

CHAPTER 6

EMERGENCY PLANNING

The community of Columbia Heights and the Flathead County Water District 101 are situated along US Highway 2 below the Swan Mountain Range and directly East of Columbia Falls with the Flathead River separating the communities. The source water protection plan and the management team have identified principal threats to the sustainability of the water system during an emergency event. This plan is designed to help mitigate against those threats by awareness of the issues, taking measures to mitigate future emergency response and the actual response to an emergency. The planning team met and developed several action items to help mitigate issues and toured the Public Water System (PWS). The tour was conducted by Harold Herman, Flathead County Water District 101 Board Member.

Identification of possible disruption threats

The principal identified threat to the well 1 on Highway 2 is accidental spills or other contaminants from heavy rain or snow events entering the well pit or dry wells located in the control zone of the well. The likelihood of a chemical spill or hazardous materials release occurring is low to moderate but the consequences of the action could be high if it occurs on Highway 2 in proximity to the parking lot of the Old River Bridge Inn or near the dry wells within the 100' radius. A chemical spill or hazardous material release could migrate into the groundwater and get pumped to the distribution system/or warrant shutting down the source and create a loss of the source water for an indefinite amount of time.

Action Items

- To remove or cover the dry well within 18 feet of the well within the zone of control for well 1. A2Z Engineering*
- To assure the Flathead County Hazmat Team and the EMTs are aware of the location of well 1 and be prepared to quickly mitigate any hazardous spills in that location. Kirk Katzenmeyer, Fire Chief*

Another principle threat to the PWS is a loss of power or extreme weather that creates a power outage. Loss of power would be devastating to the PWS since there would be no water pressure to the system. The distribution has an impasse in the valving on Gordon Avenue preventing the use of only one well to supply the entire system. Loss of power would create a no water situation since the storage does not move without boosting and the well buildings only have a minimum residual storage in the pressure tanks.

Action Items

- To install a quick connect to well 2 and locate a generator A2Z Engineering, Emergency Funding if funds available, FCWD*
- Locate the impasse and correct the blockage on Gordon Avenue to allow flow from Well 2 to supply water to the North end of the water district and the West side of Highway 2 and the storage tank. A2Z Engineering, Emergency Funding*

A secondary threat could be the likelihood of an act of vandalism is low based on previous history but the consequences could be high if a chemical or biological contaminant is dumped into the open storage tank and pumped out to the distribution system. Vandalism could also take out the booster pumps making it impossible to pump water out to the distribution system from the storage facility.

Action Items

- To secure the Pump building door with a steel door to prevent a vandal from gaining access.
 - To close in the ceiling and storage tank inside the building so a vandal would not have access to the tank.
 - To secure the perimeter of well 1 with a raised barrier and install a lid to protect contaminants from entering the well 1 pit. Water District Board.
 - To re-locate the well to a more secure location/or
 - To rehabilitate the well and extend the casing to 18" above ground and construct a building.
- A2Z Engineering PER

The table below **Effects of Emergencies on a PWS** was filled out based on the likelihood of the type of emergency occurring and the effect on the water system.

Effects of Emergencies on a PWS

Emergency	Source Water Contaminated	Source out of Service	Storage Tank Damage	Broken Main	Distribution System Contamination	Power Outage
Vandalism	+	-	-	-	+	-
Earthquake	-	-	+	+	+	-
Flood	-	-	-	-	+	-
Chemical Spill	+	+	-	-	+	-
Storm Event	+	-	-	-	-	+
Extreme Temperatures	-	-	-	-	-	+
Power Outage	-	+	-	-	+	+
Hazardous Material Release	+	+	-	-	+	-

Designation of an emergency coordinator

The emergency coordinator for *Flathead County Water District 101* is **Harold Herman, Board Member.**

The contact phone number is (406) **270-7632**. The backup emergency coordinator **will be designated at a later date.**

The emergency coordinator is familiar with the county and state DES procedures and is responsible for contacting the appropriate officials should a spill or other threat to the source water occur. The *Flathead County* DES coordinator 24-hour phone number is **9-1-1**. The State of Montana 24hour Spill Hotline phone number is **(406) 841-3911**.

