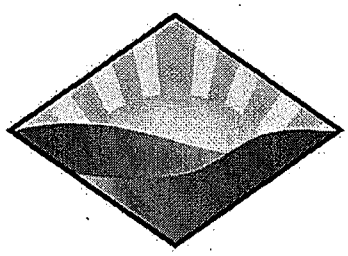
Emergency Response Plan
Beacon Hill Water and Sewer District
Water System



BEACON HILL
SEWER DISTRICT
ESTABLISHED 1959

A requirement of the Safe Drinking Water Act as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002

Final
May 2011

Contents

Additional References:

2006 City of Longview/Cowlitz PUD Regional Water Shortage Response Plan
2007 City of Longview/Cowlitz PUD Water Supply Emergency Response Plan

Section One

Emergency Response Mission and Goals

Mission Statement for Emergency Response	Provide clean, safe quantity and quality of water as directed by the Safe Drinking Water Act and be prepared to respond immediately to a variety of events that could lead to contamination of the water system.
Goal #1	Be able to quickly identify an emergency and initiate timely and effective response actions.
Goal #2	Be able to quickly notify local, state, and federal agencies to assist in the response.
Goal #3	Protect public health by being able to quickly determine if the water is not safe to drink or use and being able to immediately notify customers effectively of the situation and advise them of appropriate protective action.
Goal #4	After identification of the situation quickly make repairs and get the system back on line.

Section Two

System Information

This basic information is readily available when needed for emergency responders, restoration personnel, and the news media.

System information for the BHWSD Water Utility

System Identification Number	Water System Identification Number **15650D**	
System Name and Address	Beacon Hill Water and Sewer District 1121 West Side Highway Kelso, WA 98626	
Basic Directions and Location of System Facilities	See page 5 and Map Attachment # 1	
Directions to the System	See pages 5-8 and Map Attachment # 1	
Location/Town	1121 West Side Highway Kelso, WA 98626	
Population Served and Service Connections from Division of Drinking Water Records.	9,755 people	3,909 connections
System owner (the owner should be listed as a person's name)	BHWSD General Manager Kim Adamson	
Name, title, and phone number of person responsible for maintaining and implementing the emergency plan.	Kim Adamson General Manager	For contact information refer to page 9.

Basic Description and Location of Facilities

The BHWSD main source of water is the Regional Water Treatment Plant. The system has two main branches. The Columbia Heights system starts at the Hillside pump station. Water is pumped to the Skyline Reservoir and pump station, from there to Grandview Reservoir and pump station, and then to the top of Columbia Heights to the Cedar Gates Reservoir. Water then flows by gravity to the Lone Oak Reservoir. These pressure zones serve fifteen hundred and eighty three (1,583) customers. The Lexington, Beacon Hill, and Ostrander Water Systems are interconnected by 16-inch, 12-inch and 8-inch transmission mains which feed the one-million gallon Lexington Reservoir. The transmission and distribution lines serve fifteen hundred and fifty (1,550) customers in Lexington. The Beacon Hill pump station provides water to a seventy-thousand gallon elevated tank serving four hundred and seventy nine (479) customers. The Lexington Reservoir gravity feeds the Ostrander and Woodbrook Reservoirs. A 12-inch D.I. uni-flex water line crosses beneath the Cowlitz River to the Ostrander Reservoir. Water is pumped from the Ostrander Reservoir to the Woodbrook Reservoir. Two hundred and twenty-three (223) customers are served in these areas. We have two satellite water areas which serve customers from the City of Kelso Water System. One satellite serves twenty-eight (28) customers in Cowlitz Gardens and is located off North Pacific Avenue near Rocky Point in North Kelso and the second is the Williams-Finney System which is located off Mt. Brynion Road in Kelso. A small pump station and hydropneumatic tank serves forty-six (46) customers. Both of these areas are Master Metered.

Location of BHWSD Water System Facilities

Pump Station or Reservoir	Directions
Cascade Hillside Pump Station	• From the intersection of 15th Avenue, Ocean Beach Highway and Cascade Way, go North up Cascade Way approximately 1/2 mile • Turn right onto Cedar Drive • Go about 100 feet and turn right on gravel road • Open gate (would need a C-D-1 to open padlock) • Go about 500 feet up gravel road (another padlocked gate C-D-1 to unlock) • Pump house inside of gate to the left (locked door would need C-D-1 to open pump station) • All three pumps pump to Skyline Reservoir

Pump Station or Reservoir	Directions
Skyline Pump Station and Reservoir **916 Skyline View Dr**	• At the West end of the Cowlitz River Bridge • Go Northerly onto Long Avenue from Washington Way • Go 3 blocks and cross the railroad tracks • Long Avenue turns into Columbia Heights Road • Go 2.5 miles up Columbia Heights Road • Turn Right on Skyline View Drive • Pump station is located on top of reservoir
Grandview Pump Station and Reservoir **141 Grandview Terrace**	• At the West end of the Cowlitz River Bridge • Go Northerly onto Long Avenue from Washington Way • Go 3 blocks and cross the railroad tracks • Long Avenue turns into Columbia Heights Road • Go 2.75 miles up Columbia Heights Road • Turn left on Grandview Drive • Go 1/4 mile up Grandview and the pump station is located on the right hand side in a small grey building
Cedar Gates Reservoir **1 Laulainen Rd**	• At the West end of the Cowlitz River Bridge • Go Northerly onto Long Avenue from Washington Way • Go 3 blocks and cross the railroad tracks • Long Avenue turns into Columbia Heights Road • Go 3.5 miles up Columbia Heights Road • Stay left onto Lone Oak Road for 400 feet • Turn left on Cedar Gates Road • Go 750 feet to Laulainen Road/Cedar Gates intersection • Go left 850 feet to reservoir located on the left
Lone Oak Reservoir **531 Lone Oak Rd**	• At the West end of the Cowlitz River Bridge • Go Northerly onto Long Avenue from Washington Way • Go 3 blocks and cross the railroad tracks • Long Avenue turns into Columbia Heights Road • Go 3.5 miles up Columbia Heights Road • Stay left onto Lone Oak Road • Lone Oak Reservoir is located 1 ¼ miles over the crest of the hill on the right hand of the road

