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ADMITTED TO PRACTICE IN:
ARIZONA, COLORADO, MONTANA,
NEVADA, TEXAS, WYOMING,
DISTRICT OF COLOMBIA

February 21, 2006

Colleen Ryan, Supervisor
Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Re: Las Quintas Serenas Water Co.
Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340 (Consolidated)

Dear Ms. Ryan:

Enclosed for filing in the above-referenced consolidated docketed proceedings are fifteen (15) copies of the prepared rebuttal case testimony of the following witnesses for Las Quintas Serenas Water Company ("LQS"):

Mike Wood
Mark Taylor
Ron Kozoman

Also enclosed for filing are fifteen (15) copies of LQS's Exhibits AR-1 through AR-9, as marked for identification.

Copies of the enclosed prepared rebuttal case testimony and exhibits are also being hand-delivered or mailed today to all known parties of record.

Please let me know if you have any questions. Thank you for your assistance.

Sincerely,

Lawrence V. Robertson, Jr.

Lawrence V. Robertson, Jr.

Cc: Hon. Jane L. Rodda
Jason Gellman
John Gay

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PREPARED REBUTTAL CASE TESTIMONY
OF
MIKE WOOD
ON BEHALF OF
LAS QUINTAS SERENAS WATER CO.
IN
DOCKET NOS. W-01583A-04-0178, W-01583A-05-0326 AND W-01583A-05-0340

Q. 1 Please state your name and business relationship with the Applicant in these consolidated proceedings.

A. 1 My name is Mike Wood, and I am a member of the Board of Directors and Vice President of Las Quintas Serenas Water Co. ("LQS"). I have served in each of those capacities since June 2003.

Q. 2 Are you the same Mike Wood who previously filed direct case testimony in these consolidated proceedings as LQS's policy witness, and are you appearing in that same capacity in connection with this rebuttal testimony?

A. 2 Yes, as to each part of your question.

Q. 3 What are the purposes of your rebuttal testimony?

A. 3 First, I want to acknowledge and address a difference of opinion which appears to have developed among the members of LQS's Board of Directors as to the arsenic treatment program that LQS should implement in order to (i) comply with the United States Environmental Protection Agency's ("EPA") arsenic concentration regulations and (ii) continue to provide adequate and reliable water service to the company's customers. Second, I want to note and discuss why the amount of the financing authorization requested by LQS in its amended application in Docket No. W-01583A-05-0326 will need to be increased if the Commission concludes that the arsenic treatment program proposed by LQS is appropriate for its water system.

Q. 4 Please discuss the difference of opinion which appears to have developed among the members of the Board of Directors of LQS as it relates to these consolidated proceedings.

A. 4 As I stated in my prepared direct testimony at pages 4-5, it was a priority for me to assure

> "...that LQS would select and construct an arsenic removal methodology and facilities that would enable it to fully comply with the EPA regulations, and, simultaneously, discharge its public service corporation obligation to provide adequate and reliable water service to its customers at reasonable rates..."

while I considered various proposals for an arsenic treatment program for the company. I know that that also was (and is) the view of a second member of the company's Board of Directors, namely, Rohn Householder. I had also understood that to be the view of John Gay, the third and remaining member, at the time the Board of Directors approved the Water System and Arsenic Master Plan ("Plan") recommended by WestLand Resources, Inc. ("WestLand") in March 2005, as well as at the time it authorized the filing of the financing authorization application with the Commission which led to the establishment of Docket No. W-01583A-05-0326.

Subsequently, Mr. Gay parted ways with Mr. Householder and me as to how the company should proceed. In so doing, he appears to have been primarily motivated by three factors. The first factor is an understandable desire to not overspend in making those facilities additions necessary to enable the company to comply with the EPA's arsenic concentration regulations. Mr. Householder and I share that view, provided that, in endeavoring to control costs, you do not jeopardize the ability of the company to discharge its ongoing public service obligation to provide adequate and reliable water service to its customers. The second factor appears to be a belief on the part of Mr. Gay that the company has adequate storage capacity at present to enable it to provide adequate and reliable service to its customers. In that regard, that assumption on his part serves as a major premise to the report that he asked Miller Brooks Environmental ("Miller Brooks") to prepare. The third factor is an apparent assumption by Mr. Gay that LQS can implement an arsenic treatment program in-house, with little use of outside contractors.

In his prepared rebuttal testimony, Mark Taylor of WestLand has discussed at length why the arsenic treatment approach reflected in the Miller Brooks report will not enable the company to attain the two corporate policy goals I have mentioned, whereas the arsenic treatment program that the LQS Board of Directors has adopted will allow those goals to be realized. In addition, Mr. Taylor has demonstrated why Mr. Gay's premise as to adequate storage is not appropriate for a water system the size of LQS; and, he has included a copy of a letter from the Pima County Department of Environmental Quality which supports the position of the LQS Board of Directors and WestLand on this issue.

Finally, it is the opinion of Mr. Householder and myself that LQS does not have the staff to undertake a major construction project in-house, which both the WestLand and Miller Brooks programs would be; nor does LQS have the staff needed or licensed to allow it to act as its own general contractor, overseeing the work of subcontractors.

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Q. 5 In describing the purposes of your rebuttal testimony, you indicated that the amount of financing authorization requested in Docket No. W-01583A-05-0326 will need to be increased in the event that the Commission approves the arsenic treatment program proposed by LQS. Why would that increase be necessary?

A. 5 There are two reasons. First, the costs of the equipment and construction necessary to implement our proposed program have increased since the original cost estimate prepared by WestLand in March 2005, or approximately one year ago. In his rebuttal testimony and Exhibit AR-3, Mark Taylor describes in some detail, and on a line item basis, where changes in the estimated costs have occurred. However, I would note, the allowance for Engineering and Contingencies has been reduced from 25% to 15% now that we are working with cost estimates provided by a general contractor who is qualified to implement the program.

Second, LQS does not have the financial resources that would allow it to internally finance the difference between the original cost estimate of $1,648,750 and the current cost estimate of $1,889,168. As a consequence, those additional funds will have to be borrowed from an outside lender, whether that lender is Commerce Bank of Arizona and/or the Arizona Water Infrastructure Financing Authority ("WIFA"). In that regard, we believe that it is imperative that the Commission decision in Docket No. W-01583A-05-0326 authorize the company to borrow the approved amount from both Commerce Bank of Arizona and WIFA. It is essential that we have a "back up" alternative, which the Commerce Bank of Arizona's loan commitment represents. The ACC Staff's financial witness, Daniel Zivan, appears to assume that a WIFA loan is a "given" if the Commission approves our financing request. We do not think it is appropriate to proceed on the basis of such an assumption, absent a prior commitment from WIFA.

As a final comment, I wish to note that a timely decision by the Commission is crucial. WIFA has advised us that if the Commission issues a decision on our financing authorization request by June 1, 2006, WIFA can have our loan application acted upon by its Board of Directors that same month. Otherwise, no action would occur until the WIFA Board of Directors next meeting in September 2006. Given that it will take many months to order and install the necessary equipment, and to complete the related construction work, every month is important.

Q. 6 Is there anything else you wish to say as a part of your rebuttal testimony?

A. 6 Yes. First, I am pleased that the ACC Staff's engineering witness, Dorothy Hains, appears to be in general agreement with the basic design concept which WestLand developed for LQS's arsenic treatment program. While she has recommended certain equipment disallowances and estimated cost reductions, which Mark Taylor addresses in his rebuttal testimony, she appears to be in general conceptual agreement with the approach LQS has adopted.

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Second, it is the hope of Mr. Householder and myself that, after reviewing the critique of the Miller Brooks report set forth in Mark Taylor's rebuttal testimony and exhibits, John Gay will come to a full realization of why Mr. Householder and I have continued to support the arsenic treatment program developed by WestLand; and that, with such an understanding upon his part, we can put our differences on this matter behind us.

Q. 7 Does that complete your rebuttal testimony?

A. 7 Yes, it does.

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PREPARED REBUTTAL CASE TESTIMONY
OF
MARK TAYLOR
ON BEHALF OF
LAS QUINTAS SERENAS WATER CO.
IN
DOCKET NOS. W-01583A-04-0178, W-01583A-05-0326 AND W-01583A-05-0340

Q. 1 Please state your name and business affiliations.

A. 1 My name is Mark Taylor. I am a registered Professional Engineer in the State of Arizona, and I am a Principal of WestLand Resources, Inc (WestLand).

Q. 2 Are you the same Mark Taylor who has previously submitted direct case testimony upon the behalf of Las Quintas Serenas Water Co. ("LQS") in the above-referenced consolidated proceedings?

A. 2 Yes. My previously filed prepared direct testimony includes a description of my professional qualifications and experience.

Q. 3 What are the purposes of your rebuttal testimony?

A. 3 There are several purposes to my rebuttal testimony. First, I will discuss the nature of the review and analysis of the documentation filed by Intervenor John Gay that my firm and representatives of LQS have undertaken, and I will discuss the results of that review and analysis. Second, I will provide a summary description of those capital improvements WestLand believes are necessary in order to enable LQS (i) to fully comply with the arsenic concentration regulations promulgated by the United States Environmental Protection Agency ("EPA"), and (ii) to continue to provide adequate and reliable water service to its customers. As LQS's policy witness, Mike Wood, stated in his prepared direct case testimony, these two goals provide the policy framework for the company's applications and requests in these consolidated proceedings. Third, I will discuss certain adjustments that should be made to the October 12, 2005 Opinion of Probable Construction Cost ("OPCC") prepared by WestLand, which appears to be the "starting point" for the analysis and direct case presentation filed by the Arizona Corporation Commission ("ACC") staff. Fourth, I will discuss and critique the capital improvements cost disallowances and adjustments proposed by the ACC Staff.

Q. 4 Please describe the review and analysis of the direct case documentation submitted by Intervenor John Gay that WestLand and the company conducted.

A. 4 Both myself and another professional engineer with our firm, Kara Festa, began by thoroughly reviewing the direct case documentation prepared by Intervenor John Gay. We are both thoroughly familiar with the history of this project, having been involved for the entire time (more than one year) that WestLand has been working with LQS on the master plan and arsenic design. Our history with this project is based on a number of meetings with the LQS Board of Directors, management and staff; multiple field visits to review the operation of the water system; knowledge of the LQS system from review of existing water company records and previous engineering studies; and an understanding of how arsenic and other water system regulations relate to the LQS system.

WestLand used this historical knowledge of the water system, personnel, and requirements to evaluate the Miller Brooks Environmental (Miller Brooks) report and other documents submitted by Intervenor John Gay for completeness, technical correctness, accuracy of events, and relevance to the needs of the existing LQS water system. We identified the major and minor issues and inconsistencies in the documents and then developed an approach to address the major items that are relevant to these proceedings in this rebuttal testimony. The main focus of our review was the Miller Brooks report and certain information about the adequacy of the existing water system that appeared to form the basis for John Gay's position. As a part of our approach, we used the additional expertise of an Arizona-licensed contractor with experience in water system construction and arsenic plant projects, as well as familiarity with the bidding conditions in southern Arizona, to analyze the construction cost estimates in both WestLand's and Miller Brooks' reports. That contractor was Smyth Steel Manufacturing, Inc. ("Smyth Steel"), which is based in Tucson, Arizona.

Q. 5 Did your review and analysis disclose any incompleteness or deficiencies in the report prepared by Miller Brooks, which appears to be a major predicate for the position being taken by Mr. Gay as to the amount of financing which should be authorized for capital improvements for arsenic treatment?

A. 5 Yes. In that regard, I would like to provide some context. The Miller Brooks report does present a feasible concept for an arsenic treatment approach that addresses only the issue of arsenic concentration in the wells. Although there are a few equipment items that we feel would be required to complete the arsenic system proposed in that report, such as flow control for the proposed bypass, chlorination, sand separation, and backup power supply, there are no major engineering deficiencies in the concept, given its limited scope.

However, there are two fundamental issues with the approach that was requested by Mr. Gay, as reflected in the Miller Brooks report. Information in the report indicates that its development was based upon an instruction from Mr. Gay to look solely at the design of individual arsenic treatment for the three wells, without consideration of the water system as a whole, and also to assume that all of the work would be either self-performed by LQS or subcontracted to local contractors.

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With respect to the first point, Miller Brooks was not asked to (i) perform site visits to confirm the information provided or identify site-specific construction factors that may not be evident in the photographs provided, (ii) determine if other solutions would better fit the overall LQS system, (iii) analyze the existing water system for deficiencies, (iv) identify water system issues that would be intensified by the implementation of the plan, or (v) determine the effect of the proposed improvements on the existing system operation. The Miller Brooks report, by the limited nature of what was requested of that company, did not address system factors such as (a) storage requirements, (b) additional pressure on the wellheads due to losses through the arsenic treatment, (c) subsequent reduction of well capacity due to the additional pressure, or (d) undersized pipelines and excessive pressures in the water system.

