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AZ CORP COMMISSION
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**BEFORE THE ARIZONA CORPORATION COMMISSION**

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| RAYMOND R. PUGEL AND JULIE B. PUGEL AS TRUSTEES OF THE RAYMOND R. PUGEL AND JULIE B. PUGEL FAMILY TRUST, and ROBERT RANDALL AND SALLY RANDALL<br>Complainant,<br>v.<br>PINE WATER COMPANY,<br>Respondent. | DOCKET NO: W-03512A-06-0407 |
| ASSET TRUST MANAGEMENT, CORP.,<br>Complainant,<br>v.<br>PINE WATER COMPANY,<br>Respondent. | DOCKET NO: W-03512A-06-0613 |
| JAMES HILL and SIOUX HILL, husband and wife as trustees of THE HILL FAMILY TRUST,<br>Complainant,<br>v.<br>PINE WATER COMPANY,<br>Respondent. | DOCKET NO: W-03512A-07-0100<br>(Consolidated)<br><br>**NOTICE OF FILING DIRECT TESTIMONY** |

Arizona Corporation Commission
DOCKETED
APR 16 2007
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Pine Water Company ("PWCo") hereby submits this Notice of Filing Direct Testimony in the above-referenced matter. Specifically, filed herewith in PWCo's direct filing are the following testimonies, along with supporting schedules and/or exhibits:

1. Direct Testimony of Robert T. Hardcastle; and
2. Direct Testimony of Stephen D. Noel.

RESPECTFULLY SUBMITTED this 16th day of April, 2007.

FENNEMORE CRAIG, P.C.

By _____

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ORIGINAL and seventeen (17) copies of the foregoing filed this 16th day of April, 2007:

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Copy of the foregoing hand delivered this 16th day of April, 2007 to:

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**BEFORE THE ARIZONA CORPORATION COMMISSION**

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**DIRECT TESTIMONY**
**OF**
**ROBERT T. HARDCASTLE**

## I. INTRODUCTION AND QUALIFICATIONS.

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

A. Robert T. Hardcastle, 3101 State Rd., Bakersfield, California 93308. My telephone number is (661) 633-7526.

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

A. I am the President of Brooke Utilities, Inc. Brooke Utilities is the sole shareholder of the Applicant, Pine Water Company, Inc. ("PWCo" or the "Company").

**Q. PLEASE BRIEFLY OUTLINE YOUR RESPONSIBILITIES AS PRESIDENT.**

A. As the Executive Officer, I am generally responsible for managing all operational, administrative, financial, and regulatory matters of Brooke Utilities ("BUI") and its subsidiaries, PWCo, Strawberry Water Co., Inc. ("SWCo"), Payson Water Co., Inc., Tonto Basin Water Co., Inc., Navajo Water Co., Inc., Brooke Water, L.L.C., and Circle City Water Co., L.L.C. Each of these subsidiaries is a public service corporation providing water utility service under regulation by the Arizona Corporation Commission ("Commission"). I am also the President of PWCo and the other BUI's subsidiaries.

**Q. HOW LONG HAVE YOU HELD THIS POSITION?**

A. I have overseen BUI's interests in Arizona for nearly 15 years, including our operations in Pine and Strawberry, Arizona since the mid-1990s.

**Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE ARIZONA CORPORATION COMMISSION?**

A. Yes, on several prior occasions.

## II. PURPOSE OF TESTIMONY, SUMMARY AND CONCLUSIONS.

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

A. To present the Commission with information we feel it should have before it rules on the sweeping allegations of the four Developers. The four Complainants, each of whom wants to develop their properties, want the Commission to focus only on their business interests, but this is a very important case for PWCo, its ratepayers and the Pine community.

**Q. WHY IS THIS CASE SO IMPORTANT?**

A. I will give you four reasons. First, PWCo does not believe it is in the public interest to allow developers to carve up the Company's CC&N for commercial gain. Business development is important to any community, but not without some regulation, and in an area that faces serious hydrologic challenges, such regulation must include water. There is no way that BUI, PWCo, the Commission and other stakeholders can manage this region's fragile hydrology if anyone that wanted to could opt out of any Commission decision and any conservation requirement just because it was not "good business".

Second, I believe every one of the Developers in this case could get service if they really have water on or near their properties, and if they were willing to enter into extension agreements. That is how utility service is extended every day in Arizona in places where there is a CC&N but no customers yet. In the time it has taken to litigate this matter, including the cost to do so, we could have been well on the way to getting a variance to the moratoria on new hook up and main extensions. What these Developers are really asking for is special treatment.

Third, PWCo is on the threshold of an exciting highly, prospective water project in conjunction with the Pine Strawberry Water Improvement District.

("PSWID"). The "K2 Project" has the potential to deliver enough additional water for all our customers for a period of as many as 8-10 years. We would rather focus on that project than litigate the Developers' special interests.

Fourth, the inability of PWCo to extend service to customers in the Developers' areas is a liability that eventually accrues to our ratepayers. This is not only due to the increased and unrestrained competition for a scarce resource, but in the further minimization of potential customer base across which to spread the substantial costs of continued water exploration. And if these Developers really do have excess water that can feasibly be used by PWCo to serve others, they would be paid for it and everyone wins. That is what it really comes down to—if they really have water where they want service, everyone can win. We just don't get it, especially if they really do have excess water that we could buy to serve other customers in the Community they claim they want to promote.

**Q. WHAT HARM TO THE PUBLIC INTEREST DO YOU SEE IF THE RELIEF SOUGHT BY THE DEVELOPERS WERE GRANTED?**

A. The Commission's moratoria would be rendered meaningless, the agency will be flooded with applications for deletion, and within a year or two there will be a whole bunch of new, largely unregulated water service providers taxing the region's fragile water supplies and making it even more difficult for everyone to get by, especially in the 100 days between Memorial Day and Labor Day.

**Q. ISN'T THAT A LITTLE DRAMATIC, MR. HARDCASTLE?**

A. Not at all. This is exactly what we feared would happen if the Commission eliminated the meter waiting list. We said at that time that elimination of the 25 meters per month would cause local developers, working in conjunction with Gila County, to be motivated to develop new properties by forming additional water improvement districts. Even worse, the Developers have made no secret of their

desire to proceed to develop without any conservation requirements. I think my concerns are valid and that the Company and its customers face a dangerous precedent. So does the Commission if its authority could be usurped in the manner sought by the Developers in this case.

**Q. BUT IF PWCO REFUSES TO SERVE THE DEVELOPERS, WHAT ELSE CAN THEY DO?**

A. The Developers' allegation that PWCo refuses to serve is a fabrication. We have sent three of them a will serve letter, offered the same letter to the fourth and invited all of them to proceed with the analyses needed to extend service pursuant to the Commission's rules and regulations. It is the Developers that refuse to proceed to do business with PWCo because it is not "good business" for them to be bothered with regulations. Again, the truth is the Developers want special treatment. They want to leverage their close working relationship with Gila County, which desires an increased tax base, and they want to be exempt from all regulation of water utility services as it affects their development plans, including any conservation requirements. In other words, we have not refused to serve them. We have simply refused to serve them on the terms they would prefer.

**Q BECAUSE PWCO CANNOT SERVE, EVEN IF WILLING, RIGHT?**

A. This is another claim by the Developers. I will not call that a fabrication, but it is misleading. To us it seems simple. We don't have infrastructure, including wells, where they want service. That is why utilities and developers throughout the State enter into extension agreements. If the Developers really have water, I see no reason the Commission would not issue the needed variances. Again, we are willing to cooperate with the Developers in seeking Commission approval of a variance to the existing moratorium. It is the Developers that have completely disregarded this offer.

**Q. HOW MUCH WATER IS AVAILABLE?**

A. No one knows for sure. PWCo's expert witness Steve Noel has concluded that the information provided to date does not support the allegations of vast supplies of sustainable water. We do not know whether the Developers do not have sufficient information on their claimed water supplies and it is just that ore testing needs to be done, or if they have the information and are just withholding it from us. For now it seems clear that any projection of long term sustainable water supplies from the Developers water sources is mere speculation.

**Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY FILED BY THE COMPLAINANTS?**

A. Yes, I read all 10 combined pages of direct testimony by the four different Developers and their hydrogeologist, Mr. Ploughe. I read it and kept looking for the evidence to support the sweeping accusations they have made against PWCo. I never found any.

**Q. WHAT DO YOU MEAN BY "SWEEPING ACCUSATIONS"?**

A. These are direct quotes from the complaints, all three of which are identical.

- PWCo "because of the lack of capital facilities and failure to follow Commission orders" caused the Commission to "order a moratorium on development". *Pugel et al.* Complaint at 4, Count IV, ¶ 3.
- PWCo has "failed to use its resources to develop a water system" in its CC&N "sufficient in size and capability to provide for adequate and satisfactory water service for Complainants." *Id.* at ¶ 4.
- PWCo has a CAP Allocation that it "has failed and refuses to develop" for the benefit of the properties located within the" CC&N. *Id.* at ¶ 5.
- "Complainants should not bear the burden of PWCo's failure to follow this Honorable Commission's regulations from which the moratorium resulted." *Id.* at 5, Count V, ¶ 4.

**Q. YOU ARE TESTIFYING THAT THERE WAS NO EVIDENCE TO SUPPORT THESE CLAIMS IN THE DEVELOPERS' DIRECT TESTIMONIES?**

A. None. Mr. Hill spent his entire two pages on legal descriptions, his "desire" to develop, but did not provide details on development plans. He also discussed one letter he wrote to PWCO in 2005 seeking service. Mr. Hill didn't even attach that letter.

Mr. Moriarity's two pages speak to a supposed 1985 main extension agreement covering ATM's development, also not provided, and regarding an agreement between ATM and a private well owner to obtain water for ATM's development, also not attached. Neither Mr. Hill nor Mr. Moriarity testified to anything that would support the claims made.

**Q. WHAT ABOUT THE OTHER DEVELOPERS' TESTIMONIES?**

A. The Randalls did not file any direct testimony, although they responded to a PWCo data request that they are considering building a car wash.

Mr. Pugel filed direct testimony. The closest any of the Developers came to trying to support their claims about all the things PWCo has supposedly done wrong is Mr. Pugel's claim that PWCo cannot provide a 100-year assured supply nor a supply of water for fire protection. *See* Pugel DT at 4, ls. 9-12.

**Q. IS PWCO REQUIRED TO PROVIDE DEVELOPERS WITH AN ASSURED WATER SUPPLY OR WATER FOR FIRE PROTECTION?**

A. Not that I am aware of, certainly not to every new development in our CC&N that needs an extension of service. For one thing, our CC&N is not in an AMA, so Assured Water Supply Designations are not even applicable. Developers can obtain Water Adequacy Statements from ADWR, but I do not know if they are required to do so. We asked Mr. Pugel about his testimony, but he couldn't or

wouldn't identify any such requirements. What he did say, though, was that "[f]rom a business standpoint, having a 100 year adequacy of water and adequate flow for fire protection makes their property more valuable than property which does not have these criteria attached." *See* Pugel *et al.* Complainants' Response to Company's Amended Data Request 4.1, copy attached hereto as Hardcastle DT **Exhibit 1**. Again, we fear that these Developers want the Commission to place their business interests over the interests of the larger community that includes our 2000 existing customers.