Pump Station or Reservoir	Directions
Beacon Hill Pump Station **111 Alderwood Lane**	• From Fisher's Lane go North on West Side Highway approximately 1.5 miles • Just past Carnival Market, turn left on Beacon Hill Drive • Go up the hill and turn right on Alderwood Lane • Go 1/8 of a mile to the first driveway on your right • Unlock gate. Beacon Hill Pump Station is at the bottom of the roadway on your right
Beacon Hill Reservoir **143 Niblett Way**	• From Fisher's Lane go North on West Side Highway approximately 1.5 miles • Just past Carnival Market, turn left on Beacon Hill Drive • Go further up Beacon Hill Drive, past Alpha Drive intersection • Go ¼ mile and turn left on Niblett Way • On the backside of Niblett Way Loop, the reservoir is visible. • Private road by Laurel hedge leads to reservoir
Lexington Reservoir **264 Aaron Drive**	• From Fisher's Lane, go North on West Side Highway approximately 3.5 miles through Lexington. • About 1/4 mile past the Fire Station turn left on Aaron Drive • Go about 1 mile on Aaron Drive and the reservoir will be on the right and visible from the main road • It is about 100 feet up the driveway
Guier Road Reservoir **250 Guier Road**	• Go North on I-5 and take Exit 41 • Turn right off the exit • Turn left onto North Pacific Avenue, you will be traveling north • Turn right on Guier Road • Cross the tracks and turn left onto the lower road and follow for 1/4 of a mile • The lower road makes a sharp right and the reservoir will be visible

Pump Station or Reservoir	Directions
Ostrander Reservoir and Pump Station **800 Ostrander Road**	• Go North on I-5 and take Exit 41 • Turn right off the exit • Turn left onto North Pacific Avenue • Go North 1 mile and turn right on Ostrander Road • Go about 2 miles up Ostrander road, the reservoir and pump stations is on the left hand side
Woodbrook Reservoir **1490 Ostrander Road**	• Go North on I-5 and take Exit 41 • Turn right off the exit • Turn left onto North Pacific Avenue • Go North 1 mile and turn right on Ostrander Road • Go up Ostrander road about 4 miles just past the Woodbrook subdivision on Rollingwood Drive • Go up the hill about 200 feet (past Rollingwood Drive) and the Woodbrook Reservoir is on the left
Williams Finney Pump Station	• At intersection of Allen Street, Kelso Drive and Minor Rd, go North on Minor Rd to Mt Brynion Road • Go East on Mt Brynion Road 1200 feet to private driveway for 1545 Mt Brynion Road on the left • Turn onto private driveway staying to the right for 600 feet to Reservoir. Pump station below reservoir.
Williams Finney Hydro-Pneumatic Tank **500 Williams-Finney Road**	• On the East side of I-5 at the Allen Street/Kelso Drive intersection • Go North on Kelso Drive until you reach Minor Road • Go up Minor Road about 1 mile to Williams Finney Road • Take a sharp left onto Williams Finney road and travel it for about a mile • Go past Johnson Lane ¼ mile and the Williams Finney Hydro pneumatic Tank is located on the right hand side in the fenced area

Section Three

Chain of Command for BHWSD Water Department

Name and Title	Responsibilities During an Emergency	Contact Numbers
Kim Adamson General Manager	Responsible for overall management and decision making for the water system. The General Manager is the lead for managing the emergency, providing information to regulatory agencies, the public and news media. All communications to external parties are to be approved by the General Manager.	Phone: (360) 636-3860 Cell: (360) 957-4905 Home: (360) 957-4905
Brian Wilson Field Lead	Responsible party in absence of General Manager. The Field Lead directs crews and facilitates repairs along with parts and equipment procurement and communicates with the General Manager with recommendations to address the emergency.	Phone: (360) 636-3860 Cell: (360) 270-1032 Home: (360) 430-0245
Mike Smith Tom Austin Drake Stephenson Field Crew	The field crew operates the water system, performing inspections, maintenance and sampling. They would help evaluate facilities during an emergency and communicate with the Field Lead with recommendations to repair the emergency.	Phone: (360) 636-3860 Mike Cell: (360) 270-1404 Tom Cell: (360) 270-1209 Drake Cell: (360) 270-353-8603
Monte Rodin Ted Branch Dean Takko Commissioners	In the absence of the General Manager, Commissioners may make public announcements.	Monte's Cell: (360) 431-8278 Ted's Cell: (360) 430-1336 Dean's Cell: (360) 430-3221

Section Four

Potential Emergency Events

The events listed below may cause water system emergencies. They are arranged from lowest to highest probable risk.

Type of Event	Probability or Risk (High-Med-Low)	Comments
National Disaster	Low	Not in a high volatile area
Terrorism	Low	Not in a high volatile area
Wellhead Protection	Low	3 emergency wells, isolated area
Earthquake	Low	A major earth quake could disrupt the water system.
Backflow Incident	Low	District has an ongoing Cross Connection program
Construction Accident	Medium	Contractors damage facilities
Deferred Maintenance	Medium	Mains Break or Leaks
Droughts	Medium	AC Mains crack
Flood	Medium	System is located in flood area
Vandalism	Medium	Secured facilities
High winds	Medium	Trees topple and break power lines
Power Outages	Medium	Lots of high winds, but good response to system
Rain Ground Slides	Medium	Lots of ground movement, water main breaks

Section Five

Severity of Emergencies

Level I Emergency

Description: BHWSD considers the following to be Level I Emergencies:

- Meter problems – service line breaks to customers
- Mechanical failures at pumping stations
- Reservoir floats and signals not working
- Problems with altitude valves – pressure reducing situation
- Minor vandalism

BHWSD has trained personnel either working or on call to handle these problem twenty-four hours a day, seven days a week. Personnel are notified from our continually manned Dispatch Center.

Level I – Normal (Routine) Emergency: The system experiences a normal emergency, such as a service line break or power outage. System personnel are able to handle the problem with minimal outside assistance. In this situation it is not likely that public health will be immediately jeopardized. Normal events can usually be resolved within 24 hours.

Level II Emergency

Description: BHWSD considers the following to be Level II Emergencies:

- Distribution main breaks
- Positive coliform samples
- Vandalism

Level II – Minor Emergency (Alert Status): The system experiences minor disruption in supply or has indications of possible contamination where it may need to coordinate with DOH and consider issuing a health advisory to customers. In these types of emergencies, public health may be jeopardized, so it is important for system personnel to be on alert and initiate a quick response. Minor emergencies can usually be resolved within 72 hours.