Second, as set forth in the respective direct case filings of LQS and John Gay, the cost estimates do not allow a direct "apples-to-apples" comparison of the cost estimates for the two arsenic systems, due to different assumptions. The assumptions made in WestLand's cost estimate, and discussed with the LQS Board of Directors, were that LQS will publicly bid the plans for the Well Nos. 6 and 7 combined arsenic treatment system and will award the construction to the lowest qualified bidder to construct the project in its entirety. This was due to the complexity of the Severn Trent arsenic treatment system, which will require a significant construction effort to assemble. WestLand assumed that the small packaged system for the Well No. 5 site would be installed by LQS. The construction at this site will be less difficult due to the pre-packaged skid-mounted treatment plant that is planned. Per the direction of John Gay, Miller Brooks provided cost estimates assuming that LQS would act as a general contractor and perform most of the installation at all three sites, although the treatment systems at Well Nos. 6 and 7 would be the same type of site-assembled Severn Trent treatment systems as planned for the combined site in WestLand's report.

WestLand's review of the cost estimates indicates that the Miller Brooks cost estimates do not reflect current costs for the construction of the arsenic treatment systems by a general contractor with the appropriate State of Arizona Class A-General Engineering contractor license, as well as several other cost items. The issues identified with respect to the cost estimates in the Miller Brooks report are as follows: (i) appropriate markup and labor costs for a general contractor to install the facilities; (ii) costs for equipment and operation of equipment required for installation of the facilities, such as cranes; (iii) shipping costs for delivery of the arsenic treatment plant equipment from Pittsburgh, Pennsylvania; (iv) appropriate unit costs for short lengths of piping and installation in a retrofit situation where hand-digging may be required; (v) chlorination equipment; and (vi) sand separation equipment.

Q. 6 Did you develop the full cost for the design concept presented in the Miller Brook report, if adjusted to take the deficiencies and omissions you have described into account?

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A. 6 Yes.

Q. 7 Please describe how that was accomplished.

A. 7 The approach we used to arrive at a basis for comparison of the cost estimates was to adjust the costs provided by Miller Brooks, as necessary, to obtain a cost estimate that would reflect construction of the Severn Trent arsenic treatment systems for Well Nos. 6 and 7 by a licensed general contractor and to address the other items not currently provided for in the Miller Brooks report. The primary goal of the cost analysis was to utilize (i) the expertise of a local contractor with knowledge of current, local bidding conditions; (ii) experience with construction of water plant sites; and (iii) the same set of construction criteria, in order to develop an "apples-to-apples" construction cost comparison between the two design concepts.

To this end, WestLand contacted Smyth Steel to provide a full cost estimate for the Miller Brooks concept using the detailed cost estimates provided in that report as a starting point. At the same time, Smyth Steel also provided a cost estimate based on the WestLand design concept, plans, and specifications for the arsenic treatment system. Smyth Steel holds a Class A-General Engineering license issued by the State of Arizona Registrar of Contractors. They are involved in the construction of numerous water plant sites each year, including wells, reservoirs, booster stations, and pipelines, and Smyth is currently involved in the construction of several arsenic treatment systems. Smyth Steel is familiar with local bidding conditions, equipment availability and lead-times, and the issues associated with the type of construction contemplated on this project. As such, WestLand and LQS felt that Smyth Steel's input would be valuable in providing accurate, complete, and comparable cost estimates.

Q. 8 Please describe the completed cost picture you developed for the arsenic treatment approach reflected in the Miller Brooks report.

A. 8 In order to obtain comparative cost figures for the two arsenic treatment options, Smyth Steel was asked to provide a construction cost estimate for the Miller Brooks concept design based upon the assumption that the Severn Trent arsenic treatment systems for Well Nos. 6 and 7 would be constructed by a general contractor, while the packaged plant for the Well No. 5 site would be installed by LQS. Smyth Steel was asked to provide a construction cost estimate for Well Nos. 6 and 7 representative of a typical contractor's bid under current conditions to complete the facilities as intended by the conceptual design. The cost for Well No. 5 was based on Miller Brooks' cost estimate, updated to reflect the omitted items.

We asked Smyth Steel to provide the cost estimates in the same format as was previously provided in the Miller Brooks report. Even though the format for the cost estimates in the Miller Brooks report included different line items than the WestLand cost estimates, we believed it was important for the integrity of the comparison to the original report to

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maintain a similar format. The cost estimate provided by Miller Brooks was divided separately for each well and had four separate item descriptions for each well. Smyth Steel used these four categories and added two additional categories not originally proposed by Miller Books. These two categories were a sand separator and a chlorination unit, which were equally added to both Miller Brooks and WestLand's design concepts. In addition, freight, contractor's mark-up, and installation costs were also added to the Miller Brooks costs for Well Nos. 6 and 7.

The resulting total construction cost, excluding engineering and contingencies, for the Miller Brooks proposal was $1,055,913. We added a 15 percent engineering and contingencies cost of $158,387, for a total cost of $1,214,300. Exhibit AR-1 provides a breakdown of the Smyth Steel cost construction estimate for the Miller Brooks proposal.

**Miller Brooks Design**

| | |
|---|---|
| Smyth Steel Cost Estimate | $1,055,913 |
| 15% Engineering and Contingencies | 158,387 |
| | $1,214,300 |

Q. 9 Would the arsenic treatment system reflected in the Miller Brooks report, if fully and properly implemented, enable the company to achieve its two policy goals of (i) complying with the EPA's arsenic concentration regulations and (ii) continuing to provide adequate and reliable water service to its customers?

A. 9 No.

Q. 10 Why not?

A. 10 The treatment system reflected in the Miller Brooks report does not achieve both goals. While the Miller Brooks approach would result in water that complies with EPA arsenic requirements, it does not address other water system factors that are critical to the incorporation of arsenic treatment on the LQS water system. When WestLand was originally retained by the LQS Board of Directors to provide a plan to address arsenic, the Board's direction was that we review this issue within the broader context of the overall needs of the water system.

Using this approach, WestLand developed the LQS Water System and Arsenic Master Plan ("Plan") in March 2005. This Plan addresses not only arsenic, but a number of other issues that must be addressed in the implementation of an arsenic treatment program. Addressing these other issues will avoid weakening the water system due to the addition of the arsenic treatment system and will assist LQS in to achieving the two policy goals previously mentioned.

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Q. 11 Please explain the approach to the Plan, the issues that WestLand identified through the development of the Plan, and how those issues relate to the addition of the arsenic treatment system to the LQS water system.

A. 11 When WestLand developed the Plan, in addition to developing alternatives for arsenic reduction in each of the three wells, we also identified additional factors that are integral to system reliability and operation and could be affected by the methodology selected for arsenic treatment. These factors are (a) adequate storage volume, (b) excessive operating pressures in the water system due to small pipeline sizes, and (c) the effect of increased pressure losses through the arsenic treatment system on wellhead pressure and well capacity.

It is important to discuss in detail the subject of providing reliable and adequate storage for system operation during both peaking demands and emergency situations. The typical engineering requirement for providing storage to a water system is to provide above-ground storage in the amount of average daily demand for the peak month, plus fire flow requirements, accounting for any additional operational band or unusable storage. This is a standard requirement used by both large and small water systems throughout southern Arizona. Many water systems increase their goal for storage capacity to as much as two times average daily demand, and some use approximately one time average daily demand plus fire flow volume. The recommended volume of above-ground storage has multiple uses. The primary use is to provide an adequate volume of water that is available during periods of peak demand, especially during summer months. This water needs to be available during the instantaneous and peak hour demands throughout the year or when operational issues or maintenance occurs on existing wells.

In the existing Arizona Administrative Code (R-18-5-503), as referenced in Mr. Gay's presentation, there is a calculation that can be used to reduce calculated storage capacity requirements by accounting for available well capacity. This "exception" allows the typical storage requirement of a water system to be reduced by treating well production capacity as "storage," minus the capacity of the largest well. In the case of LQS, this results in a calculated storage requirement of negative (-) 512,000 gallons. Because of the exception, technically LQS can state that it is in compliance with State law, although the reality is that the available storage is considerably less than what would be considered operationally adequate or consistent with industry standards. The LQS system includes a total of only 90,000 gallons of storage, and the water system has a calculated average daily demand of approximately 450,000 gallons, and average day of peak month demand of approximately 712,000 gallons. Thus, in reality, its current storage is clearly deficient.

WestLand has discussed the issue of this reservoir capacity calculation with staff at our local regulatory agency, Pima County Department of Environmental Quality (PDEQ), numerous times in the past when preparing master plans for various water companies. Staff at PDEQ has always maintained that a minimum of average daily demand of the water system, plus fire flow, should be maintained to provide safe and reliable storage,

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and they do not recommend use of the aforementioned exception calculation. Based upon these conversations with PDEQ, WestLand continues to recommend storage equal to a minimum of average daily demand for all water systems. This is a position that consistently has been both supported and encouraged by PDEQ and reiterated in recent telephone conversations and meetings with PDEQ. It is also detailed in the February 16, 2006 letter from Mr. Mike Redmond, Senior Civil Engineering Assistant at PDEQ, to Mr. Steve Gay, General Manager of LQS. A copy of this letter is attached as Exhibit AR-2.

The other issues identified in the development of the Plan, while less conspicuous than the lack of storage capacity, are no less significant to the proper operation of the water system. The existing system consists of a number of small water mains that are not adequate to convey large volumes of water. When water in excess of immediate demand is pumped into the water system, as would likely occur with any arsenic treatment system, this can result in high operating pressures and therefore increased operating and maintenance costs. Depending upon the demand within the water system, the LQS system experiences pressure fluctuations around 25 psi, and sometimes greater than 30 psi when the wells are operating, due to the pipeline sizes and the output volume of the wells delivering directly into the system. System pressures reach as high as 110 psi in the lowest elevations in the water system. This is not an ideal operating situation for the water system pipelines or the wells that are currently delivering directly into the water system.

Other issues identified during the development of the Plan were the increased pressure that would be developed on the wellhead, especially at Well Nos. 6 and 7, due to the head losses anticipated through the operation of the arsenic treatment units and appurtenances, and the subsequent reduced capacity of wells. In addition, the higher the pressure on the wellheads, the more wear and less operating life that can be expected for the pumps and other equipment.

Q. 12 Does the arsenic treatment system designed by WestLand Resources, and approved by the company's Board of Directors attain both of the company's policy goals, namely, (i) compliance with the EPA's arsenic concentration regulations and (ii) continuous provision of adequate and reliable water service to customers?

A. 12 Yes.

Q. 13 Please briefly explain how the plan proposed will achieve each of those goals.

Q. 13 As previously mentioned, WestLand's direction from the LQS Board of Directors was to provide the best solution for arsenic treatment in coordination with the needs of the overall water system. Within this framework, WestLand developed a concept for a combined arsenic treatment system for Well Nos. 6 and 7 that includes storage, a booster station, and a backup generator. Well No. 5 was proposed to be kept separate and to

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deliver directly into the water system, as this well site does not have pressures as high as the other two sites.

As designed, the Plan calls for a 400,000-gallon reservoir and 1,000 gpm booster station with a backup generator at the Well No. 6 site. We believe that this is the best engineering solution for LQS because it addresses many of the issues identified during the master planning within the context of providing arsenic treatment. The reservoir serves the dual purpose of providing reliable and adequate storage for system operation, as well as serving as a finished water holding tank for the combined arsenic treatment product from Well Nos. 6 and 7.

The proposed system will allow the pump station to deliver potable water into the system at a rate commensurate with what is being used by the system. This will allow water deliveries to correspond better with water system demands and will reduce system operating pressures, thereby resulting in less electricity required to provide water to the system.

Because the Plan includes re-equipping the wells and delivering at low pressure through the arsenic treatment plant and into the finished water storage, it also addresses the issue of excessive pressures on the existing Well Nos. 6 and 7. This methodology will reduce the pressures on the existing well system from current pressures that range from 80 to 110 psi down to a range of 20 to 30 psi, resulting in improved operation and maintenance of the wells due to lower pressure on the wellheads. As a result, the wells would maintain current production capacity and could even be increased in capacity without increasing motor horsepower or electrical service and controls for the sites.

The backup generator will provide a method of accessing the treated water during a power outage. This backup supply is important to the provision of adequate service by LQS, since the usable capacity in the 90,000 gallons of existing storage would provide less than two hours of water supply to the system if there were an outage during peak hour demand and the tanks were full. A more likely scenario, with the tanks only partially full, would likely result in one hour or less before the system was out of water.

In summary, for all of the reasons discussed above, WestLand and LQS believe that the Plan developed by WestLand will enable the company to attain the previously stated two policy goals, whereas the design approach reflected in the Miller Brooks report would not.

Q. 14 The company's applications were based upon the OPCC that was prepared by WestLand in the Spring of 2005. Was that OPCC subsequently revised by WestLand in order to reflect more recent costs, and was a copy of that OPCC provided to the ACC Staff?

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A. 14 Yes. The OPCC was updated in October 2005 for the reasons you suggest; and a copy of the same was provided to ACC staff as a part of LQS's response to ACC staff's Fourth Set of Data Requests.

Q. 15 Does it appear that the ACC Staff used the October 2005 OPCC as the "starting point" for its critique of the company's proposed capital improvements program, and its testimony on the proposed financing authorizations?