**Q. COMPLAINANTS ALSO SUBMITTED THE TESTIMONY OF MR. PLOUGHE, A HYDROGEOLOGIST. SURELY HE TESTIFIED REGARDING PWCO'S ALLEGED FAILURES?**

A. Not a word. His testimony focused solely on the water sources the Developers claim they have available to serve their developments. Again, Mr. Noel addresses this testimony in some detail, and I will address Mr. Ploughe's testimony on the proximity of PWCo's facilities later in this testimony.

**Q. MR. HARDCASTLE, DOESN'T THE DEVELOPERS' ARGUMENT REALLY COME DOWN TO "WE FOUND WATER, PWCO HAS NOT, DELETION IS WARRANTED"?**

A. Isn't a better question, if they have water, why won't they let us use it to serve their developments? Besides, it is not really an apples to apples comparison because the Developers are in a very different position than PWCo. They want to develop their properties, and they need to take some risks to do so. They did not know what they would find when they started to drill, and they did not know the costs they would face or whether they would succeed. We still do not have answers to many important questions about their claimed water sources, but they were able to mitigate their risk by creating a partnership and allocating their costs to the overall

costs of development. In other words, they took a risk in the interest of future development where they dictate the return on investment, subject only to market conditions. They had the opportunity to control their risk and exposure, and were not hindered by "regulatory scrutiny". PWCo does not have that luxury.

PWCo must make "prudent" and "reasonable" investment decisions if it expects to receive a return on and of that investment from its 2000 existing ratepayers. In the event the Developers' water exploration project failed, they still retain the value of their land. If we fail, we have to justify our decision as still being prudent. In fact, as these proceedings shows again, every single decision we make is second guessed. That is why we have been and are proceeding in a manner that reduces the risk of failure and increases the chance of success measured in sustainable water production. That is why we are so excited about the K2 Project. But it cannot be overlooked that PWCo's timetable and that of the Developers' are not necessarily the same.

Additionally, all we know is that the Milk Ranch Well has tested at 150 gpm in tests that do not measure sustainability. The well has never been in service, and certainly not during any of the peak periods we experience in Pine every summer. This is the first known deep well drilled in Pine, and the Developers themselves have admitted that they did not address the "details" of deep well aquifers. *See* Pugel *et al.* Complainants' Response to Company Data Request 3.10, copy attached hereto as Hardcastle DT **Exhibit 1**. Until the groundwater-flux testing which Mr. Noel discusses is conducted, we simply do not know enough about the Milk Ranch Well to say that it provides a sustainable water source. And we know even less about the Hills' claimed water source or the SH3 LLC well ATM wishes to rely on for water service.

Which leads me back to my question. If the Developers are right and they have found a sustainable source of water where we were not looking (and where we had no reason to look), then why won't they work with us to use that source to get them water utility service? If the Milk Ranch Well is half as productive as they claim and can be interconnected at a reasonable cost, then all of the Developers should be able to get service, and our existing ratepayers might even get some more water. Instead, the Developers prefer to use the water they claim they found to portray us as having failed to meet our obligations under our CC&N.

**Q. HAS PWCO FAILED TO MEET ITS OBLIGATIONS UNDER ITS CC&N?**

A. No, and even though the Developers have failed to present evidence to support their claims, we know that the Commission still expects PWCo to present evidence so that the agency can be assured that it is in the public interest to deny the relief the Developers are requesting.

## III. PWCO'S CONTINUING EFFORTS TO INCREASE WATER SUPPLIES.

**Q. DOES PWCO HAVE SUFFICIENT WATER SUPPLIES AVAILABLE TO SERVE ITS CUSTOMERS?**

A. In 2006 we did on 350 days of the year, without water hauling, and we do those other days with supplemental water hauling during peak periods.

**Q. BUT ISN'T THAT THE THRUST OF THE DEVELOPERS' COMPLAINT—THAT IF YOU HAVE TO HAUL YOU DO NOT HAVE ENOUGH WATER?**

A. It is, but deletion of their properties is not warranted unless it is shown that PWCo has done something wrong to cause or prolong the moratoria. The Developers have not made any such showing in this case so far. But, we still welcome the opportunity to update the Commission on our efforts. We try very hard to provide

our customers with sufficient water supplies often operating under very difficult conditions.

Additionally, at least three of the Developers say they have water. Why not use that water so that PWCo can serve them? That is the process that is normally followed when Developers want to build in a part of the CC&N where the provider does not have facilities or existing customers. It makes us wonder what the Developers' real motivation is to not want to work cooperatively with us to serve their projects and the general Pine community as well.

**Q. WHAT HAS PWCO DONE SINCE DECISION NO. 67823 WAS ISSUED IN MAY 2005 TO INCREASE WATER SUPPLIES AVAILABLE TO CUSTOMERS?**

A. The first thing we did was commence the analysis and discussions required under Decision No. 67823. Furthermore, based on that analysis, PWCo timely complied with the order by filing its *2005 Report by Pine Water Co. on Water Supply Alternatives* ("Report"), a 500+ page analysis of every known possible water supply alternative. This was a lengthy and costly exercise, but very beneficial.

**Q. WHY WAS IT BENEFICIAL?**

A. By analyzing every known possible alternative for obtaining additional supplies we were able to discard many alternatives as either too risky, too costly, or some combination of both. This has allowed us to identify a project that we think has the best chance of success, the K2 Project.

**Q. WHAT IS THE K2 PROJECT?**

A. The K2 Well Project is a joint well development project by PWCo and the PSWID. This project follows several studies over several years concerning the possibility of finding water down in deeper aquifers. In fact, the issue of deep well drilling was

discussed at great length in our last rate case, but based on the data then available, PWCo was concerned that such a project was too risky and too costly.

**Q. WHAT CHANGED?**

A. In 2005, the PSWID took a further look at various supplemental long-term water supply alternatives in either Pine or Strawberry. Included in this analysis was the development of deep well under two different scenarios. PSWID's then-Chairman and I had numerous discussions concerning these alternatives and others as they were developed. One of the concerns I raised over the two deep well scenarios, known as JB3 and JB4, was the likelihood of additional infrastructure costs if those sites were utilized. Then we proposed a variation to consider, an additional site known as the K2 site.

**Q. WHAT BENEFITS DO YOU SEE IN THE K2 WELL SITE?**

A. The K2 Site is an existing well site in eastern Strawberry, just south of Strawberry Creek. The site is owned by SWCo, an affiliate of PWCo. The site already has water storage, three phase power, and, most importantly, is located at the northern terminus of Project Magnolia, a high capacity water supply line connecting the communities of Pine and Strawberry. We believed that as much as $1,000,000 or more of costs might be able to be saved by PSWID if the deep well location considered in JB3 and JB4 could be relocated to the K2 site.

**Q. WHAT STEPS WERE TAKEN TO DETERMINE THE VIABILITY OF THE K2 SITE AS A SITE FOR DEEP WELL DRILLING?**

A. PSWID undertook further analysis, including specific consideration of the K2 site by Mr. Ploughe. That analysis was then subjected to scientific peer review by three highly respected hydrogeologists. All of this additional analysis led to the conclusion that the K2 Site was a good prospective site for deep water well development.

**Q. WHAT HAPPENED NEXT?**

A. We agreed to some preliminary deal points so that we could define the principles of a subsequent agreement to jointly develop the K2 site for production. We have been working and continue to work closely with PSWID's representatives to complete a final agreement regarding the joint development of this site.

**Q. WHY IS THE K2 WELL PROJECT IS SO IMPORTANT?**

A. If this project succeeds as hoped, this one well site should produce sufficient additional water to satisfy all of PWCo's needs over a nearly 10-year horizon, including allowing some new development, like the ones Developers are proposing in this case. We are hopeful that a collateral benefit of this process will be the Commission's modification or elimination of the water meter and main extension moratoria in PWCo's CC&N.

**Q. WHAT ARE THE CHANCES THAT THE PROJECT WILL BE SUCCESSFUL?**

A. This is still Pine, Arizona, but we are optimistic and very excited about this project. To begin with, the K2 project is the result of nearly two years of cooperation between PWCo and the PSWID. This is exactly the type of effort we believe the Commission expected to see from us after Decision No. 67823. Also, where we are now is the result of several years of analysis that was repeatedly refined and subjected to peer review. The K2 site looks like a prudent way to proceed and we are going to move forward in cooperation with the PSWID in a manner that we believe gives us the maximum chance to succeed.

**Q. IN THE COMPANY'S LAST RATE CASE THERE WAS DISCUSSION OF PWCO DRILLING NEW WELLS IN STRAWBERRY, ARIZONA. WAS THAT DONE?**

A. Yes. The Hale well was placed into service in May 2005 and was intended to help

provide additional water for consistently high demand periods like the July 4th holiday weekend. The Hale well is an owner developed well, and provides service to PWCo customers through an interconnection with SWCo, seasonally producing as much as 25 GPM or approximately 36,000 gallons daily. The Hoel well was placed into service on or about the same date for the same purpose—supplemental water during the summer, high-demand weekends. The Hoel well also provides service to PWCo customers through an interconnection with SWCO's system and seasonally produces as much as 12 GPM, or approximately 17,258 gallons daily.

**Q. WHY NOT DRILL MORE WELLS IN PINE IN THE MEANTIME?**

A. The cost of additional shallow wells in Pine is not justified given the number of such wells and history of declining production. However, we have been trying to finalize an agreement with a Strawberry property owner that would provide more than six acres of well field site that would allow us to develop as many as four or five additional wells. We are hopeful that this agreement can be completed in the next few months and development of these wells commenced.

**Q. WHAT ABOUT SOME OF THE OTHER PROJECTS MENTIONED IN DECISION NO. 67823 - HAS PWCO CONSIDERED THOSE PROJECTS?**

A. Yes. The projects specifically mentioned were additional wells, including deep drilling, the Blue Ridge Reservoir, CAP allocation trade with SRP, and additional storage. Every one of these options was evaluated and reported on in the Report. I have already discussed additional wells and deep well drilling above.

The Blue Ridge reservoir project is discussed in detail in the Report as Alternative #7, page 21; Alternative #8, page 23, and Alternative #16, page 30. The ratepayer cost impact of every alternative was also considered and reported under Tab 12 of the Water Supply Report. PWCo concluded that the pursuit of supplemental water supplies from Blue Ridge Reservoir was not economically

justified. In its response to the Report, Staff concurred that this was an uncertain and costly water supply alternative.

**Q. WHAT ABOUT THE COMPANY'S CAP ALLOCATION? DON'T THE DEVELOPERS ACTUALLY CONTEND THAT PWCO'S FAILURE TO DEVELOP ITS CAP ALLOCATION FOR THE BENEFIT OF PROPERTIES IN THE CC&N SUPPORTS THEIR REQUEST FOR DELETION?**

A. Yes, that is their contention in both their complaints and in response to PWCo data requests. I would also note that when we asked the Pugel *et al.* Complainants what they suggested we do with the CAP allocation, they stated that it would be a waste of their resources to attempt to determine a use, and that it was PWCo's job. *See* Pugel *et al.* Complainants' Response to Company Data Request 4.12, copy attached hereto as Hardcastle DT **Exhibit 1**. I suppose it is okay to second guess our decisions, but not okay to provide a bases for why we are wrong.

In any event, we have considered the possible use of PWCo's 160 acre-foot CAP allocation and it is reported on in the Report as Alternative #5, page 19. The ratepayer cost impact of this alternative was considered under Tab 12 of the same Report. PWCo concluded in this report that supplemental water supplies using a CAP water exchange was not possible without a sustainable upstream supply source (i.e., Pine Creek) from which PWCo could derive a source. Pine Creek is a seasonable tributary in Pine that has its lowest flows at precisely the same time PWCo has the highest demand.

