATION



NORTHWEST ELEVATION

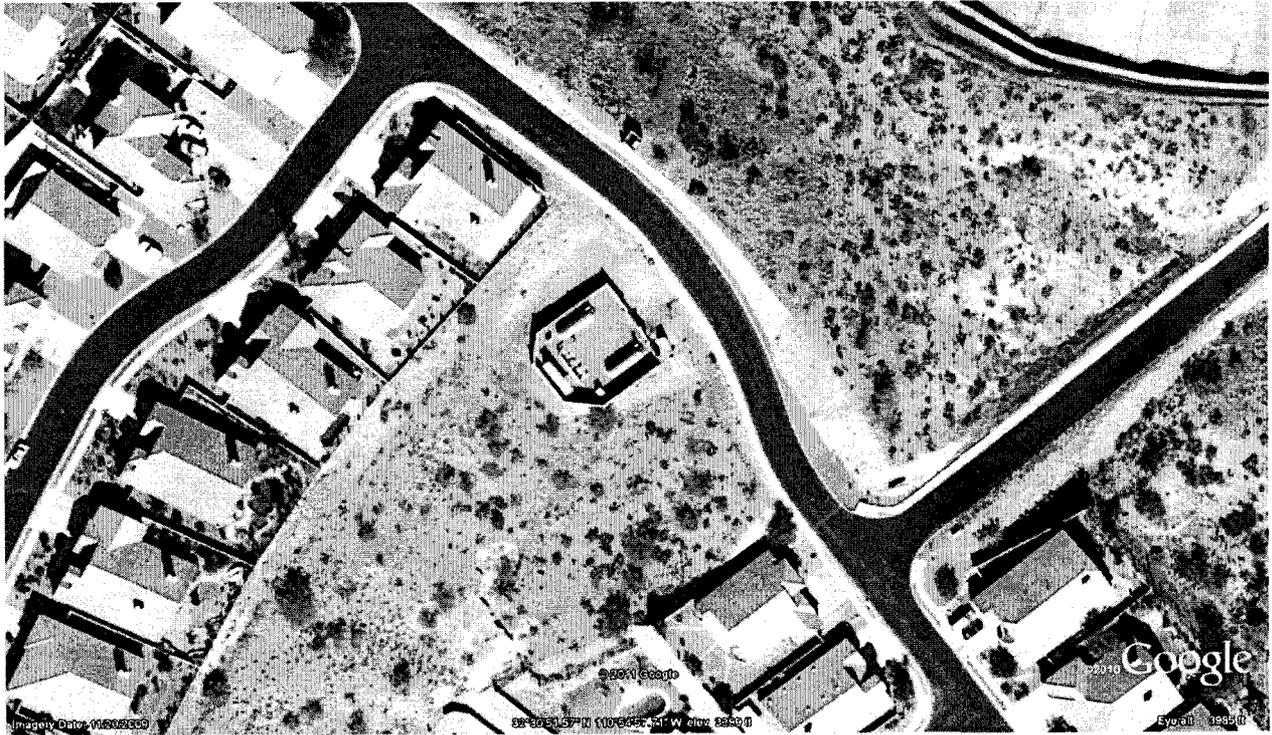


EAGLE MOUNTAIN DRIVE TO THE SOUTH



EAGLE RIDGE DRIVE TO THE WEST

SUBJECT PROPERTY PHOTOGRAPHS – WATER PLANT #4

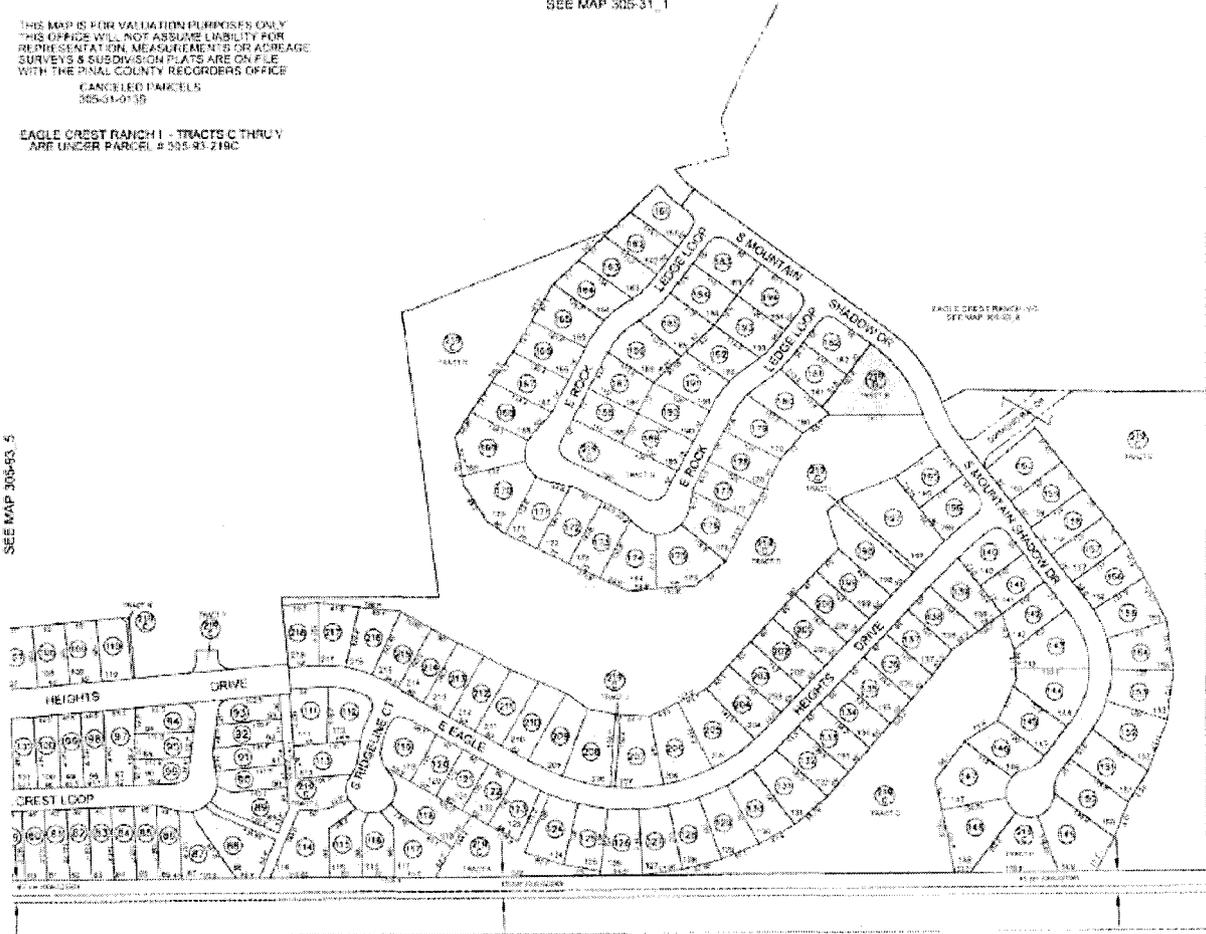


SEC. 32 TN.10S RG.14E

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REPRESENTATION, MEASUREMENTS OR AREA
SURVEYS & SUBDIVISION PLATS ARE ON FILE
WITH THE PINAL COUNTY RECORDERS OFFICE
CANCELED PARCELS
305-93-07-39