Level III Emergency

Description: BHWSD considers the following as Level III Emergencies. A health advisory is required and Department of Health must be notified:

- An acute confirmed coliform maximum contamination level or E. coli/fecal positive sample requiring Department of Health to be notified.
- A confirmed sample of another primary contaminant.
- A system failure resulting in water shortage.
- Transmission main break
- Loss of source

Level III – Significant Emergency: The system experiences significant mechanical or contamination problems where disruption in supply is inevitable and issuance of a health advisory is needed to protect public health. Major emergencies should be reported to DOH as soon as possible to determine the best available means to protect customers' health. System personnel are directed to the situation, and outside entities are notified to aid in the response. Major emergencies may require more than 72 hours to resolve.

Level IV Emergency

Description: BHWSD considers the following events to be Level IV or Major Emergencies. Department of Health and Emergency personnel must be notified:

- Earthquake that would cause part of the system to fail.
- Landslide which would cause transmission line or reservoir failure.
- Major flooding
- Loss of river crossing
- Loss of source

Level IV – Catastrophic Disaster/Major Emergency: The system experiences major damage or contamination from a natural disaster, an accident, or an act of terrorism. These incidents usually require immediate notification of local law enforcement and local emergency management services. Immediate issuance of health advisories and declaration of water supply emergencies are critical to protect public health. These events often take several days or weeks to resolve before the system returns to normal operation.

Section Six

Emergency Notification Contacts

Local Notification List

Contact	Day Call List	Night Call List
Cowlitz County Sheriffs Department	9-1-1	9-1-1
Fire Department	9-1-1	9-1-1
American Medical Response	360-577-1911	360-577-1911
Cowlitz County Health Department	360-414-5599	360-414-5599
Columbia Analytical Services	360-577-7222	360-577-7222
Back-up Lab Addy Labs	360-750-0050	Home: 360-699-3066 Carol Addy: 360-771-5789 Tom Newman: 360-771-7345
Back-up Lab Seattle Public Utilities	206-684-7834	206-684-7407
Cowlitz County Dept. of Emergency Management	360-577-3130	360-577-3130
BHWSD General Manager	Kim Adamson 360-636-3860	Cell: 360-957-4905
Neighboring Water System City of Longview	Jacki Masters 360-442-5700	Home: 360-871-1485 Cell: 360-957-0517
Regional Water Treatment Plant	Vic Richards 360-442-5681	Home: 360-577-6339 Cell: 360-751-2852
Neighboring Water System City of Kelso	360-423-5730	360-423-1270
News Media Contact	Daily News 360-577-2585	Daily News 360-577-2585
Radio KLOG-KUKN	360-636-0110 Fax: 360-577-6949	360-636-0110 Fax: 360-577-6949
Radio KEDO-KBAM	360-425-1500 Fax: 360-423-1554	360-425-1500 Fax: 360-423-1554

State Notification List

Contact	Day Call List	Night Call List
Washington State Patrol	360-577-2050	800-283-7808
Division of Drinking Water Regional Office	360-236-3030	877-481-4901
Mutual Aid Agreement City of Longview City of Kelso	 360-442-5700 360-423-5730	 360-442-5700 360-423-1270

Service/Repair Notification List

Contact	Day Call List	Night Call List
Controls: PUD Dispatcher	360-423-2210	360-423-2210
Electrical: Hamer Electric	360-636-2227	360-636-2227
Pump Specialist: Pump-Tec	503-659-6230	Pump Specialist: Don Carlile 503-915-7867
Soil Excavator: Richard Lee Construction Markea Trucking	 360-256-1310 360-425-5939	 360-256-1310 360-425-5939
General Contractor: Five Rivers Construction	360-423-1991	Joe Brown 360-957-4121 Brad Catlin 360-957-0217
Equipment Rental: Star Rentals	360-575-9000	360-575-9000
Emergency Pumping: Rain for Rent Goodwin Pumps	503-262-7246 503-981-0341	Don Ehly 503-991-1609 Glen McCord 503-572-3912

Notification Procedures

Notifying Water System Customers

Who is Responsible:	**Kim Adamson – General Manager** For contact information refer to page 9
Procedures:	Door Hangers Delivery of prepared letters Local Media Web Site

Alerting local law enforcement, state drinking water officials, and local health

Who is Responsible:	**Kim Adamson – General Manager** For contact information refer to page 9
Procedures:	Use of phone lists and delivering the proper message.

Contacting Service and Repair Contractors

Who is Responsible:	**Brian Wilson - Field Lead** For contact information refer to page 9
Procedures:	Notify General Manager of the need for additional help. Contact necessary contractors from Small Works Roster.

Contact Neighboring Water Systems, if Necessary

Who is Responsible:	**Kim Adamson – General Manager** For contact information refer to page 9
Procedures:	For major water problem

Procedures for Issuing a Health Advisory

Who is Responsible:	**Kim Adamson – General Manager** For contact information refer to page 9
Procedures:	Use preprinted notification letter Boil water, restricted use, etc…

Example: Procedures for notifying customers of potential water shortage

Who is Responsible:	The General Manager is ultimately responsible for making the decision to notify customers regarding a potential water shortage and the need for water use restrictions. The General Manager should consult with field staff to make the decision. Once the decision is made, procedures for notification will be initiated.
Procedures:	General Manager confers with key staff to verify problems. General Manager organizes staff to develop the message to be delivered to customers. General Manager consults with state drinking water staff regarding the problem. General Manager, with assistance from staff, will prepare door hangers, signs, and radio message. Field crew continues to investigate the problem and make repairs as necessary. The water shortage notification will be distributed by: Field staff places "water shortage notices" on doors and along travel routes. See the list of customers Medical Alert/Life Support on BHWSD Water System on Attachment #3. The District will contact these customers immediately in case of an emergency. Staff will place signs on main travel routes into the community. General Manager will contact radio stations and request issuance of the water shortage notice and request to curtail water use. Administrative support person will provide a pre-scripted message to phone callers and log in each phone call. Field lead continuously updates the General Manager on water shortage. Once water shortage is resolved, re-notify customers.