**Q. IS IT FAIR FOR PWCO'S RATEPAYERS TO PAY FOR A CAP ALLOCATION THAT YOU HAVE CONCLUDED HAS NO CURRENT BENEFICIAL USE?**

A. No, which is why no cost recovery related to the CAP allocation is currently in our

rates or ever has been. PWCo's ratepayers do not pay for the CAP allocation contract. The burden of carrying a CAP allocation, including the annual payments, has been borne entirely by PWCo's shareholders. This is something that the Developers apparently forgot to mention. I would also note that our CAP subcontract might come into play in order to make the K2 Project a success.

**Q. WHAT ABOUT ADDITIONAL STORAGE? THE DEVELOPERS CONTEND THAT PWCO HAS INADEQUATE STORAGE WHICH LEADS TO THE NEED TO HAUL WATER. IS THAT CORRECT?**

A. Absolutely not. And I would note when we asked the Pugel *et al.* Complainants for support for that claim they told us to go hire an engineer. *See* Pugel *et al.* Complainants' Response to Company Data Requests 4.2 and 4.11, copies attached hereto as Hardcastle DT **Exhibit 1**. But this is a common misunderstanding that we seem to have to address in every Commission proceeding.

PWCo's current volume of storage exceeds every applicable regulatory requirement. Admittedly, that would not be a sufficient basis not to add storage, if exceeding the required capacity would beneficially impact our ability to serve our customers. And if it was an investment that would benefit ratepayers, BUI would make the investment and seek a return through rate base treatment.

Unfortunately, as we have explained before, developing additional water storage without a reliable and sustainable supply to fill it is not prudent and reasonable. During periods of peak demand, when we have to call on all of our available resources, including hauling approximately 15 days in 2006, we put every drop of available water directly into our distribution system. There is no water available to fill all these additional storage tanks the Developers want PWCo to pay for and then our ratepayers to pay a return on and of.

**Q. COULDN'T WATER BE STORED IN WINTER MONTHS WHEN DEMAND IS LOWER AND THEN USED IN SUMMER MONTHS?**

A. That kind of storage requires a very large facility, like the Blue Ridge Reservoir project. As discussed, that kind of project is not feasible for a company with a customer base the size of PWCo's. Nor can we just build a bunch of everyday storage tanks and use them to hold water for months at a time. Water cannot be stored safely pursuant to regulatory standards for indefinite periods of time – certainly not from January to June annually. The only way to accomplish this objective would be to add expensive water treatment facilities that further burden our ratepayers. In addition, the amount of storage necessary to make a significant difference would be dramatic, and I am not sure that our customer base could handle the burden of providing a return on and of a likely multi-million dollar investment in large, additional storage facilities.

## IV. ADDITIONAL RESPONSES TO COMPLAINANTS' CLAIMS, TESTIMONY AND OTHER ASSERTIONS.

**Q. HOW DID THE COMPANY INITIALLY RESPOND TO REQUESTS FOR SERVICE FROM THE DEVELOPERS?**

A. In the past, our initial response to inquiries about extending service to new development was that we couldn't extend service due to Decision No. 67823. We received requests from the Pugels, the Hills and ATM. In each instance, we suggested that a variance was needed before we can serve. *See, e.g.,* Pugel *et al.* Complaint at Exhibit C; ATM Complaint at Exhibit C. I do not believe the Randalls have ever requested service.

**Q. DID PWCO MODIFY ITS POSITION AT A LATER DATE?**

A. Yes. After the first Complaint was filed by Pugels and the Randalls, we immediately contacted them to discuss working with them to extend service. Then

last Fall, three of the Developers asked that we send them will serve letters. We sent letters to the Pugels, Randalls and Hills. A copy of each is attached hereto as Hardcastle DT **Exhibit 2**. ATM has since been offered a will serve letter on similar terms.

**Q. WHY DID PWCO MODIFY ITS POSITION?**

A. With numerous complaints pending we thought it would be better to try to work together with the Developers. Unfortunately, none of the Developers appears willing to work with PWCo on the extension of water service to their properties.

**Q. WHY HAVE THE DEVELOPERS REFUSED?**

A. I am not sure. In his testimony, Mr. Pugel seems upset that he would be required to provide infrastructure or funding for the infrastructure, including wells, that we would need to extend service to his property. *See* Pugel DT at 3-4. It seems that Mr. Pugel and the other Developers believe it is PWCo's responsibility to find water for them to develop their properties and then to build the infrastructure that we need to extend service to their developments. In fact, they seem to be saying that PWCo should have already done so in anticipation of future developments like the ones at issue in this case.

**Q. DO YOU AGREE THAT THIS IS YOUR RESPONSIBILITY?**

A. No. We have no customers in those developments. We do not even have a landowner making a proper application for service. We have little idea what the developments are going to look like. It would be imprudent for PWCo to invest capital to serve these new developments. I believe this is why the Commission's main extension rules allow us to require advances in aid of construction from the Developers. They should bear the risk of new development, not the Company and its ratepayers.

**Q. CAN YOU EXPLAIN HOW YOU WOULD ENVISION AN EXTENSION OF SERVICE TO THESE DEVELOPMENTS OCCURRING?**

A. First, the Developers would accept and acknowledge will serve letters. Second, we would conduct the necessary engineering and hydrologic analyses to determine what facilities are needed for PWCo to extend service. Third, we would enter into facilities extension and related agreement to address the financing of infrastructure and conveyance of necessary facilities to the Company. Fourth, those agreements would require Commission approval. Fifth, and finally, we would need a variance from the moratoria on main extensions and new hook-ups imposed by Decision No. 67823. With the exception of the last step, I believe this would be the typical process for a water utility to extend service to new development.

**Q. DOESN'T ATM CLAIM TO HAVE HAD AN EXTENSION AGREEMENT WITH PWCO'S PREDECESSOR MORE THAN 20 YEARS AGO?**

A. Yes. Mr. Moriarity testifies that way. *See* Moriarity DT at 2, Q. No. 8. We have no records of any such agreement.

**Q. WHY IS AN ENGINEERING AND HYDROLOGY ANALYSIS REQUIRED?**

A. Extensions of service are almost always preceded by this type of analysis. The utility and developer need to know (1) what the development will look like; (2) what type of demand it will need to serve; (3) what facilities will be necessary, on-site and off-site, for the utility to extend service; and (4) what the necessary facilities are expected to cost.

**Q. HAVE THE DEVELOPERS FURNISHED ANY OF THIS INFORMATION TO PWCO?**

A. Not really. All we know is the Pugels want to build, at least an RV park and a 40 unit condo complex, ATM wants to build 43 Town Homes, and the Hills want to

develop three acres as residential lots. *See* Pugel DT at 2-3; Moriarity DT at 3; Hill DT at 2.

**Q. HAVEN'T THE DEVELOPERS PRESENTED TESTIMONY THAT PWCO HAS FACILITIES IN OR NEAR THEIR PROPERTIES?**

A. Yes, in Mr. Ploughe's direct testimony. Mr. Ploughe testifies that the Milk Ranch Well is located within 30 feet of a PWCo distribution main and that a connection could be made in a cost efficient manner. *See* Ploughe DT at 3.

**Q. IS MR. PLOUGHE CORRECT?**

A. I do not believe PWCo has any facilities in or near the Milk Ranch Well or Mr. Pugel's proposed development. We do not have customers there now and, even if some piece of pipe is there, its seems like a huge stretch for Mr. Ploughe to testify that we can use this pipe and connect the well to our system in a cost effective manner.

**Q. WHAT ELSE DID MR. PLOUGHE TESTIFY TO REGARDING THE PROXIMITY OF PWCO'S FACILITIES TO DEVELOPERS' PROJECTS?**

A. He also testified that PWCo has facilities near the ATM project. *See* Ploughe DT at 3. He is right this time, although I find this testimony curious. It appears to me that ATM would like to have its property deleted from PWCo's CC&N so it can buy water from an entity known as SH3 LLC to sell to residents of its Town Home development. It also appears that ATM intends to have that water delivered through PWCo's nearby facilities after its property is deleted from the CC&N, although neither ATM nor SH3 LLC has sought a wheeling agreement with PWCo.

**Q. BUT PWCO DOES HAVE FACILITIES THAT CAN BE EXTENDED TO SERVE ATM'S DEVELOPMENT?**

A. Yes. It is my understanding that 4" PVC water lines were installed in the Eagle Glen development sometime in the 1980s. To the best of my knowledge, control

valves, service stubs and even some meter boxes were set in place but never used. However, this infrastructure is nearly 25 years old and without prior use, it is impossible to determine if it is in good condition or would need replacement. System inspection and integrity checks must be completed to determine the condition of these facilities before they can be used to serve. I would assume any remaining necessary infrastructure would be funded by ATM as an advance in aid of construction under an extension agreement.

**Q. WHAT ABOUT THE PROPERTY OWNED BY THE PUGELS AND RANDALLS?**

A. As I indicated, I do not believe the Company has any infrastructure in the vicinity of their properties that can be used to extend service in a cost effective manner. That is why the extension of service requires the type of engineering analysis I discussed earlier so the best way for PWCo to extend service can be determined. After that, we would expect any facilities needed to serve these developments to be funded by the Developers under extension agreements.

**Q. DOES PWCO EXPECT THE DEVELOPERS TO "GIVE" THE COMPANY WELLS OR OTHER INFRASTRUCTURE?**

A. No, not if Mr. Pugel's use of the term "give" means that PWCo gets something for nothing. *See* Pugel DT at 3-4, Q. No. 25. Again, PWCo believes that the process for serving the developments includes, at a minimum, a facilities extension agreement pursuant to which facilities would be financed and refunds made. Whether we would consider agreeing to refunds in an amount that exceeds the minimum 10 percent for 10 years is something we can't say at this time. Whether refunds in an amount that exceeds the minimum 10% for 10 years required by the Commission's rules is something we cannot say at this time. In fact, we cannot say much about the specifics of such agreements given the manner in which the

Developers have elected to proceed.

**Q. WHAT ABOUT THE DEVELOPERS' CLAIMS THAT THEY HAVE WATER? CAN THAT WATER BE USED BY PWCO TO SERVE THEIR DEVELOPMENTS?**

A. I believe we will be able to use the Milk Ranch Well to serve development of the Pugel/Randall properties. But first, the proper testing of their well needs to be completed to ensure that the production is sustainable.

**Q. COULD PWCO USE ANY EXCESS WATER FROM THE MILK RANCH WELL TO SERVE OTHER CUSTOMERS OR OTHER NEW DEVELOPMENTS?**

A. This is something else we do not know. The Milk Ranch Well is located in an isolated part of our CC&N. An analysis needs to be done to determine the most efficient and cost effective means of interconnecting the Milk Ranch Well to our system so we can determine whether we can use all of the production capacity determined available from the well. If these developers, or others, were willing to work with the Company and fund some of the needed infrastructure under extension agreements, it might be even more feasible.

**Q. WOULD THE WELL OWNERS BE COMPENSATED FOR ANY EXCESS WATER THAT PWCO BOUGHT TO SERVE OTHER CUSTOMERS?**

A. If any of the Developers has more water than is needed to serve their developments, and if we can make prudent use of that water to serve existing customers, we would expect to have to pay for that water in some manner. The exact terms are not something I can testify to based on the information we have now.

