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BEFORE THE ARIZONA CORPORATION COMMISSION

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ARIZONA CORPORATION COMMISSION  
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Arizona Corporation Commission  
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MAY 16 2008

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IN THE MATTER OF THE APPLICATION OF  
WATER UTILITY OF GREATER BUCKEYE,  
INC. FOR AN EXTENSION OF ITS EXISTING  
CERTIFICATE OF CONVENIENCE AND  
NECESSITY.

) DOCKET NO. W-02451A-06-0792

) **NOTICE OF FILING**  
) **COMPLIANCE**

Decision No. 70182 (February 27, 2008) requires Water Utility of Greater Buckeye (WUGB) to file the Approval of Construction ("AOC") issued by the Maricopa County Environmental Services Department for the arsenic treatment system for the Sonoran Ridge Water System within six months of the Decision. Under Decision No. 70183 (February 27, 2008), WUGB's assets have been transferred to Valencia Water Company, Inc. ("Valencia"). Accordingly, Valencia, as the successor to WUGB, files the attached AOC for the arsenic treatment system for the Sonoran Ridge Water System.

RESPECTFULLY SUBMITTED this 16<sup>th</sup> day of May, 2008.

ROSHKA, DEWULF & PATTEN, PLC

By Timothy J. Sabo  
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1 Original and 13 copies of the foregoing  
2 filed this 16<sup>th</sup> day of May 2008 with:

3 Docket Control  
4 Arizona Corporation Commission  
5 1200 West Washington Street  
6 Phoenix, Arizona 85007

7 Copy of the foregoing hand-delivered/mailed  
8 this 16<sup>th</sup> day of May, 2008 to:

9 Lyn A. Farmer, Esq.  
10 Chief Administrative Law Judge  
11 Hearing Division  
12 Arizona Corporation Commission  
13 1200 West Washington Street  
14 Phoenix, Arizona 85007

15 Christopher C. Kempsey, Esq.  
16 Chief Counsel, Legal Division  
17 Arizona Corporation Commission  
18 1200 West Washington Street  
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20 Ernest G. Johnson, Esq.  
21 Director, Utilities Division  
22 Arizona Corporation Commission  
23 1200 West Washington Street  
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25 Brian Bozzo  
26 Compliance Manager, Utilities Division  
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1200 West Washington Street  
Phoenix, AZ 85007

28 By *Debra Amador*



# Maricopa County

Environmental Services

Water and Waste Management Division

1001 N. Central Ave., Suite 150  
Phoenix, AZ 85004  
Phone: (602) 506-6666  
Fax: (602) 506-6925  
TDD: 602 506 6704  
www.maricopa.gov/envsvc

DATE: February 22, 2008  
OWNER: Water Utility of Greater Buckeye (WUGB)

MCESD Project #: 20111538  
SYSTEM ID #: 04-07-732

## CERTIFICATE OF APPROVAL OF CONSTRUCTION WITH STIPULATIONS

**PROJECT DESCRIPTION:** WUGB, Sonoran Ridge Wellhead Arsenic Removal System (ARS). The project includes construction of a water treatment system to remove total arsenic from extracted groundwater from a 150 gallon per minute (GPM) well. The project will remove arsenic from the well water to comply with the current 10 micrograms per liter ( $\mu\text{g/l}$ ) maximum contaminate limitation (MCL) for total arsenic. The ARS includes: two pre-treatment 20-micron pleated disposable cartridge filters with cyclone capabilities that are controlled by programmable logic control (PLC) and dual solenoid hydraulically-actuated diaphragm valves; two four-ft diameter carbon steel ARS pressure vessels that normally operate in series and are manufactured and certified to American Society of Mechanical Engineers (ASME) code. Maximum operating pressure of the ARS vessels is 100 pounds per square inch-gauge (PSIG). The vessels contain ArsenX<sup>DP</sup> adsorptive media and treat 78.3 GPM of the 150 GPM maximum well production rate. ARS influent pH is reduced from 8.2 to 7.0 utilizing a carbon dioxide injection system interlocked with a pH transmitter at the ARS inlet and with a pH transmitter at the finished water. The treated water combines with 71.7 GPM of untreated water to produce blended water with less than or equal to 8  $\mu\text{g/l}$  total arsenic concentration. Flow meters are provided to measure both the ARS flow and bypassed flow.

Water used to condition the media and to flush excess chlorine residual from the ARS during disinfection shall be disposed of in accordance with Arizona Administrative Code (AAC) Title 18, Chapter 9 and Maricopa County Environmental Health Code (MCEHC) Chapter II. ARS disinfection and chlorine residual in finished water shall be conducted in accordance with Purolite's (the media manufacturer's) procedures as presented in the appendices of the September 2007 Design Report by Conestoga-Rovers & Associates (CRA) and in accordance with Arizona Department of Environmental Quality (ADEQ) August 1978, "Disinfection of Water Systems", ADEQ Bulletin #8.