A. 15 Yes.

Q. 16 Assuming that to be what has occurred, are there certain adjustments that should be made to the October 2005 OPCC in order to conform it to what the company is actually proposing through its applications and testimony and exhibits as of this point in time?

A. 16 Yes.

Q. 17 Please describe the nature of those adjustments, and quantify the cost effect of the same on the October 2005 OPCC.

A. 17 As previously mentioned, we requested that Smyth Steel provide a contractor's cost estimate for the WestLand arsenic treatment program. Our primary goal in having a licensed general contractor review our plans and provide a construction cost estimate based upon local conditions, current equipment and labor prices, and experience with the local construction industry, was to provide the most accurate construction cost estimate for the proposed project for use in connection with the financing authorization request. We believe that the resulting construction cost estimate is the most accurate we are able to obtain without proceeding with an actual bidding process with multiple contractors.

WestLand's October 12, 2005 OPCC included 16 separate item descriptions. Smyth Steel evaluated our design concept, prepared a detailed cost estimate, and broke out three additional line items which were previously incorporated into other line items. These items are electrical equipment, a new air compressor, and disinfection and testing. Smyth Steel's construction cost estimate for the Plan shown in WestLand's September 2005 Arsenic Treatment Design Report is $1,722,755, and this information is detailed in Exhibit AR-3. A copy of the September 2005 design report was attached to my previously filed direct testimony as Exhibit A-13.

The $1,722,755 cost estimate includes the 400,000-gallon reservoir recommended in the master plan. However, only 250,000 gallons of storage is included as a part of the company's proposed arsenic capital improvements program and the financing authorization request. Therefore, we must adjust the cost estimate to include only 250,000 gallons of storage. Smyth Steel provided information that a cost reduction of $80,000 could be anticipated to reduce the reservoir cost from 400,000-gallons to 250,000-gallons, as shown in Exhibit AR-4. This will result in a subtotal of $1,642,755.

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Following the adjustment for reservoir size, we then added 15 percent engineering and contingencies of $246,413 for a total cost of $1,889,168. The engineering and contingency percentage was reduced from the original 25 percent estimate to 15 percent based upon what we believe is the more accurate construction cost estimate by a licensed contractor.

**WestLand Design**

| | |
|---|---|
| Smyth Steel Cost Estimate | $1,722,755 |
| Subtract (150,00 gallon oversize) | -80,000 |
| | $1,642,755 |
| 15% Engineering and Contingencies | 246,413 |
| | $1,889,168 |

The final cost estimate is approximately $59,000 less than the October 12, 2005 cost estimate, after adjusting for the 250,000-gallon reservoir and reducing the Engineering and Contingencies allowance from 25% to 15%. The differential cost between the Miller Brooks arsenic project cost estimate and the WestLand arsenic project cost estimate is approximately $675,000; however, as I have previously discussed, the Miller Brooks approach does not achieve LQS's policy goals.

Q. 18 Have you reviewed and analyzed the prepared testimony and exhibits filed by Dorothy Hains as a part of the ACC Staff's direct case?

A. 18 Yes.

Q. 19 Do you agree with the cost disallowances and estimated cost reductions with regard to the company's capital improvements program that she has proposed?

A. 19 No.

Q. 20 Please describe each of the cost disallowances and estimated cost reductions she has recommended, and discuss why the company and WestLand disagree as to each.

A. 20 The January 25, 2006 direct testimony of Ms. Dorothy Hains included adjustments via exclusion or cost adjustment of several items in WestLand's October 12, 2005 OPCC. First, three items were excluded from the arsenic treatment project, namely, Item No. 5) 400,000-gallon reservoir; Item No. 11) emergency backup generator; and Item No. 14) hypochlorite chlorination units.

As I explained in detail previously, the 400,000-gallon reservoir is crucial to maintaining a water system that has adequate storage for operational uses and providing a forebay to balance the differential flows between the wells and the booster station. We have previously agreed with ACC Staff that not all of the 400,000 gallons of storage

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recommended in the Plan is solely for arsenic treatment. The minimum storage capacity that we feel is required for the proper operation of this arsenic treatment system, without excessive cycling and stress on the wells, is 250,000 gallons. This minimum 250,000 gallons of storage is integral to the project as designed and is necessary for the operation of this arsenic treatment system. Also, this reservoir cannot be eliminated and still maintain the overall benefits to this system previously described in terms of providing adequate and reliable water service.

The second item eliminated in Ms. Hain's direct testimony is the emergency backup generator. As mentioned previously, the emergency backup generator is an important part of the overall system and is essential to the LQS goal of providing adequate and reliable water service in order to maintain the health, safety, and reliability of the public water system. It is imperative that water service be maintained to the public when commercial power service from Trico Electric Cooperative is interrupted. The system as a whole, in order to operate as intended even during relatively brief periods of commercial power interruptions, requires an emergency backup generator.

The last item recommended for exclusion was the hypochlorite chlorination units. These units have several benefits, including maintaining the health and safety of the community. However, the disinfection of the water also performs an important function for the arsenic treatment plant as discussed in the February 8, 2006 letter from Severn Trent to WestLand, a copy of which is attached as Exhibit AR-5. This letter discusses the role of chlorination prior to arsenic treatment as a means of oxidizing the arsenic compounds from As (III) to As (V), which is the form of arsenic most readily adsorbed in the adsorption process. For this reason, we believe the chlorination units are a necessary part of the arsenic treatment system.

In terms of the cost reductions recommended by Ms. Hains, her direct testimony included costs reductions on four items: Item No. 4) 12-inch water main; Item No. 8) Well No. 6 backwash tank; Item No. 10) Well No. 5 backwash tank; and Item No. 16) 3,000-gallon hydropneumatic tank.

ACC staff suggested that an appropriate cost for 12-inch water main was $36.70 per foot rather than $65.00 per lineal foot. We believe this cost is inadequate for this project due to the large increases in construction cost and pipe materials over the last year, the design requirement to include approximately 110 lineal feet of pipeline boring under jurisdictional washes, and a newly paved road, and approximately 1,600 square yards of chip seal pavement replacement. The Smyth Steel construction cost estimate for these items is approximately $79.65 per lineal foot.

ACC staff recommended a reduction in backwash tank prices from WestLand's $25,000 to $13,400 for Well No. 6 and $4,000 to $3,600 for Well No. 5. These two items were priced by Smyth Steel, and both items include the equipment cost, the cost of delivery,

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fittings, and installation. The Smyth Steel cost estimate supported WestLand's cost estimate of October 12, 2005.

The last recommended reduction was reducing the cost of the 3,000-gallon hydropneumatic tank from $18,000, to $12,000. Based upon the current cost of steel and an ASME-rated tank, including all connections, controls, and installation, Smyth Steel's cost estimate for the 3,000-gallon hydropneumatic tank is $20,000.

Based upon the project-specific factors described, current construction costs, local construction conditions, and the experience of Smyth Steel, we believe the construction cost estimate provided in Exhibit AR-3 is the most accurate current cost for the project.

Q. 21 Please summarize again why you believe that the arsenic treatment program developed by WestLand Resources and adopted by the company's Board of Directors will enable Las Quintas Serenas Water Co. to (i) comply with the EPA's arsenic concentration regulations, and (ii) continue to provide adequate and reliable water service to customers.

A. 21 Over a year ago, the LQS Board of Directors retained WestLand to evaluate the LQS water system for its ability to provide water to its customers with the two corporate policy goals of (i) complying with the EPA's arsenic concentration regulations, and (ii) continuing to provide adequate and reliable water service to its customers. We prepared the analysis and our recommendations based on accepted engineering practices and current industry standards. Our analysis included water quality concern, (in this case, arsenic) and a review of the system's ability to provide adequate service while maintaining appropriate operational pressures and well capacities.

The ultimate objective of the LQS Board of Directors was to provide the best overall service to its customers in the most economical fashion. As a professional engineer, my personal goal, and the goal of our firm, is to provide a recommendation to the water company that will address all the issues facing that company and offer the best and most economical improvements addressing long-term health and safety, operational cost, and system reliability for LQS customers. In this instance, achieving this goal requires that our recommendation include (a) storage for peaking demands, (b) a booster station, and (c) an emergency generator. This program will deliver water at rates to match customer demand and (i) reduce long-term operation energy cost, (ii) reduce pressures upon old pipelines, (iii) reduce pressures on well heads to maintain or increase well capacity and (iv) reduce long-term operation maintenance, as well as provide an adequate and efficient arsenic treatment system.

We firmly believe that the system detailed in our Plan and in this and previous testimony provides all of these features and provides the greatest benefits to the customers of LQS. We do not believe that building a system that performs only one of these functions and later has to be retrofitted to address other issues, or creates other water system issues that cannot easily be addressed, is in the best interest of the water system customers.

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Q. 22 Does that complete your rebuttal testimony?

A. 22 Yes

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***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-1**

Miller Brooks Arsenic Program
2/20/2006 SMYTH STEEL

| ITEM | Per Miller Brooks WELL 5 | WELL 6 | WELL 7 |
|---|---|---|---|
| EQUIPMENT | $ 121,544.00 | $ 218,985.00 | $ 284,523.00 |
| SITE WORK / CONCRETE | $ 5,964.00 | $ 25,500.00 | $ 20,286.00 |
| PIPING | $ 12,888.00 | $ 41,600.00 | $ 53,281.00 |
| ELECTRICAL | $ 8,680.00 | $ 16,720.00 | $ 17,538.00 |
| SAND SEPERATOR | $ 1,445.00 | $ 4,205.00 | $ 5,255.00 |
| CLORINATOR | $ 1,050.00 | $ 2,000.00 | $ 2,000.00 |
| SUB TOTALS | $ 151,571.00 | $ 309,010.00 | $ 382,883.00 |
| MARK UP 10% | $ - | $ 30,901 | $ 38,288 |
| FREIGHT | $ 2,500.00 | $ 2,500.00 | $ 2,500.00 |
| INSTALLATION | $ - | $ 35,000.00 | $ 35,000.00 |
| TOTALS | **$ 154,071** | **$ 377,411** | **$ 458,671** |

Taxes **TOTAL** **$ 990,153**

| | | | |
|---|---|---|---|
| TAXES | Sahuarita 5.59% | | $ 55,350.00 |
| BONDS | | | $ 10,410.00 |
| | | **TOTAL** | **$ 1,055,913** |

**EXCLUDES:** **PERMITS**

**Well # 5 per Miller Brooks Estimate.**

**This is based on information provided to us.**

**Electrical assumes all controls and disconnects included with package plant price.**

***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-2**

February 16, 2006

Mr. Steve Gay, Operation/Manager
LAS QUINTAS WATER COMPANY
P.O. Box 68
Sahuarita, Arizona 85629

**Re: WATER SYSTEM STORAGE REQUIREMENTS**

Dear Steve:

This is in response to your request to clarify the rules and regulations pertaining to water system storage requirements for public water systems.

Pima County Department of Environmental Quality's policy is to approve plans and designs, which adhere to the minimum standards and guidelines found in Arizona Administrative Code, Title 18, Chapter 5 and ADEQ's Engineering Bulletin #10. Neither of these codes and bulletins have been significantly revised in the past 14 years, while historical documentation and examples on what works and what doesn't continues to grow showing a need for these codes and bulletins to be significantly revised.

The rest of this letter is a personal recommendation, which is based on 13 years of experience working for Pima County Department of Environmental Quality, and with over 200 Public Water Systems within Pima County.

Per the Arizona Revised Statues R18-5-503 Storage Requirements, ..."the minimum storage capacity shall be equal to the average daily demand during the peak month of the year." This is the minimum storage capacity typically required for public water systems in order to provide adequate above ground storage. This storage is required to provide peak capacity during the peak hour demands through the summer months, and also emergency storage when a large well is out of service. In addition to this minimum storage capacity requirement, all fire flow requirements needs to be in addition to this volume. The Arizona Administrative Code also includes a caveat that states the following; "The minimum storage capacity for a multiple well system may be reduced by the amount of the total daily demand minus the production from the largest producing well." While this option may allow the water company to reduce the minimum storage capacity required for water systems, typically using this equation produces a negative net requirement of storage capacity and from my personal experience this only works with very small water system with populations under a few hundred. While it is the option of the water company to choose this methodology for determining storage, it is my strong recommendation that the minimum storage capacity for a water system be equal to or greater than the average daily demands during the peak month of the year for all water systems. This volume of above-ground storage provides adequate capacity to serve a water system during peak hour demands, throughout the peak demands of the summer months, and also provides emergency storage for well outages. I believe this will better provide a water system with greater reliability, public safety, and provide the greatest level of service to the customers.