**Q. WOULD INTERCONNECTION OF THE MILK RANCH WELL PROVIDE SUFFICIENT WATER FOR PWCO TO EXTEND SERVICE TO THE OTHER DEVELOPERS' PROPERTIES?**

A. Most likely yes, at least as to ATM's development. If not, perhaps ATM could reach some sort of agreement whereby the water we use to serve its development comes from SH3 LLC. PWCo may be willing to consider some sort of wheeling arrangement whereby water from SH3 LLC's well could be used by PWCo. We were unable to negotiate an agreement to buy water from that well on acceptable terms on our own.

**Q. WHAT ABOUT THE HILLS?**

A. Again, we know almost nothing about the Hills' plans for their properties, only some of which are in PWCo's CC&N. The Hills do not believe they should be required to enter into a main extension agreement, and claim that what they really want is a wheeling agreement with PWCo. *See* Hill Response to Company Data Requests 1.8 and 1.10, copies attached hereto as Hardcastle DT **Exhibit 3**. The Hills seem to lack an understanding of how the process works.

**Q. HAVE THE HILLS PRESENTED PWCO WITH PROPOSED TERMS FOR A WHEELING AGREEMENT?**

A. None whatsoever. Nor have they presented any development plans for their properties, which makes it very hard for PWCo to respond.

**Q. BUT GIVEN THE SHORTAGE OF WATER, SHOULDN'T PWCO PURSUE EVERY POSSIBLE LEAD ON NEW WATER SOURCES?**

A. We always need to proceed prudently, and we do not have unlimited time, personnel or resources to pursue every claim of "vast amounts of water" that come from land investors, developers and other real estate interests in and around Pine, Arizona. The Hills have made claims of vast amounts of water, but have given us

nothing to support this claim. The only data they have presented is almost 20 years old. At the same time, the information we have from past operations indicates that the Hills' well does not have nearly the level of production they claim, nor a sustainable production, which is a common experience with shallow wells in and around Pine, Arizona. Until some information to the contrary is provided, I do not see any other prudent steps for PWCo to take.

**Q. IF THE REQUESTS FOR DELETION ARE GRANTED, HOW ARE THE DEVELOPERS GOING TO GET WATER SERVICE FOR THEIR PROPERTIES?**

A. It is hard to say for certain. The Developers do not seem to believe that this issue is something the Commission should consider in this proceeding.

**Q. DO YOU AGREE THAT HOW THESE PROPERTIES ARE SERVED IF DELETION IS GRANTED IS OUTSIDE THE SCOPE OF THE COMMISSION'S CONSIDERATION?**

A. I sure hope not. Even if the Developers could show that deletion was warranted because PWCo has done something wrong, the Commission's consideration of what is in the public interest must include what happens after deletion. If it is the Commission's desire to protect our ratepayers, they need to take every possible step to minimize or eliminate interference with our ability to serve relying on the region's fragile water resources.

**Q. WHY DO YOU BELIEVE THAT COULD HAPPEN?**

A. For one thing, no matter how and who serves these properties, the Developers do not believe they should be subject to any sort of conservation requirements because, among other reasons, it impacts the value of their properties. *See Pugel et al.* Complainants' Response to Company Data Requests 2.7 and 4.3, copies attached hereto as Hardcastle DT **Exhibit 1**. PWCo and the entire community

struggle with this issue everyday. These Developers want to proceed, unrestrained, to develop their properties and they do not want to participate in community-wide conservation efforts. I find this desired special treatment very selfish and believe it to be contrary to the public interest.

**Q. WHO WOULD BE PROVIDING THE ACTUAL WATER UTILITY SERVICE IF THE REQUESTED DELETIONS ARE GRANTED?**

A. None of the developers have said, and they will not provide this information through discovery so we do not know for sure. All we really know is that ATM has an agreement with SH3 LLC to buy water. But I do not see how SH3 can sell water to ATM so that ATM can sell that water to residents of its development. I do not know where the lawful provider is in this picture.

**Q. IN GENERAL, WHAT OPTIONS EXIST FOR WATER SERVICE IF DELETION IS GRANTED?**

A. The Developers could seek to form new public service corporations and obtain CC&Ns from the Commission. But I do not see how that solves anything. Even if the Developers were to show that PWCo is at fault for the moratoria, I do not see that the Commission would issue a new CC&N without identical or at least very similar restrictions on new development, as well as the Commission-imposed conservation requirements. Or, in the alternative, the Developers could petition Gila County to form additional improvement districts. Beyond that, any other arrangements appear unlawful to us, like the proposed ATM-SH3 arrangement, at least so far as we understand it.

**Q. WHAT WOULD BE WRONG WITH FORMATION OF IMPROVEMENT DISTRICTS?**

A. PWCo believes that the situation in and around our CC&N is the result of naturally occurring conditions. If a bunch of individualized solutions to the region's chronic

water supply shortages can be implemented, then our ability to serve our 2000 existing customers will be severely threatened. Despite the Developers' allegations, PWCo did not cause the water shortage nor can we just snap our fingers, spend money and make it go away. What we can do is continue to operate under certain restrictions imposed by our regulators to promote conservation and continue to work cooperatively with others to increase the supplies available. It is unfortunate that the Developers want to work outside this process.

**Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

A. Yes, although I do wish to note that my silence on any of the Developers' allegations or testimony to date is not intended nor should it be considered as PWCo's consent or agreement to such allegations or testimony.

PHX/JSHAPIRO/1897080.3/75206.010

# Hardcastle DT
# Exhibit 1

## DATA REQUESTS RESPONSES

**FROM PINE WATER COMPANY**
**TO RAYMOND R. PUGEL AND JULIE B. PUGEL**
**AND ROBERT RANDALL AND SALLY RANDALL**
**and**
**ASSET TRUST MANAGEMENT, CORP.**

**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

2.7 Please explain Complainants Pugel's and Randall's reasons for refusing to accept or otherwise respond to Company's October, 2006 will-serve letter?

Pugel et al: The Company cannot serve the property until the Complainants obtains a variance or change from the ACC to the moratorium. The Company cannot with certainty state that they will be granted a variance. Under the present circumstances Pine Water Company cannot provide a 100 year adequacy or adequate flow for fire protection. If the property owners were to supply Pine Water Company with the amount of water necessary to provide water service to their property, in times of general system wide water shortage, this property would be subject to the restrictions imposed on all Pine Water Company customers regarding restrictions on the use of water. It is not in the best interest of the present or any future owners of the property to have the property subject to water restrictions because the Water Company has an inadequate supply of water and inadequate storage facilities, even though water is available if Pine Water Company were to expend the resources necessary to locate and develop such water.

**DATA REQUESTS RESPONSES**

**FROM PINE WATER COMPANY**
**TO RAYMOND R. PUGEL AND JULIE B. PUGEL**
**AND ROBERT RANDALL AND SALLY RANDALL**
**and**
**ASSET TRUST MANAGEMENT, CORP.**

**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

3.10 Please provide supporting documentation for Highland Water Resources Consultants, Inc.'s conclusions regarding the long-term yield of the upper aquifer system and the lower aquifer system.

Answer: This request is a bit confusing. Complainants do not recall addressing shallow vs. deep aquifer system details at the Milk Ranch Well. In any case, the Milk Ranch Well is not constructed within the shallow aquifer system and as such does not yield any water from the shallow aquifer. Therefore, there is no yield from the shallow aquifer (units yielding water above the Naco Formation) to consider.

## DATA REQUESTS RESPONSES

**FROM PINE WATER COMPANY**
**TO RAYMOND R. PUGEL AND JULIE B. PUGEL**
**AND ROBERT RANDALL AND SALLY RANDALL**
**and**
**ASSET TRUST MANAGEMENT, CORP.**

**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

4.1 In response to Company data request 2.7, Complainants state that the Company cannot "provide a 100 year adequacy or adequate flow for fire protection." Regarding this claim please

a. Explain Complainant's understanding of any and all rules, regulations, statues or other laws or orders that require Company to provide a 100 year adequacy for development within its CC&N

b. Explain Complainants' understanding of any and all rules, regulations, statues or other laws or orders that require Company to provide "adequate fire protection" for development within its CC&N.

RESPONSE: WITHOUT WAIVING ANY OBJECTION HERETOFORE MADE, THE COMPLAINANTS RESPOND AS FOLLOWS.

a. Complainants are not lawyers, nor trained in the analysis of laws rules and regulations. As to whether or not there are any rules, regulations, statutes or other laws or orders requiring the Company to provide a 100 year adequacy for development within its CC&N they would defer to experts in that field. They are aware that the Legislature of the State of Arizona is presently considering amendments to the state statutes or the imposition of new requirements pertaining to adequacy of water in areas such as Pine. From a business standpoint, having a 100 year adequacy of water and adequate flow for fire protection makes their property more valuable than property which does not have these criteria attached. Therefore it is in the best interest of all property owners to have these criteria attached to their property. Since such attributes are available to their property it would be preferential to use them, rather than be in a CC&N that does not have them.

b. Again, Complainants are not lawyers, nor trained in the analysis of laws rules and regulations. As to whether or not there are any rules, regulations, statutes or other laws or orders requiring the Company to provide a adequate fire protection for development within its CC&N they would defer to experts in that field. . From a business standpoint, having a 100 year adequacy of water and adequate flow for fire protection makes their property more valuable than property which does not have these criteria attached. Therefore it is in the best interest of all property owners to have these criteria attached to their property. Since such attributes are available to their property it would be preferential to use them, rather than be in a CC&N that does not have them.

**DATA REQUESTS RESPONSES**

**FROM PINE WATER COMPANY**
**TO RAYMOND R. PUGEL AND JULIE B. PUGEL**
**AND ROBERT RANDALL AND SALLY RANDALL**
**and**
**ASSET TRUST MANAGEMENT, CORP.**

**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

4.2 Please explain the basis for Complainants' claim in response to Company data request 2.7 that Company has "inadequate storage".

ANSWER: Periodically the company has run out of water and has had to rely upon its Curtailment Tariffs and also it has to truck water to the community to meet the demand for water. The varying seasonal demand causes water shortages in the community. If the Company had sufficient water storage to absorb the peak seasonal demand without interrupting regular and ordinary service it would not have to resort to its Curtailment Tariffs and to hauling water.

**DATA REQUESTS RESPONSES**

**FROM PINE WATER COMPANY**
**TO RAYMOND R. PUGEL AND JULIE B. PUGEL**
**AND ROBERT RANDALL AND SALLY RANDALL**
**and**
**ASSET TRUST MANAGEMENT, CORP.**

**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

4.3 Is it Complainants' position that their properties, now or when developed, should not be subject to conservation requirements such as the Curtailment Tariff in effect in Company's CC&N?

ANSWER: If the Complainants' property is still within the CC&N, even though they supplied sufficient water for their property they would still be subject to the Curtailment Tariff. Additionally, all water they supplied would be absorbed into the Company's water supply to be distributed throughout the community thus they could also be subject to water shortages or pressure shortages. It is the Complainant's position that if their property was no longer within the CC&N they would not be subject to the Curtailment Tariff and they would receive full access to all the water they have and they would not be subject to the inadequate supplies of the Company and the Curtailment Tariff.

**DATA REQUESTS RESPONSES**

**FROM PINE WATER COMPANY**
**TO RAYMOND R. PUGEL AND JULIE B. PUGEL**
**AND ROBERT RANDALL AND SALLY RANDALL**
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**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

4.11 Please identify all applicable rules and regulations or industry standards concerning the amount storage the Company should have in its water system.

