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July 21, 2005

Hand-Delivered

Ms. Blessing Chukwu
Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

RE: Palo Verde Utilities' Company, L.L.C./Santa Cruz Water Company, L.L.C.
Docket Nos. SW-03575A-05-0307/Docket No. W-03576A-05-0307

Dear Ms. Chukwu:

Enclosed is the information that you requested in your May 24, 2005 letter to Palo Verde Utilities Company, L.L.C. and Santa Cruz Water Company, L.L.C. in the above-captioned dockets. We are providing specific responses to the individual requests along with supporting attachments. Many of the attachments are oversized or voluminous so we are not filing the attachments with Docket Control. The documents enclosed in connection with the specific responses are:

- Exhibit A: Preliminary Clear Creek Report
- Exhibit B: Map of Requested Service Territory
- Exhibit C: Map of Wells
- Exhibit D: Water Treatment Plant Preliminary Design Plans
- Exhibit E: Section 208 Water Quality Management Plan Amendment
- Exhibit F: Letter of Support – City of Maricopa
- Exhibit G: Water Reclamation Facility
 - Phase I: 1.0 MGD
 - Phase II: 3.0 MGD
- Exhibit H: Proposed AzPDES Discharge Locations

ROSHKA HEYMAN & DEWULF

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Exhibit I: Start Up Plan for Treatment Plant
Exhibit J: Construction Schedule

Please contact me if you have any questions.

Sincerely,



Michael W. Patten

MWP:mi
Enclosures

cc: Dorothy Hains, Utilities Division (with all enclosures)

Original and 15 copies
(without voluminous/oversized
enclosures) filed this 21st day of July, 2005
with Docket Control

Response to Insufficiency Letter

Palo Verde Utilities Company, LLC and Santa Cruz Water Company, LLC

Applications for Extensions of its Certificate of Convenience and Necessity (CC&N)

Docket No. SW-03575A-05-0307 and W-03576A-05-0307

Please find below and in the attachments responses to the Insufficiency Letter dated 24 May 2005:

1. Please provide a copy of the Arizona Department of Water Resources ("ADWR") Designation of Assured Water Supply or Certificate of Assured Water Supply for the CC&N area requested. If none of these are available, please provide a copy of the ADWR's Physical Availability Demonstration. If a determination of Assured Water Supply has not been obtained from ADWR, please inform Utilities Division Staff ("Staff") of the application for that determination.

Response:

Santa Cruz Water Company (SCWC) intends on extending its current Designation of Assured Water Supply (DAWS) on completion of the well-site evaluation and completion of the hydrogeologic review. SCWC expects that this application will be submitted by 31 August 2005.

At present, SCWC's DAWS is undergoing amendment to include the properties of the Eastern Expansion Area (Decision 67830, 3 May 2005) which has included the increase of the Physical Availability Demonstration (PAD) from 9,305 ac-ft/year to 20,768 ac-ft/year, with a current, committed and projected demand of 11,236 ac-ft/year. While not specifically related to the South West service extension area being sought in this docket¹, it does provide an indicator of the volume of water available. SCWC will be applying for an extension of the DAWS for the South West extension area which will include an increased PAD and an increased AWS.

The Company requires that all Irrigation Grandfathered Rights (IGR) be transferred from the land-owner to SCWC as a condition of the provision of service. These IGRs are extinguished in favor of the SCWC designation. In conjunction with the service area right (56-001355.0000) SCWC believes that there will be ample water physically, legally and continuously available to serve the extension area under consideration.

¹ The proposed extension area in this docket is located southwest of SCWC's and Palo Verde Utilities Company's current CC&N. That extension area will be referred to in these responses as the "South West service extension area" in these responses.

2. Please provide a listing or table of all the existing and future sources of water that the Company plans to utilize in serving the proposed extension area. In the listing or table, please include the ADWR Well Identification number and a description of the water quality of the well. Please be sure to include the irrigation wells that will eventually be converted to drinking water well standards. Also, please be sure to include the nitrate, arsenic and fluoride concentrations.

Response:

SCWC is continuing to evaluate irrigation wells in the area for their suitability for conversion to potable water wells. Clear Creek & Associates has been contracted to execute SCWC's three phase evaluation of all the wells in the area. This includes the following activities:

1. Review of ADWR/ADEQ records for available wells plus a physical site survey;
2. Testing of wells for suitability for inclusion in the potable inventory (video surveys, laboratory analytical work etc); and
3. Development of design specifications for conversion activities (re-screening, re-casing, sanitary seal etc).

A preliminary report is included at Exhibit A.