Section Seven

Water Quality Sampling for BHWSD

If contamination is suspected, notify and work with the local health jurisdiction and State DOH, Division of Drinking Water (DDW) regional office to help identify what testing should be done. This may help prevent illness or even death.

Water Quality Sampling

Sampling Parameter	Do we Have Procedures ? Yes/No	Basic Steps to Conduct Sampling (sites, frequency, procedures, lab requirements, lab locations, contacts, etc.)
Coliform Bacteria	Yes	1. 20 sites that we sample • 10 samples per month • Alternate sample sites monthly • 5 samples every other Monday 2. Lab Requirement – Documentation of sample • Lab location: Columbia Analytical Services 1317 S. 13th Avenue, Kelso WA 98626 3. Complete sampling information is outlined in our Coliform Monitoring Plan. 4. Coliform samples are taken after leak repairs.
Heterotropic Plate Count (HPC)	No	Completed by the City of Longview Regional Water Treatment Plant.
Chlorine Residual	Yes	1. Daily chlorine residual checks are completed on the work route. • Samples are taken daily, DPD agent is added and chlorine residual is checked and logged. • Monthly log sheets are sent to DOH.
Chlorine Demand	No	Completed by the City of Longview Regional Water Treatment Plant
Nitrate/Nitrite	No	Completed by the City of Longview Regional Water Treatment Plant
Total Organic Carbon (TOC)	No	Completed by the City of Longview Regional Water Treatment Plant
Total Halogenated Organic Carbon (TOX)	No	Completed by the City of Longview Regional Water Treatment Plant

Sampling Parameter	Do we Have Procedures ? Yes/No	Basic Steps to Conduct Sampling (sites, frequency, procedures, lab requirements, lab locations, contacts, etc.)
Cyanide	No	Completed by the City of Longview Regional Water Treatment Plant.
Lead and Copper	Yes	1. District sampled for lead and copper according to state requirements starting in the early 1990's. 2. District's 90 percentile sample was always below the MCL required by the state, in turn, we were put on reduced monitoring every 3 years. 3. All 90 percentile samples have been below the MCL each sampling period. 4. See lead and copper sampling procedures manual.
Asbestos	Yes	1. Once every 7 years an asbestos sample is taken.
Trihalomethanes / Haloacetic Acids	Yes	New procedures are being put into place based on the new Stage 2 Disinfectant/Disinfection By-product Rule.

Section Eight

Effective Communication for Beacon Hill Water and Sewer District

Communication with customers, the news media, and the general public is a critical part of emergency response.

The General Manager is the designated public spokesperson for Beacon Hill Water and Sewer District.

Designate a Spokesperson and Alternates

Spokesperson	Alternate 1
General Manager For contact information refer to page 9	**Commissioner** Only in the absence of General Manager. For contact information refer to page 9

Key Messages

Key messages for water customers are included in Section 6 and Section 8. They are boil water letters, media notification, and letter to rescind boiling water.
If information is required about notifying customers the BHWSD has on file EPA Public Notification Handbook EPA-816-R-00-010-dtd June 2000. This book shows all information required for issuing public notices and should be referenced before notices are made to the media and/or customers.

- See Table I: Requirements for issuing public notice, page 20.
- See Table II: Violations and citations requiring public notice, page 21.
- See Figure I: The required elements of a public notice, page 23.

Table 1
Requirements for Issuing Public Notice

Tier	Deadline for Notices	Delivery Methods to Use	Go to EPA Handbook, See Correct Chapter
1	24 hours **	1. Broadcast Media (radio or television), hand delivery or posting 2. Another method as needed to reach others	Chapter 5
2	30 days ***	CWS: 1. Mail or hand delivery 2. Another method as needed to reach others	Chapter 6
		NCWS: 1. Posting, hand delivery, or mail 2. Another method as needed to reach others	Chapter 8
3	1 year ****	CWS: 1. Mail or hand delivery 2. Another method as needed to reach others	Chapter 7
		NCWS: 1. Posting, hand delivery, or mail 2. Another method as needed to reach others	Chapter 8

* Primary agencies may approve other methods

** For Tier 1, systems must also initiate consultation with the primacy agency within 24 hours.

*** Systems with turbidity MCL violations based on the average of samples over two days or with turbidity single exceedance treatment technique violations must consult with the primacy agency within 24 hours after learning of the violation.

**** EPA recommends consolidating all Tier 3 violations and situations occurring within a given year into an annual notice.

Table 2
Violations and Situations Requiring Public Notice

Tier 1 Violations and Other Situations Requiring Notice Within 24 Hours:

1. Violation of the MCL for total coliform, when ***fecal coliform or E. Coli*** are present in the water distribution system, or ***failure to test*** for fecal coliform or E. coli when any repeat sample tests positive for coliform;
2. Violation of the MCL for ***nitrate, nitrite, or total nitrate and nitrite***; or when a ***confirmation sample*** is not taken within 24 hours of the system's receipt of the first sample showing exceedance of the nitrate or nitrite MCL;
3. Exceedance of the ***nitrate*** MCL (10 mg/l) by non-community water systems, ***where permitted*** to exceed the MCL (up to 20 mg/l) by the primacy agency;
4. Violations of the MRDL for ***chlorine dioxide*** when one or more of the samples taken ***in the distribution system*** on the day after exceeding the MRDL at the entrance of the distribution system or when required s***amples are not taken*** in the distribution system;
5. Violation of the ***turbidity MCL*** of 5 NTU, where the primacy agency determines ***after consultation*** that a Tier 1 notice is required or where consultation does not occur in 24 hours after the system learns of violation;
6. Violation of the ***treatment technique*** requirement resulting from a ***single exceedance*** of the maximum allowable ***turbidity limit***, where the primacy agency determines ***after consultation*** that a Tier 1 notice is required or where consultation does not occur in 24 hours after the system learns of violation;
7. Occurrence of a ***waterborne disease outbreak***, as defined in 40 CFR 141.2. or ***other waterborne emergency***; and
8. Other ***violations or situations*** with significant potential to have serious adverse effects on human health as a result of short term exposure, as ***determined by the primacy agency*** either in its regulations or on a case-by-case basis.