ANSWER: OBJECT TO THE QUESTION TO THE EXTENT IT REQUIRES CONCLUSIONS OF LAW. The amount of storage should be determined by an appropriate engineer, not by the Complainants. The Complainants are aware that the Company sold a storage tank which has been refurbished by the County, but that his not central to the issues in this case.

**DATA REQUESTS RESPONSES**

**FROM PINE WATER COMPANY**
**TO RAYMOND R. PUGEL AND JULIE B. PUGEL**
**AND ROBERT RANDALL AND SALLY RANDALL**
**and**
**ASSET TRUST MANAGEMENT, CORP.**

**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

4.12 How could the Company develop its CAP water allocation to augment water supplies in its CC&N as alleged by Complainants in response to Company data request 2.17.

ANSWER: There have been a number of alternative uses of CAP water allocations in Arizona. Since the Complainants are not the owners of the allocation, nor authorized to use it, it would be a waste of the complainants resources to attempt to determine such a beneficial use. That is the Company's job.

# Hardcastle DT
# Exhibit 2

# FENNEMORE CRAIG, P.C.

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October 25, 2006

John Gliege, Esq.
Gliege Law Offices, PLLC
P.O. Box 1388
Flagstaff, Arizona 86002-1388

**Re: Will Serve Letter—Property Owned by Raymond R. Pugel and Julie B. Pugel as Trustees of the Raymond R. Pugel and Julie B. Pugel Family Trust**

Dear Mr. Gliege:

Recently you asked me to send you a will serve letter concerning the extension of water utility service by Pine Water Company ("PWCo") to property located in Pine, Arizona (the "Property") and owned by your clients, Raymond R. Pugel and Julie B. Pugel as Trustees of the Raymond R. Pugel and Julie B. Pugel Family Trust ("Landowners") in Pine, Arizona. This will serve letter is written in response to that request.

PWCo has been granted a certificate of convenience and necessity ("CC&N") by the Arizona Corporation Commission ("ACC") to furnish water utility service in and around Pine, Arizona. PWCo has determined that the Property is located within its CC&N. Therefore, the first step is to conduct an engineering and hydrological analyses to determine the means by which water utility service will be extended to the Property. PWCo expects that Landowners will design and construct any on-site facilities necessary for PWCo to serve the Property, subject to approval by PWCo and all governing jurisdictions. However, further analyses must consider projected average and peak water capacity requirements resulting from the development of the Property, the existing facilities located in the vicinity of the Property, and the possibility of upgrades and improvements to PWCo's existing system necessary for PWCo to safely provide water service to the Property.

If Landowners have already had such analysis conducted, then the results should be provided to PWCo. Otherwise, PWCo's consultants will need to be provided with reasonably detailed information about the Property and all plans for development in order to perform the necessary engineering and hydrological analyses. Once a determination has been made

regarding the appropriate method of supplying and distributing water to the Property, formal plans and specifications for any necessary off-site water facilities will be prepared. These plans and specifications will be submitted to the Arizona Department of Environmental Quality for review and approval. In addition, in conjunction with performing the engineering analysis and preparing the plans and specifications for the off-site facilities, a detailed cost estimate will be developed by PWCo and its consultants.

Landowners will be required to enter into a written facilities extension agreement with PWCo. Depending on the outcome of the engineering and hydrological analysis, a utility plant site and/or master utility agreement(s) may also be necessary. In total, these agreements, some of which must be approved by the ACC, will govern the formal conveyance of any facilities, including wells and other water supply requirements to be provided by Landowners to PWCo via bill of sale along with all necessary warranties, easements and rights-of-way. These conveyances will be in the form of advances and/or contributions in aid of construction. Consistent with Arizona utility law and practice, any advances in aid of construction will be subject to annual refunds in an amount equal to ten percent (10%) of the gross annual operating revenues, which is all revenue collected, exclusive of any taxes or pass-through costs, from the sale of water utility services by PWCO to bona fide customers within the property. Refunds will begin in the first year following commencement of service, and shall be paid in this manner for a period of no less than ten (10) years. Any unpaid balance remaining at the end of the refund term will be non-refundable. Additional advances in aid of construction will be required of Landowners for administrative and third-party expenses to be incurred by PWCo in connection with the extension of service to the Property. Such expenses include third-party costs for engineering and inspection, hydrology, accounting and legal services.

Prior to the commencement of the engineering and hydrological analyses described above, or negotiation of any of the necessary agreements, PWCo will require a deposit in the amount of $10,000. The purpose of this deposit is to allow PWCo to begin incurring the administrative expenses identified above. Landowners will be responsible for timely reimbursement of additional administrative costs as they are incurred in excess of the deposit. The deposit should be provided to PWCo, attention Robert T. Hardcastle, along with a copy of this will serve letter executed by Landowners accepting and acknowledging PWCo's terms and conditions for extension of service.

Following execution of the necessary agreements by the parties, one additional step must be taken. Unfortunately, in Decision No. 67823 (May 5, 2005), the ACC imposed a total moratorium on extension agreements in PWCo's CC&N. This means that despite PWCo's willingness to extend water utility service to the Property, ACC approval must first be obtained. However, PWCo is optimistic that Landowners could, with PWCo's support, obtain a variance to the moratorium, if, as you have claimed, Landowners have a viable source of water that can be

used to serve the Property, and possibly other PWCo customers. Such an exception to the prohibition on new connections and main extension is consistent with past ACC orders and has been the position PWCo has advocated as being in the public interest for several years.

My client and I look forward to working with you and your clients towards an amicable solution to the extension of water utility service to the Property. Meanwhile, please feel free to contact me if you have any questions or require any additional information.

Very truly yours,

Jay L. Shapiro

cc: Robert T. Hardcastle

**ACKNOWLEDGED AND APPROVED:**

Raymond R. Pugel, Trustee of the Raymond R. Pugel and Julie B. Pugel Family Trust

_____

Julie B. Pugel, Trustee of the Raymond R. Pugel and Julie B. Pugel Family Trust

_____

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October 25, 2006

John Gliege, Esq.
Gliege Law Offices, PLLC
P.O. Box 1388
Flagstaff, Arizona 86002-1388

**Re: Will Serve Letter—Property Owned by Robert and Sally Randall**

Dear Mr. Gliege:

This letter constitutes Pine Water Company's ("PWCo") will serve letter with respect to property located in Pine, Arizona ("Property") and owned by your clients Robert and Sally Randall ("Landowners"). The purpose of this will serve letter is to outline the process by which Landowners could obtain an extension of water utility service to the Property by PWCo.

PWCo has been granted a certificate of convenience and necessity ("CC&N") by the Arizona Corporation Commission ("ACC") to furnish water utility service in and around Pine, Arizona. PWCo has determined that the Property is located within its CC&N. Therefore, the first step is to conduct an engineering and hydrological analysis to determine the means by which water utility service will be extended to the Property. PWCo expects that Landowners will design and construct any on-site facilities necessary for PWCo to serve the Property, subject to approval by PWCo and all governing jurisdictions. However, further analyses must consider projected average and peak water capacity requirements resulting from the development of the Property, the existing facilities located in the vicinity of the Property, and the possibility of upgrades and improvements to PWCo's existing system necessary for PWCo to safely provide water service to the Property.

If Landowners have already had such analysis conducted, then the results should be provided to PWCo. Otherwise, PWCo's consultants will need to be provided with reasonably detailed information about the Property and all plans for development in order to perform the necessary engineering and hydrological analyses. Once a determination has been made regarding the appropriate method of supplying and distributing water to the Property, formal plans and specifications for any necessary off-site water facilities will be prepared. These plans

and specifications will be submitted to the Arizona Department of Environmental Quality for review and approval. In addition, in conjunction with performing the engineering analysis and preparing the plans and specifications for the off-site facilities, a detailed cost estimate will be developed by PWCo and its consultants.

Landowners will be required to enter into a written facilities extension agreement with PWCo. Depending on the outcome of the engineering and hydrological analysis, a utility plant site and/or master utility agreement(s) may also be necessary. In total, these agreements, some of which must be approved by the ACC, will govern the formal conveyance of any facilities, including wells and other water supply requirements to be provided by Landowners to PWCo via bill of sale along with all necessary warranties, easements and rights-of-way. These conveyances will be in the form of advances and/or contributions in aid of construction. Consistent with Arizona utility law and practice, any advances in aid of construction will be subject to annual refunds in an amount equal to ten percent (10%) of the gross annual operating revenues, which is all revenue collected, exclusive of any taxes or pass-through costs, from the sale of water utility services by PWCO to bona fide customers within the property. Refunds will begin in the first year following commencement of service, and shall be paid in this manner for a period of no less than ten (10) years. Any unpaid balance remaining at the end of the refund term will be non-refundable. Additional advances in aid of construction will be required of Landowners for administrative and third-party expenses to be incurred by PWCo in connection with the extension of service to the Property. Such expenses include third-party costs for engineering and inspection, hydrology, accounting and legal services.

Prior to the commencement of the engineering and hydrological analyses described above, or negotiation of any of the necessary agreements, PWCo will require a deposit in the amount of $10,000. The purpose of this deposit is to allow PWCo to begin incurring the administrative expenses identified above. Landowners will be responsible for timely reimbursement of additional administrative costs as they are incurred in excess of the deposit. The deposit should be provided to PWCo, attention Robert T. Hardcastle, along with a copy of this will serve letter executed by Landowners accepting and acknowledging PWCo's terms and conditions for extension of service.

Following execution of the necessary agreements by the parties, one additional step must be taken. Unfortunately, in Decision No. 67823 (May 5, 2005), the ACC imposed a total moratorium on extension agreements in PWCo's CC&N. This means that despite PWCo's willingness to extend water utility service to the Property, ACC approval must first be obtained. However, PWCo is optimistic that Landowners could, with PWCo's support, obtain a variance to the moratorium, if, as you have claimed, Landowners have a viable source of water that can be used to serve the Property, and possibly other PWCo customers. Such an exception to the

prohibition on new connections and main extension is consistent with past ACC orders and has been the position PWCo has advocated as being in the public interest for several years.

My client and I look forward to working with you and your clients towards an amicable solution to the extension of water utility service to the Property. Meanwhile, please feel free to contact me if you have any questions or require any additional information.

Very truly yours,

Jay L. Shapiro

cc: Robert T. Hardcastle

**ACKNOWLEDGED AND APPROVED:**

Robert Randall

Sally Randall

1848508.2/75206.010

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October 25, 2006

David W. Davis, Esq.
Turley, Swan & Childers, P.C.
3101 North Central, Suite 1300
Phoenix, Arizona 85012-2643

**Re: Will Serve Letter—Property owned by James and Sioux Hill**

Dear David:

At the conclusion of our telephone call last Friday, you asked me to send you a letter outlining the process by which your clients, James and Sioux Hill ("Landowners"), could obtain an extension of water utility service from Pine Water Company ("PWCo") to their residential and commercial property ("Property") in Pine, Arizona. This will serve letter is written in response to that request.

PWCo has been granted a certificate of convenience and necessity ("CC&N") by the Arizona Corporation Commission ("ACC") to furnish water utility service in and around Pine, Arizona. PWCo has determined that the Property is located within its CC&N. Therefore, the first step is to conduct an engineering and hydrological analysis to determine the means by which water utility service will be extended to the Property. PWCo expects that Landowners will design and construct any on-site facilities necessary for PWCo to serve the Property, subject to approval by PWCo and all governing jurisdictions. However, further analyses must consider projected average and peak water capacity requirements resulting from the development of the Property, the existing facilities located in the vicinity of the Property, and the possibility of upgrades and improvements to PWCo's existing system necessary for PWCo to safely provide water service to the Property.