EAGLE CREST RANCH I - TRACTS C THRU V
ARE UNDER PARCEL # 305-93-219C

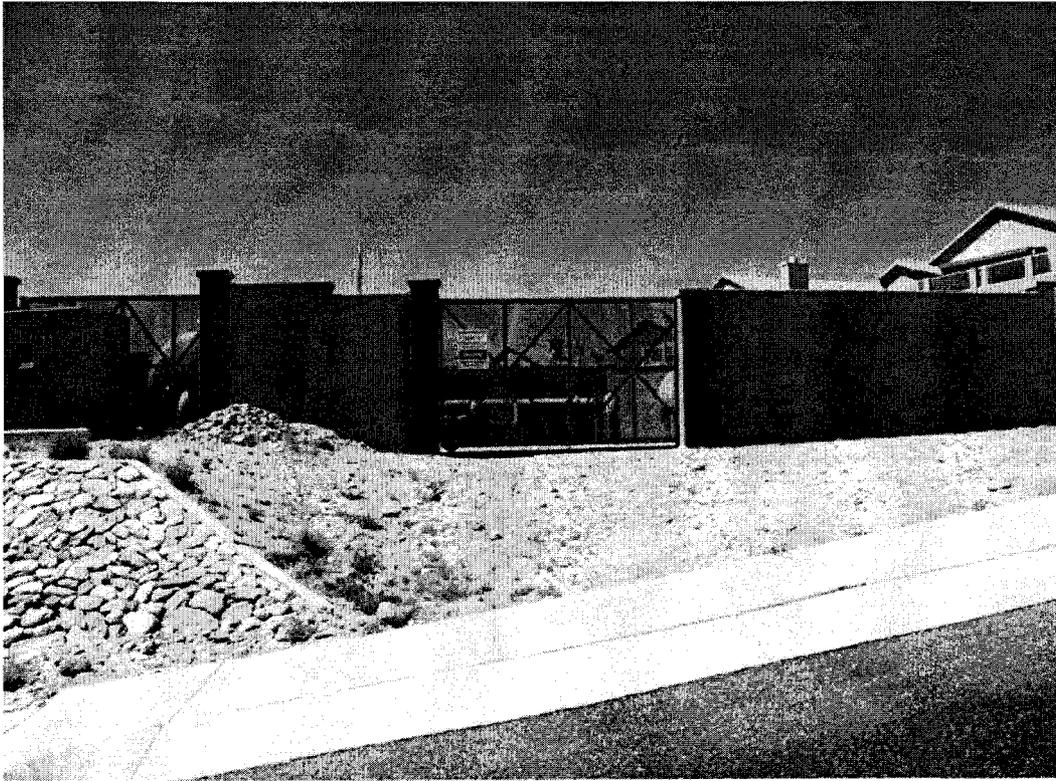
SEE MAP 305-31_1



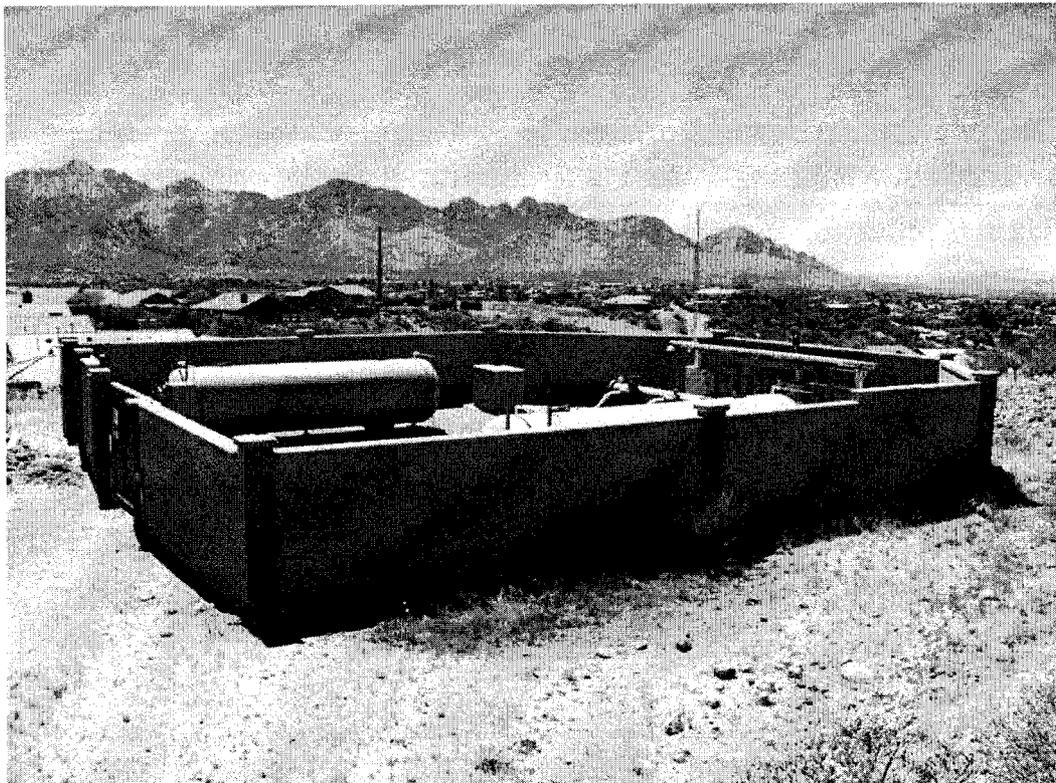
SEE MAP 305-93_5

SEE MAP 305-31_1

SEE MAP 305-93_6



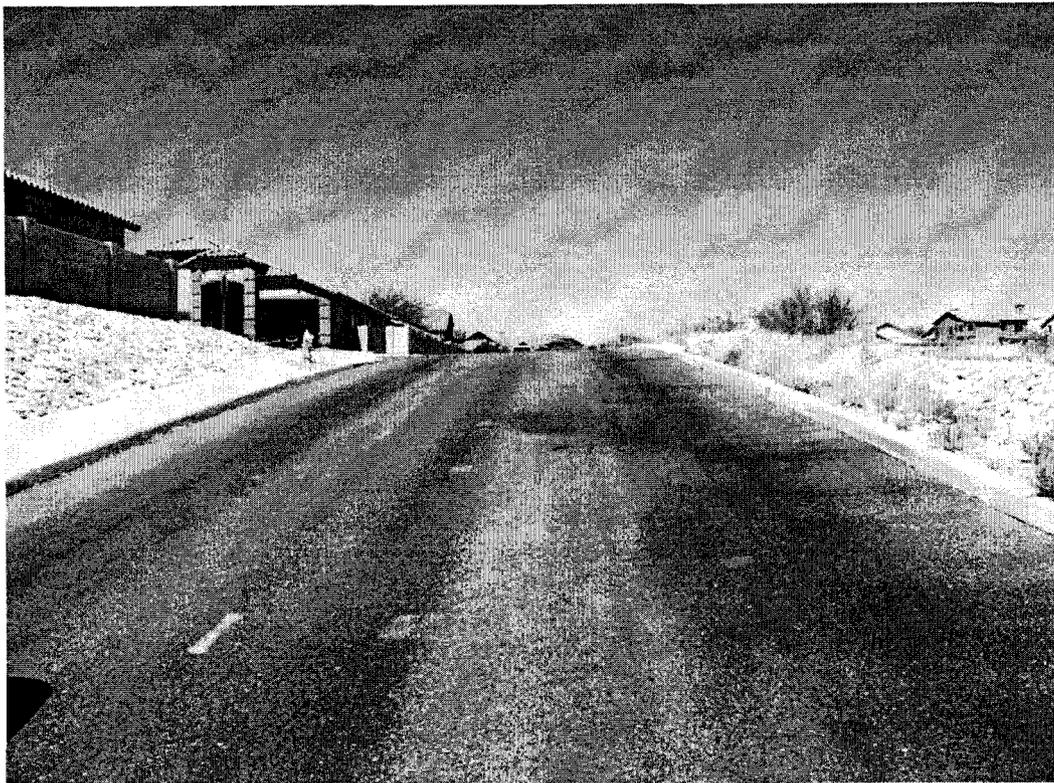
WEST ELEVATION



NORTHWEST ELEVATION

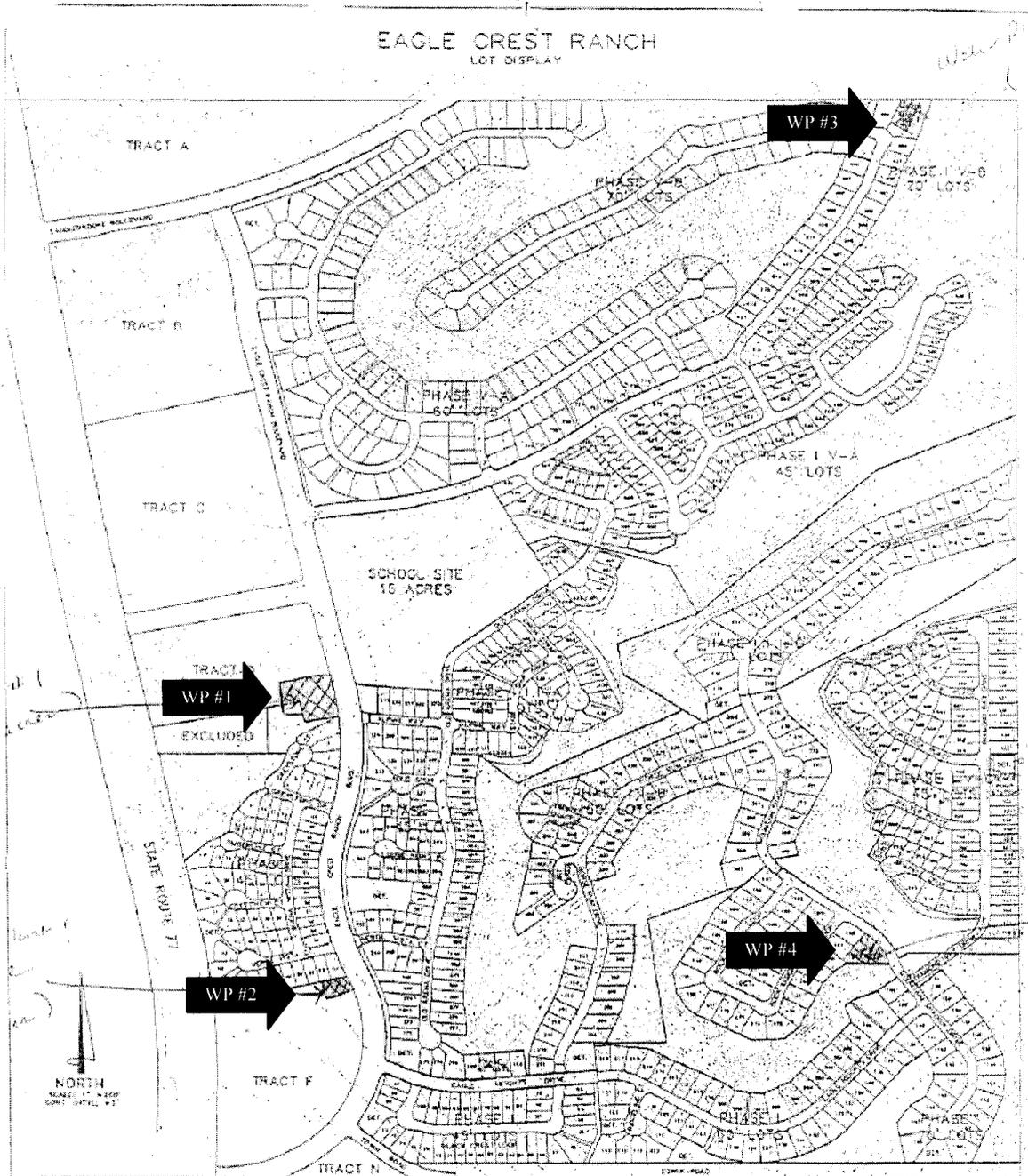


MOUNTAIN SHADOW DRIVE TO THE SOUTH



MOUNTAIN SHADOW DRIVE TO THE NORTH

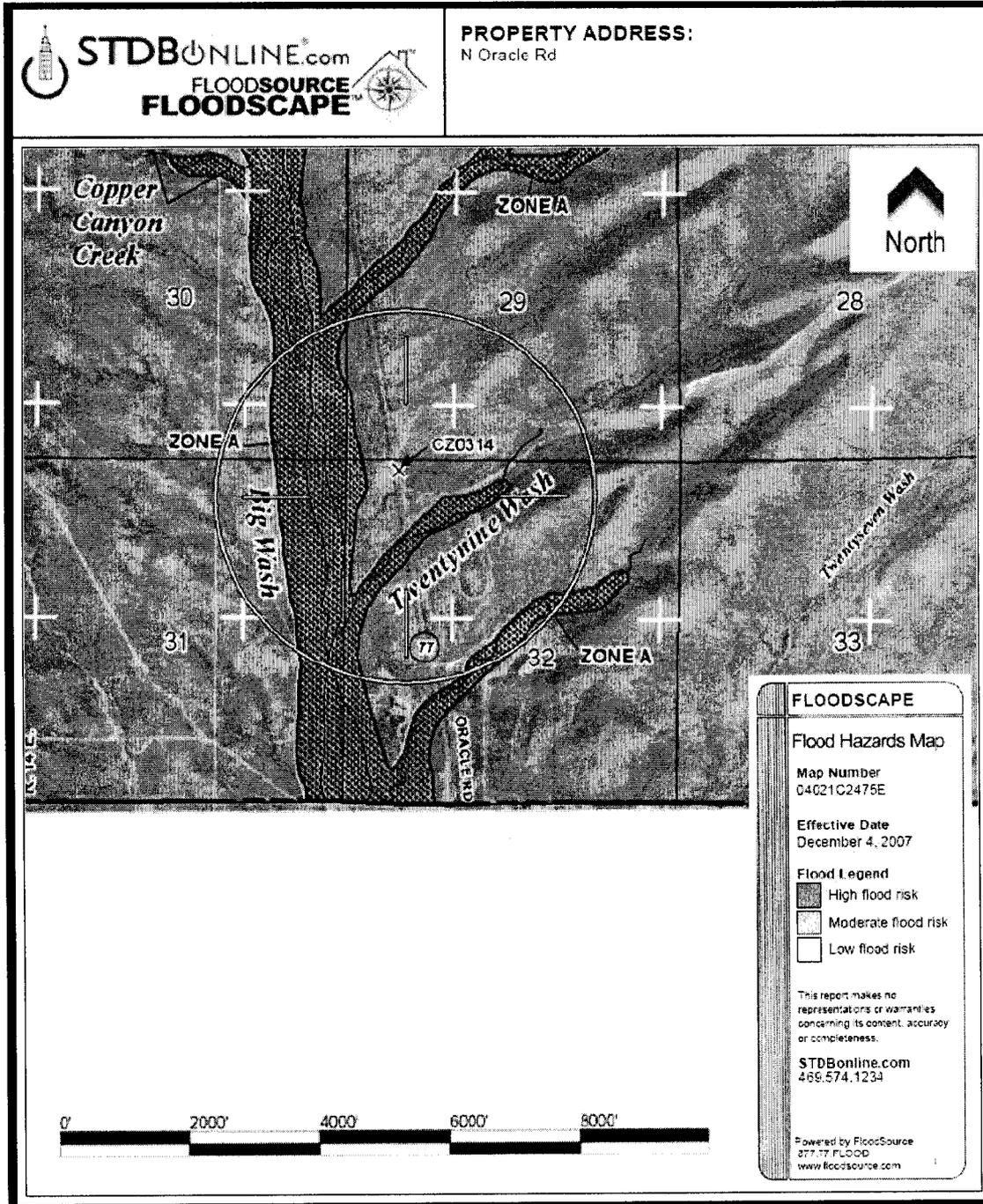
SITE PLAN



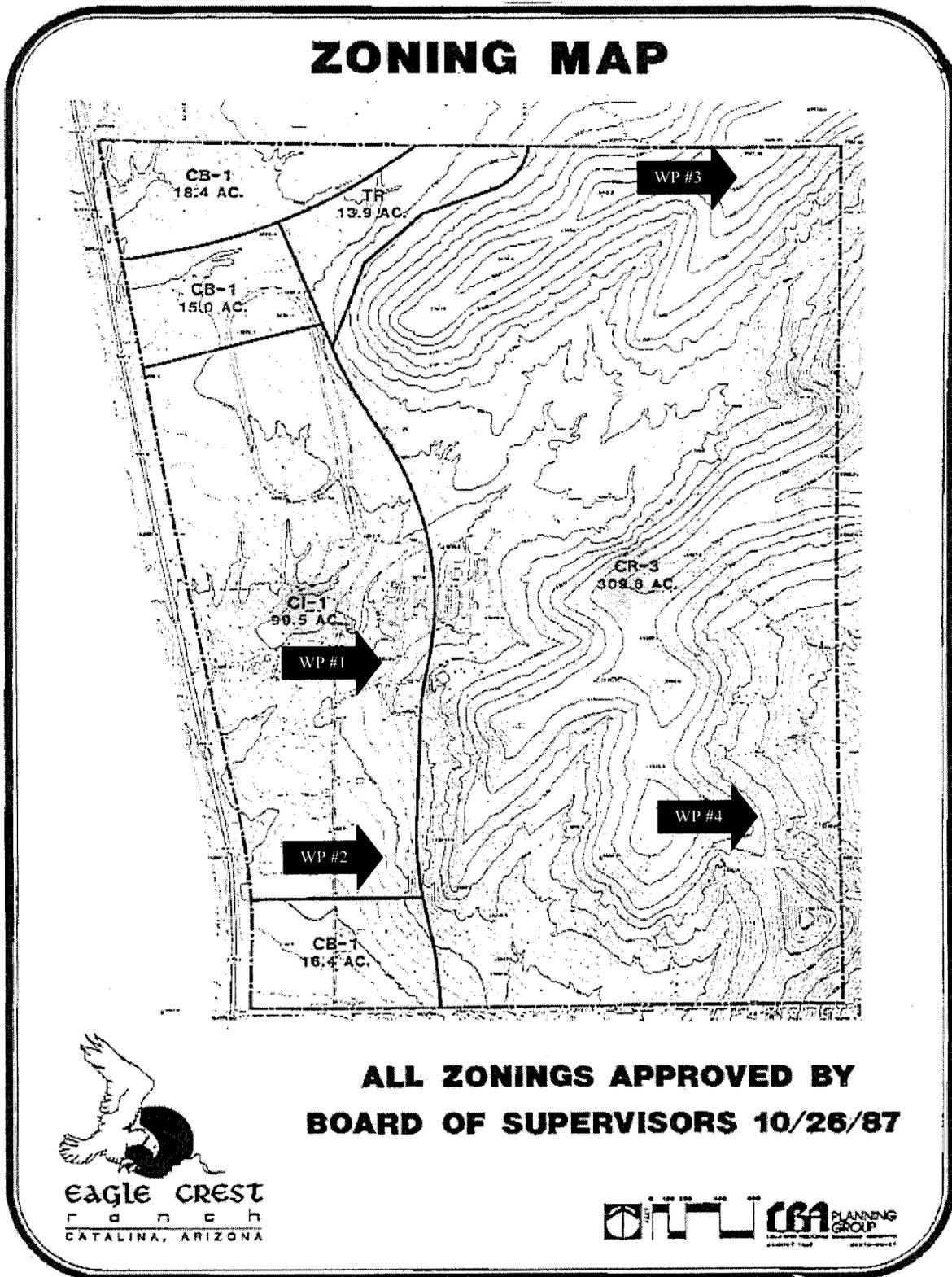
LOT SUMMARY	45'	60'	75'	TOTAL
PHASE I	508	55	57	518
PHASE I V-A	84	-	-	153
PHASE I V-B	-	54	21	-
PHASE I V-C	56	-	-	100
PHASE I V-D	-	-	43	-
PHASE I V-E	113	-	-	141
PHASE I V-F	-	-	27	-
PHASE II	101	-	-	-
PHASE III	-	130	-	-
PHASE IV	-	-	30	240
PHASE V	43	-	-	-

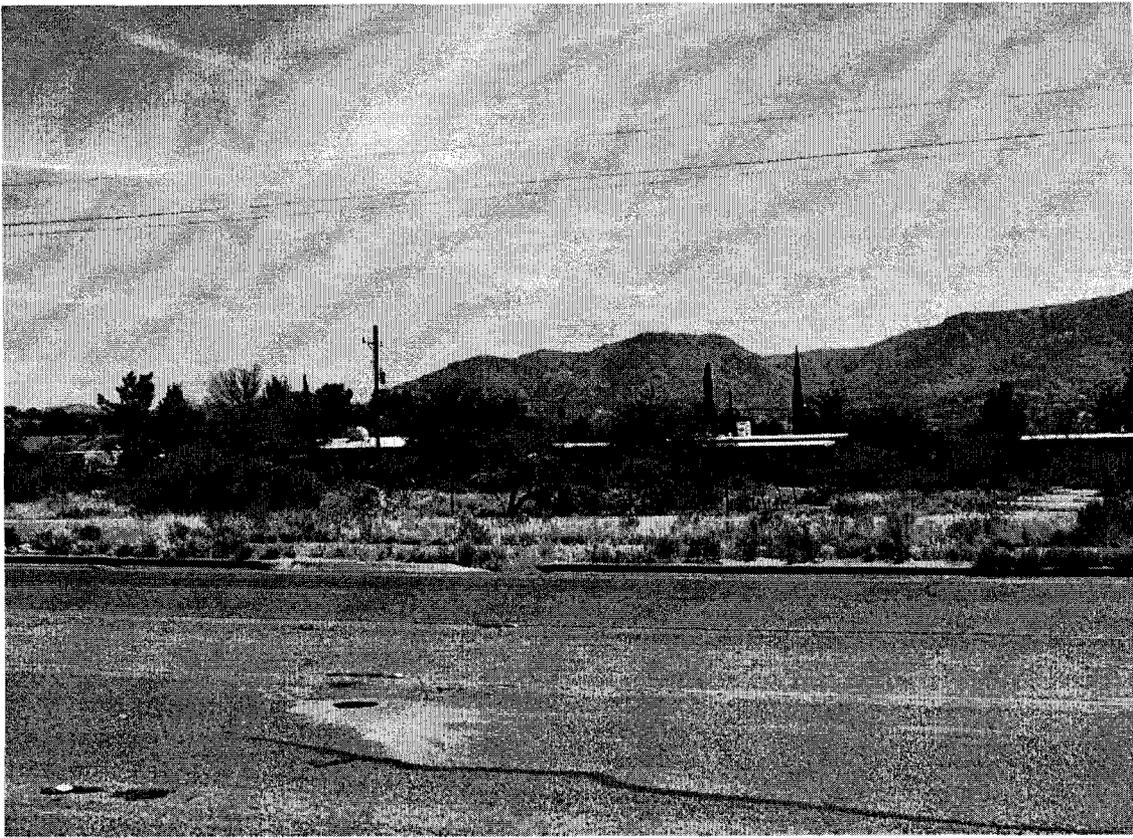
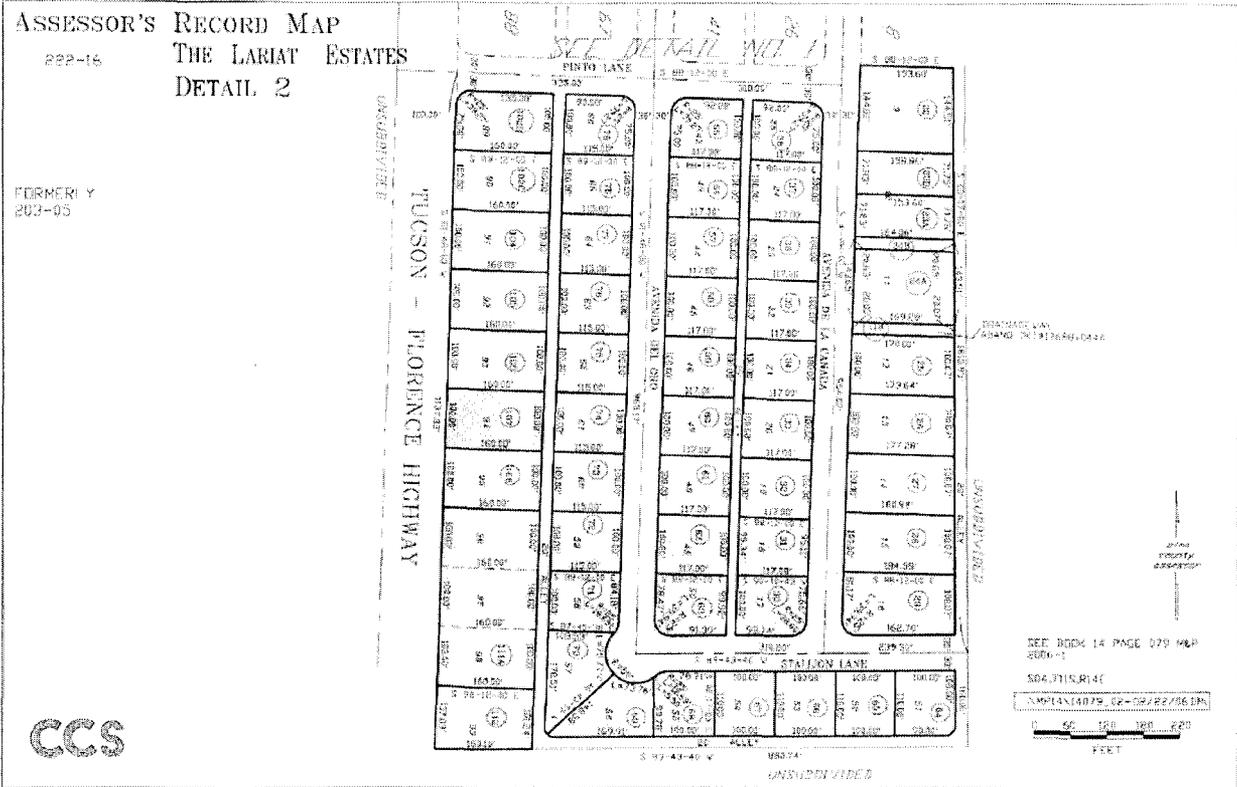
EAGLE CREST RANCH
LOT DISPLAY
OPW ENGINEERING, L.L.C.
ENGINEERING SURVEYING PLANNING

