

I CR Water Users

pws ID #13-263

Talking Rock Division

Emergency Operations Plan

In Accordance with Arizona Administrative Codes
(A.A.C. R18-4-116)

Date Reviewed	Reviewer	Changes or Comments
5/10/2009	Chris Williamson	None
7/28/2010	Chris Williamson	None
6/23/2011	Pat Carpenter	

Emergency Operations Plan Distribution:

<u><i>Organization</i></u>	<u><i>Contact Person</i></u>	<u><i>Date Delivered</i></u>	<u><i>Delivered By:</i></u>
Water Utility Representatives	William Meyer Pat Carpenter Derek Scott		
ADEQ Drinking Water Section (Phoenix)	1-800-234-5677		
ADEQ Northern Regional Office (Flagstaff)	Jim Jones 928-779-0313		
AZ Corporation Commission	1-800-222-7000		

Purpose and Authority

The purpose of this emergency operations plan is to establish and to keep up to date the procedures necessary to utilize alternative water supply sources in the event of the contamination or loss of the existing sources.

This plan was produced as part of the requirements under Arizona Administrative Codes Title 18, Chapter 4, Article 116 under the Authority of the Arizona Department of Environmental Quality, Drinking Water Program.

This is a living document and should be updated anytime the system makes modifications to the system or to its staffing. At minimum, this document needs to be reviewed annually to insure its contingencies are up to date and applicable to the design of the water systems.

For further information on any Arizona Department of Environmental Quality policies or rules applicable to the Drinking Water Emergency Operations Plan, please contact ADEQ at: 1-800-234-5677

Description of Water System

Name of System: ICR Water Users Association

Population Served: 150

Number of Service Connections: 70 meters

This system consists of three wells, one storage tank a pumping station and a pumping booster station, supplying water to Talking Rock Ranch Subdivision and Golf Course.

The water system is classified as a community water system that has been designated by ADEQ to be groundwater that may be under the influence of surface water.

Average Daily Demands: Winter 100,000 gal/day
Summer 1,000,000 gal/day

Design Capacity: 1,500,000 gal/day

Storage Capacity: 350,000 gallons

Sources:

(Talking Rock)

Well #1: 55-584177

Well #2: 55-589659

Well #3: 55-589660

As-Built Blue prints are available to operator and engineer

Emergency Contact Phone Numbers:

For Medical, Police or Fire Emergencies call 911

Water System owner (ICR WUA)

William Meyer

Operators

Derek Scott (928)-925-1294

Pat Carpenter (928) 606-0498

Electrician

Todd McKenzie (928) 699-3584

Excavation Contractor

LP's Excavating Larry, Chad Pittenger, (928)-635-4204

Cell:(928)-699-5089

Steve Norris cell: (928)-710-7924

Engineer

Civiltech

ADEQ Drinking Water Section Phoenix 1-800-234-5677 ext 4617

ADEQ Northern Regional Office (Flagstaff) 1515 E. Cedar Ave., Suite F

Flagstaff, Arizona 86004

1-877-602-3675 toll free outside Flagstaff

Public Water System Staff Contact list

After hours contact phone numbers for public water system staff:

Derek Scott (928)-925-1294

Pat Carpenter (928)-606-0498

E-mail Address: pat@aqualitywater.us

Business Information:

Company: a Quality Water Company

Phone: 928-606-0498

Fax: 928-635-2126

If power is lost – there is no provision for emergency generator connections at wells.

RI8-4-116.A.4

Contamination of water in the distribution system from backflow.

1. Identify the cross-connection location and the service connections(s) that are affected. Disconnect or stop the cross-connection as quickly as possible. Isolate the mains that are affected by shutting off the isolation valves. Shut down all service connections on the affected area.
2. Test for the contaminating or polluting chemical(s) if they cannot be determined or identified on-site.
3. Complete and submit to ADEQ the backflow incident report as required by R18-4-104k.
4. Do public notifications as stated in Section VII.
5. Flush or replace the affected lines as required before returning service to eth affected service connection.
6. Complete the Notification procedures listed in Section VII.