* If your system has any of these violations or situations, in addition to issuing public notice, you must ***initiate consultation with your primacy agency as soon as practical but within 24 hours*** after you learn of the violation or situation. See Chapter 5 for more details

Tier 2 Violations Requiring Notice Within 30 Days**

1. All violations if the ***MCL, MRDL*** and ***treatment technique*** requirements ***except*** where ***Tier 1 notice*** is required;
2. Violations of the ***monitoring*** requirements where the ***primacy agency determines*** that a Tier 2 public notice is required, taking into account potential health impacts and persistence of the violation; and
3. Failure to comply with the ***terms*** and ***conditions*** of any ***variance or exemption*** in place.

** If you exceed the ***maximum allowable turbidity level***, as identified in Appendix A, you must ***consult with your primacy agency as soon as practical but no later than 24***

hours after learning of this violation. See Chapter 6 for more details.

Tier 3 Violations and Other Situations Requiring Notice Within 1 Year

1. ***Monitoring*** violations. Except where Tier 1 notice is required or the primacy agency determines that the violation requires a Tier 2 notice;
2. Failing to comply with an established ***testing procedure***, except where Tier 1 notice is required or the primacy agency determines that the violation requires Tier 2 notice;
3. ***Operation under variance*** granted under § 1415 ***or exemption*** granted under § 1416 of the Safe Drinking Water Act;
4. Availability of ***unregulated contaminant*** monitoring results; and
5. Exceedance of the secondary maximum contaminant level of ***fluoride***.

Figure 1
The Required Elements of a Public Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Tests Showed Presence of Coliform Bacteria

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

The Jonesville Mobile Home Park routinely monitors for drinking water contaminants. In July, we took a total of 20 samples to test for the presence of coliform bacteria. Three (3) of our samples tested positive. The standard is that no more than one (1) sample per month may test positive.

What should I do?

You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.

People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. Coliform bacteria are generally not harmful themselves. *Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.*

Usually, coliforms are a sign that there could be a problem with our treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. **We did not find any of these bacteria in our subsequent testing, and further testing shows that this problem has been resolved.**

What happened? What was done?

We took additional samples for coliform bacteria which all came back negative. As an added precaution, we chlorinated and flushed the pipes in the distribution system to make sure bacteria were eliminated. This situation is now resolved.

For more information, please contact John Jones of the Jonesville Mobile Home Park at 555-1212 or the manager's office or write to 1200 Jonesville Rd., Jonesville, ST 12345.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the Jonesville Mobile Home Park

State Water System ID# 12345. Sent: 8/8/99.

1) Description of the violation or situation

2) When the violation or situation occurred

5) Whether alternate water supplies should be used

6) Actions consumers should take

3) Potential health effects

4) The population at risk

7) What is being done to correct the violation or situation

8) When the system expects to return to compliance

9) Name, number, and business address for more information

10) Standard distribution language

Section Nine

Vulnerability Assessment for Beacon Hill Water and Sewer District

The District's Vulnerability Assessment is a product of our own personal evaluation of our system and a Vulnerability Assessment by ABSG Consulting Inc. of Seattle Washington. The Vulnerability Assessment was completed June 2004. Both assessments were used in our security upgrade recommendations in the Emergency Response Plan.

Facility Vulnerability Assessment and Improvements Identification

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Source	Ostrander Well	Low	Flush and sample quarterly Wellhead protection program	Improve fencing, add security lighting
	Regional Water Treatment Plant	Medium Intake problems or equipment failures	City of Longview Lead Agency	
	Rainey Well (Kelso)		City of Kelso Lead Agency	
Storage	Skyline Reservoir Poor Condition	Low Underground Concrete Tank Susceptible to Earthquakes	Check after Earthquake	Needs lighting Alarm system
	Grandview Reservoir Poor Condition	Medium Concrete Tank Susceptible to Earthquakes	Check after Earthquake	Alarm system Need lighting
	Cedar Gates Reservoir Good Condition	Low		Alarm system Hatch protector

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Storage Continued	Lone Oak Reservoir Good Condition	Low		Need lighting Alarm system Hatch protector
	Beacon Hill Reservoir Good Condition	Low-Medium High Reservoir Elevated Tank	Attracts Vandalism	Need lighting Alarm system Hatch protector
	Lexington Reservoir Good Condition	Low-Medium Some Ground Movement	Monitor Ground Movement	Needs lighting Alarm system Hatch protector
	Ostrander Reservoir Good Condition	Low Underground Concrete Tank Susceptible to Earthquakes		Needs lighting Alarm system
	Woodbrook Reservoir Good Condition	Low		Needs lighting Alarm system
	Guier Road Good Condition	Low Offline	Disconnected	Needs lighting Alarm system Hatch protector
	Williams-Finney Hydro-pneumatic Tank New	Low - Medium		Needs lighting Alarm system Needs barbwire

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Pump House and Pumping Facilities	Cascade Way Pump Station Good Condition	Low		Check lighting Alarm system
	Skyline Pump Station Good Condition	Low	Power Transfer Switch	Check lighting Alarm system
	Grandview Pump Station Good Condition	Low	Power Transfer Switch	Needs lighting Alarm system
	Beacon Hill Pump Station Good Condition	Low	Power Transfer Switch Fire Flow Capacity Pump	Alarm system Needs lighting
	Ostrander Pump Station Good Condition	Low	Power Transfer Switch	Needs lighting Alarm system
	Williams-Finney Pump Station New	Low	Fire Flow Capacity Pump	Alarm system

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Transmission Mains	Cascade Way to Skyline Reservoir Good 12" DIP except 1 section asbestos cement	Low	Possibly replace existing AC pipe	
Columbia Heights System	Skyline to Grandview Pipe on Columbia Hts Rd 8" DIP is good. Pipe on Grandview 6" AC	Low AC pipe could be upgraded. Susceptible to breaking during extreme wet or dry conditions	Possibly replace and enlarge AC 6" pipe on Grandview	None
	Grandview to Cedar Gates New 8" DI Good Condition	Low Good pipe	None	None
	Cedar Gates to Lone Oak 8" ductile iron Good Condition	Low Good pipe	None	Check cross country section
Transmission Mains **Lexington System**	RWTP to Beacon Hill pump station 8" CI and 16" DI Good Condition	Low	None	None
	Beacon Hill pump station to Aaron Drive 8"CI and 12" DI pipe Good Condition	Low	None	None
	Aaron Drive to Lexington Resivoir Good Condition	Low	1,000 feet of 8" upgraded to 12" ductile iron.	None

