

Creating an Emergency Water Supply Plan

It can be difficult to keep track of all the “plans” that water systems are required or recommended to create and keep on file including the Bacteriological Sampling Plan, Disinfection Byproducts Sampling Plan, Lead and Copper Sampling Plan, Water Conservation Plan, and Asset Management Plan. But one of the plans that KRWA receives many requests for assistance with each year is the Emergency Water Supply Plan (EWSP). Kansas regulations (K.A.R. 28-15-18 (c)) require operators of community water systems to prepare an emergency operations plan, or EWSP, “to safeguard the water supply for the protection of the public if natural or man-made disasters occur.” It’s clear



The city of Jewell's elevated storage tank and pump station were destroyed by a tornado May 29, 2008.

from the regulations that an EWSP is required, but what’s not so clear is what specific information must be in an EWSP. This is why KRWA developed a template which can be used by any water system to create an EWSP.

KRWA developed a nine section EWSP template which can be enhanced

by entering system specific information into each section. The following is a description of each section and a few examples of what systems might want to include in each section.

Section 1: Purpose

In this section, systems should provide a brief statement regarding the purpose of the plan. For example, “The purpose of this plan is to isolate and conserve an adequate supply of potable water during emergency conditions that will be used only to sustain human life and the lives of pets and maintain standards of hygiene and sanitation.”

Section 2: Description

In this section, systems will need to provide a description of the water system. For ground water systems, list the number of wells and their location(s). For surface water systems, list the source of water and the location(s) of intake(s). Systems should list any connections to other water systems as well. Systems may also want to include details regarding the system’s pumping capacity, number of storage towers and storage capacity, the size of the main lines in the distribution, and the location(s) of any booster stations with pump ratings.

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Section 3: Disaster Organization

In this section, systems will need to list important personnel that will be involved in disaster response and list suggested tasks for each position. For example:

City Mayor or Rural Water District (RWD) Chairman, In Charge Overall

1. Coordinate and direct efforts of maintenance personnel in repair of damage.
2. Establish communications within the governing body, local news media, and general public.
3. Establish command posts, medical posts, shelters, etc. while working with the County Emergency Preparedness Personnel.

Operator

1. Assess damages and establish communication with the Chairman and other officials.
2. Notify KDHE District Office or Bureau of Water and request assistance as needed.
3. Oversee any repairs or alterations from the source of supply to treatment and pumping to throughout the distribution system.
4. Request emergency equipment / supplies if needed.
5. Request work assistance if needed.
6. Contact Power Company as to loss of power.

Section 4: Mutual Aid Agreement

In this section, systems need to provide details regarding outside organizations that can be contacted to secure additional resources, such as equipment, parts, materials, or personnel. Outside organizations to consider include the following:

Kansas Mutual Aid Program for Utilities (KSMAP) is a state-wide mutual aid program for water, wastewater, electric and natural gas utilities. KSMAP maintains an inventory of equipment and personnel available to assist others in the event of an emergency and provides an organized structure for requesting and

responding with help. For more information on becoming a member of KSMAP:

- 1) visit ksmap.org
- 2) Talk to county emergency management
- 3) Talk to neighboring water systems

Section 5: Inventory of Emergency Equipment Available

In this section, systems should create a list of equipment which the city or RWD has on-hand, including, for example, spare pumps, generators, chlorinators, etc. Systems may also want to list other locally owned equipment or supplies which can be obtained on short notice. Systems can also contact KRWA or KDHE for any other equipment needed. Both will do their best to help locate needed items as soon as possible.

Section 6: Vulnerability of System (Disaster Response)

Vulnerability assessments help a city or RWD identify potential threats to their water supply and identify corrective actions that can reduce or mitigate the risk of serious consequences. In this section, systems need to create a list of the most likely and most critical emergency situations that could occur with corrective actions to be taken for each situation. For example:

- Drought (water shortage)
- Accidental spills or contamination
- Power outage or damage to treatment plant or booster station building(s)
- Distribution system – damage to transmission main or storage tower(s)
- Terrorist threat
- Radioactive fallout

Section 7: Water Rationing

In the event of an emergency situation in which systems are unable to provide a reliable supply of water, the system will need to initiate water rationing procedures. In this section, systems may want to refer to a city ordinance or RWD bylaws or rules and

regulations if already in place. Systems should also include details regarding any connections to neighboring water systems or providing bottled water to customers. If system pressure has dropped below 20 pounds per square inch (psi) the system must contact KDHE to issue a “boil water” notice.

Section 8: Emergency Contacts

In this section, systems need to include a list of the following categories of contacts, including home telephone and cell phone numbers:

- City / RWD personnel
- Emergency Services (911)
- Federal and State Agencies
- Services & Contractors
- Media

Section 9: Annual Review

The EWSP needs to be reviewed annually by the city council / RWD board and their operator(s). Make sure contacts and telephone numbers are kept up-to-date. In this section, provide a signature page for the board / council members and operator(s) to sign following the annual review.

Once the EWSP is finalized, it is recommended to keep copies of the plan in more than one place – treatment plant, city shop, city hall, RWD office, etc. Systems will also need to produce a copy of the plan during a KDHE sanitary survey.

In conclusion, the EWSP may seem like just another plan that you have to create and keep on file, but it is important for your system to be prepared for an emergency. Hopefully your system will never have to use it. If you would like assistance with creating or updating your system’s EWSP, call the KRWA office at 785-336-3760 or email me directly at monica@krwa.net.

Monica Wurtz began work with KRWA in October 2013. She previously worked at the Kansas Department of Health and Environment and also worked at US EPA Region 7 for four years. Monica is considered a national expert on various drinking water regulations.