JBT Construction (Pat Bates) (928) 220-2145 cell, has water main disinfection equipment. Approval and oversight of Certified Operator required.

RI8-4-116.A.5

Collapse of a reservoir, reservoir roof, or pump house structure.

Loss of structure ONLY would not disrupt service. IF water supply is affected, refer to section on LOSS OF SOURCE.

R18-4-116.A.6

A break in a transmission or distribution line.

Contact the following:

Steve Norris

Phone: (928)-710-7924

LP's Excavating

Phone: (928)-635-4204

Cell: (928)-699-5089

If break is in a distribution line, locate and close the isolation valves for the part of the system. Dig up the line and either replace the broken section with new pipe or use a repair clamp on the existing line.

Disinfect according to ADEQ Regulations and AWWA guidance excerpted below. Certified Operator is the responsible party.

AWWA

Disinfecting Water Mains

EXCERPT

Section 8: Redisinfection

If the initial disinfection fails to produce satisfactory bacteriological samples, the main may be reflashed and shall be resampled. If check samples show the presence of coliform organisms, then the main shall be rechlorinated by the continuous feed or slug method of chlorination until satisfactory results are obtained.

NOTE: High velocities in the existing system, resulting from flushing the new main, may disturb sediment that has accumulated in the existing mains. When check samples are taken, it is well to sample water entering the new main.

Section 9: Disinfection Procedures When Cutting Into or Repairing Existing Mains.

The following procedures apply when mains are wholly or partially dewatered. After the appropriate procedures have been completed, the main may be returned to service prior to completion of bacteriological testing in order to minimize the time customers are out of water. Leaks or breaks that are repaired with clamping device while the mains remain full of pressurized water present little danger of contamination and require n disinfection.

Sec. 9.1 Trench Treatment

When an old main is opened, either by accident or by design, the excavation will likely be wet and may be badly contaminated from nearby sewers. Liberal quantities of hypochlorite applied to open trench areas will

lessen the danger from such pollution. Tablets have the advantage in such a situation because they dissolve slowly and continue to release hypochlorite as water is pumped from the excavation.

Sec. 9.2 Swabbing with Hypochlorite Solution

The interiors of all pipe and fittings (particularly couplings and sleeves) used in making the repair shall be swabbed or sprayed with a 1-percent hypochlorite solution before they are installed.

Sec. 9.3 Flushing

Thorough flushing is the most practical means of removing contamination introduced during repairs. If valve and hydrant locations permit, flushing toward the work location from both directions is recommended. Flushing shall be started as soon as the repairs are completed and shall be continued until discolored water is eliminated.

Sec. 9.4 Slug Chlorinating

Where practical, in addition to the procedures above, a section of main in which the break is located shall be isolated, all service connections shut off, and the section flushed and chlorinated as described in Sec. 5.3, except that the dose may be increased to as much as 300 mg/l and the contact time reduced to as little as 15 min. After chlorination, flushing shall be resumed and continued until discolored water is eliminated and the water is free of noticeable chlorine odor.

Sec. 9.5 Sampling

Bacteriological samples shall be taken after repairs are completed to provide a record for determining the procedure's effectiveness. If the direction of flow is unknown, samples shall be taken on each side of the main break. If positive bacteriological samples are recorded, the situation shall be evaluated by a qualified field engineer who can determine corrective action, and daily sampling shall be continued until two consecutive negative samples are recorded.

Complete the notification procedures listed in section VII. (below)

R18-4-116.A.7

Chemical or microbiological contamination of the water supply.

Identify the source of the contaminant; (well or customer)

Identify the contaminant.

Microbiological: Disinfect the well with ½ gallon of NSF approved chlorine solution or with solid chlorine pellets. Take a check bac't sample after 24 hours. Repeat with more chlorine solution or pellets if the sample comes back positive. Repeat until the well has a negative bac't sample or call ADEQ for assistance.