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Transmission Mains **Beacon Hill System**	Beacon Hill misc. 6" to 8" AC, CI, and DI pipe Good Condition	Low		None
Transmission Mains **Ostrander System**	Ostrander transmission main Cowlitz Drive to River Crossing misc 4", 6" and 8" mains Good Condition	Low	Replace one section of 6" AC on Cowlitz Drive	None
	Cowlitz River Uniflex 12" DIP West side of river to Pleasant Hill overpass	Medium/High River shifts high and low water, could wash out or damage line	Possible future river crossing on Lexington bridge	See plan for river crossing failure (page 32)
	Pleasant Hill over pass to Ostrander Reservoir good 8" ductile iron pipe	Low	None	None
	Ostrander Reservoir to Woodbrook Reservoir Good 8" DI pipe	Low	None	None
Distribution System	All distribution lines are in above average condition	Low	Ongoing Main Replace-ment program	
Key Valves	All key valves (altitude, pump control, pressure reducing) are listed on Attachment Nos. 1 & 4 located on attached map	Medium Valves are not exercised on a schedule	Maintain a scheduled valve maintenance program	

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Electric Power Connections	Electric circuits to and in pump stations and reservoirs See Attachment 5	Low Good system reliability	Add back-up generator and connections	
Computer Telemetry & Scada Systems	Telemetry - Scada system for Reservoirs & Pump Stations is located at the PUD Dispatch Center, 875 Industrial Wy See Attachment 5	Low Backup power generator is available to the Telemetry - Scada system		

Section Ten

Response Actions for Specific Events

In any event there are a series of system problems these are the general steps to take:

1. Confirm and analyze the type and severity of the emergency.
2. Take immediate actions to save lives.
3. Take action to reduce injuries and system damage.
4. Make repairs based on priority demand.
5. Return the system to normal operation.

The following tables identify the assessment, set forth immediate response actions, define what notifications need to be made, and describe important follow-up actions.

A. Power Outage

The BHWSD Water System is connected to the Cowlitz PUD Electric System who at one time owned the water system. All personnel recognize the importance of keeping pump stations online. Trained personnel include; Journeyman Lineman, Relay Technicians, and Journeyman Electricians which are available 24 hours a day, seven days a week, to ensure the system gets back online. In the event of a power outage, PUD dispatch will be notified.

Assessment	One or more of our pump stations or reservoirs are going to be out of service more than two days
Immediate Actions	1. Get one or more generators to the pump stations. 2. Either have pre-wired adapter or have trained personnel to wire in generator equipment.
Notifications	1. Possibly put customers on restricted use until power is restored. 2. Notify Department of Health 3. Notify Fire Department
Follow-up Actions	1. Return to normal status when power supply comes back online. 2. Notify customers, Department of Health, and Fire Department that power is back online.

B. Transmission or Main Break

Earthquake causes 12-inch transmission line to break between Laurel Road and Cedarbrook Drive on Columbia Heights Road. There are several main breaks. See Attachment Figure 1, page 32.

Assessment **Immediate Actions**	There are 200 feet of 12-inch asbestos cement water main that requires replacement and a bypass pump line will need to be installed. 1. The outage is going to last for several days 2. Pump station has been shutdown 3. The area for main repairs has been valved off
Notifications	1. Notify all customers in the area and implement shortage response actions to inform customers of water and availability of water. 2. Notify Department of Health and customers to boil water. 3. Notify local Fire Department of limited fire protection or none.
Follow-up Actions	1. After the bad section of pipe is isolated on the transmission main cut cap and block both ends with cap tapped two inch. Make sure both end of the main are flushed and clean the sample. 2. Install a 2-inch bypass line through the area that needs repairs. 2-inch PVC pipe and fittings and/or 2-inch poly pipe and fittings. See attached Emergency Response list. 3. While the bypass line is being constructed, if the Skyline Reservoir becomes low or empty, have an additional crew clean the reservoir following normal cleaning proceeds. 4. After the bypass line is constructed, sampled, and connected to the 12-inch transmission main at both ends, began to fill the reservoir and sample reservoir. 5. Once these procedures are followed the bypass line and reservoir can be used while the new 12-inch transmission main is installed according to BHWSD and Department of Health construction standards. 6. While the new main is being installed and after consulting with Department of Health, the boil water notification may be rescinded, once all water sampling has passed.
Return to Normal Operations	1. After the new main is installed, pressure tested, and sampled, it would be connected at each end to the transmission main after the bypass is removed. 2. Take additional samples upstream of where repairs were made. 3. Notify all customers to return to normal water usage.

Figure 1:

Emergency Response Parts List

Item	Description	Quantity
1	XR 501, 4.81-5.30, 7" Length, 4" Romac	2
2	XR 501, 6.90-7.40, 9" Length, 6" Romac	2
3	XR 501, 9.05-9.79, 12" Length, 8" Romac	2
4	XR 501, 13.15-14.40, 12" Length, 12" Romac	2
5	Cap 4" DI MJ Tapped 2" IP	2
6	Cap 6" DI MJ Tapped 2" IP	2
7	Cap 8" DI MJ Tapped 2" IP	2
8	Cap 12" DI MJ Tapped 2" IP	2
9	Valve Gate 2" IP Thrd AWWA	2
10	Sandbags	50 each
11	2" Black poly rolls	300 feet
12	2" inserts male	2
13	2" inserts x MIP	2
14	2" gate valves hand	2
15	2" hose clamps stainless steel	12
16	4" restraining gland	2
17	6" restraining gland	2
18	8" restraining gland	2
19	12" restraining gland	2
20	300' of 4" Fire Hydrant Hose	1

This material is stored in our warehouse located at the Cowlitz PUD on pallet labeled Emergency Response Parts.