FLOOD MAP

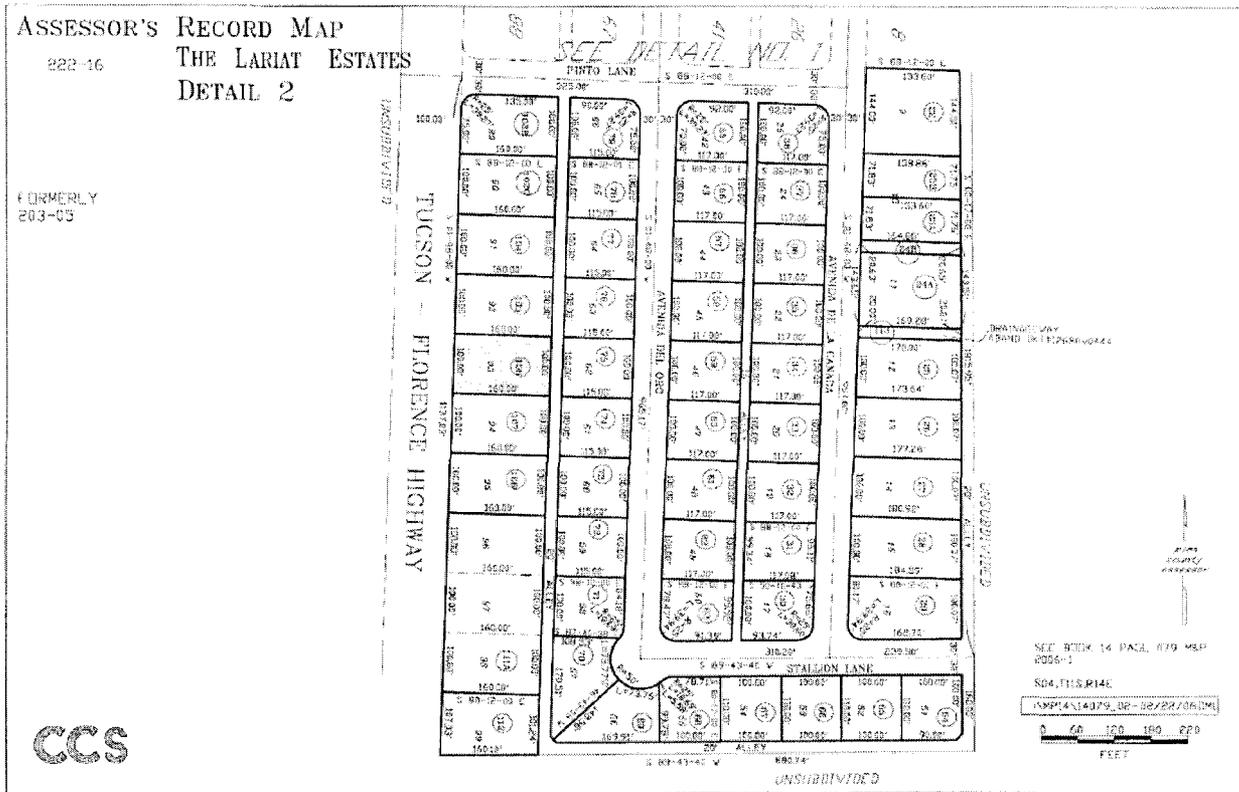


ZONING MAP





COMPARABLE SALE TWO



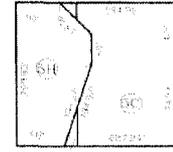
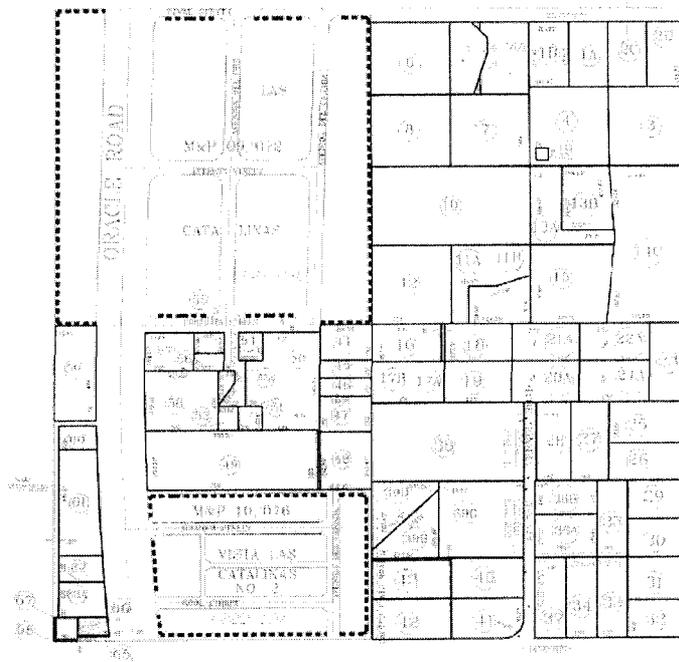
CCS



COMPARABLE SALE THREE

ASSESSOR'S RECORD MAP
322-12
SECTION 04, TOWNSHIP 11 SOUTH, RANGE 14 EAST
DETAIL 3 SW 1/4

FORMERLY
2012-12



SCALE 1" = 100'

DATE 01/11/12

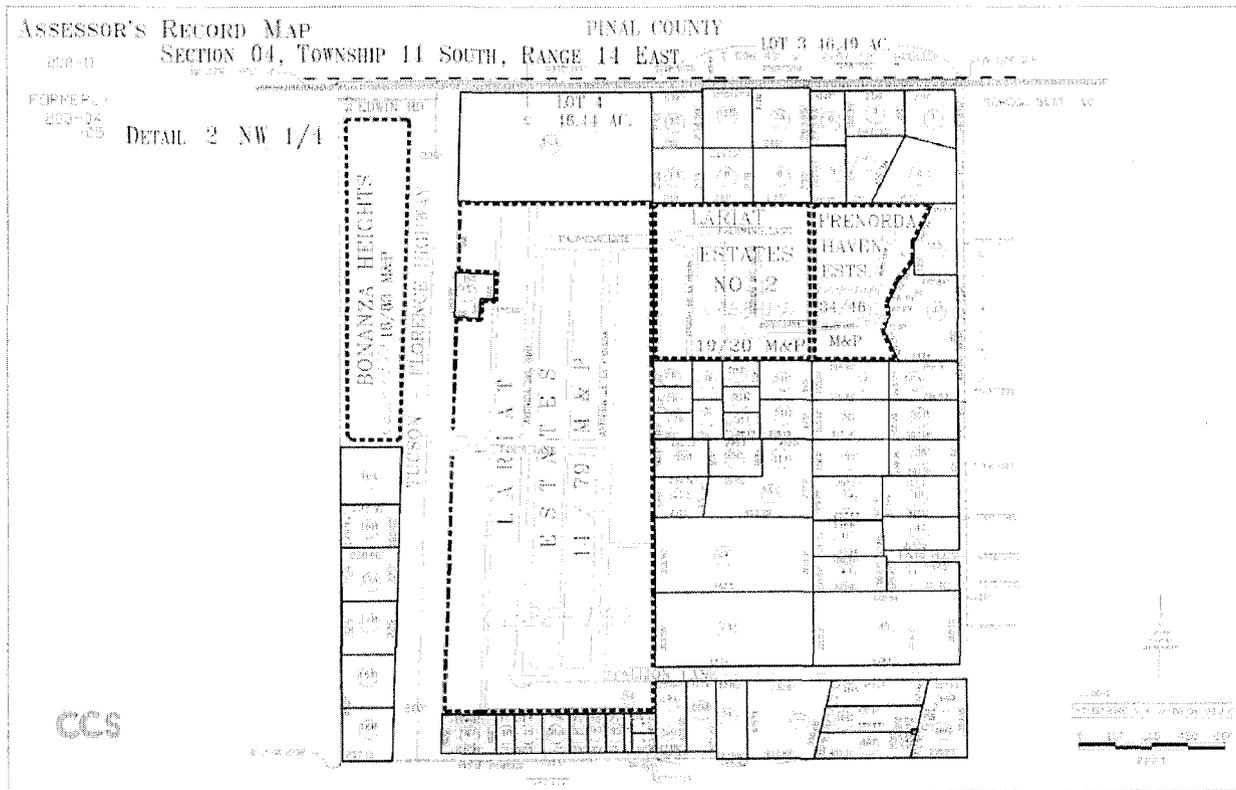
SCALE 1" = 100'

CCS

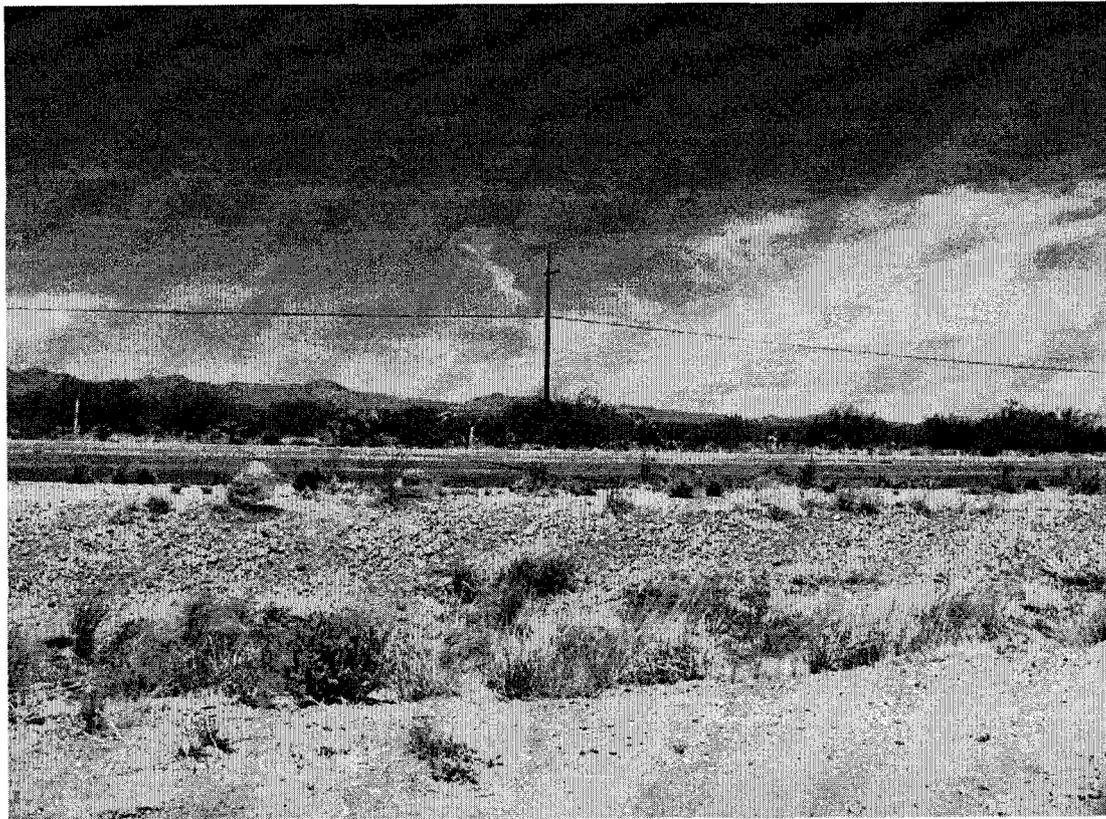
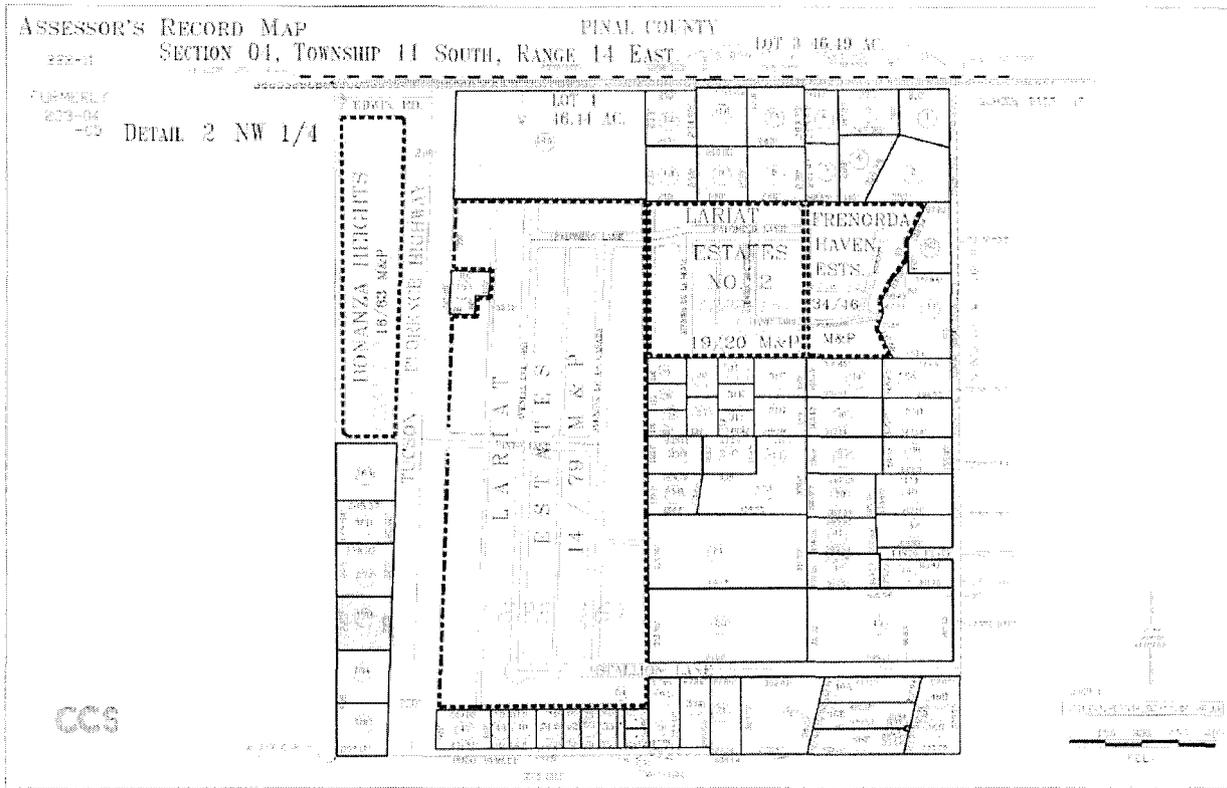


