

ORIGINAL



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ARIZONA CORPORATION COMMISSION
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7 **BEFORE THE ARIZONA CORPORATION COMMISSION**

8 **COMMISSIONERS**

9 KRISTIN K. MAYES, CHAIRMAN
10 GARY PIERCE
11 PAUL NEWMAN
12 SANDRA D. KENNEDY
13 BOB STUMP

Arizona Corporation Commission

DOCKETED

JUN - 8 2009

DOCKETED BY 

14 IN THE MATTER OF THE
15 APPLICATION OF WICKENBURG
16 RANCH WATER, LLC, AN ARIZONA
17 LIMITED LIABILITY COMPANY, FOR A
18 RATE ADJUSTMENT

Docket No. W-03994A-07-0657

**NOTICE OF FILING OF DIRECT
TESTIMONY AND POTENTIAL
EXHIBITS TO BE USED ON
REHEARING**

19
20 Wickenburg Ranch Water, LLC ("Company"), hereby gives notice that it is filing
21 the surrebuttal testimony of the following witnesses:

- 22 • Marvin Glotfelty (Attachment 1); and
23 • Sonn Rowell (Attachment 2).

24 The surrebuttal testimony of each of these witnesses is being submitted with this notice.

25
26 The Company expressly reserves the right of its witnesses to address at hearing
27 issues of fact and expert opinion that may have been impliedly or expressly raised by Mr.
28 Olea's rebuttal testimony that contradict their direct testimony. The Company further

1 discloses in this matter and enters into the record its Response to Data Request. *See*
2 Attachment 3. All information produced therein can be adopted as testimony by
3 appropriate Water Company witnesses. The Company further reserves the right to
4 submit impeachment evidence, if applicable.
5

6 DATED June 8, 2009.

7
8 **MOYES SELLERS & SIMS, LTD.**

9
10 
11 Steve Wene
12 Attorneys for Wickenburg Ranch Water

13 **Original and thirteen copies**
14 **filed June 8, 2009 with:**

15 Docket Control
16 Arizona Corporation Commission
17 1200 West Washington Street
18 Phoenix, Arizona 85007

19 Kevin Torrey, Attorney
20 Legal Division
21 Arizona Corporation Commission
22 1200 West Washington Street
23 Phoenix, Arizona 85007

24 Steve Olea
25 Utilities Division
26 Arizona Corporation Commission
27 1200 West Washington Street
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ATTACHMENT 1

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**DIRECT TESTIMONY OF
MARVIN GLOTFELTY**

20
21 **Q-1 Please state your name and current employment position:**

22 **A-1** Marvin Glotfelty, Principal Hydrogeologist with Clear Creek Associates in
23 Scottsdale, Arizona.

24
25 **Q-2 You have previously described your educational and professional background
26 in this matter when you filed direct testimony, correct?**

27 **A-2** Correct.

28 **Q-3 What is the purpose of your surrebuttal testimony?**

1 **A-3** The purpose of my testimony is to address certain statements made by Steven Olea
2 that need to be clarified.

3
4 **Q-4** What is the first point you need to clarify?

5 **A-4** Even though the name of the water company has changed, it has not impacted the
6 hydrologic facts upon which the designation of adequate water supply was
7 granted. There is still adequate groundwater resources available to meet the
8 projected demand created by the proposed development.

9
10 **Q-5** What is the second point you need to clarify?

11 **A-5** On pages 7 and 8 of his Direct Testimony, Mr. Olea states that conserving
12 groundwater should be done whenever possible. This is an overly broad
13 generalization that does not recognize the consequences. Here, for example,
14 "conserving groundwater" by installing rainwater catchments will take water from
15 a riparian habitat and wildlife that depends on that water. This adverse impact
16 would be most pronounced during drought conditions, when the riparian plant and
17 animal life and wetlands need rainwater the most. Thus, conserving groundwater
18 by capturing rainwater in this case could significantly harm riparian areas and may
19 not be worth the cost.
20
21
22

23 **Q-6** What is the third point you need to clarify?

24 **A-6** Mr. Olea states that requiring the Water Company to conduct a groundwater
25 conservation program is in the public interest because the Arizona Department of
26 Water Resources' order granting the designation of adequate water supply states
27 that the agency may review and revise the designation and may revoke the
28

1 designation if new information supports that move. But this standard language in
2 all such orders; it was not any indication that the water company's designation was
3 somehow special or in need of special terms.
4

5 **Q-12 Does that conclude your testimony?**

6 **A-12 Yes.**
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**SURREBUTTAL TESTIMONY OF
SONN S. ROWELL**

20
21 **Q-1 Please state your name and current employment position:**

22 **A-1** My name is Sonn S. Rowell, and I am a Certified Public Accountant employed as
23 a regulatory consultant for Desert Mountain Analytical Services PLLC ("DMAS"),
24 where I am a managing member.

25
26 **Q-2 Describe your educational and professional background:**

27 **A-2** I have a Bachelor of Science Degree in Accounting from Arizona State University,
28 as well as my CPA certification from the Arizona State Board of Accountancy. I

1 have worked for many years in the practice of public accounting, and have held
2 part-time teaching positions at Mesa Community College. After employment with
3 the Utilities Division of the Arizona Corporation Commission for four years, I
4 started DMAS and now specialize in regulatory accounting and consulting. My
5 resume is already part of the record in this case as Attachment 1 to my Direct
6
7
8 Testimony.