C. Distribution Line Break

Assessment	Land movement just above PRV on Sunset Drive cause 200 feet of 4-inch AC to slide and all customers below the slide area are out of service. This includes several streets; lower Sunset Drive, Curtis Drive, Sunset Way, Sunset View Drive, Sunset Lane, Poplar Way, and Lone Oak Road. See Attachment Maps.
Immediate Actions	1. Isolate the slide leak area, call in emergency locates and install a valve and temporarily blow off and thrust block. Turn back on the main to get as many customers above the slide area back in service. Evaluate if notification to boil water needs to be sent. 2. Notify Department of Health, Fire Department, and customers. 3. Contact the City of Longview to install a temporary hook up to feed our customers. A 2-inch line needs to be installed from the hydrant at the corner of Curtis Drive and Curtis Lane, about 100 feet to our permanent blow-off on Curtis Drive. 4. Because the City of Longview also has high pressure, add a 2-inch PRV at our blow-off and connect a temporary above ground 2-inch PVC line or black poly pipe line. Flush and sample the water before connecting. 5. If metering is necessary, a hydrant meter could be installed on the temporary line. 6. Monitor the temporary line while repairs are made to the permanent line. 7. When the new line is complete, tested, flushed, sampled, and connected, remove the temporary line, PRV and meter.
Notifications	Notify Department of Health, Fire Department, and customers and return to normal operations.
Follow-up Actions	Monitor the land movement.

D. Source Pump Failure

This could include any of our pump stations because they are all for separate service areas and pressure zones.

Assessment	The BHWSD Water System has backup pumping at all pump stations. If one pump had a mechanical failure the Dispatcher would be the first to know due to low water pressure or pump failure alarms.
Immediate Actions	1. Dispatch would locate personnel to trouble shoot problems. 2. Personnel would switch to alternate pumping after reviewing standard operating procedures in pump stations.
Notifications	1. Personnel would make repairs or make recommendation to the General Manager for repairs. 2. Personnel would monitor back-up pumping.
Follow-up Actions	Repair or replace back-up pump and restore to active service.

E. Flood

Assessment	Heavy rains may cause flooding in the lower Ostrander and Lexington areas. District water mains cross two creeks attached to bridges. Floods are common in these two areas.
Immediate Actions	After, or as soon as conditions permit, inspect the water mains for damage. As long as these critical areas have maintained a positive pressure during flooding, then no further action is required.
Notifications	If a negative pressure occurs by a line failure, then it may be required to contact customers, as well as, sampling bacteria before the line is put back in service. Possibly notify the Department of Transportation.
Follow-up Actions	Continue to monitor the flooded area.

F. Earthquake – Support Structure to Elevated Tank Damaged (Beacon Hill)

Assessment	1. Support structure damaged to elevate Beacon Hill Reservoir tank. Tank is going to be out of service for two weeks. 2. Bypass pumping is required
Immediate Actions	1. Beacon Hill Reservoir must be drained. 2. While the reservoir is draining and customers are still in service, install bypass at the Beacon Hill pump station and the pressure relief valve at the fire hydrant on Talkeetna Heights. (Note: add two unions at the pump outlet line sized to fit the PRV assembly to begin bypass pumping. Be sure PRV is installed and tank inlet valve is closed before bypass pumping is started. **This bypass unit will only work on the centrifugal pump, Pump #2.** Two people are required to do this work, and the bypass unit is stored in the Beacon Hill pump house. 3. After the repair work to the tank is completed, inspect the repairs.
Notifications	1. Notify Department of Health 2. Notify customers to conserve water. See Procedure 3. Notify local Fire Department, no fire flows available.
Return to Normal Operations	1. Prior to filling, check to see if reservoir needs cleaning. 2. If clean, follow disinfection procedure on the inside of reservoir. 3. Open the inlet and fill reservoir. 4. Sample water in reservoir according to the Department of Health requirements (at least two samples are required). Isolate the reservoir until the samples are returned. 5. Once the samples have passed, District personnel are going to remove our bypass and return to normal pumping. 6. Remove our pressure relief valve. 7. Notify our customers, Fire Department, and Department of Health that we have returned to normal operation.

G. Hazardous Materials Spill in Vicinity of Sources or System Lines

Assessment	A hazardous chemical spill in the vicinity of a water main could cause sever problems if the water main is PVC. Spills can come from motor vehicles, trains, airplanes, boats, or fixed containers. Chemical solvents are able to leak through PVC pipes causing contamination.
Immediate Actions	Check to see if any PVC pipes are located near the spill.
Notifications	Fortunately, the BHWSD Water System has very few PCV pipes in service. Any dangerous chemical spill would result in notification to customer and sampling.
Follow-up Actions	

H. Electronic Equipment Failure

The BHWSD Water Systems is connected to the Cowlitz PUD Electric System ensuring we have highly trained personnel on staff.

Assessment	Float switch at a reservoir has failed and lost automated pumping.
Immediate Actions	Dispatch would switch to SCADA and manually operate the pumps to keep the reservoir at capacity.
Notifications	Notify the General Manager and one of our electricians.
Follow-up Actions	1. Repair or replace damaged float switch. 2. Return to normal operating pumping.

I. Loss of River Crossing at Ostrander

Assessment	High water has caused an undetermined amount of damage to the 12-inch uni-flex water line under the Cowlitz River. Levels in the Lexington and Ostrander Reservoirs show large water losses.
Immediate Actions	1. Isolate both sides of the river crossing. 2. Notify Department of Health, Fire Department, and customers and the possibility of boiling water. 3. Turn off the Ostrander pumps. 4. Start back up well on Mary Hill Drive, flush and sample • Connect well to blow off assembly at the end of Mary Hill • Notify customers of restricted water use. 5. Hook up customers in lower Ostrander thru the Ostrander pump station bypass located in the pump house with the additional small PRV and possibly the need to boil water. • Notify customers in lower Ostrander of restricted use • Monitor Ostrander, as well as, Woodbrook Reservoir levels. 6. Contact Tanker Truck for extra water if necessary.
Repair of River Crossing	1. Notify Department of Health, Army Corps of Engineers, and Department of Ecology. 2. Choose a team to discuss the best way to make repairs. 3. When water levels recede, contact proper contractors with dive teams available to evaluate repairs. 4. Contact proper Contractor to make repairs. 5. Continue to monitor Woodbrook and Ostrander Reservoir levels. 6. After river crossing repairs are made: • Tap main near river crossing, make sure to isolate this area by closing valves at Riverside Park and inject high concentration of chlorine into the main to chlorinate the repair work. • Flush river crossing at Collins Road fire hydrant and flush blow-off at the end of Collins Road. Sample at both sites. • Once samples have passed and everything is ok, we would open the main and fill the Ostrander Reservoir. • Disconnect the bypass at the Ostrander pump station. • Shut off well source and remove temp hook-up. • Return to normal pumping at the Ostrander Reservoir. Notify Customers, Department of Health and Fire Department.
Notifications	Notify Department of Health, Fire Department, and customers.
Follow-up Actions	Continue to monitor the river crossing.