SCWC will forward data received from Phases 1 and 2 as it becomes available. As with all former irrigation wells, we expect that they are perforated throughout the entire interval, and as such will be subject to downflow migration of nitrate and varying concentrations of arsenic and fluoride. The re-habilitation process will allow for significant reductions in these constituents.

Initial indications are there are wells with low arsenic but relatively high nitrate. This condition is ideal in that the high nitrate layers in the aquifer can be positively sealed to preclude the downward flow of water.

3. Please provide a map of the requested service territory with an identification of the respective property owners requesting service.

Response:

Please see Exhibit B.

4. Please provide a map showing all irrigation wells mentioned in Exhibit 5 of the Application.

Response:

Please see Exhibit C.

5. Please provide any other information which will allow the Commission to analyze and conclude that the Company has sufficient water production capacity, or can develop enough drinking water capacity to service the existing and future demands from the proposed CC&N extension area.

Response:

From a water perspective, there are ample resources in the area. As a former agricultural area, much of the land in the proposed CC&N extension area is encumbered with IGRs, which will provide sufficient water rights to the Company to serve water. In addition, the availability of wet-water is such that the production of the necessary quantity of water is not in question (the conversion of land from an agricultural use to residential consumption represents a three to four fold reduction in the volume of water consumed.)

As with all ground-water-based systems, there is the variable of water quality. Nitrate, arsenic and fluoride are expected to be discovered in varying concentrations as the evaluation of the water supplies is finalized. SCWC maintains the following strategies with respect to water quality:

1. Identify and rehabilitate high quality wells in the service area. Clearly this represents the least costly (from a capital and operations point of view) option for the Company.
2. Develop blending mechanisms and control strategies to blend high quality water with water that is of poorer quality to ensure compliance with the Safe Drinking Water Act.
3. Re-screen, deepen or otherwise modify existing wells to isolate areas of high concentrations or access higher quality water.
4. Provide slipstream treatment processes which in conjunction with an effective blending plan will meet the requirements.
5. Provide full scale treatment of groundwater.
6. Provide a surface water treatment option (CAP water is available via the Maricopa-Stanfield Irrigation and Drainage District (MSIDD) canal system which passes many areas in the extension area).

The Company remains confident that the water needs of the extension area may be met without treatment. The Company is, however, prepared to install, operate and maintain any treatment processes that may be required.

6. Please provide a set of design plans for the proposed water facilities. The plan should include the proposed water source, distribution facilities and show the site map of the proposed water treatment plant. If the final design plans are not available, provide preliminary plans.

Response:

SCWC has entered into a Design-Build contract with Archer-Western to provide water treatment facilities at Rancho Mirage (a result of the eastern area extension approved by the Commission in May 2005), and in the South West extension area. The treatment facility is contracted to be on-line in June 2006. SCWC will provide design plans to the Commission as they become available.

The proposed water facilities are modeled on the existing SCWC water treatment site located on Smith-Enke Road. The plan includes storage, chlorination, VFD-controlled booster pumps, and fire-flow capability, and is designed to be expanded as the service area development builds out.

A copy of the plans for the Smith-Enke Plant are included as Exhibit D.

SCWC requires that each section of land provide a 2 acre site for the provision of a water distribution/treatment site. While the final location of the first plant has not been finalized for the extension area, a map showing the proposed locations is included as part of Exhibit J.

7. Please provide an estimate of the water facilities costs necessary to serve the proposed CC&N Extension area. The costs should include a description of the major components with the cost of the component (i.e. wells, number and size of storage tanks, etc). The method of financing for the major components should be described in as much detail as possible.

Response:

The design-build contract for the provision of the water facilities will include the necessary in-plant supply lines, chlorination, tankage (minimum 4.5 Million Gal), booster systems (13,000 to 15,000 GPM), control and emergency power systems etc. The final cost for these facilities has yet to be determined. Well rehabilitation costs are in the order of \$150,000 per well (depending on the work necessary).

All of the infrastructure improvements necessary to provide water service to the proposed extension area will be financed by equity from the parent company of SCWC, Global Water Resources, LLC. SCWC contracts with the owners of the land to provide water to the section line and as such will supply a backbone distribution network to supply this water. All in-parcel distribution systems and service lines, will be installed by the developers as an advance-in-aid-of-construction, and will be subject to re-imburement under the terms of the line extension agreements.

8. All wells listed in the Application are concentrated in the intersection of Sections 17, 18, and 20. Santa Cruz has to extend at least 6 miles to the west, 3 miles to the east and 6 miles to the south to serve the entire requested area. In some places, Santa Cruz has to cross State land, please provide evidence of the Arizona State Land Department's approval or a discussion of when the Company expects to obtain such approval.