9 **Q-3 What is the purpose of your testimony:**

10 **A-3** The purpose of my testimony is to offer surrebuttal testimony.
11

12 **Q-4 In Decision No. 70741, the Arizona Corporation Commission ordered**
13 **Wickenburg Ranch Water Company to require as a condition of service that**
14 **its customers must xeriscape their front yard and install rainwater catchment**
15 **systems. Please discuss the ratemaking implications of these provision.**

16 **A-4** As I understand, the xeriscaping and rainwater catchment systems will be
17 purchased, installed, operated, and maintained by the customers, not the water
18 company. Consequently, these provisions have nothing to do with setting
19 reasonable rates. My understanding from speaking to the Water Company is that
20 the rainwater catchment systems will cost the customers at least \$6,000 and
21 require maintenance. In my opinion, this could keep people from buying homes
22 and will reduce the amount of customers in the rate base calculation, which will
23 cause the cost of water service to be proportionately higher to the actual Water
24 Company customers. The practical effect is that these conditions will substantially
25 increase the cost of water service to the customers. My understanding from
26 speaking to the company is that the rainwater catchment systems will provide at
27
28

1 most **13,801** gallons of water per year for each customer. This means the
2 customer will save about \$45.00 per year. At the company's current rates this
3 results in a payback period of **about 132 years**.
4

5 **Q-5 In your opinion can a conservation measure with a payback period of 132**
6 **years be considered cost effective?**
7

8 A-5 I am not aware of any standards regarding the cost effectiveness of water
9 conservation measures established by the Commission. However, in my opinion a
10 payback period of **132 years** indicates that rain catchment systems are not cost
11 effective.
12

13
14 **Q-6 In his testimony Mr. Olea indicates that the cost effectiveness of the**
15 **raincatchment provisions should be evaluated when the company files tariffs**
16 **for Commission consideration in compliances with Decision 70741. Do you**
17 **agree?**
18

19 A-6 Developing tariffs is a time consuming and costly exercise. Evaluating those
20 tariffs will also take up valuable Staff time. Given the problems with the
21 raincatchment requirements laid out in Mr. Glotfelty's and my testimony simply
22 removing the requirement would be much more efficient than requiring the
23 company to file tariffs. Additionally, the Legal Brief filed by Staff states that
24
25
26 "...any allegations of a lack of substantial evidence in support of the conditions
27
28

1 will be remedied *during the rehearing.*"¹ So it is not clear whether Staff believes
2 these issues should be decided now or in the later tariff filing.
3

4 **Q-6 In addition to the xeriscaping and rainwater catchment provisions, Decision**
5 **No. 70741 orders the Water Company to adopt 10 Best Management**
6 **Practices and prohibits it from selling groundwater for the purpose of**
7 **irrigating any golf courses within the certificated area or any ornamental**
8 **lakes or water features located in the common areas.**

9 **A-6** The rates that were approved in Decision No. 70741 did not consider water sales
10 to golf courses, lakes, or water features. But adopting the 10 Best Management
11 Practices may add significant operation and maintenance costs to the Water
12 Company.

13 **Q-7 Does that conclude your direct testimony?**

14 **A-7** Yes.
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27 ¹ Staff's Pre-Hearing Brief filed May 27, 2009. Page 10, Lines 5-6 emphasis
28 added.

ATTACHMENT 3

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RESPONSE TO DATA REQUESTS

20 **SO 1-1** Referring to p. 3, lines 9-12 of Mr. Glotfelty's testimony, please provide
21 factual support for the following sentence: "Due to this limited amount of rainfall on
22 each lot, installing rainwater catchment systems is not cost effective for individual
23 homeowners." In your answer, please specifically explain why you believe that
24 "installing rainwater catchment systems is not cost effective for individual homeowners."

25 **Response:** Average rainfall in Wickenburg is 11.07 inches (0.9225 feet) per year. Let us
26 assume that a rainwater catchment system could capture 100% of the rainfall falling on a
27 2,000 square-foot roof, which would amount to 13,801 gallons annually. Small
28 catchment systems will cost approximately \$6,000 to \$8,000 to install. Amortizing
\$6,000 in a 30-year loan at 5.5% interest rate raises the catchment system cost to
\$31,124.33 per unit or a total cost to the Wickenburg Ranch project of \$72,332,942.92

1 This does not include operation, repair and maintenance costs, which can be quite high.
 2 For example, an adequate submersible pump can cost \$900, not including the cost for
 3 installation.

4 Next assume that the residence had only 900-square feet (.021 acres) of grass and
 5 absolutely no other irrigation for trees, ornamental plants, or gardens. Knowing that the
 6 annual irrigation demand for that amount of turf is 4.9 acre-feet per year, the demand for
 7 that grass is about 32,989 gallons. This means that even if the catchment system had a
 8 100% efficiency rate, it could meet only 42% of the turf demand, falling short of meeting
 9 this demand by 19,188 gallons annually. That is why it is fair to say that rainwater
 10 catchment systems can reasonably and accurately be categorized as not cost effective for
 11 individual homeowners. In addition, due to seasonal storm patterns, a larger portion of
 12 the precipitation occurs during the monsoon season and in the winter months.

13 Set forth below is a chart showing the average precipitation by month based upon the
 14 historical precipitation for the Wickenburg area versus the irrigation requirements of a
 15 typical single family residential unit (assuming a 2,000-square ft roof and a 0.2-acre yard)
 16 based upon the Wickenburg Ranch Designation of Adequate Water Supply.

Month	Avg. Precip. (inches)	Avg. Precip. (feet)	Avg. Irrigation Demand (gallons)	Variance (gallons)
January	1.19	0.099	1,949	-465
February	1.22	0.102	2,664	-1143
March	1.04	0.087	4,483	-3186
April	0.49	0.041	6,692	-6081
May	0.17	0.014	8,251	-8039
June	0.13	0.011	8,316	-8154
July	1.30	0.108	8,706	-7085
August	1.92	0.160	8,251	-5857
September	1.14	0.095	6,237	-4816
October	0.66	0.055	4,678	-3855
November	0.76	0.063	2,794	-1846
December	1.18	0.098	1,819	-348

1 Based upon the aforementioned, a supplemental irrigation system is required to meet
 2 irrigation demand assuming 100% utilization of rainwater for irrigation purposes, which
 3 is unrealistic.