COMPARABLE SALE FOUR

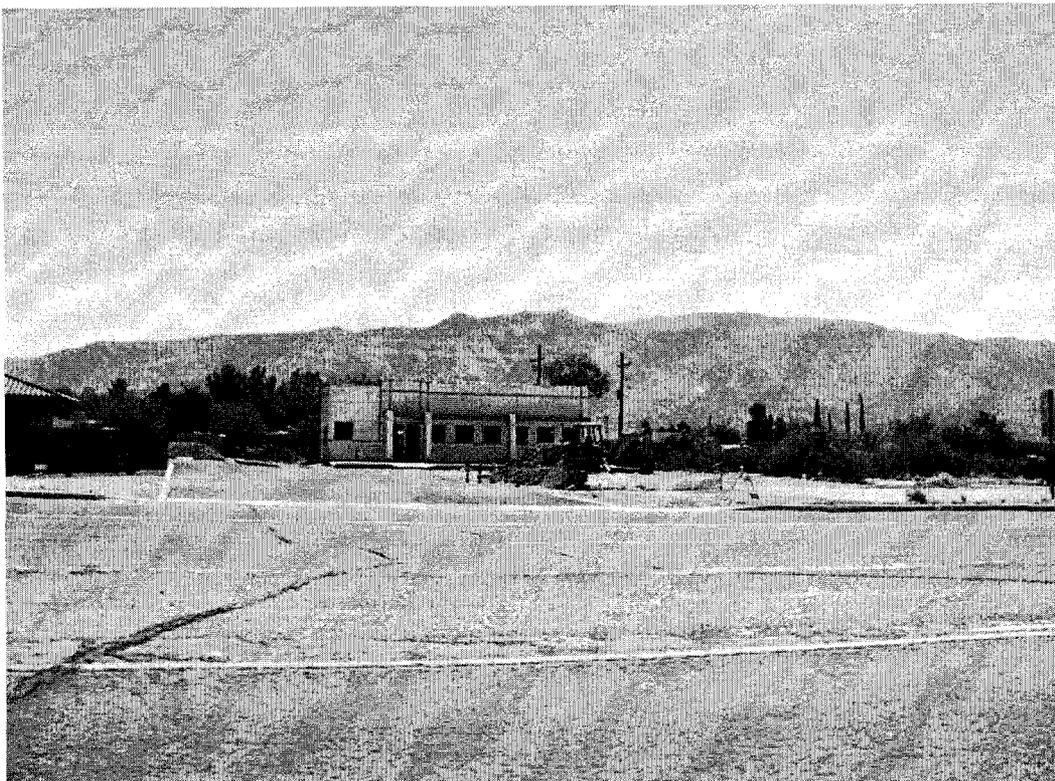
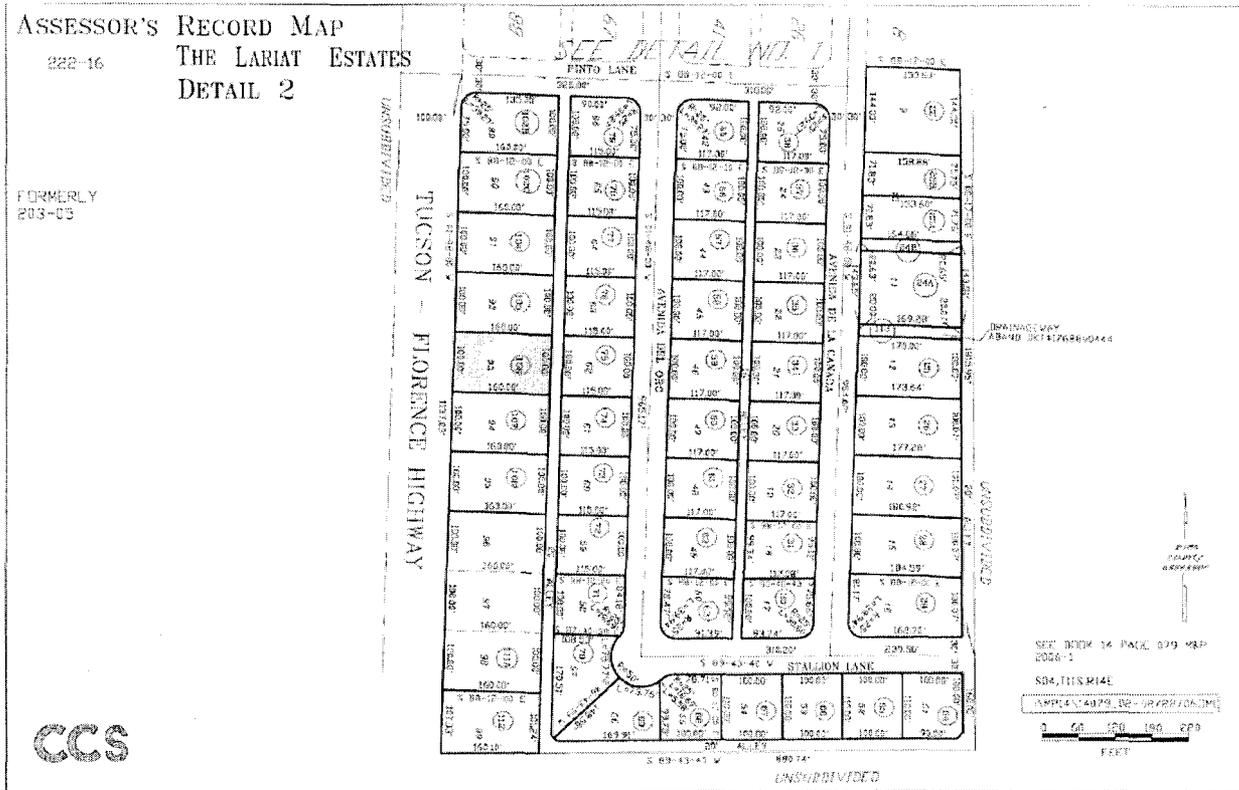
COMPARABLE SALE MAPS/PHOTOGRAPHS – WATER PLANT #2