Equipment and material resources

The principal identified threats to the well are generally limited to spills in the control zone. Resources that may be needed to respond to a spill are heavy equipment for berm and excavation work and absorbent materials. The Regional Hazmat Team is located in Kalispell and ready to respond to highway spills in the area when requested by the local Incident Command or local Emergency Management. The County Highway Department is located a 1/4 mile from the community with heavy equipment and Columbia Falls is across the river with heavy equipment if needed. The local Bad Rock Fire Department is located a mile from Columbia Heights and would most likely be the first responders on the scene. The Flathead County Sheriff, Chuck Curry is the incident commander for emergency events and would be notified in the call process. The appropriate response team would be dispatched based on the size of the accidental spill.

Should additional resources be needed due to the magnitude or chemical nature of a spill the Flathead County Water District 101 will contract with an emergency response firm properly trained and equipped. A list of possible contractors is maintained and updated by the DEQ Enforcement Division (406) 444-0379.

Secondary threats such as vandalism may require backup pumps, isolation of the water storage tank, testing bottles which are on hand with the County Health Department or from a local lab, ME labs in Kalispell. An Electrician may be needed to restore power or hook up a new pump.

A catastrophic loss of water will require the contracted services of a water hauler, a design engineer, and a well driller. The project engineer is Matt Nerdig with A2Z engineering. There is a list of septic and water contractors attached to the plan. Some of the recommended contractors are in red.

The Board of Directors has the ability to hire a contractor in an emergency at this time. A special meeting would be called and the board would vote. If that is not possible the President or Vice President would make an executive decision.

Procedures to shut down the well or intake

The PWS wells can be turned off and isolated from the water supply system. Important valves are located as shown (To be provided by A2Z). Well shut down can be performed by the water districts certified water operator or the designated person in charge only. Shut down of well 2 on Gordon Avenue will result in no water for the East side of the highway from the old River Bridge Inn on Gordon Avenue and Mable Avenue to the South and East boundaries of the water district. Shut down of well 1 will only provide approximately 25,000 gallons of storage to the North end of the water district and the West side of Highway 2 provided the booster pumps have power. This provides water to the Western Inn, Cenex Gas Station, Phygg's Deli, Conoco Gas Station, the Saddle Shop and the residential area of Steele Drive and Circle Drive and the north end of Gordon Avenue.

Under ideal conditions the system can operate without the supply by using water in the water storage tank for **approximately 24 – 48 hours**. Well or intake shut down is the responsibility of the certified operator or backup.

Coordination Procedures

The *Flathead County Water District 101* SWP Plan has been made available to *Flathead* County DES coordinator. Additionally, reportable spills will be handled as per the mandated reporting requirements as follows:

- X Contact (specific) County DES Coordinator **9-1-1** to report spills/emergencies
- X Agricultural chemical or fertilizer spills will be reported to the MT Department of Agriculture (406) 444-5400
- X Any refined petroleum product such as gasoline, diesel, asphalt, road oil, kerosene, fuel oil, and derivatives of mineral, animal, or vegetable oil spills in excess of 25 gallons will be reported to the DES hotline (406) 841-3911.

Procedures to communicate with water users

The nature of the PWS should allow the source water to be isolated from the distribution system in the event of a spill in the control zone that threatens source water quality. If it is determined that the source water was exposed to a contaminant the well or intake will remain off line until sampling proves the water to be safe, an evaluation done in cooperation with the MT DEQ, PWS Section.

Communication with the public is crucial in an emergency. Communicating the message in an emergency would be accomplished through a reverse 9-1-1 phone call/ text messaging and /or e-mail. If the district does not have all of the consumer's notification information then door hangars will be placed on each door of the Districts customers with instructions, a phone number and a website address to call or look for the instructions.