**LOCATION:**  
Buckeye, Maricopa County  
8401 N. 192<sup>nd</sup> Av  
Buckeye, AZ 85326  
T3N, R2W, Sec 33

**PROJECT OWNER:**  
Attn: Jason Bethke, P.E.  
Water Utility of Greater Buckeye  
21410 N. 19<sup>th</sup> Av., Suite 201  
Phoenix, AZ 85027-2758

**Well:**  
ADWR #55-572657  
Well capacity = 150 GPM  
Arsenic concentration = 12  $\mu\text{g/l}$

**Blend:**  
Arsenic  $\leq$  8  $\mu\text{g/l}$

Pursuant to AAC Title 18, Chapters 4 and 9 and MCEHC Chapters II and V, this final Certificate of Approval of Construction (AOC) for the above-described facilities as represented in the approved plan documents on file with the Maricopa County Environmental Services Department (MCESD and the Department) is hereby given subject to the following provisions:



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1. This certificate is being issued based on submission of: an application for AOC by the Global Water- Water Utility of Greater Buckeye (the Owner) dated 02/20/2008; an Engineer's Certificate of Completion (COC) executed by Debra McGrew, P.E. (PE #13909) dated 02/19/2008; validation and commissioning data submitted by the Owner; As-Built Drawings stamped and signed by Prashant Kumar, P.E. (PE #46527) dated 02/13/2008; and a final Operation and Maintenance (O&M) Manual stamped and signed by Prashant Kumar, P.E. (PE #46527) dated 02/22/2008.
2. Any change in the approved design that may affect treatment capacity, water quality, flow, location or operational performance, either in whole or in part, shall receive Department approval prior to the change being implemented.
3. This approval is void if major modifications occur to this facility or system without the knowledge and consent of the Department.
4. Failure to comply with all conditions of this certificate may result in forfeiture and cancellation of this permit and may require the treatment facility to be immediately taken out of service.
5. This AOC is based on the following conditions:
  - No other sources shall be connected to the facility or be blended with the treated water without Department approval.
  - All hand-operated valves that are capable of throttling flow through the facility shall be locked into position, have their handles removed, or shall have position (limit) switches installed to reduce the possibility of tampering. Limit switches were installed for this project.
  - Raw water shall only be allowed to bypass treatment in conformance with the approved blending strategy.
  - Well production shall be restricted and the amount of water bypassing the ARS shall be reduced whenever the treated arsenic level is greater than one  $\mu\text{g/l}$  at the ARS effluent.
  - No other types or formulas of new or regenerated media shall be installed in the vessels without Department approval.
  - ARS vessels shall be operated in series only. Parallel operation requires prior written approval of the Department.
  - Post ARS chlorination shall be maintained at all times and a chlorine residual maintained in stored water for distribution in accordance with ADEQ Bulletin #8.
6. The treatment plant shall be operated and maintained in accordance with the procedures outlined in the approved O&M Manual.
7. The Owner shall take action as follows whenever total arsenic breakthrough is experienced in the lead vessel: Replace the media of the lead ARS vessel with **new ArsenX<sup>NP</sup>** when 90% of the total arsenic influent concentration is encountered in the effluent of the lead vessel. Place the previous lag (polishing) vessel as the lead vessel once the media replacement is completed, and the fresh shall become the lag vessel.
8. The Owner shall send the Department a report whenever there is a media change-out, vessel reconfiguration, or other process change. Provide the reasons for the change and relevant data that support the decision such as laboratory test results and the number of bed volumes treated by each vessel. Submit the reports to the Department on approved forms within 10 days of the process change.
9. A Grade 2 water treatment operator (the Operator), certified by ADEQ, shall be in direct responsible charge of this facility. Shift foremen or other operators in charge of the facility in



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absence of the Operator shall be certified at a grade no lower than one grade below the grade of the facility. Daily operations of this facility shall be remotely monitored using a Supervisory Control and Data Acquisition (SCADA) system with a minimum of one visit per week to this facility by the responsible operator.

10. The water treatment facility shall meet all applicable sampling and reporting requirements under the Safe Drinking Water Act Rule, Title 18, Chapter 4 of the ACC, and subsequent amendments.
11. The Owner shall provide a monthly report to the Department's Drinking Water Program of ARS operating conditions. Submit the reports to the Drinking Water Program on approved forms within 10 days of the end of the month. Include in the report:
  - A copy of the laboratory results performed during the month for process monitoring or for normal regulatory compliance.
  - Total well production.
  - The amount of water treated, bypassed, and blended.
  - The configuration of the vessels (i.e. lead and lag position).
  - The approximate number of bed volumes treated by each vessel.
  - The date of any media change-out, vessel reconfiguration, or other process change.
  - The most recent version of the breakthrough curve showing the treated arsenic level vs. cumulative number of bed volumes for the respective batch of media.
  - Any other abnormal operating condition.
12. All materials and equipment shall conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) 60 and 61 in accordance with AAC R18-4-119.
13. No connection may exist between potable water and non-potable water unless an approved backflow prevention device is installed in accordance with AAC R18-4-115.
14. Maintain appropriate signage for all hose bibb connections (both potable and non-potable).
15. Maintain hoses and hose racks at all hose bibb locations (both potable and non-potable).
16. Representative(s) of the Department shall be allowed access to the site to conduct inspections of this facility during reasonable hours.
17. The Department reserves the right to modify this approval pursuant to future state regulations.

## WATER AND WASTE MANAGEMENT DIVISION

By *Dale G. Bodiva*, P.E.  
Dale G. Bodiva, PE  
Manager Water / Wastewater Treatment Program

Plan Approval Date: February 22, 2008



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cc: ADEQ Drinking Water Section, 1110 W Washington Street, Phoenix, AZ 85007  
Arizona Corporation Commission, Utilities Division - Engineering Section, 1200 W Washington Street, Phoenix, AZ 85007-2996  
Debra McGrew, P.E., McBride Engineering, 6100 W Gila Springs Pl, Ste 7, Chandler, AZ 85226-3224  
Jason Bethke, PE, Global Water- Water Utility of Greater Buckeye, 21410 N 19<sup>th</sup> Av, Ste 201, Phoenix, AZ 85027-2758  
Jenny Young, RS, MCESD, Acting Manager Drinking Water Program  
Kevin Chadwick, PE, Division Manager, MCESD, Water and Waste Management Division  
MCESD Facility File  
MCESD Project File  
Shawn Kumar, P.E., Conestoga-Rovers, 4050 E Cotton Center Boulevard, Suite 49, Phoenix, AZ 85040