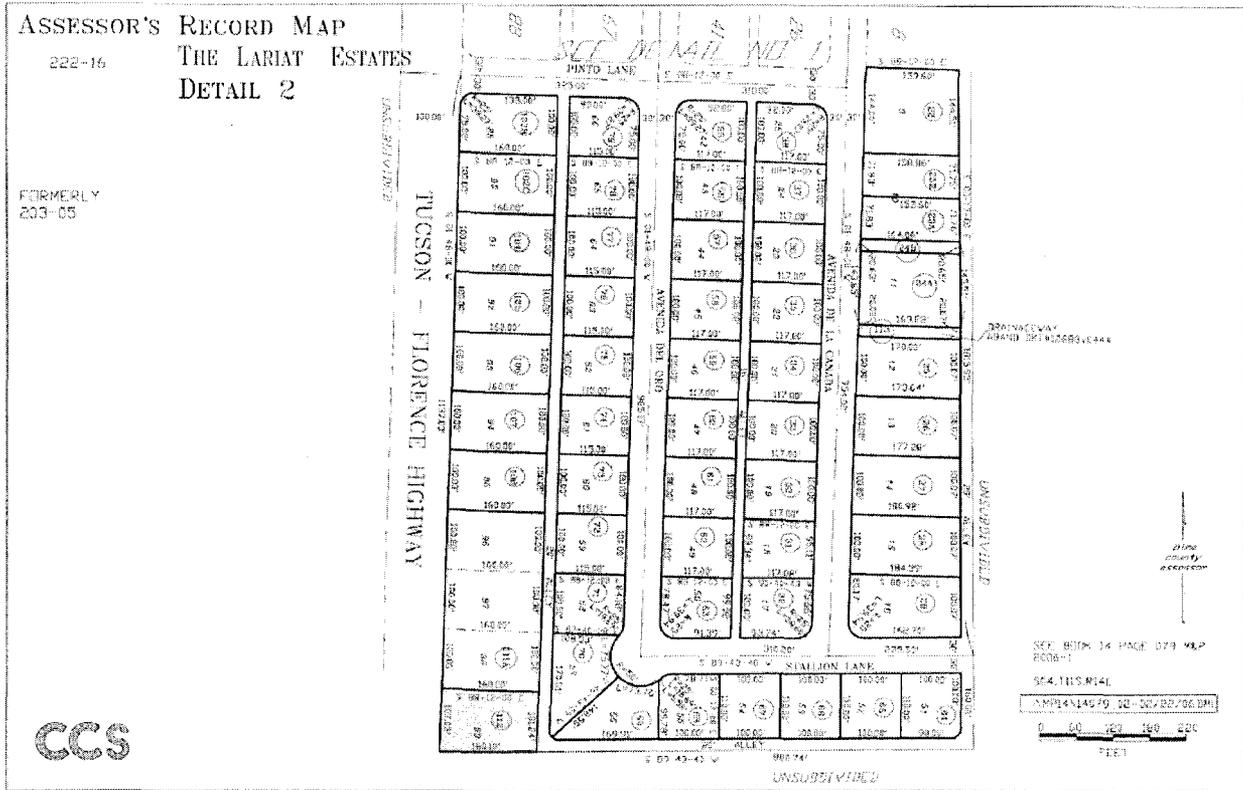
COMPARABLE SALE ONE



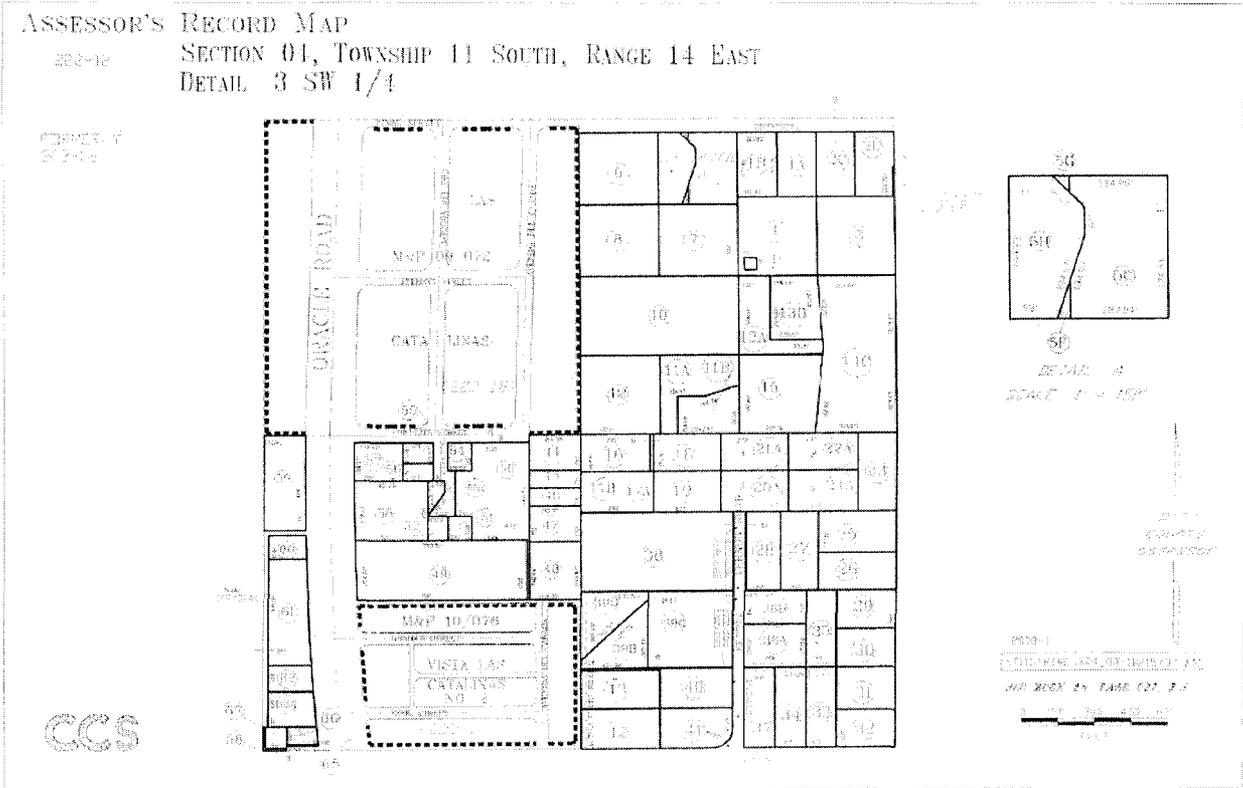
COMPARABLE SALE TWO



COMPARABLE SALE THREE

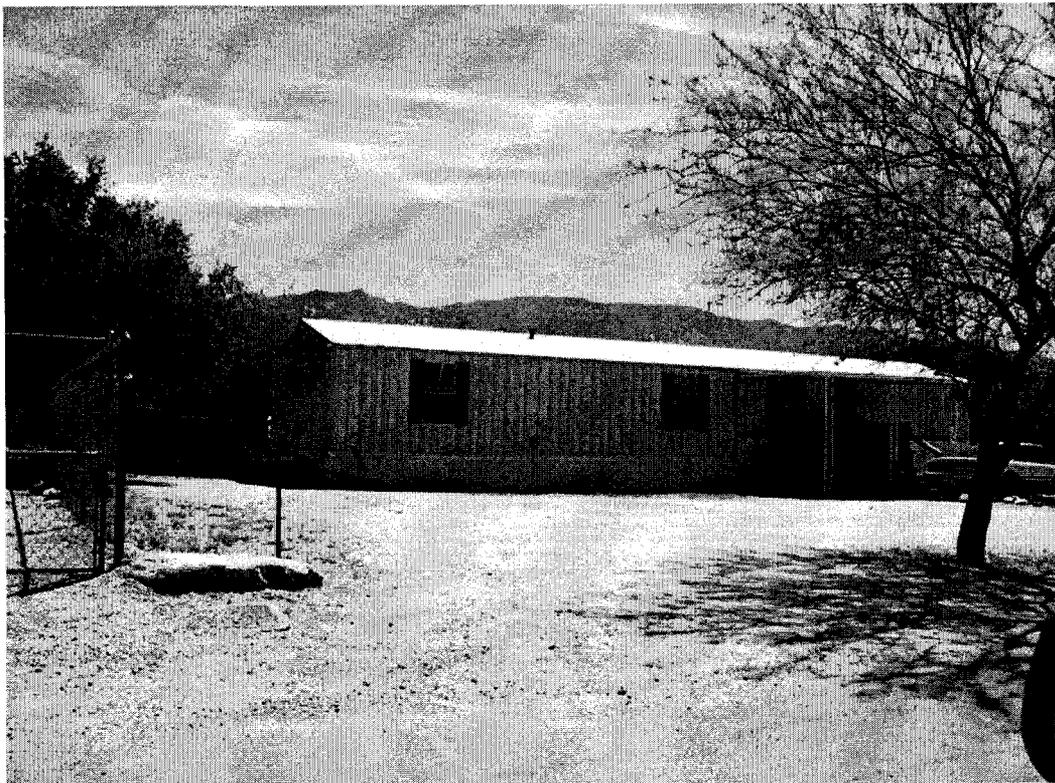
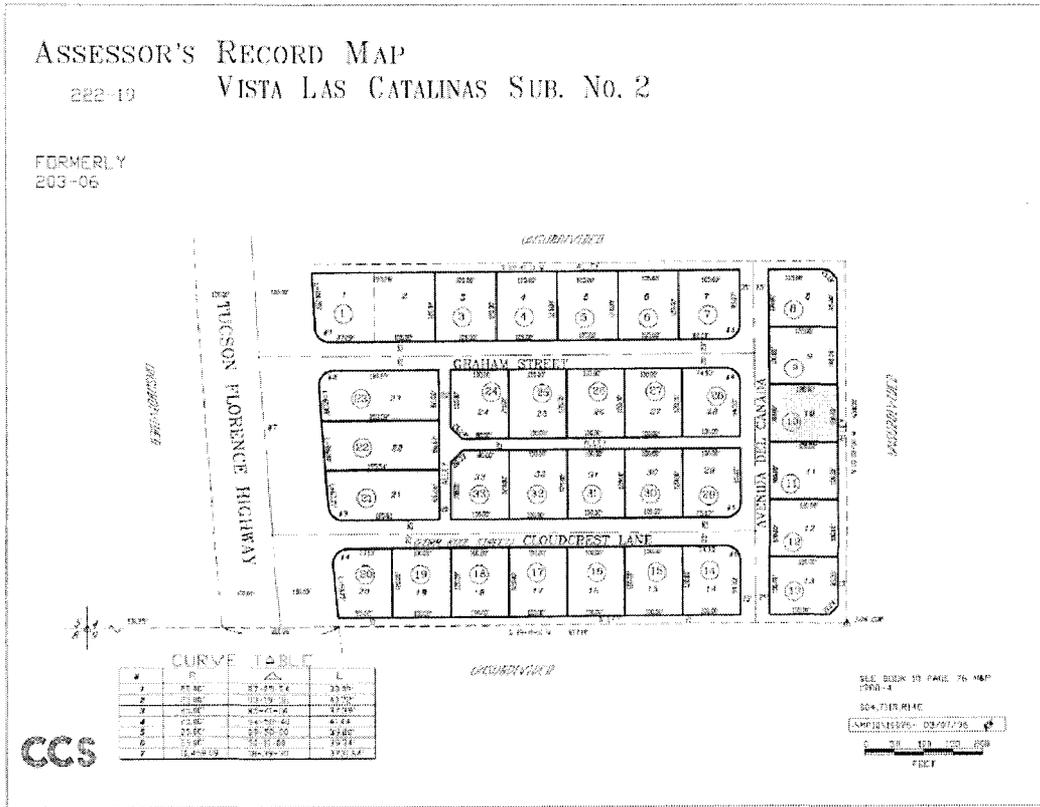


COMPARABLE SALE FOUR

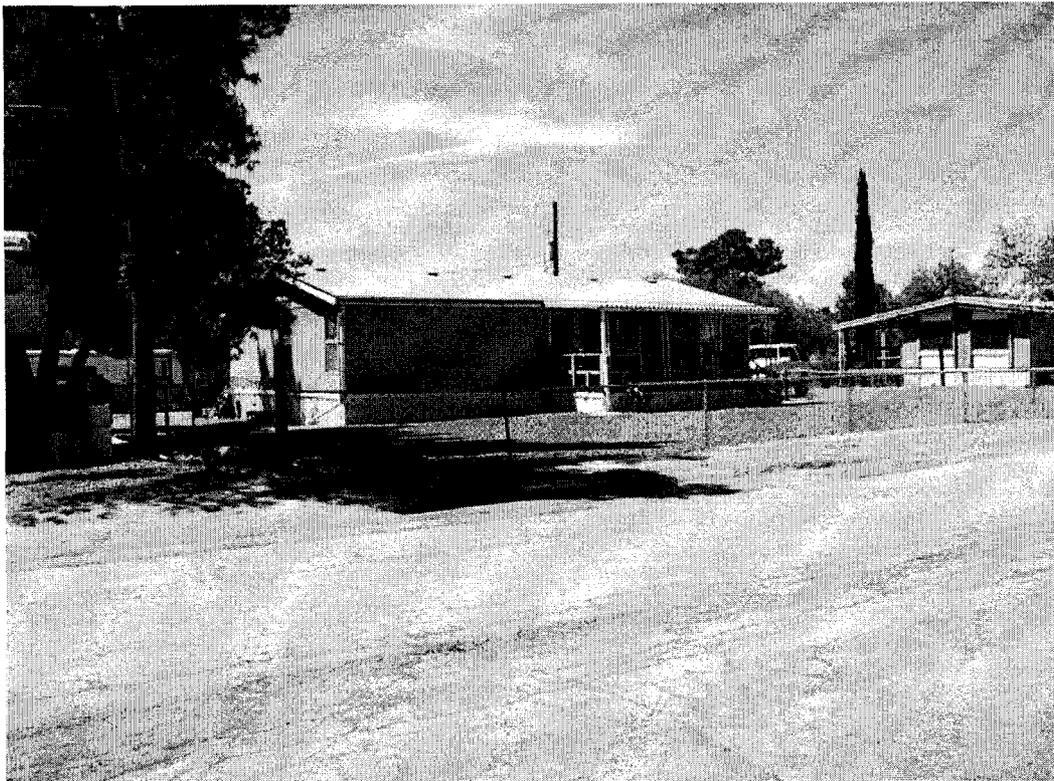
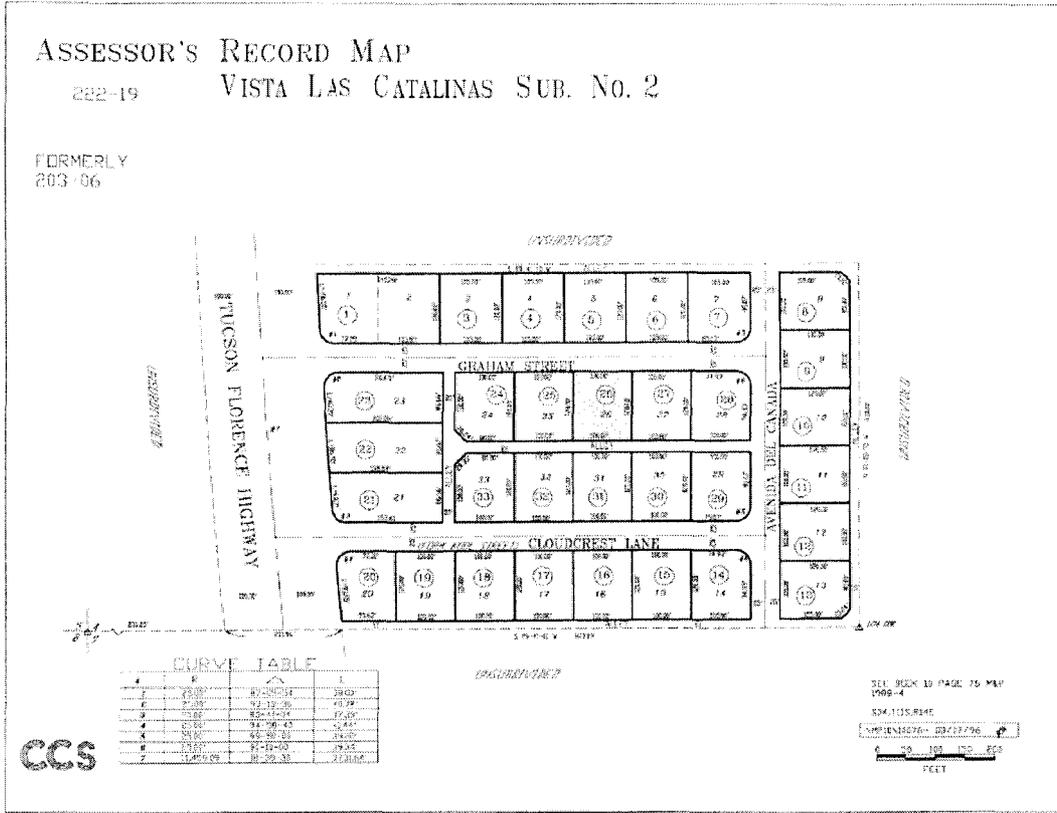