4
 5 Based upon a standard home of 1800 square feet with a roof area of 2,000 square feet and
 6 using the formula set forth in the High Desert Rain Catchment L.L.C. quote (see
 7 Attachment 4) the average residential home would capture the following rainfall during
 8 the year:

Month	Avg. Precip. (inches)	Avg Precip. (feet)	Avg. Rainfall Capture (gallons)	Efficiency
January	1.19	0.099	1,261	85%
February	1.22	0.102	1,293	85%
March	1.04	0.087	1,102	85%
April	0.49	0.041	519	85%
May	0.17	0.014	180	85%
June	0.13	0.011	138	85%
July	1.30	0.108	1,378	85%
August	1.92	0.160	2,035	85%
September	1.14	0.095	1,208	85%
October	0.66	0.055	699	85%
November	0.76	0.063	805	85%
December	1.18	0.098	1,251	85%

19
 20 Based upon this rainfall capture, the following illustrates the requirement for
 21 supplemental irrigation demands using the potable water system:

Month	Avg. Rainfall Capture (gallons)	Irrigation Demand (gallons)	Variance (gallons)
January	1,261	1,949	-688
February	1,293	2,664	-1,371
March	1,102	4,483	-3,381
April	519	6,692	-6,173
May	180	8,251	-8,071
June	138	8,316	-8,178
July	1,378	8,706	-7,328
August	2,035	8,251	-6,216
September	1,208	6,237	-5,029

1	October	699	4,678	-3,978
2	November	805	2,794	-1,988
3	December	1,251	1,819	-569

4 Based upon the total annual irrigation demand of approximately 64,970 gallons per year
5 per residential home and the average rainfall capture of 12,000 gallons per year per
6 residential home, the average annual irrigation shortfall per home is approximately
7 52,970 gallons of water per year.

8
9
10 **SO 1-2** Referring to p. 4, lines 19-21 of Mr. Glotfelty’s testimony, please identify
11 where the Company has addressed or established “that there is sufficient groundwater
12 available to meet the potable water demands at Wickenburg Ranch.”

13 **Response:** See Designation of Adequate Water Supply (DWR No. 700417.0000)
14 (establishing 1,224 acre-feet per year of groundwater is physically, legally, and
15 continuously available to meet the water company’s water demand). See Attachment 1.

16
17 **SO 1-3** Has the Company established there is sufficient groundwater available to
18 meet the total (both potable and non-potable) rate demand at Wickenburg Ranch?

19 **Response:** Yes. See Response to SO 1-2. Further, Mr. Glotfelty testified that there is
20 sufficient groundwater available to meet the total (both potable and non-potable) rate
21 demand at Wickenburg Ranch and will do so again at the hearing.

22 **SO 1-4** Referring to p. 2, lines 10-11 of Mr. Brownlee’s testimony, please identify
23 the “amended decision” referred to therein.

24 **Response:** The decision referred to is Decision No. 70741, as amended by the
25 amendments at the hearing.

26
27 **SO 1-5** Referring to p. 3, lines 18-21 of Mr. Brownlee’s testimony, please provide
28 factual support for the following statement: “To purchase and install rainwater

1 catchments that will operate well in the arid Wickenburg area will likely cost
2 homeowners approximately \$6,000 to \$8,000.” In you answer, please provide specific
3 support for your cost estimates.

4 **Response:** See Attachments 2, 3, and 4.

5
6 **SO 1-6** Referring to p. 3, lines 27-28 of Mr. Brownlee’s testimony, please
7 specifically identify “the other developments in the area” referred to therein.

8 **Response:** The other developments in the area include those developments within the
9 Town of Wickenburg and other current and future nearby developments If Wickenburg
10 Ranch is imposing a cost of \$31,124.33 per residential unit plus the ongoing cost of
11 maintenance, repair and replacement of the rain catchment systems to its housing cost
12 versus competitive developments, it will impair the success of the project. Wickenburg
13 Ranch is targeted toward active adult residents which mean that it is competing with Sun
14 City, Trilogy and Pebble Creek communities who do not have this condition being
15 imposed on them. In addition, this segment of consumer is very price conscious. In
16 addition, given the limited number of catchment systems in use, if this is requirements
17 home builders will shy away from building within the community due to warranty and
18 legal liability issues. The negative impacts will not only affect the developer of
19 Wickenburg Ranch, but the sales and property tax basis of Yavapai County, the State of
20 Arizona and employment within the construction industry within the State of Arizona.

21 **SO 1-7** Referring to p. 4, lines 7-11 of Mr. Brownlee’s testimony, please
22 specifically explain why you believe that rain catchments “cause health and safety
23 concerns due to water stagnation and require significant maintenance in arid climates,
24 which is one reason the systems commonly fall into disrepair.” Please specifically
25 explain how “water stagnation” occurs in rain catchment system. Please specifically
26 explain why such systems “require significant maintenance in arid climates,” and please
27 specifically describe the kind of maintenance that is required and the cost thereof.

1 Finally, please specifically identify and explain the health and safety concerns to which
2 you refer.

3 **Response:** Based upon our research and discussions with master developer using this
4 type of system, rainwater catchments can cause health and safety concerns due to water
5 stagnation when water is left in storage. Depending upon the type of system used
6 captured water if left exposed is going to attract flies, mosquitoes and bees to the
7 moisture. This can cause serious health concerns, such as those associated with West Nile
8 virus. In addition, an open catchment basin (which is not practical in the desert
9 environment) in a storm or post storm condition will be full of water, which will be a
10 safety hazard for small children. . Water stagnation can occur in rain catchment
11 systems for a number of reasons. For example, submersible pumps are usually fitted with
12 a shutoff switch so when the water levels get too low, the submersible pump will trip off
13 so that it will not fail due to the presence of air. So when water levels are low and no
14 rainfall occurs, the catchment system will hold "dead storage" (i.e. stagnant) water for
15 quite some time. When the system is full due to heavy or continued weather conditions,
16 the systems do not recycle due to lack of irrigation demand. Unfortunately mother nature
17 is not a system which can be regulated so the ability to count of continuous flow through
18 the system is difficult unless supplemented with potable water. Even when mixed with
19 potable water the impurities in the rain water cause algae and other bacterial growth
20 within the irrigation system potentially causing health and maintenance related issues.
21 Water can be collected and left stagnant when people stop using the system or when a
22 residence is vacant.