If Landowners have already had such analysis conducted, then the results should be provided to PWCo. Otherwise, PWCo's consultants will need to be provided with reasonably detailed information about the Property and all plans for development in order to perform the necessary engineering and hydrological analyses. Once a determination has been made regarding the appropriate method of supplying and distributing water to the Property, formal

plans and specifications for any necessary off-site water facilities will be prepared. These plans and specifications will be submitted to the Arizona Department of Environmental Quality for review and approval. In addition, in conjunction with performing the engineering analysis and preparing the plans and specifications for the off-site facilities, a detailed cost estimate will be developed by PWCo and its consultants.

Landowners will be required to enter into a written facilities extension agreement with PWCo. Depending on the outcome of the engineering and hydrological analysis, a utility plant site and/or master utility agreement(s) may also be necessary. In total, these agreements, some of which must be approved by the ACC, will govern the formal conveyance of any facilities, including wells and other water supply requirements to be provided by Landowners to PWCo via bill of sale along with all necessary warranties, easements and rights-of-way. These conveyances will be in the form of advances and/or contributions in aid of construction. Consistent with Arizona utility law and practice, any advances in aid of construction will be subject to annual refunds in an amount equal to ten percent (10%) of the gross annual operating revenues, which is all revenue collected, exclusive of any taxes or pass-through costs, from the sale of water utility services by PWCO to bona fide customers within the property. Refunds will begin in the first year following commencement of service, and shall be paid in this manner for a period of no less than ten (10) years. Any unpaid balance remaining at the end of the refund term will be non-refundable. Additional advances in aid of construction will be required of Landowners for administrative and third-party expenses to be incurred by PWCo in connection with the extension of service to the Property. Such expenses include third-party costs for engineering and inspection, hydrology, accounting and legal services.

Prior to the commencement of the engineering and hydrological analyses described above, or negotiation of any of the necessary agreements, PWCo will require a deposit in the amount of $10,000. The purpose of this deposit is to allow PWCo to begin incurring the administrative expenses identified above. Landowners will be responsible for timely reimbursement of additional administrative costs as they are incurred in excess of the deposit. The deposit should be provided to PWCo, attention Robert T. Hardcastle, along with a copy of this will serve letter executed by Landowners accepting and acknowledging PWCo's terms and conditions for extension of service.

Following execution of the necessary agreements by the parties, one additional step must be taken. Unfortunately, in Decision No. 67823 (May 5, 2005), the ACC imposed a total moratorium on extension agreements in PWCo's CC&N. This means that despite PWCo's willingness to extend water utility service to the Property, ACC approval must first be obtained. However, PWCo is optimistic that Landowners could, with PWCo's support, obtain a variance to the moratorium, if, as you have claimed, Landowners have a viable source of water that can be used to serve the Property, and possibly other PWCo customers. Such an exception to the

prohibition on new connections and main extension is consistent with past ACC orders and has been the position PWCo has advocated as being in the public interest for several years.

My client and I look forward to working with you and your clients towards an amicable solution to the extension of water utility service to the Property. Meanwhile, please feel free to contact me if you have any questions or require any additional information.

Very truly yours,

Jay L. Shapiro

cc: Robert T. Hardcastle

**ACKNOWLEDGED AND APPROVED:**

James Hill

Sioux Hill

1847905.2/75206.013

# Hardcastle DT
# Exhibit 3

## DATA REQUESTS RESPONSES

## FROM PINE WATER COMPANY
## TO JAMES HILL AND SUSAN HILL

**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

1.8 Please explain Complainants' reasons for refusing to accept the Company's October, 2006 will-serve letter?

ANSWER:

The will serve letter sent by Jay Shapiro offered the following:

> The first step is to conduct an engineering and hydrological analysis to determine the means by which water utility service will be extended to the property. However, further analysis must consider projected average and peak water capacity requirements resulting from development of the property.

PWC commands us to conduct engineering and hydrological analysis. Unfortunately, PWC also requires that such hydrological analysis include the "projected average and peak water capacity requirements resulting from development of the property. Basically, PWC is asking us to do the impossible. They want us to project the peak water capacity requirements of property which has not been developed.

For example, one of Hill's proposed developments is to provide water to residential land and then sell the land to someone who will likely build a home and perhaps bring a family to Pine and live in this beautiful community. Unfortunately, that family has not yet moved to Pine. They have not yet bought Hill's property. They are not likely to make an offer until Hill has water. Therefore, we do not know whether that family will have two children, three children, eight children or no children. We do not know whether that family will move to Pine on a permanent basis or simply use the property for weekends. Consequently, we are unable to use a crystal ball and project the average or peak water capacity requirements resulting from development of the property.

Therefore, one of the reasons we refused to accept the company's October 2006 will-serve offer/letter is because it is states, "Further analysis <u>must</u> consider projected average and peak water capacity requirements resulting from development of the property."

The same crystal ball problem applies to the commercial property. Shapiro's letter demands that, "PWC's consultants will need to be provided with reasonably detailed information about the property and <u>all</u> plans to develop in order to perform the necessary engineering and hydrological analysis."

Hill does not know yet who will buy the commercial property. It could be an antique shop which uses almost no water. It could be a restaurant which uses a moderate amount of water. Hill will not know until someone makes an offer on the property and he sells it. No one will make an offer on the property unless they know it has water.

In essence, Shapiro has drafted a chicken/egg requirement which will make it impossible to get water to the property. Hill cannot project average and peak water capacity until the ultimate users buy the property [the egg]. PWC also knows that those same people will never buy until there is water to the property [the chicken]. PWC wants us to somehow produce an egg from a farm that outlaws chickens.

The second reason we did not accept the company's October 2006 offer was the requirement by Shapiro that "PWC will require a deposit in the amount of $10,000." The alleged purpose of the deposit was to "allow PWC to being incurring the administrative expenses such as third party costs of engineering and inspection, hydrology, accounting and legal services."

As we see it, essentially PWC is asking us to:

1) give PWC a well which is capable of delivering 500,000 up to 1,000,000 gallons a month to Pine Water Company,

2) while at the same time Hill's property might only use 100,000 gallons per month,

3) Hill, or his buyers, then pay PWC $8.00 per 1,000 gallons for Hill's use of Hill's well water,

4) the excess water from Hill's well is then sold by PWC to others at $8 per 1000 gallons,

5) finally, Hill's reward for supplying additional water to PWC, is to pay all engineering costs, all connection costs, and at least $10,000 of PWC's accounting and legal services.

In essence, PWC would have their administrative cost paid by Hill, they would receive more water from Hill then Hill was taking from their system, and Hill would pay for the connection cost on both ends of the system - the connection to his property and the connection from his well to PWC's pipes. PWC would receive a financial benefit with absolutely no cost.

PWC is confused. This is an offer PWC should make to a developer who wants to extend the main, but brings <u>no additional</u> water to the system.

If the new user brings 10 gallons into the system and uses 9 gallons (assume 10% waste) then there are no grounds to demand a hydrological analysis which includes the "projected average and peak water capacity requirements resulting from development of the property. If Hill provides 10% more water than he uses, it simply does not matter whether or not he can adequately predict his futer water use. All that matters is whether or not he supplies more water than he uses.

## DATA REQUESTS RESPONSES

## FROM PINE WATER COMPANY
## TO JAMES HILL AND SUSAN HILL

**Docket Nos. W-03512A-06-0407; W-03512A-06-0613; W-03512A-07-0100 (consolidated)**

1.10 Is it Complainants' position that they should not be required to enter into main extension agreements with the Company pursuant to A.A.C. R14-2-406? Please explain the bases for the response.

ANSWER: Correct. Hill should not be "required to enter into a main extension agreement" with PWC for two reasons. First, R14-2-406 does not apply when PWC does not have the water to extend the main. Second, extension of the main would not be economically beneficial for either party.

The regulation R14-2-406 actually does not apply to our situation. The main extension agreement set forth in that regulation applies to situations in which the complainant is requesting that the main be extended so that a utility, which actually has water, can supply water to a new area within the CC&N.

For example, hypothetically, assume that PWC somehow obtains significant additional water and the moratorium is lifted. Under those circumstances, Hill and his neighbors my desire to have the main extended so that their properties can receive Pine water.

Under those circumstances, R14-2-406 may apply. The commission drafted rules indicating that the cost of that main extension should be borne primarily by the new users who would benefit directly from the extension, and not shared by the existing users who already have water.

Second, for economic reason we should both avoid R14-2-406. We proposed to PWC on numerous occasions that PWC enter into a wheeling agreement with complainants. This makes far more sense for both parties. It is far more economical for both parties. It satisfies the need for both parties. Hill would simply connect to the end of PWC's main with a meter and then run his own pipe from the end of the water main to his properties. Another meter would also be placed on Hill's well, before it entered PWC's system. PWC would be permitted to withdraw and use from Hill's well significantly more water than Hill withdraws or uses from the end of PWC's main. This accomplishes Hill's goal of bringing water to his property. It accomplishes PWC's goal of increasing its water supply. It does so at a cost and expense far less than a main extension as set forth in R14-2-406.

FENNEMORE CRAIG, P.C.
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Todd C. Wiley (No. 015358)
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3003 North Central Avenue, Suite 2600
Phoenix, Arizona 85012
Telephone (602)916-5000
Attorneys for Pine Water Company

**BEFORE THE ARIZONA CORPORATION COMMISSION**

| | |
|---|---|
| RAYMOND R. PUGEL AND JULIE B. PUGEL AS TRUSTEES OF THE RAYMOND R. PUGEL AND JULIE B. PUGEL FAMILY TRUST, and ROBERT RANDALL AND SALLY RANDALL<br>Complainant,<br>v.<br>PINE WATER COMPANY,<br>Respondent. | DOCKET NO: W-03512A-06-0407 |
| ASSET TRUST MANAGEMENT, CORP.,<br>Complainant,<br>v.<br>PINE WATER COMPANY,<br>Respondent. | DOCKET NO: W-03512A-06-0613 |
| JAMES HILL and SIOUX HILL, husband and wife as trustees of THE HILL FAMILY TRUST,<br>Complainant,<br>v.<br>PINE WATER COMPANY,<br>Respondent. | DOCKET NO: W-03512A-07-0100<br>(Consolidated) |

**DIRECT TESTIMONY**
**OF**
**STEPHEN D. NOEL, R.G.**

## I. INTRODUCTION AND QUALIFICATIONS.

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

A. Stephen D. Noel, Southwest Groundwater Consultants, Inc., 3033 No. 44th St., Suite 120, Phoenix, Arizona 85018. My telephone number is (602) 955-5547.

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

A. I am the President / Principal Hydrogeologist of Southwest Groundwater Consultants, Inc.

**Q. WHAT IS YOUR EDUCATIONAL EXPERIENCE?**

A. I have a BA from Franklin & Marshall College and an MS in Geology from Purdue University.

**Q. PLEASE DESCRIBE YOUR EMPLOYMENT EXPERIENCE?**

A. I began working as a Hydrogeologist in 1978 with Water Resources Associates, Inc. I eventually became President of the firm. In 1993, I co-founded Southwest Groundwater Consultants, Inc. I am currently the President and Owner of the firm.