COMPARABLE SALE FIVE

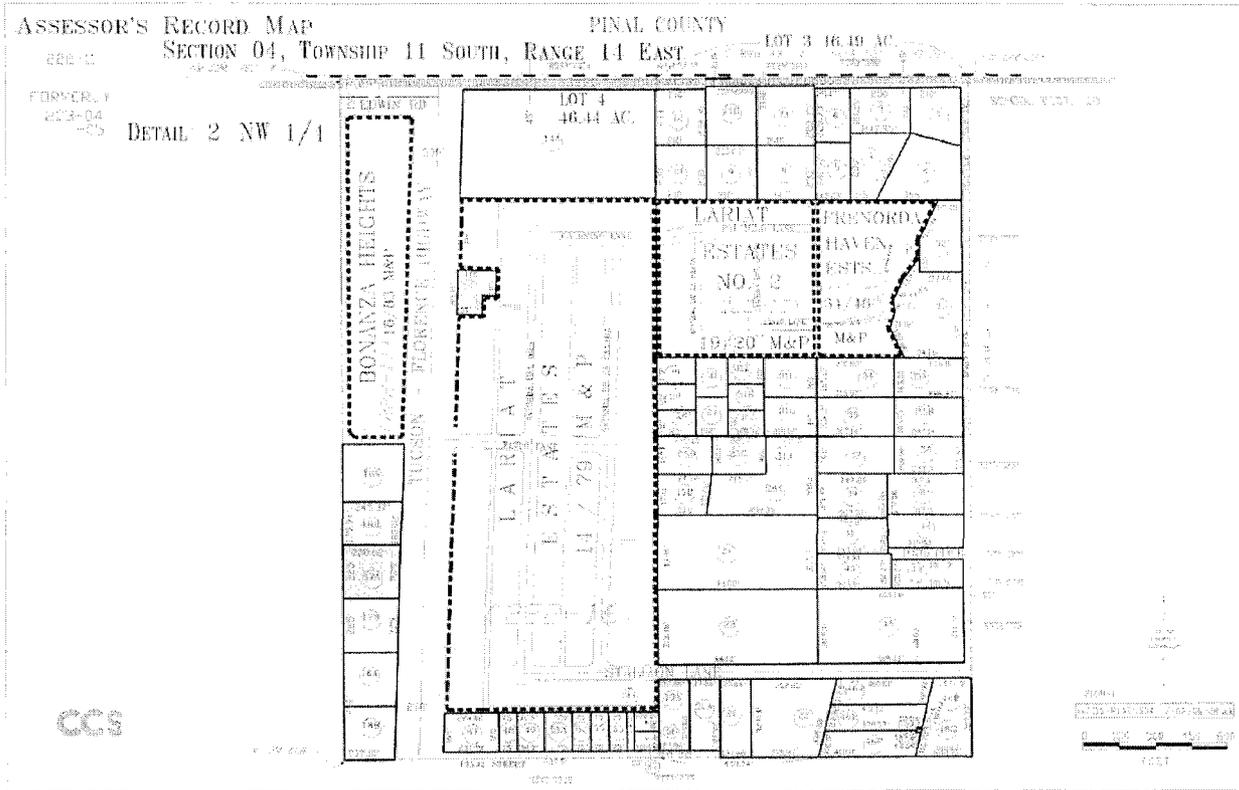
COMPARABLE SALE MAPS/PHOTOGRAPHS – WATER PLANT #3



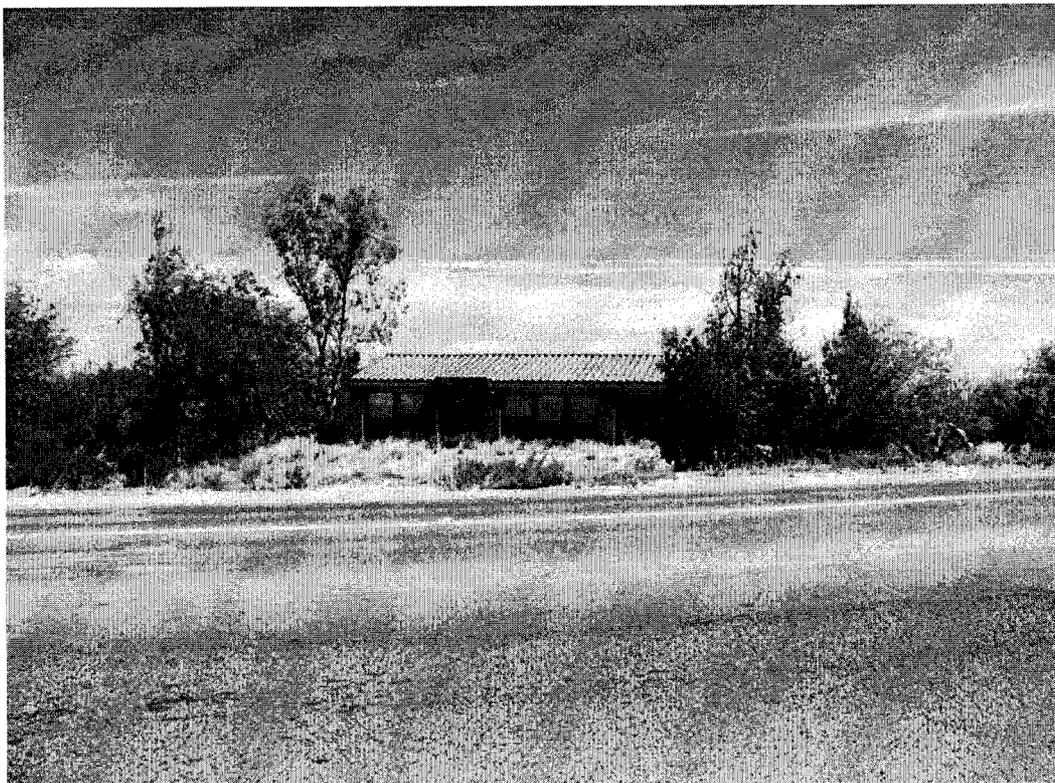
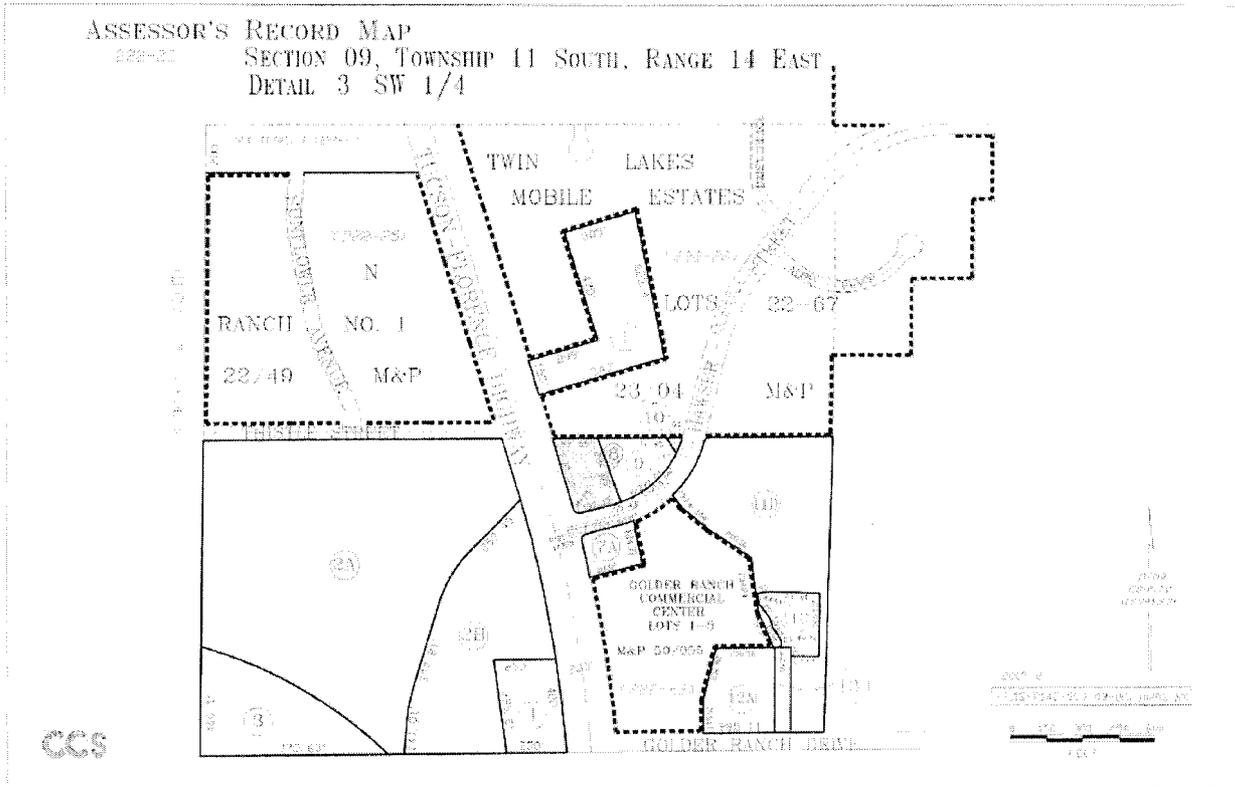
COMPARABLE SALE ONE



COMPARABLE SALE THREE

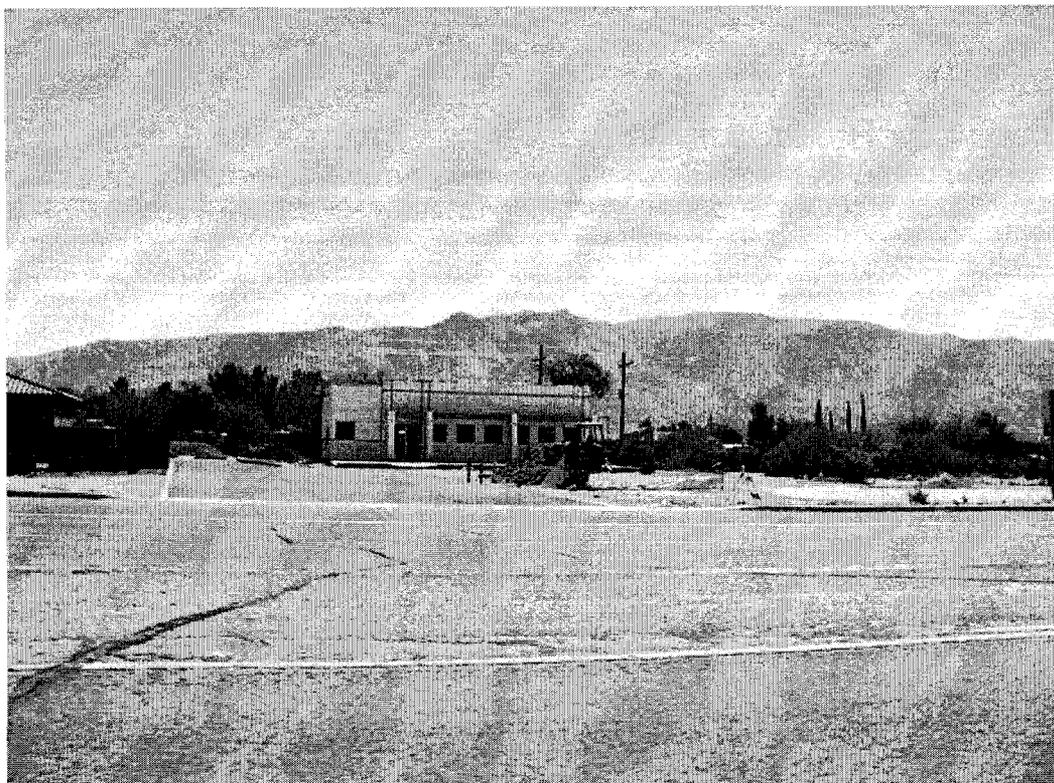
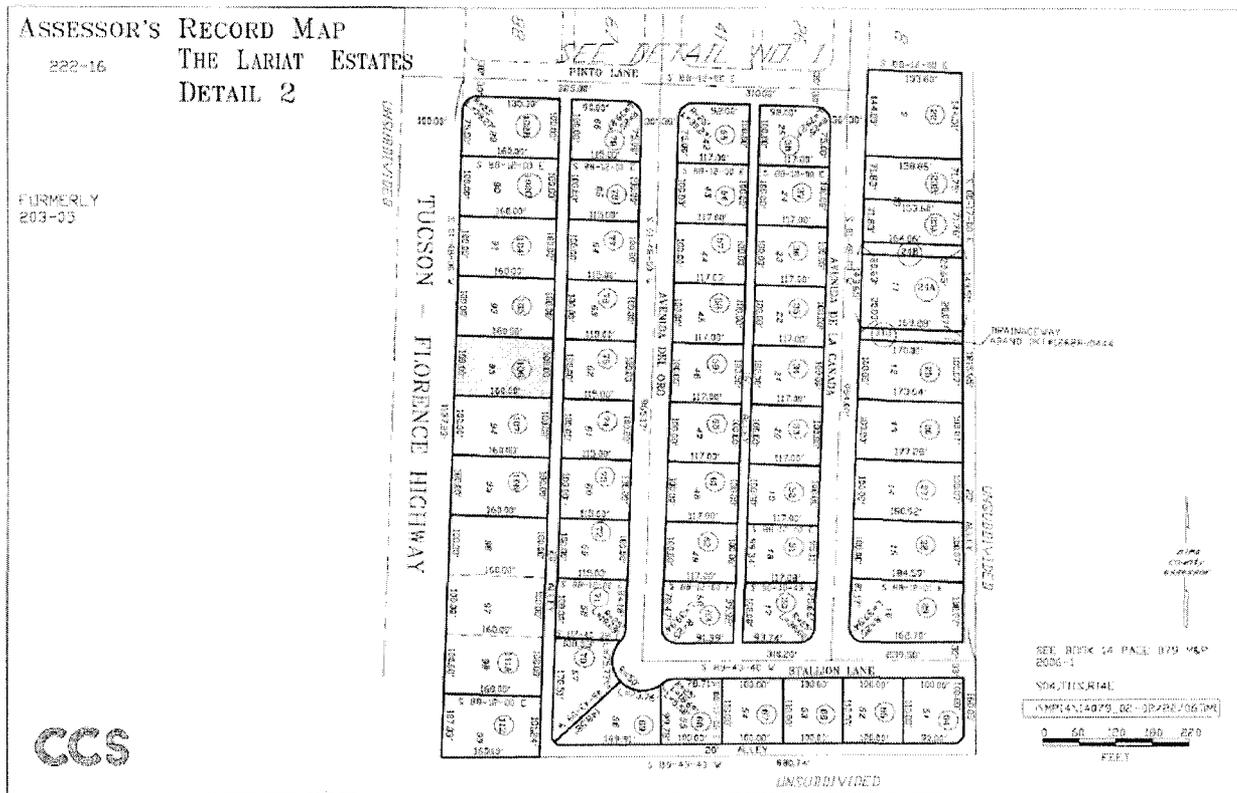


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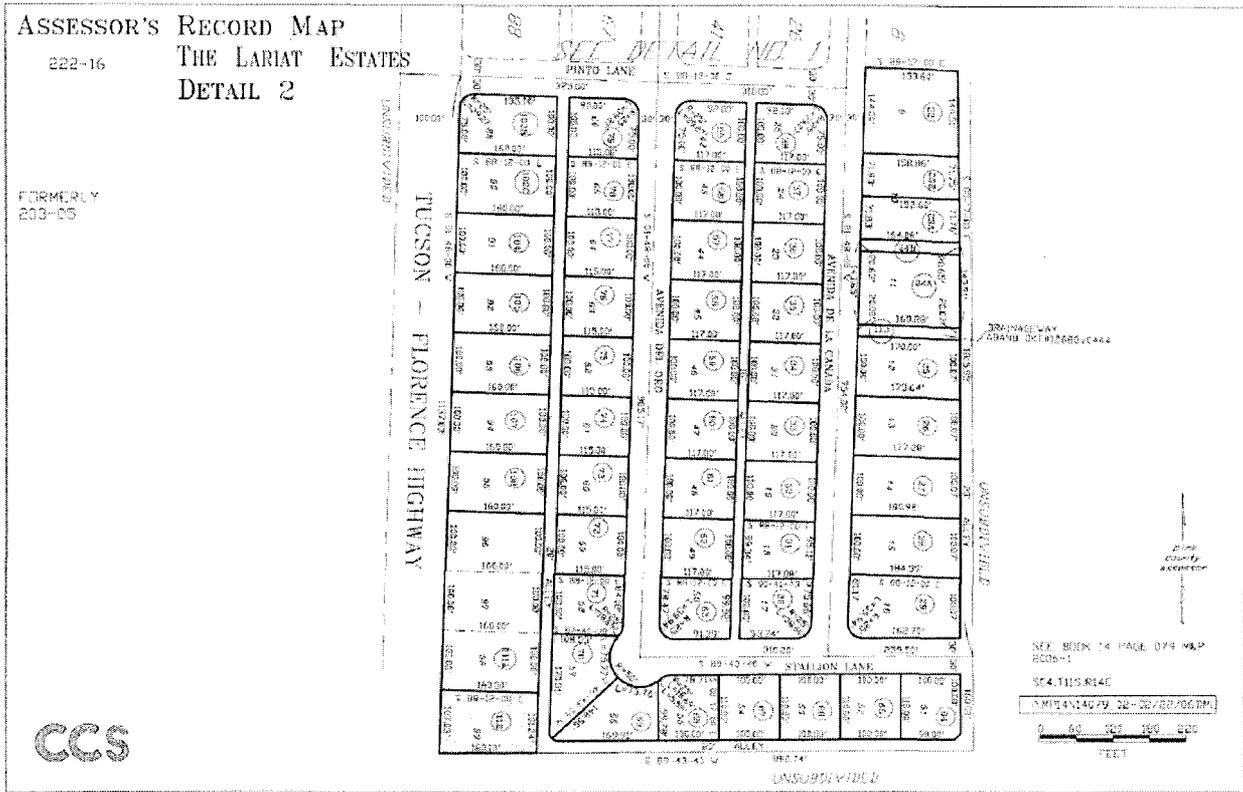