Sincerely,

M. Redmond

Mike Redmond, R.S.
Sr. Civil Engineering Assistant

cc: Mike Wood, Director, LQS Board Director
Rohn Hourseholder, LQS Board Director
John S. Gay, Director, LQS Board Director

***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-3**

**Smyth Steel Manufacturing, Inc.**



# OPINION OF PROBABLE CONSTRUCTION COST

**Project Name:** Las Quintas Serenas Water System and Arsenic Program

2/20/2006

| Item No. | Item Description | Unit | Quantity | Unit Price | Amount | Remarks |
|---|---|---|---|---|---|---|
| 1 | Site Demolition and Removal of Abandoned Facilities at Well Sites | LS | 1 | $12,500 | $12,500 | Well No. 6. |
| 2 | Site Piping Well Site No. 6 | EA | 1 | $92,000 | $92,000 | Includes flow control valves and connections to treatment units |
| 3 | Concrete Slabs for Site Equipment | CY | 30 | $600 | $18,000 | Well Nos. 5 and 6 |
| 4 | 12-inch water main SDR-11 HDPE | LF | 2,500 | $79.65 | $199,125 | Well No. 7 to Well No. 6 site, includes 1600 sy chip seal, and 110 lf jack & bore. |
| 5 | 400,000 gallon reservoir | LS | 1 | $270,000 | $270,000 | Well No. 6 site |
| 6 | 1000-gpm transfer booster station | LS | 1 | $220,000 | $220,000 | Well No. 6 site |
| 7 | 1,190 gpm Adsorption Arsenic Treatment System | LS | 1 | $400,000 | $400,000 | To treat Well Nos. 6 and 7 (Severn Trent) |
| 8 | Well No. 6 site backwash tank | LS | 1 | $25,000 | $25,000 | For Well No. 6 facility includes recycle pump. |
| 9 | 200 gpm Adsorption Arsenic Treatment System | LS | 1 | $150,071 | $150,071 | To treat Well No. 5 , per Miller Brooks estimate |
| 10 | Well No. 5 Backwash tank | LS | 1 | $4,000 | $4,000 | For Well No. 5 facility |
| 11 | Back-up Generator | LS | 1 | $60,000 | $60,000 | Well No. 6 |
| 12 | Fencing and Site Work at Well Sites | EA | 1 | $43,000 | $43,000 | Well No. 6, includes grading for floodplain |
| 13 | Re-equip well | EA | 2 | $15,000 | $30,000 | Well Nos. 6 and 7, to remove bowls |
| 14 | Hypochlorite chlorination units | EA | 3 | $2,000 | $6,000 | All three well sites |
| 15 | Sand Separators | LS | 1 | $13,827 | $13,827 | All three well sites |
| 16 | 3,000 gallon hydropneumatic tank | EA | 1 | $20,000 | $20,000 | Well No. 6 Site |
| 17 | Electrical | EA | 1 | $47,800 | $47,800 | |
| 18 | Furnish, install new air compressor | EA | 1 | $5,000 | $5,000 | |
| 19 | Disinfection, and Testing | LS | 1 | $5,000 | $5,000 | |
| | Subtotal | | | | $1,621,323 | |
| | TOTAL | | | | $1,621,323 | |

TAX SAHUARITA @ 5.59% $90,632

BOND $10,800

TOTAL $1,722,755

Excludes: Permits,

This is based on information provided.

Electrical assumes all controls and disconnects included in package plant price.

***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-4**

SMYTH STEEL
4010 E. ILLINOIS ST.
TUCSON, AZ 85714
PHONE (520) 750-8719
FAX (520) 750-9544

**FACSIMILE TRANSMITTAL SHEET**

| | |
|---|---|
| TO: Mark Taylor | FROM: Al Heimpel |
| COMPANY: Westland Resources | DATE: FEBRUARY 17, 2006 |
| FAX: 206-9518 | TOTAL NO. OF PAGES INCLUDING COVER: 2 |
| PHONE NUMBER: | |
| RE: Las Quintas | YOUR REFERENCE NUMBER: |

☐ URGENT X FOR REVIEW ☐ PLEASE COMMENT PLEASE REPLY

NOTES/COMMENTS

As requested.
The estimated cost deduction to replace the proposed 400,000 gallon reservoir with a 250,000 gallon reservoir would be $ 80,000.00

Al

***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-5**

SEVERN
TRENT
SERVICES

*Filtration Products*

8 February 2006

Mr. Jeff A. Lowy
Westland Resources
2343 E. Broadway Boulevard, Suite 202
Tucson, AZ 85719

**Subject: Prechlorination for Las Quintas Water Co SORB 33® As Removal System**

Dear Mr. Lowy:

We understand that Westland Resources has proposed chlorination treatment upstream of both of Severn Trent Services' SORB 33® As Removal Systems for the purpose of ensuring that all of the water's arsenic is oxidized to the As(V) state. The water analysis provided to Hennesy Mechanical Sales and to STS date March 31, 2004 did not report speciation of As(III) but only the total As assay. Therefore, the presence of As(III) and its concentration relative to total As is unknown for each of the 3 wells.

Prechlorination of water for SORB 33® As treatment can only be beneficial to the process. Although the Bayoxide® E33 GFO media can remove As in its reduced +3 state, the adsorption process is most efficient when treating water with oxidized As(V).

Please feel free to contact me at the numbers below on my cell phone at (813) 601-7966 or e-mail at rdennis@severntrentservices.com if you have any questions on this subject.

Very Truly Yours,

Richard S. Dennis

Richard S. Dennis
Separation Products Manager

Enclosures

cc: Mr. Steven C. Wood - STS
Mr. Jeff Pals - Hennesy

**Severn Trent Services** • Ste. 102, 5415 W. Sligh Avenue • Tampa, FL 15275 • Tel 813 886 9331 • 800 364 3931
Fax 813 886 0651 • *www.severntrentservices.com*

PREPARED REBUTTAL CASE TESTIMONY
OF
RONALD L. KOZOMAN, CPA
ON BEHALF OF
LAS QUINTAS SERENAS WATER CO.
IN
DOCKET NOS. W-01583A-04-0178, W-01583A-05-0326 AND W-01583A-05-0340

Q. 1 Please state your name and professional status.

A. 1 My name is Ronald L. Kozoman. I am a Certified Public Accountant, with a concentration in public utility accounting and regulation.

Q. 2 Are you the same Ronald L. Kozoman who previously submitted direct case testimony on behalf of Las Quintas Serenas Water Co. ("LQS") in these consolidated proceedings?

A. 2 Yes.

Q. 3 Before beginning with your rebuttal testimony, is there a matter you would like to clarify with regard to your previously filed prepared direct testimony?

A. 3 Yes, I used a gross-up factor based on the test year income tax rate that was used. However, Staff is using an income tax gross up tax factor using the actual income tax rates which would be incurred depending on how much principal on the proposed loan is repaid. I was under the impression that the income tax conversion could not be changed for purposes of these consolidated proceedings. Therefore, I used 26.459% on the loan.

This was the tax rate used in the last rate case. Thus, the income tax factor needs to be changed. Instead of a uniform tax rate of 26.459%, the income tax gross-up varies based on whether the principal repaid (which would be taxable income to the utility) causes the Company to end up in the higher federal tax brackets. The tax factors are shown on Exhibit AR-6

Q. 4 Have you reviewed the prefiled testimony and exhibits of the Arizona Corporation Commission Staff ("Staff") in these consolidated proceedings?

A. 4 Yes.

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Q. 5 Are there matters contained in the Staff testimony and exhibits that you wish to address in this rebuttal testimony?

A. 5 Yes. I would like to discuss several inaccuracies or shortcomings I observed in the testimony and exhibits of Staff financial witness Daniel Zivan. Mark Taylor of WestLand Resources, Inc. will discuss the testimony and exhibits of Staff engineering witness Dorothy Hains in his rebuttal case testimony.

My concern with Mr. Zivan is that he isn't telling the whole story on Staff's proposed Water Infrastructure Financing Authority ("WIFA") loan "solution". Many important elements are left out of his testimony description of the requirements for a WIFA loan, although some of these facts are spelled out in the Staff Report Summary which goes to the Director of the Utility's Division.

Q. 6 Please describe the manner in which Mr. Zivan has failed to provide an accurate and complete description of the requirements and process which must be followed in order to obtain a loan from WIFA.

A. 6 Mr. Zivan does not list all the criteria involved with the WIFA loan process. As an example, he does not set forth the fact that the WIFA loan will be approximately 2.00% over prime rate (which is now 7.50%) multiplied by 80% (a subsidy from WIFA). So, for example, that 2.00% would be added to the current prime rate of 7.50% which equals 9.50%. When that amount is multiplied by 80%, the resulting effective loan interest rate is 7.60%, as opposed to Mr. Zivan's understated rate of 7.50%. In addition, and significantly, the Staff does not disclose that WIFA requires borrowers to accumulate (or fund) 20% of the loan principal amount (over a sixty (60) month period) as a debt reserve against the prospect of a borrower not having the funds to make payments on the loan and/or for money being available to be used for needed repairs. That amount is significant. For example, 20% times Staff's recommended loan amount of **$1,324,688** would be **$264,938,** which funded over sixty (60) months equals $4,418 per month. Thus, when Mr. Zivan talks about keeping the Company whole "cash wise," he is omitting a very important and relevant cost factor.

I agree with Mr. Zivan that theoretically it would be less expensive for the Company's customers if the Commission approves funding with WIFA, due to the twenty (20) year repayment term (using traditional rate base regulation), because the cost of debt would be set at approximately 7.60% in the cost of capital model vs. 8.00% for the bank loan.

However, I strongly disagree with his suggestion that this is the cheapest cost for the Company or its customers. To the contrary, in reality, the Company and its customers would repay more cash to WIFA than if the Company used the Bank loan with Commerce Bank of Arizona. To illustrate this point, we can use the analogy of a house loan or mortgage that could be financed over fifteen (15) years or thirty (30) years. The

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thirty (30) year loan would result in a lower monthly payment, but the borrower would pay back less total dollars with fifteen (15) year loan.

Q. 7 Have you prepared exhibits that illustrate this point?

A. 6 Yes. I have prepared Exhibit AR-7 (loan with Commerce Bank of Arizona for ten years) and AR-8 (loan with WIFA over twenty years). To make the loans comparable, I assumed a ten (10) year loan at Staff's recommended loan amount vs. a twenty (20) year WIFA loan in the same amount. That loan amount is $1,324,688. For the bank loan I assumed an 8.00% fixed interest rate. For the WIFA loan I assumed the Staff's interest rate of 7.50% (and not the correct 7.60% that WIFA would charge if the loan were made today.)

With the ten (10) year loan the total payments to Commerce Bank of Arizona would total approximately **$1,938,890** (assuming uniform monthly payments) including closing fees of **$10,235**. This is shown on Exhibit AR-7. These total payments consist of interest of $603,966, closing fees of $10,235, and the principal payment of $1,324,688.

With the twenty (20) year loan with WIFA, the sum of the payments would total **$2,561,183** and consist of interest of $1,236,495 and the principal payment of $1,324,688. This is shown on Exhibit AR-8.

So the customers will actually pay $622,293 more for the twenty (20) year WIFA loan than for the ten (10) year Commerce Bank of Arizona loan, even when the loan origination fees are included.

The monthly payments with a ten (10) year loan at 8.00% interest rate are noticeably higher than the same loan amortized over a twenty (20) year period with WIFA at the Staff's assumed interest rate 7.50%. However, when you add in the previously mentioned WIFA debt reserve requirement, the difference between the bank and WIFA monthly payments is substantially smaller, for the first five (5) years. Additionally, the aggregate amount actually paid for the WIFA loan is substantially more than for the bank loan.

Q. 8 Do you agree with the prime rate that Mr. Zivan used?

A. 8 No. Mr. Zivan used a prime rate of 7.37% in his computations, which does not exist and never has. Apparently he used the known prime rate (At the date he prepared his testimony of 7.25% and added 0.125% as an assumed prime rate increase. He apparently went half way between a .25% interest hike and no rate hike. However, I am not faulting Mr. Zivan on this item, as trying to out guess the Federal Reserve is next to impossible.

I commend Mr. Zivan's use of the actual tax rate rather than the test year tax rate. At least that helps with the first year income tax payments. However, the second year

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income taxes will be understated as the principal payments increase. My computations have the same problem.

Q. 9 Will the company have increased property taxes and income taxes (in future years) due to the amounts that are recommended by either you or the Staff?

A. 9 Yes. As additional revenues are recorded, the property taxes, which are revenue based, will increase. And, as the principal on either loan is reduced, the income taxes will increase, as the Company will have less interest expense to deduct. Thus, the company is not kept whole as to cash flow unless it files another rate case and its rates are adjusted to reflect this situation. A rate case can be an expensive and time consuming undertaking.

Q. 10 Assuming that the Commission does not allow the operating expenses of $21,000 associated with the operation of the arsenic treatment equipment, or the amortization of the loan origination fees of $1,267, will the income taxes be higher or lower than what the Staff has computed?

A. 10 The income taxes would be lower, as there is no provision for not deducting these expenses for income taxes, unless the Company gets an accounting order from this Commission to defer them and collect them at a later date.

Alternatively, the Commission could grant an adjuster mechanism for the operating and maintenance costs.

Q. 11 Have you reviewed Mark Taylor's rebuttal case testimony?

A. 11 Yes, I have.

Q. 12 Have you computed the latest monthly customer charge under the proposed Arsenic Cost Recovery Mechanism, based on the latest cost estimate for the arsenic treatment plant recommended by WestLand Resources, and adopted by LQS's Board of Directors?