Source of emergency water

If the well is out of service for more than **3 - 4 hours under the current conditions with leaking mains**, an emergency supply of water may need to be arranged. **There is a certified water hauler list located at the end of the plan.** The short-term plan is to haul water using a DEQ approved water hauler from a DEQ approved water source. Should this be necessary, a hauler will be contracted and a short-term plan relating to the source water and disinfection requirements will be submitted to DEQ-PWS Section for approval. **Water could be hauled by a certified water hauler and un-loaded into the storage tank. Water could then be distributed by the booster pumps to residents. The distribution of the water would depend on the power situation of the booster station and storage facility.**

Action Item

- *Flathead County Health Department to provide a list of certified water haulers and certified Septic Contractors that may also do water systems for the County. (Attached)*
Should a total loss of water occur, the services of a design engineer and well driller will be retained to assess the options. Plans and specifications for any new well will require DEQ-PWS Section review and approval prior to construction.

Disinfection and resumption of water service

The well, storage tank, or distribution system can be disinfected for bacteriological contamination as per the DEQ Public Water Supply Program standard disinfection and tank cleaning procedures under the direction of the certified operator. Normal water service resumption will occur after sample results indicate the supply is safe as approved by DEQ-PWS Section and the certified operator.

The involvement of agencies and decision makers in an event of cleanup and determining responsibility and costs associated are listed below as potential but not all inclusive.

The MT DEQ public water field services and engineering, enforcement and other divisions depending on what the chemical contaminant is and the extent of the contamination. Flathead County Commissioners, Board of Directors, the operator or general water district manager, Engineers, legal, insurance company, accounting, EPA, law enforcement... Any debt incurred by the water district would depend on the on the incident and who is responsible and the extent of the incident.

Funds

Currently, the water district has applied for emergency funding of \$20,000.00 from DNRC and borrowing \$30,000.00 from InterCap. The funds will be used for repairs of the leaking distribution lines, valve replacement to open the Gordon Avenue line up between the two wells. There is \$12,500.00 allotted to the water district from Treasure State Endowment Funds to start on the PER. An income survey is being done in order to apply for other sources of grants and loans.

Important emergency contacts and phone numbers

CONTACT NAME	TITLE	PHONE	RESPONSIBILITY
Harold Herman	Board Member	(406) 270-7632	Coordination, Contact Board and Access
Will be decided	insert position title	Insert phone #	describe areas of responsibility
OES Fire Chief/Spill Coordinator	Lincoln Chute	(406) 270-5634	Haul Water and Respond to large spills
Sheriff Chuck Curry	Incident Commander	9-1-1	All Hazard Emergencies
Kalispell DEQ Office	PWS Field Services	(406) 755-8985	Water Emergencies/Contamination
Montana 2 hr. Spill Hotline		(406) 324-4777	All reportable spills.
Leonard Berry	MT Dept. of Agriculture	(406) 444-5400	All agricultural chemical or fertilizer spills or response questions
DEQ Enforcement Division		(406)444-0379	Responds to any event that will pollute surface or ground waters.

Long-term or Alternate Water Sources

The current water supply does not meet peak demands due to significant loss of water through large leaks in the distribution system. Well 2, located on Gordon Avenue does not shut off due to low pressure and not ever reaching the cut out pressure to shut off. The short term strategy is to obtain Emergency funds from the Department of Natural Resources and Conservation and borrow from InterCap to make repairs to the distribution system.

Long-term strategy is to draft a Preliminary Engineering Report to determine what the actual pump capacities and pumping rates of the existing wells are and apply for Grants and Loans to construct a new distribution system, adequate storage facility and booster station, install fire protection and upgrade or re-locate well 1.

APPENDIX A – FLATHEAD COUNTY HAZARDOUS SPILL RESPONSE TREE