J. Heavy rains cause ground movement at Lexington Reservoir and the reservoir has to be taken out of service.

Assessment	It has been pre-determined that the City of Longview Reservoirs will provide adequate storage capacity to Lexington.
Immediate Actions	1. Drain reservoir and isolate. Utilize City of Longview Reservoir 2. Evaluate the ground movement and take action as required to stabilize ground movement. Continue to monitor ground movement. Have engineers recommend if ground can hold the weight of the reservoir full of water. 3. Once the reservoir is ready to be filled follow normal procedures: • Clean the reservoir • Disinfect the water • Fill and sample • Wait for sample and to pass • If sample passed, put back online • Notify Department of Health and City of Longview 4. Continue to monitor for additional ground movement.
Notifications	Notify Department of Health, customers and the Fire Department.
Follow-up Actions	Monitor as necessary

Section Eleven

Alternative Water Sources for Beacon Hill Water and Sewer District

Inter-tie to Adjacent Water Supply System

BHWSD's principle water source is the City of Longview's Regional Water Plant of which BHWSD is approximately 14% participant. If the regional water plant supply does not meet demand then the Regional Water Shortage Response Plan goes in effect.

Water Systems With-in One-Quarter Mile of our System	Feasibility of Connecting
On the east side of the Cowlitz River, we have on well located in the Woodbrook Park.	Periodically the District starts the well pump, flushes the water and samples. This could be used for back-up water supply in our upper Ostrander area.
The District has other wells in this area which will require work to get back online.	Not feasible until maintenance is complete.
In our Lone Oak pressure zone near Curtis Drive, the City of Longview has Columbia Reservoir.	City Longview has a distribution main within 125 feet of BHWSD blow off on Curtis Drive. These two lines can be tied together in an emergency. Installation of temporary PRV station may be required. Pressure verification is required. (See attachment 7)

Alternate Source(s) of Water

Alternative Sources	Names	Phone	Availability	Is the Water Safe for Drinking?
City of Kelso through Regional Water Treatment Plant City of Longview	Paul Reebs Treatment Plant Superintendent	Day: (360) 577-1085 Emergency # (360) 423-1270		Yes
City of Longview Curtis Drive Hook-up	Vic Richards Treatment Plant Superintendent	For contact information see page 13		Yes
Ostrander Well	BHSWD General Manager	For contact information see page 9		Needs to be sampled

Section Twelve

Curtailing Water Usage

Curtailing Water Use

An emergency may require reducing water usage, so you should identify curtailment measures in advance. Possible measures include restrictions on landscape watering, car washing, filling of swimming pools and hot tubs, and other nonessential activities such as cleaning driveways and sidewalks. There can be various combinations of voluntary and mandatory measures. BHWSD has on hand door hanger cards and pre-prepared letters to notify customers of water curtailment requirements. These messages would be rewarded to justify the needs of each curtailment.

Water Curtailment Measures	Actions
Authorization is provided by the District's General Terms and Conditions and Resolution No. 418	BHWSD general terms and conditions applicable to water service (Section 27), "to interrupt, regulate, curtail or terminate water service upon government order due to water supply insufficiencies or other reasons beyond the District's control or for the purpose of making repairs to its system.
Person making decision if curtailment is needed	• General Manager
Evaluate how much curtailment is needed and what curtailment measures should be used.	• See 2006 City Longview/PUD Regional Water Shortage Response Plan • See 2007 City Longview/PUD Emergency Response Plan
Draft and structure a message to fit the needs of curtailment.	• See above referenced Response Plans
Contact customers	• Customize door hangers and notification letters • Mail letter and hangers • Notify customers

Section Thirteen

Returning to Normal Operation

BHWSD's Response Plan should indicate a discussion of the follow-up actions and staff responsibilities that the system must take before returning to normal operation.

General Guidelines before Returning to Normal Operations

Action	Description and actions
Inspect, flush, disinfect and sample when the system, experiences reservoir problems, transmission and/or distribution main breaks	Field Lead and support staff inspect all system facilities, ensure all water quality tests have been done and the system has been flushed and disinfected if necessary. Field Lead makes a report to the General Manager. General Manager makes decision on current condition of system.
Verification of water quality	General Manager verifies water quality sampling results.
Coordinate with Department of Health	General Manager coordinates with the Department of Health on system condition and water quality results. (Notifies SW Washington Regional Engineer).
Notify Customers	General Manager meets with Field Lead and communications lead to written notice to customers. General Manager directs distribution of public notice.

If BHWSD were to have an emergency before the system is put back online, the checklist below should be completed by either the Field Lead.

1. Has the system been repaired where it can meet demand or does the system need additional monitoring?
    i. Example, Reservoir Level – pump temperature, alarms working, leaks around repairs, etc.
2. Has the system operator made a safety and operational inspection of all system components?
3. Has the system been properly flushed, disinfected, and pressure tested when necessary?
4. Has the water been tested to meet sampling requirements?
5. Is the staff available to operate, manage and follow-up on what needs to be done to the system?
6. Has the District met requirements for local, state, and federal regulations to return to normal operations?
7. If necessary, notify public that water service is back to normal conditions. (Coordinate with General Manager).

Section Fourteen

Training and Rehearsals

Training

Identify staff position training needs and expectations.

Position	Training Needs and Expectations
General Manager	Review Emergency Response Plan and health advisory related situations. Attend emergency response related classes when available. Update ERP annually and review with department personnel. Continue to work with neighboring water systems
Field Lead/Field Crew	Review emergency response plan with crew. Attend emergency response related classes when available
Administrative Support	Preparation of administrative personnel for public communication

Emergency Rehearsals

Schedule for drills, tabletop exercises, and other ways to practice emergency response:

Event	Description	People and Organizations Involved	Date
Rehearsal	Simulate Emergency	Water system personnel	Unannounced
On-Site training drill	Loss of River Crossing. Isolate and activate well.	Water system personnel	Schedule

Section Fifteen

Plan Approval

This plan is officially in effect when reviewed, approved, and signed by the General Manager.

Kim Adamson
General Manager

Date 3/4/11