A.12 Yes. I have prepared Exhibit AR-9 which reflects that the monthly customer charge for an equivalent 5/8 inch meter would be $27.62 as a result of the updated estimated cost of the proposed arsenic treatment program and related income tax consequences, including "gross up" on loan principal payments.

Q. 13 Does that conclude your rebuttal case testimony?

A. 13 Yes it does.

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***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-6**

**Las Quinta Sernas Water Company**
Incremental Income Rates

Exhibt AR-6
Witness: Kozoman

| | | Income Tax Brackets for 2006 | | | | (a) Staff's Taxable Income | Staff's Taxable Income from Last Rate Plus Incremental Principal Payments of $20,000 | | | | Staff's Prior Taxable Income + (Commerce Bank's Plus Principal Repayments) 1st Year |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2006 | 2006 | 2006 | 2006 | | | | | | |
| Taxable Income | | 50,000 | 75,000 | 100,000 | 500,000 | **18,260** | 38,260 | 58,260 | 78,260 | 98,260 | 146,823 |
| Less Arizona Income Tax | | 3,484 | 5,226 | 6,968 | 34,840 | 1,272 | 2,666 | 4,060 | 5,453 | 6,847 | 10,231 |
| Arizona Income Tax Rate = | 6.968% | | | | | | | | | | |
| Federal Income Before Taxes | | 50,000 | 75,000 | 100,000 | 500,000 | 18,260 | 38,260 | 58,260 | 78,260 | 98,260 | 146,823 |
| Less Arizona Income Taxes | | 3,484 | 5,226 | 6,968 | 34,840 | 1,272 | 2,666 | 4,060 | 5,453 | 6,847 | 10,231 |
| Federal Taxable Income | | 46,516 | 69,774 | 93,032 | 465,160 | 16,988 | 35,594 | 54,200 | 72,807 | 91,413 | 136,592 |
| FEDERAL INCOME TAXES: | | | | | | | | | | | |
| 15% BRACKET UP TO $50,000 | | 6,977 | 7,500 | 7,500 | 7,500 | 2,548 | 5,339 | 7,500 | 7,500 | 7,500 | 7,500 |
| 25% BRACKET ON NEXT $25,000 | | - | 4,944 | 6,250 | 6,250 | - | - | 1,050 | 5,702 | 6,250 | 6,250 |
| 34% BRACKET ON NEXT $25,000 | | - | - | 6,131 | 8,500 | - | - | - | - | 5,581 | 8,500 |
| 39% BRACKET ON NEXT $235,000 | | - | - | - | 91,650 | - | - | - | - | - | 14,271 |
| 34% BRACKET OVER $335,000 | | - | - | - | 44,254 | - | - | - | - | - | - |
| Federal Income Taxes | | 6,977 | 12,444 | 19,881 | 158,154 | 2,548 | 5,339 | 8,550 | 13,202 | 19,331 | 36,521 |
| Total Income Tax | | 10,461 | 17,670 | 26,849 | 192,994 | 3,821 | 8,005 | 12,610 | 18,655 | 26,177 | 46,751 |
| Tax Rate | | 20.92% | 23.56% | 26.85% | 38.60% | 20.92% | 20.92% | 21.64% | 23.84% | 26.64% | 31.84% |
| Effective Income Tax Rates | | | | | | | | | | | |
| State | | 6.968% | 6.968% | 6.968% | 6.968% | 6.968% | 6.968% | 6.968% | 6.968% | 6.968% | 6.968% |
| Federal | | 15.00% | 17.83% | 21.37% | 34.00% | 15.00% | 15.00% | 15.77% | 18.13% | 21.15% | 26.74% |
| Total Tax Rate | | 21.97% | 24.80% | 28.34% | 40.97% | 21.97% | 21.97% | 22.74% | 25.10% | 28.11% | 33.71% |
| **Revenue Conversion Factor** (1 / (1 plus tax rate) | | **128.15%** | **132.98%** | **139.54%** | **169.40%** | **128.15%** | **128.15%** | **129.44%** | **133.51%** | **139.11%** | **150.84%** |
| **Increment Tax (Staff Method)** | | **28.15%** | **32.98%** | **39.54%** | **69.40%** | **28.15%** | **28.15%** | **29.44%** | **33.51%** | **39.11%** | **50.84%** |

**(a) From Staff Exhibit DTZ-1 Income Taxes of $3,458 and Operating Income of $14,802.**

***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-7**

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Company Requested Loan at 8.00%**

Exhibit No. AR-7
Witness: Kozoman

| **Assumes Uniform Monthly Payments** | Commerce Bank |
|---|---|
| **ACC Staff Recommended Loan** | $ 1,324,688 |
| Bank Interest (fixed) Interest Rate / Annual | **8.00%** |
| Bank Interest Rate (fixed) / Monthly | 0.666667% |
| Term In Years | 10 |
| Term In months | 120 |
| Monthly Annuity Factor | 82.4215 |
| Monthly Payment | $ 16,072.12 |
| Staff Payments without Income Tax | $ 16,072.00 |
| **Loan Fees =** (.75% x Loan Amount = $9,935.16) + $300 | $ 10,235.16 |

| Payment Number | Payment | Interest Expense | Principal Payment | Balance | Principal Payment | Year |
|---|---|---|---|---|---|---|
| | | | | $ 1,324,688.00 | | |
| 1 | $ 16,072.12 | $ 8,831.25 | $ 7,240.87 | 1,317,447.13 | | |
| 2 | 16,072.12 | 8,782.98 | $ 7,289.14 | 1,310,157.99 | | |
| 3 | 16,072.12 | 8,734.39 | $ 7,337.73 | 1,302,820.26 | | |
| 4 | 16,072.12 | 8,685.47 | $ 7,386.65 | 1,295,433.61 | | |
| 5 | 16,072.12 | 8,636.22 | $ 7,435.90 | 1,287,997.71 | | |
| 6 | 16,072.12 | 8,586.65 | $ 7,485.47 | 1,280,512.24 | | |
| 7 | 16,072.12 | 8,536.75 | $ 7,535.37 | 1,272,976.87 | | |
| 8 | 16,072.12 | 8,486.51 | $ 7,585.61 | 1,265,391.26 | | |
| 9 | 16,072.12 | 8,435.94 | $ 7,636.18 | 1,257,755.08 | | |
| 10 | 16,072.12 | 8,385.03 | $ 7,687.09 | 1,250,067.99 | | |
| 11 | 16,072.12 | 8,333.79 | $ 7,738.33 | 1,242,329.66 | | |
| 12 | 16,072.12 | 8,282.20 | $ 7,789.92 | 1,234,539.74 | $ 90,148.26 | Year 1 |
| 13 | 16,072.12 | 8,230.26 | $ 7,841.86 | 1,226,697.88 | | |
| 14 | 16,072.12 | 8,177.99 | $ 7,894.13 | 1,218,803.74 | | |
| 15 | 16,072.12 | 8,125.36 | $ 7,946.76 | 1,210,856.98 | | |
| 16 | 16,072.12 | 8,072.38 | $ 7,999.74 | 1,202,857.24 | | |
| 17 | 16,072.12 | 8,019.05 | $ 8,053.07 | 1,194,804.17 | | |
| 18 | 16,072.12 | 7,965.36 | $ 8,106.76 | 1,186,697.41 | | |
| 19 | 16,072.12 | 7,911.32 | $ 8,160.80 | 1,178,536.60 | | |
| 20 | 16,072.12 | 7,856.91 | $ 8,215.21 | 1,170,321.39 | | |
| 21 | 16,072.12 | 7,802.14 | $ 8,269.98 | 1,162,051.42 | | |
| 22 | 16,072.12 | 7,747.01 | $ 8,325.11 | 1,153,726.30 | | |
| 23 | 16,072.12 | 7,691.51 | $ 8,380.61 | 1,145,345.69 | | |
| 24 | 16,072.12 | 7,635.64 | $ 8,436.48 | 1,136,909.21 | $ 97,630.53 | Year 2 |
| 25 | 16,072.12 | 7,579.39 | $ 8,492.73 | 1,128,416.48 | | |
| 26 | 16,072.12 | 7,522.78 | $ 8,549.34 | 1,119,867.14 | | |
| 27 | 16,072.12 | 7,465.78 | $ 8,606.34 | 1,111,260.80 | | |
| 28 | 16,072.12 | 7,408.41 | $ 8,663.72 | 1,102,597.08 | | |

| | | | | |
|---|---|---|---|---|
| 29 | 16,072.12 | 7,350.65 | $ 8,721.47 | 1,093,875.61 |

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Company Requested Loan at 8.00%**

Exhibit No. AR-7
Witness: Kozoman

| Payment Number | Payment | Interest Expense | Principal Payment | Balance | Principal Payment | Year |
|---|---|---|---|---|---|---|
| 30 | 16,072.12 | 7,292.50 | $ 8,779.62 | 1,085,095.99 | | |
| 31 | 16,072.12 | 7,233.97 | $ 8,838.15 | 1,076,257.85 | | |
| 32 | 16,072.12 | 7,175.05 | $ 8,897.07 | 1,067,360.78 | | |
| 33 | 16,072.12 | 7,115.74 | $ 8,956.38 | 1,058,404.39 | | |
| 34 | 16,072.12 | 7,056.03 | $ 9,016.09 | 1,049,388.30 | | |
| 35 | 16,072.12 | 6,995.92 | $ 9,076.20 | 1,040,312.10 | | |
| 36 | 16,072.12 | 6,935.41 | $ 9,136.71 | 1,031,175.40 | $ 105,733.81 | Year 3 |
| 37 | 16,072.12 | 6,874.50 | $ 9,197.62 | 1,021,977.78 | | |
| 38 | 16,072.12 | 6,813.19 | $ 9,258.94 | 1,012,718.84 | | |
| 39 | 16,072.12 | 6,751.46 | $ 9,320.66 | 1,003,398.18 | | |
| 40 | 16,072.12 | 6,689.32 | $ 9,382.80 | 994,015.38 | | |
| 41 | 16,072.12 | 6,626.77 | $ 9,445.35 | 984,570.03 | | |
| 42 | 16,072.12 | 6,563.80 | $ 9,508.32 | 975,061.71 | | |
| 43 | 16,072.12 | 6,500.41 | $ 9,571.71 | 965,490.00 | | |
| 44 | 16,072.12 | 6,436.60 | $ 9,635.52 | 955,854.48 | | |
| 45 | 16,072.12 | 6,372.36 | $ 9,699.76 | 946,154.72 | | |
| 46 | 16,072.12 | 6,307.70 | $ 9,764.42 | 936,390.30 | | |
| 47 | 16,072.12 | 6,242.60 | $ 9,829.52 | 926,560.78 | | |
| 48 | 16,072.12 | 6,177.07 | $ 9,895.05 | 916,665.73 | $ 114,509.67 | Year 4 |
| 49 | 16,072.12 | 6,111.10 | $ 9,961.02 | 906,704.72 | | |
| 50 | 16,072.12 | 6,044.70 | $ 10,027.42 | 896,677.29 | | |
| 51 | 16,072.12 | 5,977.85 | $ 10,094.27 | 886,583.02 | | |
| 52 | 16,072.12 | 5,910.55 | $ 10,161.57 | 876,421.45 | | |
| 53 | 16,072.12 | 5,842.81 | $ 10,229.31 | 866,192.14 | | |
| 54 | 16,072.12 | 5,774.61 | $ 10,297.51 | 855,894.64 | | |
| 55 | 16,072.12 | 5,705.96 | $ 10,366.16 | 845,528.48 | | |
| 56 | 16,072.12 | 5,636.86 | $ 10,435.26 | 835,093.21 | | |
| 57 | 16,072.12 | 5,567.29 | $ 10,504.83 | 824,588.38 | | |
| 58 | 16,072.12 | 5,497.26 | $ 10,574.86 | 814,013.52 | | |
| 59 | 16,072.12 | 5,426.76 | $ 10,645.36 | 803,368.15 | | |
| 60 | 16,072.12 | 5,355.79 | $ 10,716.33 | 792,651.82 | $ 124,013.91 | Year 5 |
| 61 | 16,072.12 | 5,284.35 | $ 10,787.78 | 781,864.04 | | |
| 62 | 16,072.12 | 5,212.43 | $ 10,859.69 | 771,004.35 | | |
| 63 | 16,072.12 | 5,140.03 | $ 10,932.09 | 760,072.26 | | |
| 64 | 16,072.12 | 5,067.15 | $ 11,004.97 | 749,067.29 | | |
| 65 | 16,072.12 | 4,993.78 | $ 11,078.34 | 737,988.95 | | |
| 66 | 16,072.12 | 4,919.93 | $ 11,152.19 | 726,836.75 | | |
| 67 | 16,072.12 | 4,845.58 | $ 11,226.54 | 715,610.21 | | |
| 68 | 16,072.12 | 4,770.73 | $ 11,301.39 | 704,308.82 | | |
| 69 | 16,072.12 | 4,695.39 | $ 11,376.73 | 692,932.10 | | |
| 70 | 16,072.12 | 4,619.55 | $ 11,452.57 | 681,479.52 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 71 | 16,072.12 | 4,543.20 | $ 11,528.92 | 669,950.60 | | |
| 72 | 16,072.12 | 4,466.34 | $ 11,605.78 | 658,344.81 | $ 134,307.01 | Year 6 |