23 Catchment systems require significant maintenance in arid climates because
24 problems arise as the pumps and rainwater catchment systems endure drastic changes as
25 their environment changes from wet to dry and from extreme heat to freezing. For
26 example, when a wet pump becomes dry, its seals dry out, crack and must be replaced.
27 The estimated cost to replace a submersible pump is \$900. If the pump was not
28 submersible, problems can arise when water is in the system and freezing occurs.

1 Further, these systems can become clogged for many reasons, such as when screens are
2 not functioning properly or when the water lines leading to the catchment container have
3 dips that fill with sludge and sediments and algae growth within the system. During
4 heavy rain events, water catchment systems cannot hold all of the water. A significant
5 portion of the rain in Wickenburg on a monthly basis comes in one or two storms in a
6 month, limiting the ability of the catchment system to efficiently capture the water..

7 All types of maintenance are required. Water collections systems must be cleaned
8 routinely so the screens do not become plugged. Cleaning such systems will cost
9 approximately \$50 to \$100 per occurrence, unless the homeowner does the work
10 themselves. . Pump seals become dry and must routinely be replaced; otherwise, the
11 pump will be damaged and a new pump must be purchased. Some of these tasks may
12 require excavation. Some less-effective and less-durable pumps cost approximately \$200
13 to \$500 as replacements, but the vendors recommend pumps that cost approximately
14 \$900. Plumbers charge approximately \$75 to \$100 per hour for the service. Moreover,
15 when roof systems are modified to hold water, they inevitably leak and in turn could
16 result in mold, or other water damage and the potentially lead to lawsuits. Leaking roofs
17 can cost thousands of dollars in repairs.

18
19 **SO 1-8** Referring to p. 4, lines 14-20 of Mr. Brownlee's testimony, please provide
20 any literature, planning documents, internal memos, or any other communication of any
21 kind that documents the intent to limit landscaping that has a large water requirement.

22 **Response:** The Community Design Guidelines will contain language outlining
23 planting requirements to limit landscaping that has a large water requirement. Those
24 Community Design Guidelines have not been completed; however, Wendell Pickett is the
25 person who will draft these documents and is a witness who will testify to this intent and
26 the staff will have the opportunity to cross examine him on these issues. Additionally, the
27 Community Design Guidelines are enforced through the Covenants Conditions and
28

1 Restrictions. The Covenants Conditions and Restrictions are a recorded deed restriction
2 against each individual property within the community.

3 **SO 1-9** Referring to p. 4, lines 23-26 of Mr. Brownlee's testimony, please state
4 how much rainwater a rain catchment system must capture in order to work effectively.
5 Please identify how much rain is expected in the Wickenburg Ranch area.

6 **Response:** It depends upon the type of system and irrigation water demand. For
7 example, at a typical residential lot, to operate effectively, a rainwater catchment system
8 must have at a minimum approximately 250 gallons held in storage, for each irrigation
9 cycle. This does not include "dead storage" needed to ensure the submersible pump can
10 operate. In simple terms this would mean that the system has to have a steady flow of
11 250 gallons per day to be utilized for irrigation purposes on a year around basis. In the
12 months of May (.5" rainfall), June (.1" rainfall) and July (.2" rainfall) it is not practical to
13 think that you will have sufficient rainfall to support irrigation using the system. The
14 typical system has 2500 gallons of storage, in a .1" rainfall the system would collect
15 _____ gallons, this is for the entire month of June. See also Response to SO 1-1.

16
17 **SO 1-10** Referring to p. 4, lines 26-28 of Mr. Brownlee's testimony, please
18 specifically identify the "maintenance issues with algae growth." Please specifically
19 identify the causes and associated problems with "clogged lines and heads within the
20 irrigation system." Finally, please identify how homeowners would bypass the system
21 and the problems associated with such efforts at bypass.

22 **Response:** Algae grow occurs to the impurity in the rain water and in the system and
23 needs to periodically be flushed or removed. This is a process which the normal
24 homeowner is not familiar with and will most likely neglect. Algae growth will cause
25 clogging of the system and screens. The maintenance related issues are burdensome and
26 expensive as compared to a potable irrigation system.

27 Homeowners can and will bypass the system by using a hose, connecting the
28 irrigation distribution lines to the home's potable water plumbing, or connecting the

1 catchment system to the potable water system. This could cause serious concerns to the
2 entire community due to backflow issues. DOESN'T EACH HOME HAVE TO HAVE
3 A BACKFLOW PREVENTOR?
4

5 **SO 1-11** Referring to p. 6, lines 17-20 of Mr. Brownlee's testimony, please provide
6 an estimate of when the Wickenburg Ranch development will be sufficiently built-out to
7 supply the golf course with effluent sufficient to meet all of the golf course's irrigation
8 demand. Please provide a year by year estimate of amount of groundwater that will be
9 displaced by effluent between now and the time when build-out will be sufficient to
10 provide all of the golf course's irrigation needs with effluent.

11 **Response:** See Decision No. 70741 at page 7. The Company has already provided the
12 estimated connections from 2008 through 2013 (six years) is as follows:
13

	2008	2009	2010	2011	2012	2013
New Customers	0	194	350	378	444	414

14
15
16
17 Internal market analyses confirmed these estimates were reasonable. However, due to
18 project delays, due to economic conditions these estimates will be pushed back another
19 year or two. While this is purely speculative, the Company believes that there will be
20 enough effluent to meet golf course demands within 10 to 15 years from the date that
21 project lot sales begin.
22

23 **SO 1-12** Referring to p. 2, lines 17-18 of Mr. Pickett's testimony, please specifically
24 describe the "health and safety issues that can arise due to retaining storm water on lots."
25

26 **Response:** See Response to SO 1-7.
27

28 **SO 1-13** Referring to p. 2, lines 22-23 of Mr. Pickett's testimony, please define an
"average golf course in the central Arizona area" as that term is used in your testimony.

1 Please describe the specific features and/or designs by which the Wickenburg Ranch golf
2 course will use 35% less water than the average golf course in the central Arizona area.