Response:

The wells listed and shown in the Application are those wells thought to provide water in sufficient quantity and quality to serve the extension area. There are ongoing field tests of the wells to confirm their suitability for the production of potable water. Additional wells are also under evaluation (see Exhibit A).

Allowing for a clustering of wells provides the opportunity to centralize treatment and distribution facilities, with a minimum of raw water piping.

With respect to the extension of distribution lines, in 1915, the Pinal County Board of Supervisors established 33 foot wide prescriptive easements along each section line within Pinal County. Effectively, this established a 66 foot wide road easement along each section line (33 feet on either side of the section line).

These easements have been employed by all utility providers for the installation of utilities. The map included in Exhibit J shows that all of the properties in the proposed extension area may be serviced without requiring access to State land parcels, by employing these prescriptive easements. There is no requirement for SCWC to obtain State approval as no planned infrastructure crosses State land.

9. Please provide a copy of the approved Central Arizona Association of Governments ("CAAG") Section 208 Plan which includes the proposed extension area. If the Section 208 Plan has not been issued, please inform Staff of the status of the application for the Section 208 Plan.

Response:

Palo Verde Utilities Company (PVUC) submitted a Section 208 Water Quality Management Plan amendment to CAAG on 6 June 2005. A copy is included as Exhibit E.

10. Please provide a copy of the Arizona Department of Environmental Quality's Aquifer Protection Permit for the wastewater treatment plant that would service the extension area. If that permit has not been issued, please inform Staff of the status of the application for that permit.

Response:

PVUC has not yet submitted its application for an Aquifer Protection Permit (APP) for the proposed facility to service the extension area. From a permitting perspective, ADEQ requires consistency with the Section 208 Plan and as a result the Section 208 Plan Amendment is the priority application.

The technology selected is identical to the PVUC water reclamation facility employed in the northern service area (APP 105228) and as a result, PVUC expects the review process to be minimized by ADEQ. On completion of the design report by the design-builder (AquaTec), the APP application will be filed. It is anticipated that this application will be submitted in August 2005.

11. Please provide a copy of the City of Maricopa franchise agreement that includes the proposed extension area. If the proposed extension area is outside the corporate limits of the City of Maricopa, please provide a copy of the Pinal County franchise agreement that includes the proposed extension area. If the franchise agreement(s) has not been issued, please inform staff of the status of the application for the franchise agreement.

Response:

The proposed extension area is not presently within the jurisdictional boundary of the City of Maricopa. It is, however, within the planning area for the City. A copy of a letter of support from the City is supplied as Exhibit F. Until the City of Maricopa annexes the extension area, SCWC and PVUC will need to obtain a Pinal County franchise. They intend to submit an application for the franchise by September 2005.

12. Please provide a copy of the Arizona Department of Environmental Quality's Approval to Construct the water facilities to serve the proposed extension area. If the Approval to Construct has not been issued, please inform Staff of the status of the application for the Approval to Construct.

Response:

Application for Approval to Construct will be submitted on completion of the design report currently under development by the design-builder Archer Western.

13. Please provide a set of design plans for the proposed wastewater facilities. The plan should include the proposed wastewater treatment plant, sewer collection facilities and show the site map of the proposed wastewater treatment plant, lift stations, etc. If final design plans are not available, please provide preliminary plans.

Response:

The wastewater facility will be located on a 32 acre site in section 17 of Township 5S and Range 3E. This facility will house the treatment process, main lift station, reclaimed water distribution pressure station and any other auxiliary equipment necessary for the production and delivery of A+ effluent.

The initial 1.0 MGD facility will replicate the existing PVUC plant in the northern area, and will grow to replicate the 9.0 MGD facility under permitting at ADEQ at present.

Enclosed at Exhibit G are the plans for the 1.0 MGD facility and the expansion to 3.0 MGD. The expansion to 9.0 MGD will employ a replication of the initial two phases.

14. Please provide a copy of the effluent disposal plans with a map showing its NPDES discharge point location. If final design plans are not available, please provide preliminary plans. Affirm or deny that if the discharge point for the extension area is the same as the existing NPDES discharge point, the Company will need to install at least a 9 mile long treated effluent pipeline. Please explain.