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Company Requested Loan at 8.00%**

Exhibit No. AR-7
Witness: Kozoman

| Payment Number | Payment | Interest Expense | Principal Payment | Balance | Principal Payment | Year |
|---|---|---|---|---|---|---|
| 73 | 16,072.12 | 4,388.97 | $ 11,683.16 | 646,661.66 | | |
| 74 | 16,072.12 | 4,311.08 | $ 11,761.04 | 634,900.62 | | |
| 75 | 16,072.12 | 4,232.67 | $ 11,839.45 | 623,061.17 | | |
| 76 | 16,072.12 | 4,153.74 | $ 11,918.38 | 611,142.79 | | |
| 77 | 16,072.12 | 4,074.29 | $ 11,997.84 | 599,144.95 | | |
| 78 | 16,072.12 | 3,994.30 | $ 12,077.82 | 587,067.13 | | |
| 79 | 16,072.12 | 3,913.78 | $ 12,158.34 | 574,908.79 | | |
| 80 | 16,072.12 | 3,832.73 | $ 12,239.40 | 562,669.39 | | |
| 81 | 16,072.12 | 3,751.13 | $ 12,320.99 | 550,348.40 | | |
| 82 | 16,072.12 | 3,668.99 | $ 12,403.13 | 537,945.27 | | |
| 83 | 16,072.12 | 3,586.30 | $ 12,485.82 | 525,459.45 | | |
| 84 | 16,072.12 | 3,503.06 | $ 12,569.06 | 512,890.39 | $ 145,454.42 | Year 7 |
| 85 | 16,072.12 | 3,419.27 | $ 12,652.85 | 500,237.54 | | |
| 86 | 16,072.12 | 3,334.92 | $ 12,737.20 | 487,500.34 | | |
| 87 | 16,072.12 | 3,250.00 | $ 12,822.12 | 474,678.22 | | |
| 88 | 16,072.12 | 3,164.52 | $ 12,907.60 | 461,770.62 | | |
| 89 | 16,072.12 | 3,078.47 | $ 12,993.65 | 448,776.97 | | |
| 90 | 16,072.12 | 2,991.85 | $ 13,080.27 | 435,696.70 | | |
| 91 | 16,072.12 | 2,904.64 | $ 13,167.48 | 422,529.22 | | |
| 92 | 16,072.12 | 2,816.86 | $ 13,255.26 | 409,273.96 | | |
| 93 | 16,072.12 | 2,728.49 | $ 13,343.63 | 395,930.33 | | |
| 94 | 16,072.12 | 2,639.54 | $ 13,432.59 | 382,497.75 | | |
| 95 | 16,072.12 | 2,549.98 | $ 13,522.14 | 368,975.61 | | |
| 96 | 16,072.12 | 2,459.84 | $ 13,612.28 | 355,363.33 | $ 157,527.07 | Year 8 |
| 97 | 16,072.12 | 2,369.09 | $ 13,703.03 | 341,660.30 | | |
| 98 | 16,072.12 | 2,277.74 | $ 13,794.39 | 327,865.91 | | |
| 99 | 16,072.12 | 2,185.77 | $ 13,886.35 | 313,979.56 | | |
| 100 | 16,072.12 | 2,093.20 | $ 13,978.92 | 300,000.64 | | |
| 101 | 16,072.12 | 2,000.00 | $ 14,072.12 | 285,928.52 | | |
| 102 | 16,072.12 | 1,906.19 | $ 14,165.93 | 271,762.59 | | |
| 103 | 16,072.12 | 1,811.75 | $ 14,260.37 | 257,502.22 | | |
| 104 | 16,072.12 | 1,716.68 | $ 14,355.44 | 243,146.78 | | |
| 105 | 16,072.12 | 1,620.98 | $ 14,451.14 | 228,695.64 | | |
| 106 | 16,072.12 | 1,524.64 | $ 14,547.48 | 214,148.16 | | |
| 107 | 16,072.12 | 1,427.65 | $ 14,644.47 | 199,503.69 | | |
| 108 | 16,072.12 | 1,330.02 | $ 14,742.10 | 184,761.59 | $ 170,601.73 | Year 9 |
| 109 | 16,072.12 | 1,231.74 | $ 14,840.38 | 169,921.22 | | |
| 110 | 16,072.12 | 1,132.81 | $ 14,939.31 | 154,981.90 | | |
| 111 | 16,072.12 | 1,033.21 | $ 15,038.91 | 139,943.00 | | |
| 112 | 16,072.12 | 932.95 | $ 15,139.17 | 124,803.83 | | |

| | | | | |
|---|---|---|---|---|
| 113 | 16,072.12 | 832.03 | $ 15,240.10 | 109,563.73 |
| 114 | 16,072.12 | 730.42 | $ 15,341.70 | 94,222.04 |
| 115 | 16,072.12 | 628.15 | $ 15,443.97 | 78,778.06 |

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Company Requested Loan at 8.00%**

Exhibit No. AR-7
Witness: Kozoman

| Payment Number | Payment | Interest Expense | Principal Payment | Balance | Principal Payment | Year |
|---|---|---|---|---|---|---|
| 116 | 16,072.12 | 525.19 | $ 15,546.93 | 63,231.13 | | |
| 117 | 16,072.12 | 421.54 | $ 15,650.58 | 47,580.55 | | |
| 118 | 16,072.12 | 317.20 | $ 15,754.92 | 31,825.63 | | |
| 119 | 16,072.12 | 212.17 | $ 15,859.95 | 15,965.68 | | |
| 120 | 16,072.12 | 106.44 | $ 15,965.68 | (0.00) | $ 184,761.59 | Year 10 |

**Bank Loan**

Actual Total Dollars Paid on Loan over 10 Years

| Total Payments | Interest Expense | Principal Payment |
|---|---|---|
| $ 1,928,654 | $ 603,966 | $ 1,324,688 |
| 10,235 | Loan Closing Costs | |
| $ 1,938,890 | Total Paid Out for Loan | |

***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-8**

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Staff Proposed WIFA Loan At Staff's Assumed Interest Rate**

Exhibit No. AR-8
Witness: Kozoman

| **Assumes Uniform Monthly Payments** | Staff's WIFA LOAN |
|---|---|
| ACC Staff Recommended Loan | $ 1,324,688 |
| **Staff's Assumed Subsidized Interest Rate / Annual** | 7.50% |
| Subsidized Interest Rate / Monthly | 0.625000% |
| Term In Years | 20 |
| Term In months | 240 |
| Monthly Annuity Factor | 124.1321 |
| Monthly Payment | $ 10,671.60 |
| Staff Payments without Income Tax (rounded) | $ 10,672.00 |

| | | |
|---|---|---|
| $ 1,324,688 | | |
| 20% | | Reserve "Funding" Percentage required in 5 years |
| $ 264,938 | $ 4,415.63 | Additional Funding to Monthly Payment for 1st Five Years |

| Payment Number | Payment | Interest Expense | Principal Payment | Balance | Principal Payment | Year |
|---|---|---|---|---|---|---|
| | | | | $ 1,324,688.00 | | |
| 1 | $ 10,671.60 | $ 8,279.30 | $ 2,392.30 | 1,322,295.70 | | |
| 2 | $ 10,671.60 | 8,264.35 | 2,407.25 | 1,319,888.46 | | |
| 3 | $ 10,671.60 | 8,249.30 | 2,422.29 | 1,317,466.16 | | |
| 4 | $ 10,671.60 | 8,234.16 | 2,437.43 | 1,315,028.73 | | |
| 5 | $ 10,671.60 | 8,218.93 | 2,452.67 | 1,312,576.06 | | |
| 6 | $ 10,671.60 | 8,203.60 | 2,468.00 | 1,310,108.07 | | |
| 7 | $ 10,671.60 | 8,188.18 | 2,483.42 | 1,307,624.65 | | |
| 8 | $ 10,671.60 | 8,172.65 | 2,498.94 | 1,305,125.70 | | |
| 9 | $ 10,671.60 | 8,157.04 | 2,514.56 | 1,302,611.14 | | |
| 10 | $ 10,671.60 | 8,141.32 | 2,530.28 | 1,300,080.87 | | |
| 11 | $ 10,671.60 | 8,125.51 | 2,546.09 | 1,297,534.77 | | |
| 12 | $ 10,671.60 | 8,109.59 | 2,562.00 | 1,294,972.77 | $ 29,715.23 | Year 1 |
| 13 | $ 10,671.60 | 8,093.58 | 2,578.02 | 1,292,394.75 | | |
| 14 | $ 10,671.60 | 8,077.47 | 2,594.13 | 1,289,800.62 | | |
| 15 | $ 10,671.60 | 8,061.25 | 2,610.34 | 1,287,190.28 | | |
| 16 | $ 10,671.60 | 8,044.94 | 2,626.66 | 1,284,563.63 | | |
| 17 | $ 10,671.60 | 8,028.52 | 2,643.07 | 1,281,920.55 | | |
| 18 | $ 10,671.60 | 8,012.00 | 2,659.59 | 1,279,260.96 | | |
| 19 | $ 10,671.60 | 7,995.38 | 2,676.22 | 1,276,584.74 | | |
| 20 | $ 10,671.60 | 7,978.65 | 2,692.94 | 1,273,891.80 | | |
| 21 | $ 10,671.60 | 7,961.82 | 2,709.77 | 1,271,182.03 | | |
| 22 | $ 10,671.60 | 7,944.89 | 2,726.71 | 1,268,455.32 | | |
| 23 | $ 10,671.60 | 7,927.85 | 2,743.75 | 1,265,711.57 | | |
| 24 | $ 10,671.60 | 7,910.70 | 2,760.90 | 1,262,950.67 | $ 32,022.10 | Year 2 |
| 25 | $ 10,671.60 | 7,893.44 | 2,778.15 | 1,260,172.52 | | |
| 26 | $ 10,671.60 | 7,876.08 | 2,795.52 | 1,257,377.00 | | |
| 27 | $ 10,671.60 | 7,858.61 | 2,812.99 | 1,254,564.01 | | |
| 28 | $ 10,671.60 | 7,841.03 | 2,830.57 | 1,251,733.44 | | |
| 29 | $ 10,671.60 | 7,823.33 | 2,848.26 | 1,248,885.17 | | |
| 30 | $ 10,671.60 | 7,805.53 | 2,866.06 | 1,246,019.11 | | |

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Staff Proposed WIFA Loan At Staff's Assumed Interest Rate**