COMPARABLE SALE FIVE

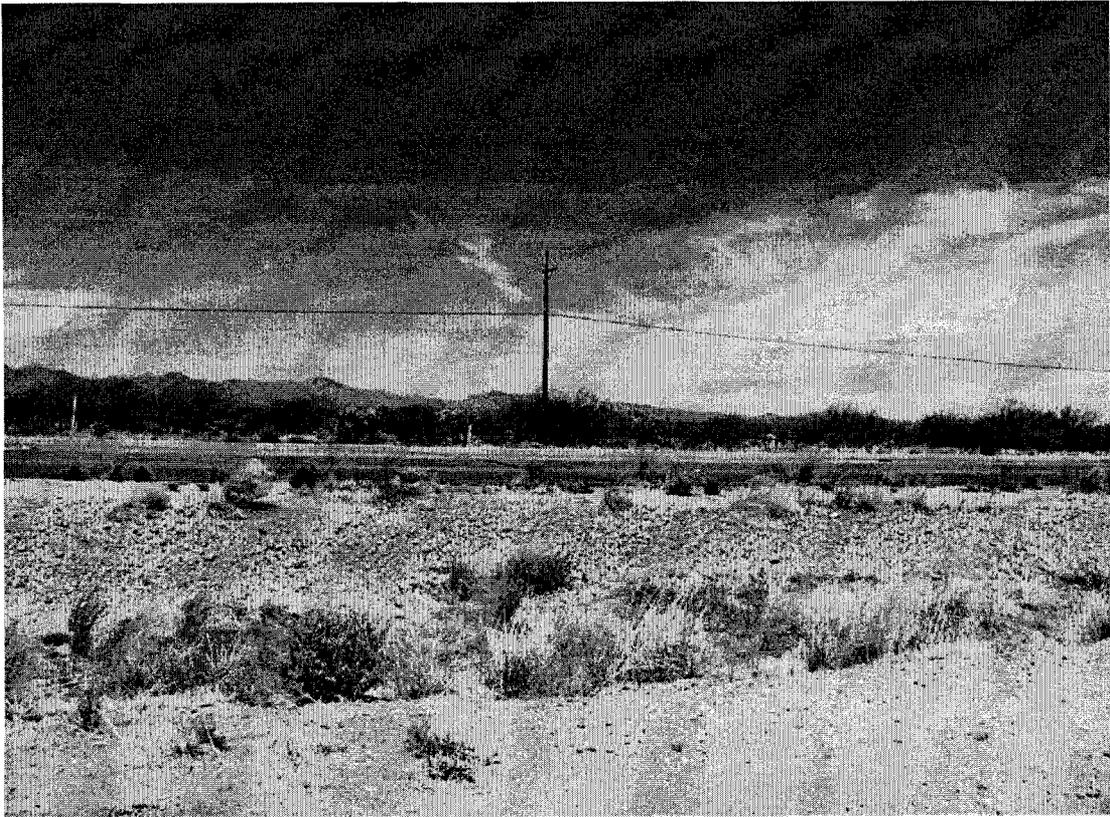
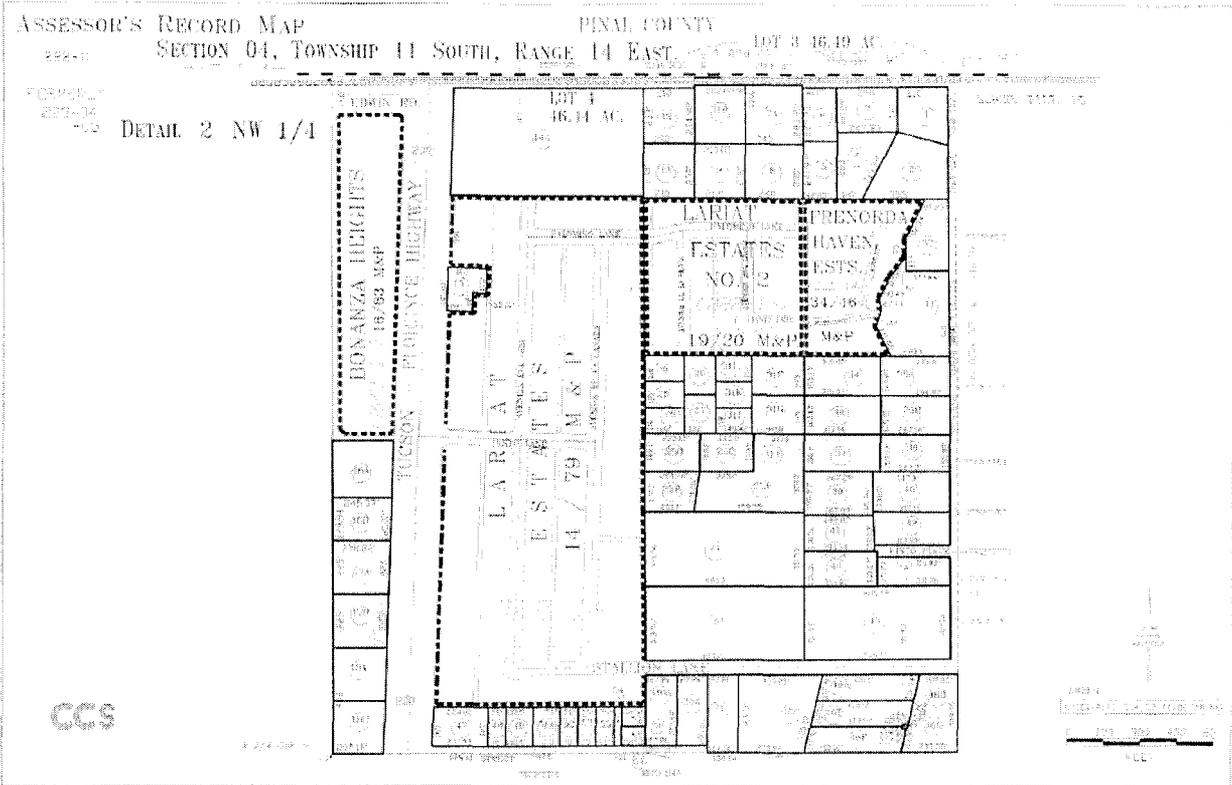
COMPARABLE SALE MAPS/PHOTOGRAPHS - WATER PLANT #4



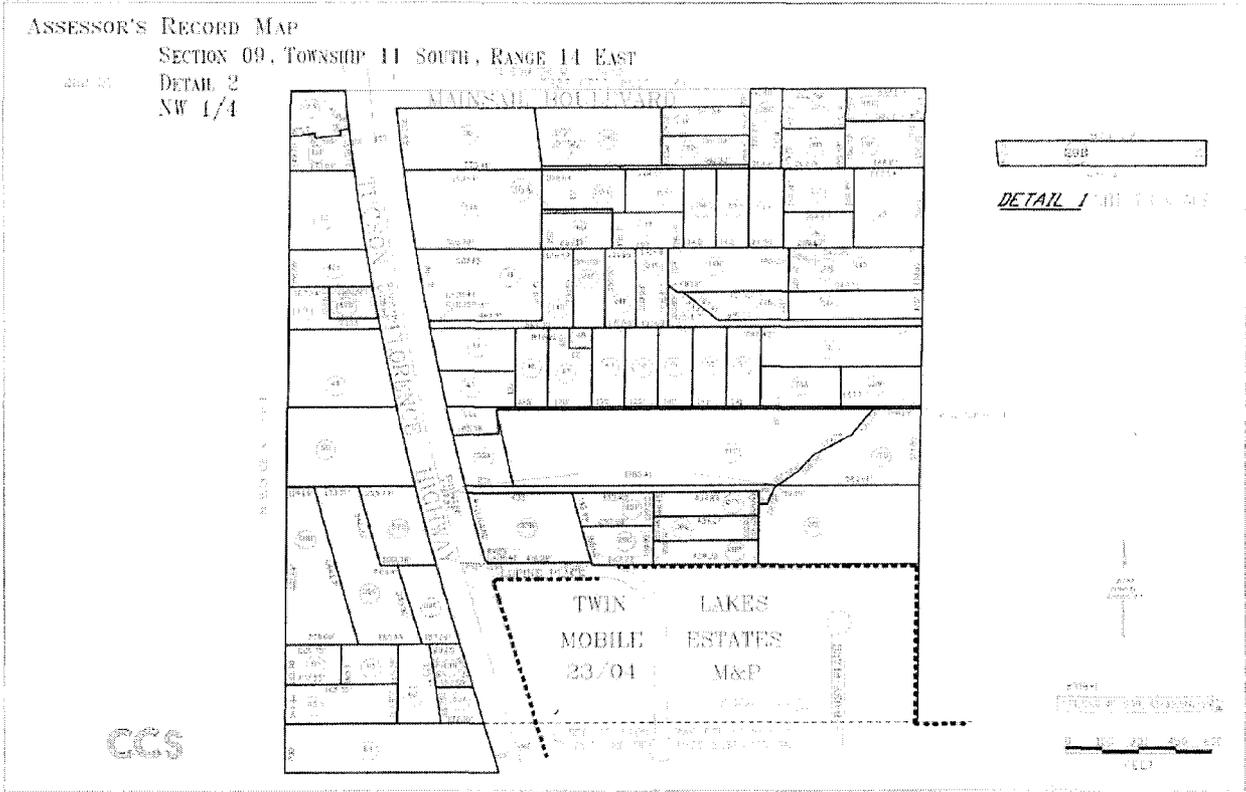
COMPARABLE SALE ONE



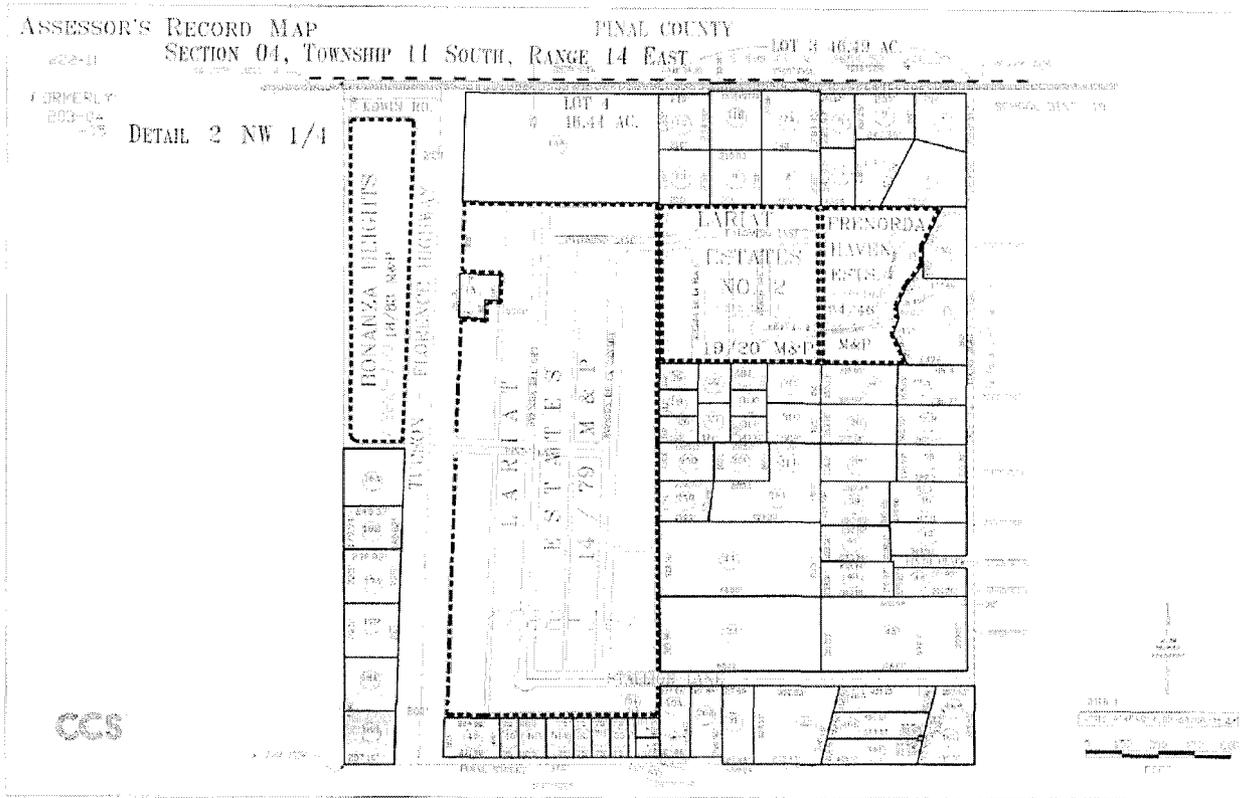
COMPARABLE SALE TWO



COMPARABLE SALE THREE



COMPARABLE SALE FIVE



COMPARABLE SALE SIX

Chapter 2.70
CR-3 SINGLE RESIDENCE ZONE

Sections:

- 2.70.010 Uses permitted.
- 2.70.020 Site development standards.
- 2.70.030 Detached accessory buildings.

2.70.010 Uses permitted.

- A. One-family dwelling, conventional construction.
- B. Public park, public or parochial school.
- C. Church, provided the minimum off-street parking requirements, as set forth in PCDSC 2.140.020(E), are met.
- D. A travel trailer or recreational vehicle (RV) for not more than 90 days during construction of a residence on the same premises, which period may be extended for an additional period of 90 days upon application to the zoning inspector.
- E. Horticulture, flower and vegetable gardening, nursery or greenhouse used only for propagation and culture and not for retail sales.
- F. Home occupation.
- G. Accessory building or use. [Ord. 61862 § 1101].

2.70.020 Site development standards.

- A. Building height: maximum height of any structure shall be 30 feet.
- B. Minimum lot area: 7,000 square feet.
- C. Minimum lot width: 60 feet.
- D. Minimum area per dwelling unit: 7,000 square feet.
- E. Minimum front yard: 20 feet.
- F. Minimum side yards: eight feet each.
- G. Minimum rear yard: 25 feet to the rear lot line.
- H. Minimum distance between main buildings: 16 feet, except as required in PCDSC 2.150.140 for a rear dwelling.
- I. Buildable area: not to exceed 40 percent of the lot, including all structures, except swimming pools. [Ord. 61862 §§ 1102 – 1110].

2.70.030 Detached accessory buildings.

- A. Permitted coverage: one-third of the total area of the rear and side yards.

- B. Maximum height: 20 feet.
- C. Minimum distance to main building: seven feet.
- D. Minimum distance to front lot line: 60 feet.
- E. Minimum distance to side and rear lot lines: four feet.
- F. Accessory buildings shall be detached from the main building except that they may be attached by means of an unenclosed structure that has only one wall not over six feet high which shall be placed on only one side of the structure. [Ord. 61862 § 1111].

This page of the Pinal County Development Services Code is current through Ordinance 022311-PZ-C-008-10, passed February 23, 2011.

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Chapter 2.105
CI-1 LIGHT INDUSTRY AND WAREHOUSE ZONE

Sections:

- 2.105.010 Uses permitted.
- 2.105.020 Site development standards.
- 2.105.030 Industrial buffer required.
- 2.105.040 Detached accessory buildings.

2.105.010 Uses permitted.

- A. Any use permitted in PCDSC 2.90.010(B) (CB-1 local business zone) and in PCDSC 2.95.010(B) and (C) (CB-2 general business zone).
- B. One-family dwelling unit, conventional construction, or manufactured home or mobile home as watchman or caretaker's quarters in conjunction with an established, permitted use.
- C. Any of the following if conducted wholly within a completely enclosed building:
1. Manufacture, compounding, processing, packaging or treatment of: bakery goods, candy, cosmetics, dairy products, drugs and pharmaceutical products, soap (cold process only), and food products, except fish or meat products, sauerkraut, vinegar, yeast, and the rendering or refining of fats and oils.
 2. Manufacture, compounding, assembling or treatment of articles or merchandise from the following previously prepared materials: bone, broom corn, cellophane, canvas, cloth, cork, feathers, felt, fiber, fur, glass, hair or bristles, horn, leather, paper, plastics or plastic products, precious or semi-precious metals or stones, shell textiles, tobacco, wax (paraffin, tallow, etc.), wood (excluding sawmill or planing mill), yarns, paint (not employing a boiling process).
 3. Manufacture of: glass, pottery or other similar ceramic products (using only previously prepared sand or pulverized clay and kilns fired only by electricity or gas), musical instruments, toys, novelties, rubber or metal stamps.
 4. Manufacture and maintenance of: electric and neon signs, billboards, commercial advertising structures and displays, light sheet metal products, including heating or cooling and ventilating ducts and equipment, cornices, eaves and the like.
 5. Automobile or trailer assembling, painting, upholstering, rebuilding, reconditioning, sale of used parts, truck repair or overhauling, tire rebuilding or recapping, battery manufacture and the like.
 6. Blacksmith and welding shop or machine shop (excluding punch presses over 20 tons rated capacity, and drop hammer), foundry casting, electroplating and electro-winding lightweight nonferrous metals not causing noxious fumes or odors.