Response:

Global Water Resources requires that all developments maximize the use of reclaimed water throughout their development areas. This includes the use of reclaimed water as the primary source of irrigation water, and for use in any recreational impoundments. To address the seasonality of demand for reclaimed water, PVUC is providing both a recharge activity under the APP (which will allow for recovery of stored water in high demand time periods) and will provide a distributed network of AzPDES discharge locations. This distribution of discharge points will minimize local impacts of water in the washes, and will allow for a more rapid infiltration and evaporation of water. In addition, PVUC is evaluating the beneficial re-use of reclaimed water in the MSIDD irrigation system, and as such has proposed an AzPDES discharge point at the MSIDD canals.

A map showing the proposed AzPDES discharge locations is shown as Exhibit H.

The proposed extension area WILL NOT employ the same discharge point as the northern service area, and as such there is no need for a reclaimed water line to the north. PVUC will install the necessary reclaimed water system to the proposed extension area delivery points (development reclaimed water integrated irrigation impoundments) and to the AzPDES points noted in Exhibit H.

PVUC is preparing the AzPDES permit application and intends to submit the application to ADEQ in August 2005.

15. According to the Application (see Exhibit 5), Palo Verde Utilities will haul the wastewater to the existing treatment plant, when the wastewater flow is below 30,000 gallons per day ("gpd"). Therefore it implies that there will be a raw sewage holding tanks(s) located somewhere in the requested area. Please provide (1) the size of the tank(s); (2) the tank location(s); (3) a copy of ADEQ and Pinal County approval of this concept; (4) how often the company will haul the wastewater; (5) the estimated cost of this hauling operation; (6) how the company plans to handle odor control, and (7) how the Company plant to prevent raw sewage spills during transfer and transport of the raw sewage.

Response:

As the design of the facilities has progressed, the start up plan has been refined. It has been determined that the initial facility can be configured to treat wastewater in flows as low as 5,000 gpd by employing the aerobic sludge digesters (ASDs) as bioreactors. A detailed start up plan is included as Exhibit I.

In specific response to Question 15:

- (1) The main influent lift station will be constructed first, to serve as the vault and haul location. No dedicated raw sewage tanks will be constructed in the collection system. In areas that develop before the construction of the main influent lift station, the pump and haul operations to 5,000 gpd will be accomplished by using the collection system as the holding volume.
- (2) The main influent lift station is located at the water reclamation facility site. No tanks will be installed in the collection system.
- (3) The vault and haul start-up option will be included in the site's APP.
- (4) Hauling frequency will be dependent on the absorption rate of the development. Once the development reaches 30 homes (approximately 5,000 gpd) the treatment facility will be started. A minimum hauling frequency will be developed based on flows.
- (5) The cost is dependent on the flows. The cost is expected to be \$20 per home per week. In this case, 30 homes would require the expenditure of \$600 per week. At this point, however, the permanent facility would be started in accordance with the Start-Up Plan at Exhibit I.
- (6) The main influent lift station is fitted with a biofilter odor control system;
- (7) Raw sewage handling will be the responsibility of the hauler, and best-management practices will be employed throughout (washdown and chlorination of any *de minimus* spills). Any large spills (greater than 100 gallons) will be reported as Unauthorized Discharges to ADEQ.

16. Please provide an estimate of the wastewater facilities costs necessary to serve the proposed CC&N Extension area. The costs should include a description of the major components with the cost of each component (i.e. lift stations, treatment facilities, lineal feet of off-site sewage interceptors and collection mains, lineal feet of on-site collection mains, etc). The method of financing for the major components should be described in as much detail as possible.

Response:

The treatment facilities costs are being refined at this point. On completion of the contracting for the facility phasing, these costs will be known. The costs are expected to be in the order of \$5.50 per gallon. The initial treatment phase will be 1.0 MGD, and so the treatment costs are anticipated to be \$5.5 Million. The influent lift station is expected to cost in the order of \$0.5 Million.

PVUC expects to install approximately 35 to 40 miles of sewer backbone infrastructure and approximately 15 to 20 miles of reclaimed water infrastructure. PVUC estimates a cost of \$1,250/EDU to provide water service to an area and include the cost of sewer and reclaimed water lines.

All of the infrastructure improvements necessary to provide water service to the proposed extension area will be financed by equity from the parent company of PVUC, Global Water Resources, LLC. PVUC contracts with the owners of the land to provide water to the section line and as such will supply a backbone collection system and reclaimed water distribution network to supply collect wastewater and deliver reclaimed water. All in-parcel collection systems and service lines, will be installed by the developers as an advance-in-aid-of-construction, and will be subject to re-imbursement under the terms of the line extension agreements.

17. Please provide a copy of the construction schedule.

Response:

Please see Exhibit J for the expected construction schedule. This schedule is subject to change, as market forces will determine when and where infrastructure needs to be in place.