3 Please compare and contrast the water usage of an "average golf course in the central
4 Arizona area" with the anticipated water usage of the Wickenburg Ranch golf course.

5 **Response:** An average golf course in central Arizona has 90 acres of turf, a small lake,
6 and other low water demand vegetation. The Wickenburg Ranch golf course will have
7 64 turf acres, which is about 27% less turf. Turf limits are delineated in a very efficient
8 manner in sprinkler head spacing and sprinkler delivery to gain the overall 35% water
9 reduction in comparison to typical Central Arizona golf courses. The estimated water
10 demand for the golf course is 284 acre-feet per year.

11
12 **SO 1-14** Referring to p. 3, lines 8-16 of Mr. Pickett's testimony, please state whether
13 it is the Company's conclusion that "ponding catchment" systems are not suitable for the
14 Wickenburg Ranch development. Please specifically explain the reasoning underlying
15 the Company's conclusion as specifically related to Wickenburg Ranch.

16 **Response:** Pond catchment systems are not suitable for Wickenburg Ranch. Setting
17 aside the health and safety concerns, the project consists of small lots for an age-targeted,
18 second home market and is zoned accordingly. The project lots relative to that market do
19 not have room for pond catchments. The project density will not readily accommodate
20 either pond catchment basins or containers in those lot sizes.

21
22 **SO 1-15** Referring to p. 4, line 17 of Mr. Pickett's testimony, please specifically
23 explain why you believe that "container systems are not cost effective." Please provide
24 cost estimates to explain your answer.

25 **Response:** See Responses to SO 1-1 and 1-5.

26
27 **SO 1-16** Referring to p. 4, lines 23-27 of Mr. Pickett's testimony, please identify and
28 provide the specific information relied upon by Mr. Pickett when he formed the opinion

1 that, in Santa Fe and Tucson, “the general consensus is that they (rain catchments) did not
2 work well and the public opinion of these systems was negative.”

3 **Response:** Mr. Pickett states: “I have formed my opinion based on having clients in
4 Santa Fe, Central New Mexico and Tucson areas, who are either currently dealing with
5 zoning issues related to catchment basins or dealing with jurisdictions who are
6 considering them. All feel they are an unreasonable expense and they are not a useful
7 tool.”

8
9 **SO 1-17** Referring to Mr. Platts’ testimony, please provide a copy of his resume,
10 including a description of his educational background and professional qualifications and
11 experience.

12 **Response:** Mr. Platt is being offered as a lay witness and not an expert. So, Mr. Platt’s
13 profession and educational background is not relevant. Nevertheless, Mr. Platt received a
14 high school diploma from Lyman High School in Lyman Wyoming. Professionally, Mr.
15 Platt worked in the oil and gas industry for many years and is now retired. He now buys
16 and sells property for income. Mr. Platt does not have a resume.

17
18 **SO 1-18** Referring to p. 2, lines 5-11 of Mr. Platts’ testimony, please identify every
19 specific fact, analysis, conversation, document, or communication of any kind that he has
20 relied upon in reaching the conclusions set forth therein.

21
22 **Response:** This question is overly-broad and Mr. Platt and Wickenburg Ranch reserve
23 the right to supplement this answer. The following response consists of certain material
24 and relevant communications that Mr. Platt has relied upon. To form his opinion, Mr.
25 Platt is relying upon conversations that took place with P.E. Davin Benner and Tom
26 Worley. He has also been informed by M3 company representatives that the cost of
27 water catchment systems to be installed will cost approximately \$6,000 per home. Mr.
28

1 Platt has reviewed the witness testimony offered by Marvin Glotfelty, Peter Chan,
2 Wendell Pickett, Bill Brownlee and Steve Olea.

3
4 DATED June 8, 2009.

5 **MOYES SELLERS & SIMS, LTD.**

6
7 
8 Steve Wene
9 Attorneys for Wickenburg Ranch Water

10 **Original and thirteen copies**
11 **Filed June 8, 2009 with:**

12 Docket Control
13 Arizona Corporation Commission
14 1200 West Washington
15 Phoenix, Arizona 85007

16 Kevin Torrey, Attorney
17 Legal Division
18 Arizona Corporation Commission
19 1200 West Washington
20 Phoenix, Arizona 85007

21 Steve Olea
22 Utilities Division
23 Arizona Corporation Commission
24 1200 West Washington
25 Phoenix, Arizona 85007

26
27 
28

ATTACHMENT 1

ARIZONA DEPARTMENT OF WATER RESOURCES

Office of Assured and Adequate Water Supply
3550 North Central Ave., 2nd Floor, Phoenix, Arizona 85012
Telephone 602 771-8585
Fax 602 771-8689



Janet Napolitano
Governor

Herbert R. Guenther
Director

February 11, 2008

CDC Wickenburg Water, LLC
Jason Rowley, Esq.
1550 E. Missouri Ave. Ste. 300
Phoenix, AZ 85014

Re: Designation of Adequate Water Supply (DWR No. 40-700417.0000) CDC Wickenburg Water, LLC

Dear Mr. Rowley:

I am pleased to inform you that the Department of Water Resources has approved the application for a Designation of Adequate Water Supply for CDC Wickenburg Water. We have enclosed the formal Decision and Order. The Decision and Order includes an itemization of CDC Wickenburg Water's responsibilities in maintaining the Designation.

CDC Wickenburg Water's status as a designated water provider demonstrates that CDC Wickenburg Water is taking a long-term perspective in managing water resources. CDC Wickenburg Water's commitment to long term planning represents a major contribution to the State's water management goal.

If you have any questions regarding these documents, please contact me at (602) 771-8585.

Sincerely,

A handwritten signature in black ink, appearing to read "John Schneeman", written over a circular stamp.