7. Laundry, cleaning or dyeing works, carpet and rug cleaning.
 8. Distribution plant, ice and cold storage plant, beverage bottling plant.
 9. Wholesale business, storage building or warehouse.
 10. Assembly of electrical appliances: radios and phonographs, including the manufacture of small parts only, such as coils, condensers, transformers, crystal holders and the like.
 11. Laboratory: experimental, photo or motion picture film or testing.
 12. Veterinary or cat or dog hospital or kennels.
 13. Poultry or rabbit killing incidental to a retail business on the same premises.
- D. Any of the following if conducted wholly within a completely enclosed building or within an area enclosed on all sides with a solid wall, compact evergreen hedge or uniformly painted board fence, not less than six feet in height.
1. Building material sales yard, contractor's equipment sales yard (only) or rental of equipment commonly used by contractors.
 2. Retail lumber yard, including only incidental mill work, feed yard.
 3. Draying, freighting or truck yard or terminal.
 4. Motion picture studio.
 5. Automobile or automotive body and fender shop.
 6. Public utility service yard.
- E. Accessory building or use when located on the same building site.
- F. Airport, airstrip or landing field, subject to the conditions set forth in PCDSC 2.20.010(J).
- G. 1. Gasoline or flammables bulk station, provided said products, gasoline, or petroleum shall not be stored in tanks of more than 10,000 gallons capacity each, located not less than 25 feet from building or lot line and no closer than 100 feet to a residential zone.
2. Liquefied petroleum gases (LPG) bulk station shall be designed, constructed and maintained in compliance with provisions of National Fire Protection Association NFPA Standards No. 58. [Ord. 61862 § 1701].

2.105.020 Site development standards.

- A. Building height: maximum height of any structure shall be 35 feet.
- B. Minimum lot area: none.

- C. Minimum lot width: none.
- D. Minimum lot area per dwelling unit: none.
- E. Minimum front yard: 15 feet, except as provided in PCDSC 2.105.030.
- F. Minimum side yards: none, except as provided in PCDSC 2.105.030.
- G. Minimum rear yard: 10 feet, except as provided in PCDSC 2.105.030. [Ord. 61862 §§ 1702 – 1708].

2.105.030 Industrial buffer required.

Where industry adjoins, faces or confronts residential property or a major or secondary thoroughfare, such industrial use shall provide a yard of not less than 10 percent of the lot depth or width on the side or sides abutting, facing or confronting said uses, but such yard need not exceed 50 feet unless a greater depth or width is required by the general setback provisions of this title, or general or special setback provisions of any existing setback ordinance. Such yard shall be improved with one or more of the following:

- A. Landscaping.
- B. Parking lot, wherein a minimum width of 10 feet along the lot line(s) closest to the residential property or major or secondary thoroughfare, shall be landscaped; and a decorative screening device of opaque fencing, walls, landscaped earth berms or any combination thereof, shall be installed between the landscaped area and the parking lot, to a minimum height of three feet.
- C. Recreational space for employees, wherein a minimum width of 10 feet along the lot line(s) closest to the residential property or major or secondary thoroughfare, shall be landscaped. [Ord. 61862 § 1709].

2.105.040 Detached accessory buildings.

- A. Permitted coverage: 40 percent of the required rear yard and any additional space within the buildable area.
 - B. Maximum building height: 20 feet within the required rear yard; 35 feet within the buildable area.
 - C. Minimum distance to main building: seven feet.
 - D. Minimum distance to front lot line: 15 feet, except as provided in PCDSC 2.105.030.
 - E. Minimum distance to side lot lines: none, except as provided in PCDSC 2.105.030.
 - F. Minimum distance to rear lot line: four feet, except as provided in PCDSC 2.105.030. [Ord. 61862 § 1710].
-

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This is a Summary Appraisal Report which is intended to comply with the reporting requirements set forth under Standard Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice for a Summary Appraisal Report. As such, it might not include full discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. The appraisers are not responsible for unauthorized use of this report.

2. **COPIES, PUBLICATION, DISTRIBUTION, USE OF REPORT:**

Possession of this report or any copy thereof does not carry with it the right of publication, nor may it be used for other than its intended use; the physical report(s) remain the property of the appraiser for the use of the client, the fee being for the analytical services only. The report may not be used for any purpose by any person or corporation other than the client or the party to whom it is addressed or copied without the written consent of an officer of the appraisal firm, and then only in its entirety.

Neither all nor any part of the contents of this report shall be conveyed to the public through advertising, public relations efforts, news, sales, prospectus, brochure, or other media, without the written consent and approval of John Burdick, MAI, or John Ferenchak, nor may any reference be made in such a public communication to the Appraisal Institute or the SRA or MAI designations.

Appraisal reports prepared by Burdick & Ferenchak, Inc. are intended for mortgage loan purposes and for estimation of fair market values, and are not permitted to be used for real estate syndication purposes. Acceptance and use of value estimates and appraisal reports prepared by Burdick & Ferenchak, Inc. constitutes acceptance of the preceding statement.

3. **CONFIDENTIALITY:**

The appraiser may not divulge the material (evaluation) contents of the report, analytical findings or conclusions, or give a copy of the report to anyone other than the client or his designee as specified in writing except as may be required by the Appraisal Institute as they may request in confidence for ethics enforcement, or by a court of law or body with the power of subpoena.

This appraisal is to be used only in its entirety and no part is to be used without the whole report. All conclusions and opinions concerning the analysis as set forth in the report were prepared by the Appraiser(s) whose signature(s) appears on the appraisal report, unless indicated as "Review Appraiser".

No change of any item in the report shall be made by anyone other than the Appraiser and/or officer of the firm. The Appraiser and firm shall have no responsibility if any such unauthorized change is made.

Possession of the appraisal report or a copy thereof does not carry with it the right of publication. The appraisal report is a privileged communication between the appraiser(s) and client, and may not be used for any other purpose without the written permission from the appraiser(s).

4. **TRADE SECRET:**

This appraisal was obtained from Burdick & Ferenchak, Inc., or related companies and/or its individuals or related independent contractors, and consists of "trade secrets and commercial or financial information" which is privileged and confidential and exempted from disclosure under 5 U.S.C. 552 (b) (4). Notify the appraiser(s) signing the report of any request to reproduce this appraisal in whole or part.

5. **INFORMATION USED:**

No responsibility is assumed for accuracy of information furnished by or from others, the client, his designee, or public records. We are not liable for such information or the work of possible subcontractors. The comparable data relied upon in this report has been confirmed with one or more parties familiar with the transaction or from affidavit; all are considered appropriate for inclusion to the best of our factual judgment and knowledge.

6. **TESTIMONY, CONSULTATION, COMPLETION OF CONTRACT FOR APPRAISAL SERVICES:**

The contract for appraisal, consultation or analytical service, are fulfilled and the total fee payable upon completion of the report. The appraiser(s) or those assisting in preparation of the report will not be asked or required to give testimony in court or hearing because of having made the appraisal, in full or in part, nor engage in post appraisal consultation with client or third parties except under separate and special arrangement and at additional fee.

7. **EXHIBITS:**

The sketches and maps in this report are included to assist the reader in visualizing the property and are not necessarily to scale. Various photos, if any, are included for the same purpose and are not intended to represent the property in other than actual status, as of the date of the photos. Site plans are not surveys unless shown from separate surveyor.

8. **LEGAL, ENGINEERING, FINANCIAL, STRUCTURAL, HAZARDOUS MATERIAL, OR MECHANICAL NATURE HIDDEN COMPONENTS, SOIL:**

No responsibility is assumed for matters legal in character or nature, nor matters of survey, nor of any architectural, structural, mechanical, or engineering nature. No opinion is rendered as to the title, which is presumed to be good and merchantable. The property is appraised as if free and clear, unless otherwise stated in particular parts of the report.

The legal description is assumed to be correct as used in this report as furnished by the client, his designee, or as derived by the appraiser.

The appraiser has inspected as far as possible, by observation, the land and the improvements thereon; however it was not possible to personally observe conditions beneath the soil or hidden structural, or other components. We have not critically inspected mechanical components within the improvements and no representations are made herein as to these matters unless specifically stated and considered in the report. The value estimate assumes that there are no such conditions that would cause a loss of value. The land or the soil of the area being appraised appears firm, however subsidence in the area is unknown. The appraiser(s) do not warrant against this condition or occurrence or problems arising from soil conditions.

The appraisal is based on there being no hidden, unapparent, or apparent conditions of the property site, subsoil, or structures which would render it more or less valuable. No responsibility is assumed for any such conditions or for any expertise or engineering to discover them.

All mechanical components are assumed to be in operable condition and status, standard for properties of the subject type. The condition of the heating, cooling, ventilating, electrical and plumbing equipment is considered to be commensurate with the condition of the balance of the improvements unless otherwise stated. No judgment is made as to adequacy of insulation, type of insulation, or energy efficiency of the improvements or equipment.

Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property, was not observed by the appraiser. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

9. **LEGALITY OF USE:**

The appraisal is based on the premise that, there is full compliance with all applicable federal, state and local environmental regulations and laws unless otherwise stated in the report; further that all applicable zoning, building and use regulations and restrictions of all types have been compiled with unless otherwise stated in the report; further, it is assumed that all required licenses, consents, permits, or other legislative or administrative authority, local, state, federal and/or private entity or organization have been or can be obtained or renewed for any use considered in the value estimate.

10. **COMPONENT VALUES:**

The distribution of the total valuation of this report between land and improvements applies only under the existing program of utilization. The separate valuations for land and building must not be used in conjunction with any other appraisal and are invalid if so used.

11. **AUXILIARY AND RELATED STUDIES:**

No environmental or impact study, special market study or analysis, highest and best use analysis or feasibility study has been requested or made unless otherwise specified in an agreement for services or in the report. The appraiser reserves the unlimited right to alter, amend, revise or rescind any of the statements, findings, opinions, values, estimates, or conclusions upon any subsequent such study or analysis or previous study or analysis subsequently becoming known to him.

12. **DOLLAR VALUE, PURCHASING POWER:**

The market value estimated, and the costs used, are as of the date of the estimate of value. All dollar amounts are based on the purchasing power and price of the dollar as of the date of the value estimate.

13. **INCLUSIONS:**

Furnishings and equipment, or business operations, except as specifically indicated and typically considered as a part of real estate, have been disregarded with only the real estate being considered in the value estimate, unless otherwise stated.

14. **PROPOSED IMPROVEMENTS, CONDITIONED VALUE:**

Proposed improvements, if any, on or off-site, as well as any repairs required, are considered for purposes of this appraisal, to be completed in good and workmanlike manner according to information submitted and/or considered by the appraiser. In cases of proposed construction, the appraisal is subject to change upon inspection of the property after construction is completed. This estimate of market value is as of the date shown, as proposed, as if completed and operating at levels shown and projected.

15. **VALUE CHANGE, DYNAMIC MARKET, INFLUENCES:**

The estimated market value is subject to change with market changes over time; value is highly related to exposure, time, promotional effort, terms, motivation, and conditions surrounding the offering. The value estimate considers the productivity and relative attractiveness of the property physically and economically in the marketplace. The "Estimate of Market Value" in the appraisal report is not based in whole or in part upon the race, color, or national origin of the present owners, or occupants of the properties in the vicinity of the property appraised.

In cases of appraisals involving the capitalization of income benefits, the estimate of market value is a reflection of such benefits and the appraiser's interpretation of income and yields and other factors derived from general and specific market information. Such estimates are as of the date of the estimate of value; they are thus subject to change as the market is naturally dynamic.

16. **MANAGEMENT OF THE PROPERTY:**

It is assumed that the property which is the subject of this report will be under prudent and competent ownership and management; neither inefficient nor super-efficient.

17. **CONTINUING EDUCATION CURRENT:**

As of the date of this report, John Burdick has completed the requirements of the continuing education program of the Appraisal Institute.

18. **FEES:**

The fee for this appraisal or study is for the service rendered and not only for the time spent on the physical report.

19. **AUTHENTIC COPIES:**

The authentic copies of this report are signed in blue ink. Any copy that does not have the above is unauthorized and may have been altered.

20. **INSULATION:**

Unless otherwise stated in this report, the appraiser(s) signing this report have no knowledge concerning the presence or absence of ureaformaldehyde foam insulation in existing improvements; if such insulation is present the value of the property may be adversely affected and re-appraisal, at additional cost, may be necessary to estimate the effects of such insulation.

21. **NOTE:**

ACCEPTANCE OF, AND/OR USE OF, THIS APPRAISAL REPORT CONSTITUTES ACCEPTANCE OF THE ABOVE CONDITIONS.

22.

AMERICANS WITH DISABILITIES ACT OF 1990:

The ADA became effective on January 26, 1992. We have not made a specific compliance survey and analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect on the value of the property. Since we have no direct evidence relating to this issue, we did not consider noncompliance with the requirements of ADA in estimating the value of the property.

QUALIFICATIONS OF JOHN FERENCHAK III

PROFESSIONAL MEMBERSHIPS

State of Arizona Certified General Real Estate Appraiser #30344 (August, 2012, since August, 1991)

PROFESSIONAL EXPERIENCE

June, 1995 - Present

Burdick & Ferenchak, Inc. - Real Estate Appraising and Consulting, as Partner

June, 1987 - June, 1995

The Pagel Company, Real Estate Appraisers and Consultants, as an Associate Appraiser

EDUCATION:

Bachelor of Arts Degree in Management
University of Phoenix

March, 1993

APPRAISAL COURSEWORK SUCCESSFULLY COMPLETED

Real Estate Appraisal Principles: 1A-1, 1B-1
Capitalization Theory and Techniques, Part A
Capitalization Theory and Techniques, Part B
Case Studies in Real Estate Valuation
Report Writing and Valuation Analysis
Standards of Professional Practice (USPAP - Update)

Fall, 1987
Spring, 1988
Spring, 1990
Summer, 1991
Spring, 1992
Spring, 2010

PARTIAL LIST OF SEMINARS ATTENDED

▶ Fair Lending and Appraisers	October, 1993
▶ NAFTA Seminar	April, 1994
▶ Subdivision Analysis Seminar	March, 1996
▶ Loss Prevention Program	October, 1997
▶ New Industrial Valuation Seminar	May, 1998
▶ How Stigmas Affect Property	July, 2000
▶ Fair Housing in Property Management	July, 2000
▶ Residential Lot Valuation Issues	May, 2002
▶ Pricing Small Apartments	July, 2002
▶ Appraisal Consulting	October, 2003
▶ Building Operation Costs	May, 2004
▶ Re-Appraising, Re-Addressing, Re-Assigning	April, 2005
▶ Water in Arizona: Laws, Agencies & Issues	July, 2006
▶ Condominiums, Co-Ops, and PUDs	October, 2006
▶ Legal Aspects of Foreclosures	February, 2007
▶ Practical Issues in Fair Housing	May, 2008
▶ Supervising Appraisers	June, 2008
▶ Disclosure	July, 2008
▶ Business Practice and Ethics	January, 2010

PROFESSIONAL AFFILIATIONS

Associate member of the Appraisal Institute

SCOPE OF APPRAISAL ACTIVITY

Appraisal/consulting assignments have included a wide variety of residential and commercial appraisals, subdivision analysis, market trend studies, and land appraisals.

STATE OF ARIZONA
BOARD OF APPRAISAL

BE IT KNOWN THAT
JOHN A. FERENCHAK

HAS MET ALL THE REQUIREMENTS AS A
Certified General Real Estate Appraiser

In accordance with Arizona Revised Statutes and on authority of the Board of Appraisal, State of Arizona.

This certificate shall remain evidence thereof unless or until the same is suspended, revoked or expires in accordance with the provisions of law.

CERTIFICATE NUMBER

30344

EXPIRATION DATE

August 31, 2012



In witness whereof the Arizona Board of Appraisal caused to be signed by the Chair of the Board and the Executive Director


Chair, Board of Appraisal 8/19/2010
Date


Executive Director of the Board of Appraisal 8/19/2010
Date

SHALL REMAIN PROPERTY OF ARIZONA BOARD OF APPRAISAL