Exhibit No. AR-8
Witness: Kozoman

| Payment Number | | Payment | Interest Expense | Principal Payment | Balance | | Principal Payment | Year |
|---|---|---|---|---|---|---|---|---|
| 31 | $ | 10,671.60 | 7,787.62 | 2,883.98 | 1,243,135.13 | | | |
| 32 | $ | 10,671.60 | 7,769.59 | 2,902.00 | 1,240,233.13 | | | |
| 33 | $ | 10,671.60 | 7,751.46 | 2,920.14 | 1,237,312.99 | | | |
| 34 | $ | 10,671.60 | 7,733.21 | 2,938.39 | 1,234,374.60 | | | |
| 35 | $ | 10,671.60 | 7,714.84 | 2,956.76 | 1,231,417.85 | | | |
| 36 | $ | 10,671.60 | 7,696.36 | 2,975.23 | 1,228,442.61 | $ | 34,508.06 | Year 3 |
| 37 | $ | 10,671.60 | 7,677.77 | 2,993.83 | 1,225,448.78 | | | |
| 38 | $ | 10,671.60 | 7,659.05 | 3,012.54 | 1,222,436.24 | | | |
| 39 | $ | 10,671.60 | 7,640.23 | 3,031.37 | 1,219,404.87 | | | |
| 40 | $ | 10,671.60 | 7,621.28 | 3,050.32 | 1,216,354.55 | | | |
| 41 | $ | 10,671.60 | 7,602.22 | 3,069.38 | 1,213,285.17 | | | |
| 42 | $ | 10,671.60 | 7,583.03 | 3,088.56 | 1,210,196.61 | | | |
| 43 | $ | 10,671.60 | 7,563.73 | 3,107.87 | 1,207,088.74 | | | |
| 44 | $ | 10,671.60 | 7,544.30 | 3,127.29 | 1,203,961.45 | | | |
| 45 | $ | 10,671.60 | 7,524.76 | 3,146.84 | 1,200,814.61 | | | |
| 46 | $ | 10,671.60 | 7,505.09 | 3,166.51 | 1,197,648.11 | | | |
| 47 | $ | 10,671.60 | 7,485.30 | 3,186.30 | 1,194,461.81 | | | |
| 48 | $ | 10,671.60 | 7,465.39 | 3,206.21 | 1,191,255.60 | $ | 37,187.01 | Year 4 |
| 49 | $ | 10,671.60 | 7,445.35 | 3,226.25 | 1,188,029.35 | | | |
| 50 | $ | 10,671.60 | 7,425.18 | 3,246.41 | 1,184,782.94 | | | |
| 51 | $ | 10,671.60 | 7,404.89 | 3,266.70 | 1,181,516.24 | | | |
| 52 | $ | 10,671.60 | 7,384.48 | 3,287.12 | 1,178,229.12 | | | |
| 53 | $ | 10,671.60 | 7,363.93 | 3,307.66 | 1,174,921.45 | | | |
| 54 | $ | 10,671.60 | 7,343.26 | 3,328.34 | 1,171,593.12 | | | |
| 55 | $ | 10,671.60 | 7,322.46 | 3,349.14 | 1,168,243.98 | | | |
| 56 | $ | 10,671.60 | 7,301.52 | 3,370.07 | 1,164,873.91 | | | |
| 57 | $ | 10,671.60 | 7,280.46 | 3,391.13 | 1,161,482.77 | | | |
| 58 | $ | 10,671.60 | 7,259.27 | 3,412.33 | 1,158,070.44 | | | |
| 59 | $ | 10,671.60 | 7,237.94 | 3,433.66 | 1,154,636.79 | | | |
| 60 | $ | 10,671.60 | 7,216.48 | 3,455.12 | 1,151,181.67 | $ | 40,073.93 | Year 5 |
| 61 | $ | 10,671.60 | 7,194.89 | 3,476.71 | 1,147,704.96 | | | |
| 62 | $ | 10,671.60 | 7,173.16 | 3,498.44 | 1,144,206.52 | | | |
| 63 | $ | 10,671.60 | 7,151.29 | 3,520.31 | 1,140,686.21 | | | |
| 64 | $ | 10,671.60 | 7,129.29 | 3,542.31 | 1,137,143.91 | | | |
| 65 | $ | 10,671.60 | 7,107.15 | 3,564.45 | 1,133,579.46 | | | |
| 66 | $ | 10,671.60 | 7,084.87 | 3,586.72 | 1,129,992.73 | | | |
| 67 | $ | 10,671.60 | 7,062.45 | 3,609.14 | 1,126,383.59 | | | |
| 68 | $ | 10,671.60 | 7,039.90 | 3,631.70 | 1,122,751.89 | | | |
| 69 | $ | 10,671.60 | 7,017.20 | 3,654.40 | 1,119,097.50 | | | |
| 70 | $ | 10,671.60 | 6,994.36 | 3,677.24 | 1,115,420.26 | | | |
| 71 | $ | 10,671.60 | 6,971.38 | 3,700.22 | 1,111,720.04 | | | |
| 72 | $ | 10,671.60 | 6,948.25 | 3,723.35 | 1,107,996.69 | $ | 43,184.98 | Year 6 |

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Staff Proposed WIFA Loan At Staff's Assumed Interest Rate**

Exhibit No. AR-8
Witness: Kozoman

| Payment Number | | Payment | Interest Expense | Principal Payment | Balance | | Principal Payment | Year |
|---|---|---|---|---|---|---|---|---|
| 73 | $ | 10,671.60 | 6,924.98 | 3,746.62 | 1,104,250.08 | | | |
| 74 | $ | 10,671.60 | 6,901.56 | 3,770.03 | 1,100,480.04 | | | |
| 75 | $ | 10,671.60 | 6,878.00 | 3,793.60 | 1,096,686.45 | | | |
| 76 | $ | 10,671.60 | 6,854.29 | 3,817.31 | 1,092,869.14 | | | |
| 77 | $ | 10,671.60 | 6,830.43 | 3,841.16 | 1,089,027.98 | | | |
| 78 | $ | 10,671.60 | 6,806.42 | 3,865.17 | 1,085,162.80 | | | |
| 79 | $ | 10,671.60 | 6,782.27 | 3,889.33 | 1,081,273.48 | | | |
| 80 | $ | 10,671.60 | 6,757.96 | 3,913.64 | 1,077,359.84 | | | |
| 81 | $ | 10,671.60 | 6,733.50 | 3,938.10 | 1,073,421.74 | | | |
| 82 | $ | 10,671.60 | 6,708.89 | 3,962.71 | 1,069,459.03 | | | |
| 83 | $ | 10,671.60 | 6,684.12 | 3,987.48 | 1,065,471.55 | | | |
| 84 | $ | 10,671.60 | 6,659.20 | 4,012.40 | 1,061,459.15 | $ | 46,537.54 | Year 7 |
| 85 | $ | 10,671.60 | 6,634.12 | 4,037.48 | 1,057,421.68 | | | |
| 86 | $ | 10,671.60 | 6,608.89 | 4,062.71 | 1,053,358.97 | | | |
| 87 | $ | 10,671.60 | 6,583.49 | 4,088.10 | 1,049,270.86 | | | |
| 88 | $ | 10,671.60 | 6,557.94 | 4,113.65 | 1,045,157.21 | | | |
| 89 | $ | 10,671.60 | 6,532.23 | 4,139.36 | 1,041,017.85 | | | |
| 90 | $ | 10,671.60 | 6,506.36 | 4,165.23 | 1,036,852.61 | | | |
| 91 | $ | 10,671.60 | 6,480.33 | 4,191.27 | 1,032,661.34 | | | |
| 92 | $ | 10,671.60 | 6,454.13 | 4,217.46 | 1,028,443.88 | | | |
| 93 | $ | 10,671.60 | 6,427.77 | 4,243.82 | 1,024,200.06 | | | |
| 94 | $ | 10,671.60 | 6,401.25 | 4,270.35 | 1,019,929.71 | | | |
| 95 | $ | 10,671.60 | 6,374.56 | 4,297.04 | 1,015,632.68 | | | |
| 96 | $ | 10,671.60 | 6,347.70 | 4,323.89 | 1,011,308.79 | $ | 50,150.37 | Year 8 |
| 97 | $ | 10,671.60 | 6,320.68 | 4,350.92 | 1,006,957.87 | | | |
| 98 | $ | 10,671.60 | 6,293.49 | 4,378.11 | 1,002,579.76 | | | |
| 99 | $ | 10,671.60 | 6,266.12 | 4,405.47 | 998,174.29 | | | |
| 100 | $ | 10,671.60 | 6,238.59 | 4,433.01 | 993,741.28 | | | |
| 101 | $ | 10,671.60 | 6,210.88 | 4,460.71 | 989,280.57 | | | |
| 102 | $ | 10,671.60 | 6,183.00 | 4,488.59 | 984,791.97 | | | |
| 103 | $ | 10,671.60 | 6,154.95 | 4,516.65 | 980,275.33 | | | |
| 104 | $ | 10,671.60 | 6,126.72 | 4,544.88 | 975,730.45 | | | |
| 105 | $ | 10,671.60 | 6,098.32 | 4,573.28 | 971,157.17 | | | |
| 106 | $ | 10,671.60 | 6,069.73 | 4,601.86 | 966,555.31 | | | |
| 107 | $ | 10,671.60 | 6,040.97 | 4,630.63 | 961,924.68 | | | |
| 108 | $ | 10,671.60 | 6,012.03 | 4,659.57 | 957,265.11 | $ | 54,043.67 | Year 9 |
| 109 | $ | 10,671.60 | 5,982.91 | 4,688.69 | 952,576.42 | | | |
| 110 | $ | 10,671.60 | 5,953.60 | 4,717.99 | 947,858.43 | | | |
| 111 | $ | 10,671.60 | 5,924.12 | 4,747.48 | 943,110.95 | | | |
| 112 | $ | 10,671.60 | 5,894.44 | 4,777.15 | 938,333.80 | | | |
| 113 | $ | 10,671.60 | 5,864.59 | 4,807.01 | 933,526.79 | | | |
| 114 | $ | 10,671.60 | 5,834.54 | 4,837.05 | 928,689.73 | | | |
| 115 | $ | 10,671.60 | 5,804.31 | 4,867.29 | 923,822.45 | | | |
| 116 | $ | 10,671.60 | 5,773.89 | 4,897.71 | 918,924.74 | | | |

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Staff Proposed WIFA Loan At Staff's Assumed Interest Rate**

Exhibit No. AR-8
Witness: Kozoman

| Payment Number | | Payment | Interest Expense | Principal Payment | Balance | | Principal Payment | Year |
|---|---|---|---|---|---|---|---|---|
| 117 | $ | 10,671.60 | 5,743.28 | 4,928.32 | 913,996.42 | | | |
| 118 | $ | 10,671.60 | 5,712.48 | 4,959.12 | 909,037.30 | | | |
| 119 | $ | 10,671.60 | 5,681.48 | 4,990.11 | 904,047.19 | | | |
| 120 | $ | 10,671.60 | 5,650.29 | 5,021.30 | 899,025.89 | $ | 58,239.22 | Year 10 |
| 121 | $ | 10,671.60 | 5,618.91 | 5,052.68 | 893,973.21 | | | |
| 122 | $ | 10,671.60 | 5,587.33 | 5,084.26 | 888,888.94 | | | |
| 123 | $ | 10,671.60 | 5,555.56 | 5,116.04 | 883,772.90 | | | |
| 124 | $ | 10,671.60 | 5,523.58 | 5,148.02 | 878,624.89 | | | |
| 125 | $ | 10,671.60 | 5,491.41 | 5,180.19 | 873,444.69 | | | |
| 126 | $ | 10,671.60 | 5,459.03 | 5,212.57 | 868,232.13 | | | |
| 127 | $ | 10,671.60 | 5,426.45 | 5,245.15 | 862,986.98 | | | |
| 128 | $ | 10,671.60 | 5,393.67 | 5,277.93 | 857,709.05 | | | |
| 129 | $ | 10,671.60 | 5,360.68 | 5,310.91 | 852,398.14 | | | |
| 130 | $ | 10,671.60 | 5,327.49 | 5,344.11 | 847,054.03 | | | |
| 131 | $ | 10,671.60 | 5,294.09 | 5,377.51 | 841,676.52 | | | |
| 132 | $ | 10,671.60 | 5,260.48 | 5,411.12 | 836,265.40 | $ | 62,760.49 | Year 11 |
| 133 | $ | 10,671.60 | 5,226.66 | 5,444.94 | 830,820.47 | | | |
| 134 | $ | 10,671.60 | 5,192.63 | 5,478.97 | 825,341.50 | | | |
| 135 | $ | 10,671.60 | 5,158.38 | 5,513.21 | 819,828.29 | | | |
| 136 | $ | 10,671.60 | 5,123.93 | 5,547.67 | 814,280.62 | | | |
| 137 | $ | 10,671.60 | 5,089.25 | 5,582.34 | 808,698.27 | | | |
| 138 | $ | 10,671.60 | 5,054.36 | 5,617.23 | 803,081.04 | | | |
| 139 | $ | 10,671.60 | 5,019.26 | 5,652.34 | 797,428.70 | | | |
| 140 | $ | 10,671.60 | 4,983.93 | 5,687.67 | 791,741.04 | | | |
| 141 | $ | 10,671.60 | 4,948.38 | 5,723.21 | 786,017.82 | | | |
| 142 | $ | 10,671.60 | 4,912.61 | 5,758.98 | 780,258.84 | | | |
| 143 | $ | 10,671.60 | 4,876.62 | 5,794.98 | 774,463.86 | | | |
| 144 | $ | 10,671.60 | 4,840.40 | 5,831.20 | 768,632.66 | $ | 67,632.74 | Year 12 |
| 145 | $ | 10,671.60 | 4,803.95 | 5,867.64 | 762,765.02 | | | |
| 146 | $ | 10,671.60 | 4,767.28 | 5,904.32 | 756,860.70 | | | |
| 147 | $ | 10,671.60 | 4,730.38 | 5,941.22 | 750,919.49 | | | |
| 148 | $ | 10,671.60 | 4,693.25 | 5,978.35 | 744,941.14 | | | |
| 149 | $ | 10,671.60 | 4,655.88 | 6,015.71 | 738,925.42 | | | |
| 150 | $ | 10,671.60 | 4,618.28 | 6,053.31 | 732,872.11 | | | |
| 151 | $ | 10,671.60 | 4,580.45 | 6,091.15 | 726,780.96 | | | |
| 152 | $ | 10,671.60 | 4,542.38 | 6,129.22 | 720,651.75 | | | |
| 153 | $ | 10,671.60 | 4,504.07 | 6,167.52 | 714,484.23 | | | |
| 154 | $ | 10,671.60 | 4,465.53 | 6,206.07 | 708,278.16 | | | |
| 155 | $ | 10,671.60 | 4,426.74 | 6,244.86 | 702,033.30 | | | |
| 156 | $ | 10,671.60 | 4,387.71 | 6,283.89 | 695,749.41 | $ | 72,883.25 | Year 13 |
| 157 | $ | 10,671.60 | 4,348.43 | 6,323.16 | 689,426.25 | | | |
| 158 | $ | 10,671.60 | 4,308.91 | 6,362.68 | 683,063.56 | | | |
| 159 | $ | 10,671.60 | 4,269.15 | 6,402.45 | 676,661.12 | | | |

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Staff Proposed WIFA Loan At Staff's Assumed Interest Rate**