John Schneeman, Manager
Office of Assured & Adequate Water Supply

JS/rbo

cc: Mr. Roy Tanney, Arizona Department of Real Estate
Steve Corell, Clear Creek Associates

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DEPARTMENT OF WATER RESOURCES

BEFORE THE DIRECTOR

IN THE MATTER OF THE APPLICATION OF)	AWS No. 2007-009
CDC WICKENBURG WATER, LLC)	
FOR A DESIGNATION AS HAVING AN)	DECISION AND ORDER
ADEQUATE WATER SUPPLY)	
<hr/>		No. 40-700417.0000

I. INTRODUCTION

On September 25, 2007, the Department of Water Resources (Department) received an application from CDC Wickenburg Water, LLC (CDC Water) requesting that the Department designate CDC Water as having an adequate water supply pursuant to A.R.S. § 45-108 and A.A.C. R12-15-714.

After receiving CDC Water's application for a designation of adequate water supply, the Department reviewed relevant information regarding the designation request, including: 1) the hydrologic information on file with the Department for the proposed source of groundwater supply; and 2) information regarding CDC Water's financial capability to construct the necessary delivery system, treatment works and storage facilities. Based on that information, the Department makes the following Findings of Fact, Conclusions of Law, and Order of Designation and Conditions of Designation:

II. FINDINGS OF FACT

A. General

1. CDC Water is a private water company, subject to the jurisdiction of the Arizona Corporation Commission (ACC).
2. CDC Water provides water service within the territorial boundaries of its certificate of convenience and necessity (CC&N), as approved by the ACC.
3. CDC Water currently serves water through its distribution system to its customers.

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B. Water Demands

- 4. CDC Water's current demand as of calendar year 2006 is 278.44 acre-feet per year (current demand).
- 5. CDC Water's committed demand as of calendar year 2006 is 0.00 acre-feet per year (committed demand).
- 6. CDC Water's projected demand in 2013, the sixth calendar year from the date of application, is 945.54 acre-feet (2013 projected demand). The 2013 projected demand does not include the current demand or the committed demand, but does include the annual demand at build-out of plats reasonably projected to be approved and customers reasonably projected to be added through calendar year 2013.
- 7. CDC Water's annual estimated water demand in 2013, which is the sum of its current demand, committed demand, and 2013 projected demand, is 1224.00 acre-feet per year.

C. Groundwater: Physical, Continuous and Legal Availability

- 8. CDC Water has the right to withdraw and deliver groundwater to its customers pursuant to A.R.S. § 45-453.
- 9. Historic hydrologic information demonstrates that depth-to-static water levels within the CDC Water service area currently average 425 feet below land surface.
- 10. CDC Water has demonstrated that after withdrawing 1224.00 acre-feet per year of groundwater for 100 years, the depth-to-static water level within CDC Water's service area is not expected to exceed 1200 feet below land surface.
- 11. CDC Water has demonstrated that it has wells of sufficient capacity to satisfy its annual estimated groundwater demand of 1224.00 acre-feet per year for at least 100 years.

D. Water Quality

- 12. CDC Water will be regulated by the Arizona Department of Environmental Quality as a public water system pursuant to A.R.S. §§ 49-351, et seq.

1 **E. Financial Capability**

- 2 13. On June 29, 2007, a "Water Facilities Extension Agreement" (Agreement) was executed between
3 CDC Water and JVT Investors, LLC, an Arizona limited liability company (JVT). The Agreement
4 states that JVT shall fund construction of water system improvements including: distribution lines,
5 wells, storage tanks, and booster stations to support water service by CDC Water in the existing
6 CC&N. Upon completion of construction, said improvements shall become the sole property of
7 CDC Water.
- 8 14. CDC Water has demonstrated capability for financing the construction of adequate delivery,
9 storage, production and treatment works through the Agreement.

10 **III. CONCLUSIONS OF LAW**

11 Having reviewed the Findings of Fact, the Department makes the following Conclusions of Law:

- 12 1. CDC Water has demonstrated that 1224.00 acre-feet per year of groundwater will be physically
13 available, continuously available and legally available for at least 100 years, which is sufficient to
14 meet its annual estimated water demand in 2013, of 1224.00 acre-feet per year. See A.A.C.
15 R12-15-716, R12-15-717 and R12-15-718.
- 16 2. The water supply served by CDC Water will be of adequate quality pursuant to A.A.C. R12-15-
17 719.
- 18 3. CDC Water has satisfied the financial capability criteria prescribed in A.A.C. R12-15-720.
- 19 4. CDC Water has satisfied all the requirements for a designation of an adequate water supply.

20 **IV. ORDER OF DESIGNATION AND CONDITIONS OF DESIGNATION**

21 Having reviewed the Findings of Fact and Conclusions of Law, the Director hereby issues this
22 Decision and Order designating CDC Water as having an adequate water supply, subject to the following
23 conditions:

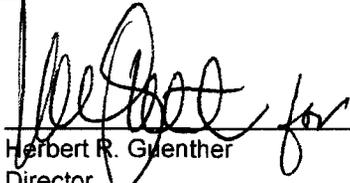
- 24 1. The Director reserves the right under A.A.C. R12-15-715(C) to periodically review and modify the
25 designation for good cause as conditions warrant.

- 1 2. Pursuant to A.A.C. R12-15-715, the Director may revoke this designation at any time if the
2 findings of fact or the conclusions of law upon which the designation is based change or are
3 invalid, or if an adequate water supply no longer exists.
- 4 3. The Director's determination that an adequate water supply exists for CDC Water is based on its
5 review of the water supply pledged by CDC Water.
- 6 4. CDC Water shall submit an application to modify this decision and order designating CDC Water
7 as having an adequate water supply to increase the term of the designation when the sum of
8 CDC Water's current demand, committed demand and two-year projected demand exceeds
9 1224.00 acre-feet, or by January 1, 2012, whichever is earlier.
- 10 5. Pursuant to A.A.C. R12-15-719, CDC Water shall satisfy any state water quality requirements
11 established for its proposed use after the date of this designation.
- 12 6. CDC Water shall annually provide to the Department the following information in the manner
13 prescribed in A.A.C. R12-15-715:
- 14 a. The projected demand at build-out for customers with which CDC Water has entered
15 into a notice of intent to serve agreement in the calendar year.
 - 16 b. An estimate of the demand of platted, undeveloped lots located in CDC Water's service
17 area.
 - 18 c. A report regarding CDC Water's compliance with water quality requirements.
 - 19 d. The depth-to-static water level of all wells from which CDC Water withdrew water during
20 the calendar year.
 - 21 e. The total quantity of water from any source, withdrawn, diverted, or received by CDC
22 Water for its customers' residential and non-residential use during the previous calendar
23 year.
- 24
25