**Q. WHAT PROFESSIONAL LICENSES OR CERTIFICATIONS DO YOU HOLD?**

A. I am a Registered Geologist in the State of Arizona (August, 1984, No. 17065), and a Registered Geologist in the State of California (May, 1986, No. 4146).

**Q. WHAT OTHER PROFESSIONAL ORGANIZATIONS OR OTHER SIMILAR ACTIVITIES DO YOU HAVE OR ARE YOU INVOLVED IN?**

A. I am a member of the American Institute of Professional Geologists (past Arizona Section President) and the Association of Ground Water Scientists and Engineers, and past member of the Engineering and Environmental Geology Board of the Arizona Geological Survey, the Arizona Society of Professional Engineers Water

Resources Committee, and the State Board of Technical Registration Geologist Examination Committee.

## II. PURPOSE OF DIRECT TESTIMONY AND SUMMARY.

**Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS CASE?**

A. My testimony provides background on the hydrology in and around Pine, Arizona, some discussion of PWCo's conservations efforts and its search for water resources, and discusses my analysis of the claims of water supplies made by the Complainants.

**Q. PLEASE PROVIDE A SUMMARY OF YOUR DIRECT TESTIMONY**

A. My testimony is summarized as follows:

- PWCo serves in an area that is very sensitive to annual precipitation and recharge, which has led to declining production, especially in shallower wells over time. This is a naturally occurring phenomenon.
- Conservation is an important tool to address limited water supplies. Conservation efforts and efforts to limit water loss appear to be working.
- The Milk Ranch well appears to be capable of producing 150 gpm, which should be sufficient to serve the RV park and 40 unit condo planned for that property. Beyond that, however, I have not seen sufficient data to agree that the production of that well could be much higher, nor do we have any data from which it can be stated that the production from this well is sustainable.
- There is insufficient information regarding the Hills' well and the SH3 LLC well from which to determine production or sustainability.

**Q. WHAT DOCUMENTS AND OTHER INFORMATION HAVE YOU REVIEWED IN PREPARATION OF YOUR TESTIMONY?**

A. Prior to the filing of this testimony, I had reviewed the following documents:

- 2005 Report by Pine Water Co., Inc. on Water Supply Alternatives. November 10, 2005, Docket Nos. W-03512A-06-0407, W-03512A-06-0613,

W-03512A-07-0100 (consolidated).

- Highland Water Resources Consulting, Inc., 9/25/06, Stepped Pumping Test Results and Recommendations for the Milk Ranch LLC Well # 55-210454 in Pine, AZ.
- Highland Water Resources Consulting, Inc., 1/5/07, 7 Day Pumping Test Results and Long-term Yield Projections: Short Report on the successful testing of the Milk Ranch LLC Well # 55-210454 in Pine, AZ.
- Highland Water Resources Consulting, Inc., 01/31/07, Life Cycle Costs – Milk Ranch LLC, Well # 55-210454.
- Docket Nos. W-03512A-06-0407, W-03512A-06-0613, W-03512A-07-0100 (consolidated), Direct Testimony of Mike Ploughe, March 16, 2007.
- Docket Nos. W-03512A-06-0407, W-03512A-06-0613, W-03512A-07-0100 (consolidated), Responses to First, Second, Third, Fourth and Fifth Sets of Data Requests From Pine Water Company to Pugel *et al.*
- Docket Nos. W-03512A-06-0407, W-03512A-06-0613,W-03512A-07-0100 (consolidated) Responses to First and Second Sets of Data Requests From Pine Water Company to James and Susan Hill.
- Docket Nos. W-03512A-06-0407, W-03512A-06-0613, W-03512A-07-0100 (consolidated), Direct Testimony of James Hill, March 16, 2007.
- Transwest Geochem, Milk Ranch Well Work Order 0609474, Water Quality Results, Sample Date 9/26/06.

## III. <u>HYDROLOGY IN AND AROUND PINE, ARIZONA.</u>

**Q. HOW WOULD YOU CHARACTERIZE CENTRAL ARIZONA'S GROUNDWATER HYDROLOGY?**

A. In the Central Highlands Province that includes Pine, Strawberry, and Payson, ground-water development is primarily from the fracture zones in the underlying rocks. As a result, the shallower fractured rock aquifers are very sensitive to precipitation events that annually recharge the fractured aquifers. In the deeper more regional aquifers, water levels are not as sensitive to annual precipitation

events, but are influenced more by long-term trends of recharge.

**Q. IS ARIZONA IN SOME SORT OF A DROUGHT?**

A. It has been reported by the Arizona Department of Water Resources that the State has been in a drought since the late 1990's.

**Q. WHEN DID ARIZONA BEGIN TO ADOPT WATER CONSERVATION MEASURES?**

A. The State initiated water conservation measures as part of the First Management Plan of the State's Active Management Areas in 1980.

**Q. DO YOU BELIEVE WATER CONSERVATION IS A VITAL PART OF ENSURING THAT ARIZONA HAS A SUITABLE FUTURE?**

A. Yes. For every drop of water saved via water conservation, one less drop of water is removed from the aquifer. Conservation can significantly reduce demand with special emphasis on outdoor water use. This has already been shown to be true in PWCo's service area. Nearby Payson has also achieved a lot of success through community wide conservation efforts.

**Q. BUT ISN'T PWCO RESPONSIBLE FOR THE LACK OF WATER SUPPLIES AVAILABLE TO SERVE ITS CUSTOMERS?**

A. No, PWCo is not responsible. The hydrology is what it is.

## IV. <u>PINE WATER.</u>

**Q. DID YOU EVALUATE THE CONSERVATION MEASURES BEING IMPLEMENTED IN THE COMPANY'S CC&N?**

A. Yes.

**Q. WHAT MEASURES ARE BEING TAKEN IN THE COMPANY'S CC&N TO CONSERVE WATER RESOURCES?**

A. PWCo has a 5 stage water conservation plan approved by the ACC. Stage 1 requires no water conservation measures, while stage 5 requires mandatory

conservation measures of 50% of daily indoor consumption and no outdoor water use. Stages 2 through 4 incorporate voluntary water conservation measures ranging from 10% reduction to 25% reduction to 40% reduction respectively of daily consumption.

**Q. ARE THESE CONSERVATION MEASURES WORKING?**

A. Yes, from what I have been able to observe. The per capita water use in the Company's CC&N was in the 95 gallons per customer per day range for the peak month of July (2005). This value is less than the Town of Payson rate for a comparable period (July 2005), and the Town of Payson conservation program is very effective.

In addition to water conservation requirements, PWCo system water loss component was 10.57% in 2004, 10.36% in 2005 and 9.19% in 2006. Reducing system water loss is a very effective means of water conservation.

**Q. WHY CAN'T THE COMPANY JUST GO OUT AND DRILL MORE WELLS IN PINE?**

A. PWCo can go out and drill more wells. The issue is where to drill, what is the expected yield and long-term sustainability from the well, where is the well with respect to the water system, and can they obtain land to drill the well(s). Given the region's hydrology, this is nowhere near as simple as it might sound or be portrayed.

**Q. IS IT POSSIBLE TO DRILL A WELL AND HAVE ITS PRODUCTION DECREASE OVER TIME?**

A. Yes, for several possible reasons. Production typically decreases over time as a result of clogging of the well perforations and possibly the formation immediately surrounding the well, and/or by the increasing depth to ground water overtime primarily due to pumping. Mechanical or chemical cleaning of the well

perforations and surrounding aquifer is a standard rehabilitation technique that is part of a well's normal maintenance program. A falling water table is more problematic because a falling water table results in less saturated thickness which in turn will result in less water available for production.

**Q. HOW CAN IT BE DETERMINED WHETHER THE YIELD FROM A WELL WILL BE SUSTAINABLE?**

A. First, the term "sustainable" needs to be defined. In the Active Management Areas (AMAs) of Arizona, ADWR requires that water supplies be available for 100 years. In non-AMA areas, that duration only needs to be stated (1 year, 5 years, 50 years, etc). For purposes here, I recommend that sustainable be equal to the volume of ground water that passes through the area of development that can be captured by pumping. This volume is defined as the ground-water flux.

The ground-water flux may change over time and would be sensitive to changes in the ground-water gradient as it responds to recharge. Therefore, the long-term yield of a well or wells cannot exceed the long-term ground-water flux. If it does, ground water from aquifer storage will be pumped resulting in a lowering of the water table and a subsequent reduction in the wells capacity.

For example, the Town of Payson has experienced declines in well production in 1) areas of over pumping resulting in declining water levels and further reduction in well capacity, and/or 2) in areas where overall pumping exceeds the natural ground-water flux. As a result, Payson is managing its water system by adding and deepening wells that result in more well production capacity and by limiting overall pumping to less than the estimated safe yield of the Payson aquifer system. I also understand this has been PWCo's experience over time with a number of its production wells.

**Q. WHAT ABOUT THE COMPANY'S CAP ALLOCATION. DO YOU SEE ANY VIABLE AND PRACTICAL WAY FOR THE COMPANY TO USE ITS CAP ALLOCATION?**

A. Not as a wet water source, but if someone were willing to exchange the allocation for money, PWCo could use to find more water, there could be a benefit. I don't have any knowledge though about whether there is a willing exchange partners or whether there is a wet source of water that could be exchanged. I just know that there have been a few similar exchanges over the past 10-15 years.

**Q. ARE YOU FAMILIAR WITH THE PROPOSED K2 WELL PROJECT?**

A. Yes, I have also been asked to assist the Company and the Pine-Strawberry Water Improvement District with the project. I understand the basic plan is to drill a deep well in Strawberry, Arizona.

**Q. WHAT IS YOUR VIEW OF THE ATTEMPT TO FIND WATER IN DEEPER AQUIFERS?**

A. It looks like the next logical step if all potential ground-water resources are to be investigated. The approach of conducting detailed geologic mapping and identifying areas to drill based on the local and regional hydrogeologic conditions is appropriate. Completing viable wells appears to be possible, but not assured, and evaluating the long-term yield of a deep well is still an unknown.

## V. <u>COMPLAINANTS' CLAIMS.</u>

### A. <u>Milk Ranch Well.</u>

**Q. MR. PLOUGHE TESTIFIES AT PAGE 2, LINES 22-24 OF HIS DIRECT TESTIMONY THAT "THE MILK RANCH WELL IS A VERY CAPABLE WELL AND CAN CONSISTENTLY YIELD 150 GALLONS PER MINUTE AND IS CAPABLE OF AT LEAST TWICE THIS PRODUCTION RATE." DO YOU AGREE?**

A. I agree that the Milk Ranch well is currently capable of 150 gpm for an unknown period of time, but I am not confident that the well is capable of twice that production rate for a significant period of time. In reviewing the step test data (Highland Water Resources Consulting, Inc., 9/25/06), the specific capacity (SC) of the well calculated for the three steps results in a trend line that projects a SC value for a pumping rate of 300 gpm to be approximately 0.2 gpm/ft of drawdown. This SC value is not sustainable with the given saturated thickness of 430 feet (SC = Q/drawdown). *See* Chart, attached as Noel DT **Exhibit 1**.

**Q. MR. PLOUGHE ALSO CLAIMS AT PAGE 2, LINES 17-20 OF HIS DIRECT TESTIMONY THAT THE MILK RANCH WELL "MOST ASSUREDLY" HAS SUFFICIENT PRODUCTION TO SERVE AN RV PARK AND 40 CONDOMINIUMS. DO YOU AGREE WITH THAT STATEMENT?**

A. The current production from the Milk Ranch well appears to be sufficient to serve the projected demand for the RV Park and Condominiums. The long-term viability of the well, however, is not known. (SGC estimated demand is 42.5 ac-ft/yr or 26.4 gpm). More tests would be needed, especially to confirm any claim that there is a lot more water there than the development needs.