Exhibit No. AR-8
Witness: Kozoman

| Payment Number | | Payment | Interest Expense | Principal Payment | Balance | | Principal Payment | Year |
|---|---|---|---|---|---|---|---|---|
| 160 | $ | 10,671.60 | 4,229.13 | 6,442.46 | 670,218.65 | | | |
| 161 | $ | 10,671.60 | 4,188.87 | 6,482.73 | 663,735.92 | | | |
| 162 | $ | 10,671.60 | 4,148.35 | 6,523.25 | 657,212.67 | | | |
| 163 | $ | 10,671.60 | 4,107.58 | 6,564.02 | 650,648.66 | | | |
| 164 | $ | 10,671.60 | 4,066.55 | 6,605.04 | 644,043.61 | | | |
| 165 | $ | 10,671.60 | 4,025.27 | 6,646.32 | 637,397.29 | | | |
| 166 | $ | 10,671.60 | 3,983.73 | 6,687.86 | 630,709.43 | | | |
| 167 | $ | 10,671.60 | 3,941.93 | 6,729.66 | 623,979.77 | | | |
| 168 | $ | 10,671.60 | 3,899.87 | 6,771.72 | 617,208.04 | $ | 78,541.37 | Year 14 |
| 169 | $ | 10,671.60 | 3,857.55 | 6,814.05 | 610,394.00 | | | |
| 170 | $ | 10,671.60 | 3,814.96 | 6,856.63 | 603,537.36 | | | |
| 171 | $ | 10,671.60 | 3,772.11 | 6,899.49 | 596,637.87 | | | |
| 172 | $ | 10,671.60 | 3,728.99 | 6,942.61 | 589,695.27 | | | |
| 173 | $ | 10,671.60 | 3,685.60 | 6,986.00 | 582,709.26 | | | |
| 174 | $ | 10,671.60 | 3,641.93 | 7,029.66 | 575,679.60 | | | |
| 175 | $ | 10,671.60 | 3,598.00 | 7,073.60 | 568,606.00 | | | |
| 176 | $ | 10,671.60 | 3,553.79 | 7,117.81 | 561,488.19 | | | |
| 177 | $ | 10,671.60 | 3,509.30 | 7,162.30 | 554,325.90 | | | |
| 178 | $ | 10,671.60 | 3,464.54 | 7,207.06 | 547,118.84 | | | |
| 179 | $ | 10,671.60 | 3,419.49 | 7,252.10 | 539,866.73 | | | |
| 180 | $ | 10,671.60 | 3,374.17 | 7,297.43 | 532,569.31 | $ | 84,638.74 | Year 15 |
| 181 | $ | 10,671.60 | 3,328.56 | 7,343.04 | 525,226.27 | | | |
| 182 | $ | 10,671.60 | 3,282.66 | 7,388.93 | 517,837.33 | | | |
| 183 | $ | 10,671.60 | 3,236.48 | 7,435.11 | 510,402.22 | | | |
| 184 | $ | 10,671.60 | 3,190.01 | 7,481.58 | 502,920.64 | | | |
| 185 | $ | 10,671.60 | 3,143.25 | 7,528.34 | 495,392.30 | | | |
| 186 | $ | 10,671.60 | 3,096.20 | 7,575.39 | 487,816.90 | | | |
| 187 | $ | 10,671.60 | 3,048.86 | 7,622.74 | 480,194.16 | | | |
| 188 | $ | 10,671.60 | 3,001.21 | 7,670.38 | 472,523.78 | | | |
| 189 | $ | 10,671.60 | 2,953.27 | 7,718.32 | 464,805.46 | | | |
| 190 | $ | 10,671.60 | 2,905.03 | 7,766.56 | 457,038.89 | | | |
| 191 | $ | 10,671.60 | 2,856.49 | 7,815.10 | 449,223.79 | | | |
| 192 | $ | 10,671.60 | 2,807.65 | 7,863.95 | 441,359.84 | $ | 91,209.46 | Year 16 |
| 193 | $ | 10,671.60 | 2,758.50 | 7,913.10 | 433,446.75 | | | |
| 194 | $ | 10,671.60 | 2,709.04 | 7,962.55 | 425,484.19 | | | |
| 195 | $ | 10,671.60 | 2,659.28 | 8,012.32 | 417,471.87 | | | |
| 196 | $ | 10,671.60 | 2,609.20 | 8,062.40 | 409,409.47 | | | |
| 197 | $ | 10,671.60 | 2,558.81 | 8,112.79 | 401,296.69 | | | |
| 198 | $ | 10,671.60 | 2,508.10 | 8,163.49 | 393,133.19 | | | |
| 199 | $ | 10,671.60 | 2,457.08 | 8,214.51 | 384,918.68 | | | |
| 200 | $ | 10,671.60 | 2,405.74 | 8,265.85 | 376,652.83 | | | |
| 201 | $ | 10,671.60 | 2,354.08 | 8,317.52 | 368,335.31 | | | |
| 202 | $ | 10,671.60 | 2,302.10 | 8,369.50 | 359,965.81 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 203 | $ 10,671.60 | 2,249.79 | 8,421.81 | 351,544.00 | |

**Las Quinta Serenas Water Company**
**Test Year Ended 9/30/03**
**Staff Proposed WIFA Loan At Staff's Assumed Interest Rate**

Exhibit No. AR-8
Witness: Kozoman

| Payment Number | Payment | Interest Expense | Principal Payment | Balance | Principal Payment | Year |
|---|---|---|---|---|---|---|
| 204 | $ 10,671.60 | 2,197.15 | 8,474.45 | 343,069.55 | $ 98,290.29 | Year 17 |
| 205 | $ 10,671.60 | 2,144.18 | 8,527.41 | 334,542.14 | | |
| 206 | $ 10,671.60 | 2,090.89 | 8,580.71 | 325,961.43 | | |
| 207 | $ 10,671.60 | 2,037.26 | 8,634.34 | 317,327.10 | | |
| 208 | $ 10,671.60 | 1,983.29 | 8,688.30 | 308,638.79 | | |
| 209 | $ 10,671.60 | 1,928.99 | 8,742.60 | 299,896.19 | | |
| 210 | $ 10,671.60 | 1,874.35 | 8,797.25 | 291,098.94 | | |
| 211 | $ 10,671.60 | 1,819.37 | 8,852.23 | 282,246.72 | | |
| 212 | $ 10,671.60 | 1,764.04 | 8,907.55 | 273,339.16 | | |
| 213 | $ 10,671.60 | 1,708.37 | 8,963.23 | 264,375.94 | | |
| 214 | $ 10,671.60 | 1,652.35 | 9,019.25 | 255,356.69 | | |
| 215 | $ 10,671.60 | 1,595.98 | 9,075.62 | 246,281.07 | | |
| 216 | $ 10,671.60 | 1,539.26 | 9,132.34 | 237,148.73 | $ 105,920.82 | Year 18 |
| 217 | $ 10,671.60 | 1,482.18 | 9,189.42 | 227,959.32 | | |
| 218 | $ 10,671.60 | 1,424.75 | 9,246.85 | 218,712.47 | | |
| 219 | $ 10,671.60 | 1,366.95 | 9,304.64 | 209,407.82 | | |
| 220 | $ 10,671.60 | 1,308.80 | 9,362.80 | 200,045.02 | | |
| 221 | $ 10,671.60 | 1,250.28 | 9,421.31 | 190,623.71 | | |
| 222 | $ 10,671.60 | 1,191.40 | 9,480.20 | 181,143.51 | | |
| 223 | $ 10,671.60 | 1,132.15 | 9,539.45 | 171,604.06 | | |
| 224 | $ 10,671.60 | 1,072.53 | 9,599.07 | 162,004.99 | | |
| 225 | $ 10,671.60 | 1,012.53 | 9,659.07 | 152,345.93 | | |
| 226 | $ 10,671.60 | 952.16 | 9,719.43 | 142,626.49 | | |
| 227 | $ 10,671.60 | 891.42 | 9,780.18 | 132,846.31 | | |
| 228 | $ 10,671.60 | 830.29 | 9,841.31 | 123,005.00 | $ 114,143.73 | Year 19 |
| 229 | $ 10,671.60 | 768.78 | 9,902.82 | 113,102.19 | | |
| 230 | $ 10,671.60 | 706.89 | 9,964.71 | 103,137.48 | | |
| 231 | $ 10,671.60 | 644.61 | 10,026.99 | 93,110.49 | | |
| 232 | $ 10,671.60 | 581.94 | 10,089.66 | 83,020.84 | | |
| 233 | $ 10,671.60 | 518.88 | 10,152.72 | 72,868.12 | | |
| 234 | $ 10,671.60 | 455.43 | 10,216.17 | 62,651.95 | | |
| 235 | $ 10,671.60 | 391.57 | 10,280.02 | 52,371.93 | | |
| 236 | $ 10,671.60 | 327.32 | 10,344.27 | 42,027.66 | | |
| 237 | $ 10,671.60 | 262.67 | 10,408.92 | 31,618.73 | | |
| 238 | $ 10,671.60 | 197.62 | 10,473.98 | 21,144.75 | | |
| 239 | $ 10,671.60 | 132.15 | 10,539.44 | 10,605.31 | | |
| 240 | $ 10,671.60 | 66.28 | 10,605.31 | $ 0 | $ 123,005.00 | Year 20 |

**WIFA Loan**

Actual Total Dollars Paid on Loan Over 20 Years

| Total | Interest | Principal |
|---|---|---|

| Payments | Expense | Payment |
|---|---|---|
| $ 2,561,183 | $ 1,236,495 | $ 1,324,688 |

$ 2,561,183 Total Paid Out for Loan For WIFA Loan

***Las Quintas Serenas Water Company***

***Docket Nos. W-01583A-04-0178, W-01583A-05-0326 and W-01583A-05-0340***

**Applicant's**
**Exhibit AR-9**

**Las Quinta Sernas Water Company**
Test Year Ended 9/30/03
Latest Cost for Arsenic Treatment Equipment

Exhibit AR-9
Witness: Kozoman

| Line No. | | | | |
|---|---|---|---|---|
| 1 | Total Payments 1st Year on Loan of $1,650,000 | $ 240,229 | (Payments on $1,650,000 loan, at 8%, 1st year) |
| 2 | Additional Debt of **$ 239,168** = ($ 1,889,168 - 1,650,000) | 34,821 | (Payments on $239,168 loan, at 8%, 1st year) |
| 3 | | $ 275,050 | Total Payments |
| 4 | Total of Principal Payments on the Loan for $1,650,000 | $ 112,287 | |
| 5 | Total of Principal Payments on the Loan for $239,168 at 8.00% | 16,276 | |
| 6 | Total Principal Paid | $ 128,563 | Total Increased Taxable Income |
| 7 | Gross-up for Income Tax Purposes | 50.84% | (Gross-up Tax rate with Staff's Prior Income + Principal Payments) |
| 8 | Total Gross Up Tax | 65,363 | |
| 9 | Total Payments + Income Tax Gross-up on Principal Paid | 340,413 | (Lines 3 + 8) |
| 10 | Equivalent Customers (Annual Basis) | 12,324 | |
| 11 | Divide by Equivalent Customers | | |
| 12 | Monthly Customer Charge for Equivalent 5/8-Inch Meter | **$ 27.62** | |
| 13 | | | |
| 14 | | | |
| 15 | | | |
| 16 | | | |

| 17–22 Meter Size | Test Year Customers at 9/30/2003 | ACC Equivalent 5/8-Inch Conversion Factor | Equivalent Monthly 5/8-Inch Meters | Equivalent Annual 5/8-Inch Meters Times 12 Months | Monthly Minimum Present Rates | Proposed Surcharge | Proposed Monthly Minimum | Percent Change |
|---|---|---|---|---|---|---|---|---|
| 23 5/8 x 3/4-inch Meter | 700 | 1 | 700 | 8,400 | $ 10.00 | **$ 27.62** | $ 37.62 | 136.20% |
| 24 3/4-Inch Meter | | 1.5 | 0 | - | 22.50 | 41.43 | $ 63.93 | 154.30% |
| 25 1-Inch Meter | 36 | 2.5 | 90 | 1,080 | 25.00 | 69.05 | $ 94.05 | 136.20% |
| 26 1 1/2-Inch Meter | 6 | 5 | 30 | 360 | 55.00 | 138.11 | $ 193.11 | 139.82% |
| 27 2-Inch Meter | 4 | 8 | 32 | 384 | 70.00 | 220.98 | $ 290.98 | 131.68% |
| 28 3-Inch Meter | | 16 | 0 | - | 125.00 | 441.95 | $ 566.95 | 128.28% |
| 29 4-Inch Meter | 1 | 25 | 25 | 300 | 225.00 | 690.55 | $ 915.55 | 132.58% |
| 30 6-Inch Meter | | 50 | 0 | - | 350.00 | 1,381.10 | $ 1,731.10 | 125.34% |
| 31 Standpipe | 150 | 1 | 150 | 1,800 | 10.10 | 27.62 | $ 37.72 | 136.57% |
| 32 Totals | 897 | | 1,027 | 12,324 | | | | |
| 33 | | | | | | | | |