1 f. Any other information requested by the Director to determine whether CDC Water is
2 continuing to meet all the requirements necessary to maintain this designation of
3 adequate water supply.
4

5 **IT IS HEREBY ORDERED THAT CDC WICKENBURG WATER, LLC BE DESIGNATED AS**
6 **HAVING AN ADEQUATE WATER SUPPLY UNTIL DECEMBER 31, 2013.**

7 DATED this 11th day of FEBRUARY, 2008.

8 
9
10 Herbert R. Guenther
Director
Arizona Department of Water Resources

11 A copy of the foregoing
12 **Decision and Order** mailed
13 by certified mail this
11th day of February, 2008,
14 to the following:

15 Certified Mail No. 7006 2760 0002 4985 0230

16 Sent by: R. Obenshain
Rick Obenshain

17 CDC Wickenburg Water, LLC
18 c/o Jason C. Rowley, Esq.
1550 E. Missouri, Suite 300
Phoenix, AZ 85014

19 First class mail copies to:

20 Mr. Roy Tanney
21 Director of Real Estate Subdivisions
22 Arizona Department of Real Estate
2910 N. 44th Street
Phoenix, Arizona 85018

23 Steven W. Corell
24 Clear Creek Associates
6155 E. Indian School Rd.
Suite 200
25 Scottsdale, Arizona 85251

ATTACHMENT 2



4222 E Camelback Road
Suite H100
Phoenix AZ, 85018
Phone 602.386.1325
Fax 866.849.1245

M3 Memorandum

To: Bill Brownlee
From: Tom Warley
Date: May 13, 2009
Re: Summary of Teleconference with Isaac Pino Regarding Rain Catchments

On Monday, May 11 I had a telephone conversation with Ike Pino, SunCor's Santa Fe, NM General Manager, regarding the installation, operation and maintenance of residential rain catchments.

In regards to the installation of rain catchment systems, the costs are extremely high, averaging approximately \$6000 per unit. That cost includes the cistern, submersible pump and electronics to operate the system. Amortizing that cost in a 30-year loan at 5.5% interest would cost the homeowner \$31,124.33. Not included in the \$6000 per unit cost are the drainage modifications to the house itself. There are two methods to collect the storm water runoff from the roof. The first method is to tilt the roof in one direction so the water ponds in a central location, then drains into down spouts connected to the cistern. Structural modifications to the roof are required due to the additional load imposed by the ponding water because the water must be held on the roof to allow it time to drain into the cistern instead of running off the roof immediately. The second method is to connect every down spout from the roof to an underground piping system that runs to the cistern. Piping the down spouts from the front of the house to the rear where the cistern is located can create grading problems or excessively deep pipes. The deep pipes are the result of having to insure there is adequate fall from the front of the house to the rear to drain the pipes so water does not stagnate in the pipes.

Operationally, the rain catchment systems are extremely inefficient. In dry climates like Wickenburg, they are only full when it is raining, which is not a regular occurrence. As a result, after the first watering, the cistern is empty until the next rain storm; therefore a supplemental irrigation system is required to water lawns and plant material between rain storms. Also, rain catchments are not large enough to store huge volumes of water. Residential cisterns are sized to hold between 500 to 2500 gallons. Typically, they will hold enough water for one irrigation cycle. As a result, during monsoon season when there are more frequent storms and the irrigation system is shut off, home owners will not capture the excess rain water. It will simply run to its natural discharge point. In Ike's experience, most residents will use a hose to fill their cistern between storms so their yard is irrigated. More water conservation is achieved by installing an



4222 E Camelback Road
Suite H100
Phoenix AZ. 85018
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Fax 866.849.1245

irrigation system with moisture monitoring capabilities that automatically turns off the irrigation system during rain events then by attempting to capture water with a catchment system.

There are maintenance problems associated with rain catchment systems also. First, the submersible pumps are made to operate in a wet environment. Given the infrequency of rain storms, the pump seals typically dry out and must be replaced on a regular basis. If the pump is operated with cracked, dried out seals, they will fail and must be replaced. Also from SunCor's experience, when roof systems are modified to hold water as outlined in the first paragraph, they inevitably leak. Leaking roofs in turn cause mold and the mold will lead to lawsuits.

Based on the issues outlined above, SunCor has discontinued the installation of rain catchment systems.

ATTACHMENT 3



PROPOSAL

6/5/2009

Wickenburg Ranch Water Company
William I. Brownlee, Manager, the M3 Companies
4350 E. Camelback Road
Suite E260
Phoenix, Arizona 85018

Re: On Lot Cisterns (rainwater catchment)

Dear William:

SCOPE OF WORK

Heads Up will provide cisterns per our plan dated 4-2-07 at the above referenced project as follows, to include:

- 1 pump – Tsurumi TS215V per house.
- Provide and place all electrical work associated with cistern. Mounted outside.
- All backfill at cistern to be water tamped to prevent settling.
- Pump to be place in protective boxes model # 1730-18. Place on concrete.
- Provide and place 9" square grates with catch basin at each down spout.
- Provide and place 1 – 100 Micron spin filter.
- Provide and place 1 – RMI 600 gallon below ground approximately 10" with manhole for accessibility.
- Down spouts to receive 2"-4" cobble to a depth of 4" and approximately 4' x 5'.
- Provide and place pvc liner at all down spouts.
- Provide and place S & D 4" drain pipe.
- Provide and place 4" Wye line filter.
- Provide and place pump start relay.
- Provide and place electrical float switch.
- Provide and place 6" sand base under cistern.

Note: System designed for 10 GPM at 40 PSI static.

CONTRACT PRICE

\$6,000.00 plus tax (Per cistern). (This price is for a local company to do the install).