**Q. MR. PLOUGHE BELIEVES THAT THE MILK RANCH WELL HAS A LIFE CYCLE ESTIMATED AT 40 YEARS. DO YOU AGREE?**

A. Review of ground-water quality data from the Milk Ranch well (collected: 11/16/06, lab ID # 0611301-01) indicates that the water is not corrosive, and that the life cycle of the well casing may extend well beyond 40 years. However, sand pumping may require frequent sand removal from the bottom of the well and frequent pump repairs.

**Q. HAVE COMPLAINANTS PROVIDED SUFFICIENT DOCUMENTATION OR OTHER INFORMATION TO ALLOW YOU TO VERIFY MR. PLOUGHE'S CLAIMS REGARDING THE PRODUCTIVITY OF THE MILK RANCH WELL?**

A. No. For long term sustainability, it is necessary to have a good understanding of the ground-water flux in the area of study. Wells can produce at high rates initially, but tend to loose production as water levels decline and if pumping exceeds the regional ground-water flux.

**Q. WHAT ADDITIONAL INFORMATION WOULD YOU NEED BEFORE YOU COULD VERIFY THE PRODUCTIVITY OF THE MILK RANCH WELL?**

A. For long-term sustainability, an analysis of the ground-water flux would be required.

**Q. CAN YOU PLEASE EXPLAIN WHAT MR. PLOUGHE MEANS AT PAGE 2, LINES 25-28 OF HIS DIRECT TESTIMONY WHEN HE DISCUSSES SAND SEPARATION?**

A. The sand separator is a device that removes sand from the water entering the well before it passes through the pump. It is used to reduce the sand content in the pumped water and to extend the life of the pump impellers from sand wear.

**Q. WHAT RISKS DO YOU SEE IF DEVELOPMENT WERE TO GO FORWARD BASED ON THE CLAIMED PRODUCTIVITY OF THE MILK RANCH WELL?**

A. Potential loss of well production in the future.

**Q. IN RESPONSE TO A DATA REQUEST THE OWNERS OF THE MILK RANCH WELL STATED THAT THEIR PLANNED DEVELOPMENTS PROMOTE THE SUSTAINED USE OF WATER BECAUSE ONCE USED**

**THE WATER IS RETURNED TO THE GROUND. WOULD YOU PLEASE COMMENT ON THIS ASSERTION?**

A. The water delivered to each household that is not consumed or lost would theoretically make it back to the septic system, and ultimately into the uppermost (shallow) aquifer. It would have minimal impact on the deeper regional aquifer with respect to sustaining the water resources. Water volume wise, this is a good thing. However, water quality wise, this water may result in the degradation of the upper aquifer's water quality. If that is the case, the pumped shallow water would need to be treated prior to consumption.

**B. <u>SH3 LLC Well.</u>**

**Q. MR. PLOUGHE TESTIFIES AT PAGE 3, LINES 10-14 OF HIS DIRECT TESTIMONY THAT THE SH3 WELL IS QUITE CAPABLE OF PUMPING 50 GALLONS PER MINUTES AS CURRENTLY CONFIGURED. DO YOU AGREE?**

A. The well was tested for 7 days at a constant rate of 46 gpm. The casing diameter is small and limits the type of pump that can be used. However, as configured, the well is capable of pumping 50 gpm. Until the well is completely developed, pumped sediment may create a maintenance problem.

**Q. HOW MUCH OF THE CURRENT CAPACITY OF THE SH3 LLC WELL IS CURRENTLY BEING USED?**

A. A step test would be required to answer that question and I have not seen any such test results.

**Q. IN THAT CASE HOW CAN WE KNOW THAT THE SH3 LLC WELL "MOST ASSUREDLY" HAS SUFFICIENT CAPACITY TO ALSO SERVE THE EAGLE GLEN DEVELOPMENT?**

A. We can't know. Again, we come back to the ground-water flux and the long-term

capacity of the aquifer.

**Q. HAVE COMPLAINANTS PROVIDED SUFFICIENT DOCUMENTATION OR OTHER INFORMATION TO ALLOW YOU TO VERIFY MR. PLOUGHE'S CLAIMS REGARDING THE PRODUCTIVITY OF THE SH3 LLC WELL?**

A. Again, not for long term sustainability. It is necessary to have a good understanding of the ground-water flux in the area of study. Wells can produce at high rates initially, but tend to loose production as water levels decline and if pumping exceeds the regional ground-water flux.

**Q. WHAT ABOUT THE CLAIM THAT THERE IS A 100 YEAR ADEQUACY STATEMENT FOR THE SH3 WELL?**

A. A letter of water adequacy is not given to a well or well owner, it is granted on a subdivision by subdivision basis. I have reviewed the 100 year adequacy finding that Mr. Moriarity discusses in his testimony (*see* Moriarity DT at 3) and confirmed that it was for a subdivision known as Strawberry Hollow.

**Q. DOES THIS ADEQUACY STATEMENT TELL US THAT THE SH3 WELL HAS EXCESS WATER THAT CAN BE USED TO SERVE ATM'S DEVELOPMENT?**

A. I do not believe so. The adequacy statement told a developer, before development took place, that the SH3 well was expected to produce enough water to serve the 72 homes in the Strawberry Hollow development. It provides no information or assurance about water for other developments, and I have seen no data on the well's productivity since it went into operation.

**Q. WHAT ADDITIONAL INFORMATION WOULD YOU NEED BEFORE YOU COULD VERIFY THE PRODUCTIVITY OF THE SH3 LLC WELL?**

A. For long-term sustainability, an analysis of the ground-water flux would be required.

**Q. WOULD YOU RECOMMEND THAT THIS INFORMATION BE OBTAINED BEFORE DEVELOPMENT TAKES PLACE?**

A. Yes, if anyone, the developers, the regulators or the providers want reasonable assurance that the residents will have water, not just today, or for a year, but for the life of the developments.

**C. <u>The Hills' Properties.</u>**

**Q. HAVE YOU ALSO REVIEWED MR. HILL'S DIRECT TESTIMONY?**

A. Yes, Mr. Hill says he has three separate properties he wishes to develop, but there is no testimony regarding water sources.

**Q. DID PWCO SEEK TO OBTAIN INFORMATION ON WATER SUPPLIES FROM THE HILLS?**

A. Yes, but I still have not seen any information regarding the productivity of any claimed water sources, nor have I seen any information on projected demand.

**Q. BUT DON'T THE HILLS CLAIM THAT PROJECTING DEMAND BEFORE DEVELOPMENT TAKES PLACE IS "IMPOSSIBLE"?**

A. I saw that in response to one of the Company's data requests. In our experience in evaluating ground-water resources for development, as well as a requirement of the Department of Water Resources, an estimate of the water demand is always made of the developments proposed land use. Typically, there is more ADWR scrutiny when the water demand approaches the projected ground-water supply resulting in a more rigorous study of the ground-water resources. In these cases, the

Department wants to be conservative in balancing supply and demand. This makes sense until such time the local aquifer system is very well understood.

**Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

A. Yes.

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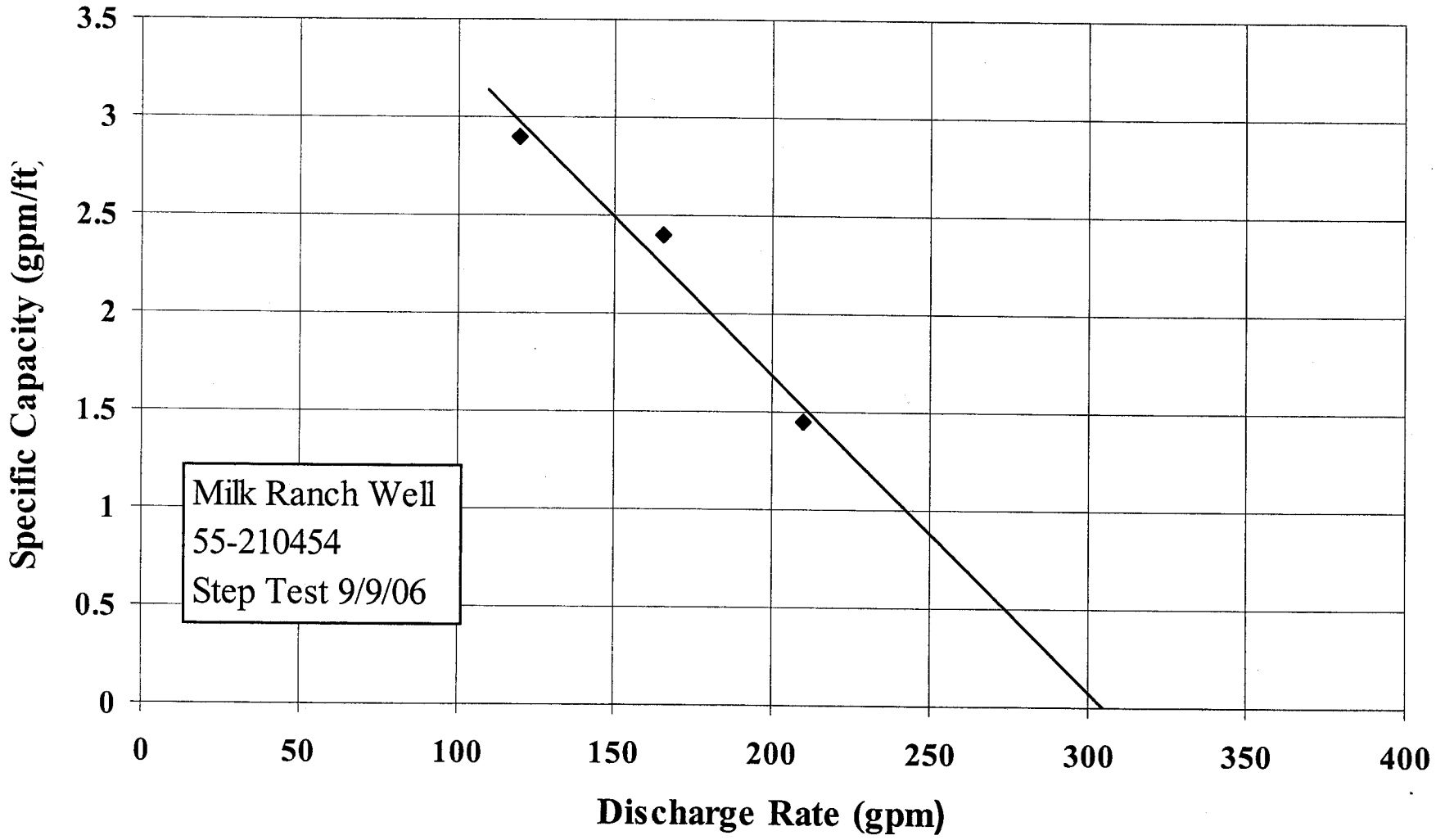
# Noel DT
# Exhibit 1




Data Source: Highland Water Resources Consulting, Inc., 9/25/06

**Southwest Ground-water Consultants, Inc.**

**April 6, 2007** **Project B.1375**

**SPECIFIC CAPACITY VS. DISCHARGE RATE**

**Milk Ranch, Gila County, Arizona**

**Exhibit 1**