Chemical: Pump at least 8 well volumes of water from the well to a surface contaminant pond to clean the well and retest the well/source fro the contaminant. If it still shows up, then call the well driller to come on site to do a scraping and bale the well casing and a replacement of the pump and / or riser pipes.

Notify ADEQ.

Complete the Notification procedures listed below.

R18-4-116.B.1

Provision of alternative sources of water during the emergency.

Alternative source would be trucking water from the Inscription Canyon system. See section on "LOSS OF SOURCE."

R18-4-116.B.2

Notice procedures for regulatory agencies, news media, and users.

Manager is the primary contact. Local newspaper is the Prescott Courier. Notices can be delivered door to door. Isolate (if possible) and contact users by door to door contact.

When notification is required, the water system operator will do the following:

1. Public Notification in accordance with R18-4-105 to all water system users and customers. Notification will include any and all instructions for personal protection and water use guidelines during the emergency. (ADEQ Rules Appendix A, Mandatory Health Effects Language should be used for notification language when needed.)
2. Call ADEQ at 1-800-234-5677, ext 4610n Nina Miller and 1-928-628-6721, John Eyre.
3. Follow-up by mailing the written notification to the ADEQ Drinking Water Compliance Unit at 3003 N. Central Ave., Phoenix, AZ 85012.
4. Notify local news media listed below.

R18-4-116.B.3

Disinfection and testing of the distribution system once service is restored.

Certified Operator is responsible to disinfect and test to current standards and state regulation.

Testing done by Bradshaw Labs or Nortest Analytical, Flagstaff, AZ

R18-4-116.B.4

Identification of critical system components that shall remain in service or be returned to service quickly.

No critical users present (hospitals, etc)

The following are system critical components:

Well Pumps-	system has redundant wells
Well Electrical controls -	
System Supply Lines -	No redundancy – Must remain in service.
Distribution pumps-	system has redundant pumps, all within same building
Distribution System Controls –	
Storage Tanks -	System has one storage tank

R18-4-116.B.5

Critical spare parts inventory.

Spare parts are kept in the pump house.

For other replacement parts, contact Hughes supply:

3100 N. Hwy 89, Prescott, Az.

Phone: (928)-445-8032

Pager: (928)-771-4230

Appendix

The following documents are the references used to help develop this emergency operations plan.

EPA Public Notification Handbook, EPA816-R-00-OI0, *June* 2000.

EPA Emergency Disinfection of Drinking Water, EPA810-F-93-002, July 1993.

Arizona Department of Environmental Quality Drinking Water Rules, Title 18, Chapter 4, Articles 101 thru 607, Appendices A-D

"Everything Report" from the Arizona Department of Environmental Quality Drinking Water Database.

Example Boil Water Notice due to microorganisms, EPA Template 1-3 Example High Nitrate Notice, EP A Template I-I

Example High Nitrate Notice in Spanish, EPA Template I-IA

Example Fecal Coliform Boil Water Notice, EPA Template 1-2

Example Fecal Coliform Boil Water Notice in Spanish, EP A Template 1-2A Example Problem Corrected Notice, EP A Template 1-6

Media Relations Checklist

Primary Contact for the media and public in the event of a contamination or damage to the drinking water system.

Name: Pat Carpenter

Title: Operator

Address:

Work Phone: 928-606-0498

Home Phone: 928-606-0498

Information checklist to be conveyed to the public and the media.

- Name of the Water System:
- Contaminant of Concern:
- Source of Contamination:
- Public Health Information Steps the public can take:
- Steps the Water system is taking:
- Other information:

Local Media Contacts:

Newspaper: Prescott Daily Courier 928-445-3333

Television:

Radio: KPPV and KDDL 928-445-8289

Event Action Log

Date of Incident: _____

Event: Describe the situation that caused the Emergency Operations Plan to be used.

Action Taken: Describe the activities taken to address the emergency.

Evaluation: Conduct an in-house evaluation to see where improvements need to be made.

Costs:

Labor: _____

Equipment: _____

Materials: _____

Contract Services: _____

Total Costs of Event: _____