Note: This price assumes we can spread dirt across yard. This does not include hauling off dirt or dump fees from removals.

Note: This price does not include make up water to auto fill tank from potable water system.

In addition to design/build, Heads Up also offers Grounds Management services in order to more completely serve our clients. We offer those design/build customers an extended warranty of an additional year beyond our one year construction warranty when they contract with us for a yearly maintenance contract. Heads Up feels strongly that by maintaining the landscape we have installed, it insures you the customer long term quality in your landscape.

PAYMENT TERMS

Progress billings on the 25th, net due the following 10th.

TERMS AND CONDITIONS

This quotation is firm for 30 days and change in plans or scope may result in a change in price. Prices are subject to change.

TIME AND MATERIAL

\$85.00 per hour for Equipment and Operator

\$33.00 per man-hour for Labor

EXCLUSIONS

Tax, bond, responsibility for tire marks on asphalt or concrete, responsibility for drainage or damage to unmarked utilities, grading, other removals, maintenance, and access to area.

GRADES

Grades assumed to be plus or minus .10 feet to subgrade at commencement unless otherwise noted in this proposal.

Additional grading required to bring grades to tolerances noted above will be charged as an extra cost at the rate of \$85.00 per hour for equipment and operator and \$33.00 per man-hour for labor.

MOBILIZATION

One move-on for irrigation sleeving and one move-on for balance of work quoted. Additional move-ons will be charged at \$1,250.00 each.

GUARANTEES

All work will be done in a workmanlike manner and premises left broom clean.

Heads Up shall repair or replace any part of the construction work performed by Heads Up, including the irrigation system, in which a defect in material or workmanship appears within one year from the date of final invoice and which, within such one-year period, is brought to the attention of Heads Up.

Guarantee is contingent upon proper maintenance by Owner. Heads Up will provide recommended maintenance procedures.

Under no circumstances will Heads Up be liable for any consequential or incidental damages resulting from any defect in materials or workmanship or from the performance or non-performance of the work proposed herein.

COMPLETION DATE

Estimated time required to complete job is approximately 3 working days per cistern.

If the Parties are unable to resolve any dispute within fifteen (15) calendar days of the occurrence of the event or circumstances giving rise to the dispute, the dispute may be submitted to mediation upon the mutual agreement of the Parties. In the event the Parties do not agree to mediate the dispute or are unable to resolve the dispute through mediation, then the dispute shall be resolved by binding arbitration. Such arbitration shall be governed by the New Mexico Uniform Arbitration Act, NMSA 1978 § 44-7A-1, et seq. as amended. A Party submitting a dispute to arbitration shall give the other Party a timely Demand for Arbitration and such Demand for Arbitration shall describe the nature of the dispute and the amount in controversy. The Parties shall then jointly select an Arbitrator and, failing such mutual agreement, the Arbitrator shall be appointed by a District Court Judge from Bernalillo County New Mexico. The arbitration shall be held in Albuquerque, New Mexico. Discovery shall be by agreement of the Parties or as ordered by the Arbitrator, provided that the Parties shall comply with the following minimum discovery requirements: at least twenty (20) calendar days prior to the arbitration, the Parties shall exchange an exhibit list, copies of all exhibits to be used at the arbitration, a list of witnesses and a summary of the matters as to which each witness is expected to testify. The Parties shall split all costs and fees of the mediator and Arbitrator. The Parties shall each be responsible for their own costs, expert fees and attorney fees in any mediation or arbitration, except that the Arbitrator may award costs and attorney fees to a successful lien claimant in his or her discretion pursuant to NMSA 1978 Section 48-2-14 as amended. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law of the State of New Mexico.

The costs of any additional overtime wages, week-end work, work out of sequence, or other expenses incurred due to failure of the Owner/General Contractor to properly schedule Heads Up within above time frame will be reimbursed to Heads Up by the Owner/General Contractor.

Notice: Neither the Contractor's License Bond or the license issued under 60-13-19 of the Construction Industries Licensing Act protects the consumer if the contractor defaults on this contract.

SIGNATURE

Submitted by: _____ Date: _____
Eddie Padilla
Heads Up Landscape Contractors Inc.
P.O. Box 10597
Albuquerque, New Mexico 87174-0597
Telephone: 505-898-9615
Fax: 505-898-2105

Approved By: _____ Date: _____

ATTACHMENT 4



High Desert Rain Catchment, LLC
PO Box 13008
Prescott, Arizona 86304
(928) 308-5992 Email: highdesertrain@gmail.com

Attention: Marvin Glotfelty

Ph- (480) 659 - 7131
Fax- (480) 659 - 7143

Here are some Ball Park numbers for you- The cost on these numbers can range greatly due to site conditions & tank size. In the design of any system we start out this a water budget to size the system for the home.

High Desert Rain Catchment- Specializes in Rainwater Harvesting & Greywater Systems. Through the use of these systems it is possible to create a lush oasis landscape in the desert without the need for supplemental water from municipal or well water sources.

High Desert Rain Catchment- Our Average installed Price per Gallon is \$2.25 / gallon of storage capacity for a simple feed gravity system. This is adequate for most home gardens.

The next step up from a simple gravity feed system would be a Rainwater Harvesting system inter-tied to the irrigation system. Approximate cost is \$2.40 / gallon of storage capacity. This allows a homeowner to use all the existing irrigation controllers and systems & integrates a rainwater system in a way the homeowner has to do nothing but set the irrigation controls as normal.

Every drop counts so we don't discourage capturing rainwater no matter how small the amount is. However the average system size for residential irrigation use is about 2,600. The approximate payback time on such a system is 7 to 10 years (depending on water cost and landscape needs).

2,600 gallon Gravity Feed System	\$5,850
2,600 gallon Irrigation Inter-tie Rain Harvesting System	\$6,240

Calculating Roof water Runoff
 $(\text{Roof Surface Area}) \times \text{Rainfall (ft.)} \times 7.48 \text{ gallons}^{\text{3ft}} \times .85 = \text{Total net Runoff}$