

## SWPP COMMITTEE REPORT TO THE BOARD

APRIL 29, 2023

The Source Water Protection Plan (SWPP) committee met by Zoom on April 20, 2023. In attendance were Gary Burke, BCLOA President (who arranged the Zoom), and Ron Martin (Chair of the Bear Creek Water Committee); and SWPP Committee members John Bannerman (Chair), Tony Ladino, Mike Tebo, Keith Hayden, and Gene Kazor. Absent with an excuse were committee members Terry Mayhill and Rich Bassinger.

John Bannerman began with an explanation of why and when the SWAPP Committee was formed, its relationship with the Colorado Rural Water Association (CRWA), and what a Source Water Protection Plan is, and what it is not. The benefits of a SWAP, according to the CRWA website, are:

- Protection of a valuable resource,
- Protection of public health,
- Reduced risk of contamination,
- Reduced cost for treatment,
- Avoidance of expensive clean-up costs,
- Coordination of land use,
- Obtain funding with grants.

In its simplest terms a SWPP identifies the source of a community's water, defines an area in which its source water needs to be protected, lists potential contaminant sources within the area, and outlines Best Management Practices (BMP) to reduce risks to the water source. Implementation of a SWPP provides additional protection to Bear Creek's water supply beyond required drinking water regulations.

This SWPP Committee is also tasked with developing several best management practices (BMPs) to reduce the risks from potential contaminant sources and other issues of concern. The BMPs are centered on building partnerships with Bear Creek Residents, businesses, and local decision makers; raising awareness of the value of protecting community drinking water supplies; and empowering local communities to become stewards of their drinking water supplies by taking actions to protect their water sources.

As a tool for the BCLOA to use to ensure clean and high-quality drinking water sources for current and future generations, a SWPP is also designed to:

- Create an awareness of the community's drinking water sources and the potential risks to surface water and/or groundwater quality within the watershed
- Encourage education and voluntary solutions to alleviate pollution risks
- Promote best management practices that protect and enhance the drinking water supply
- Provide a comprehensive action plan in case of an emergency that threatens or disrupts the community water supply

The SWPP may be used by the BCLOA Water Committee's to recommend future changes to the water system infrastructure within the subdivision.

To accomplish this the SWPP Committee follows a process *defined by the State of Colorado* to:

- Involve local stakeholders in the planning process.
- Develop a comprehensive protection plan for all of their drinking water sources.
- Implement the protection plan on a continuous basis to reduce the risk of potential contamination of the drinking water sources.
- Monitor the effectiveness of the protection plan and update it accordingly as future assessment results indicate.

Bear Creek is doing this because it is the state-approved process to determine how to address hazards posing a threat to Bear Creek's water production (well) and its water storage and distribution system. Also, Bear Creek we can receive from the CRWA up to \$5,000 in grant funds from the CRWA, **at least \$2,000** of which must be used for **implementing** Best Management Practices identified in the SWPP. This is an in-kind grant which gives us dollar credits for the time we spend on the project.

#### The Steps Taken To Complete the Process

1. The CRWA has assigned Ms. Mallory Hiss to assist us in the process. Ms. Hiss visited Bear Creek and was given a tour of the water system. On January 1, 2022, Rich Basinger, the Bear Creek Water Tech, submitted an application that Ms. helped Rich prepare. Our Application was approved on **December 21, 2022**.
  - a. Normally a community begins the process by preparing a "Source Water Assessment Report" (SWAR). The CRWA concluded that because (a) Rich Basinger had prepared a SWAR for The Conejos Ranch (located on the northside of the river above the Conejos ranch Lodge) in 2004, and (b) the owners of the Conejos River Camp Ground RV Park at Fox Creek prepared one the same year, Bear Creek could rely on their SWARs. Given the proximity of these two SWARs, Bear Creek did not conduct its own SWAR and will rely, to the extent necessary, on the 2004 reports, which are almost identical.
  - b. The next step is to draft and SWPP, submit the draft to the BCLOA members for comment, get Board approval and then submit it to the CRWA.

The Goals of the process according to the CRWA website are:

- Stakeholder involvement
- A map outlining the Source Water Protection Area
- An inventory of potential sources of contamination (PSOC's) and local issues of concern -
- A contingency plan to ensure a safe water supply in the event of an emergency/unforeseen contamination.

- Specific protection measures to address each of the PSOC's and issues of possible threats to your source water local concern.
- A steering committee to develop and implement the plan.

#### **Ron Martin Raised an important Question:**

At this point in the meeting Ron Martin requested that the SWPP Committee, based on its as yet to be determined, study findings and conclusions, provide its recommendation to the water committee as to how much water reserve they would recommend in order to sustain an adequate supply of water to the community for the period of time that any one of the committee's identified "hazards", i.e. fire, river contamination, flooding, etc., could render the current infrastructure that produces and or distributes water, unavailable for an indeterminate but extensive period of time i.e. days/weeks.

The committee chair, John Bannerman suggested that it was neither practical nor feasible to expect the SWPP Committee to provide this information. Gary Burke, Mike Tebo and Tony Ladino suggested that we move on and so the issue was tabled, and the group moved on to other agenda items.

#### **Five Hazards Initially Identified.**

John Bannerman explained that's since the Fall of 2022 Rich Basinger, Tony Ladino and he have been looking at information that includes the *San Luis Valley Hazard Mitigation Report for 2023*, and the SWPPs of similarly situated communities and they had initially identified five hazardous events that could impact Bear Creek's Water Quality. The five were discussed generally and approved by the committee to be included in the process leading to the finalization of the Bear Creek SWPP.

At the April 20, 2023 meeting, specific committee members were tasked to research one or more of the hazards and produce a report not Later than May 24, 2023. They members were encouraged to speak with one another as well as other members of the Bear Creek Community that might have professional backgrounds that might assist them in developing possible mitigation efforts or Best Management practices to deal with a hazard, if and when it occurs.

The initial five hazards are:

1. **Freezing.** This hazard was identified by JDS Hydro in 2013 as the "...ofallofthe [risks]facingtheBCLOAinregards tothepotable watersystem thisparticularissueisofthegravestconcern." It can impact both wells and the distribution system, and it is the only recurring hazard Bear Creek faces. We have, however, implemented one of the JDS Hydro recommend mitigations – the freeze pits on Quail Ridge and Elk Run. Propane fueled heaters have been installed in each well house. **Ron Martin and Gene Kazor** will look further at potential freezing problems and how they may be mitigated, including replacing a gas fueled generator at the upper well house with a propane generator attached to the existing 500 gallon propane tank.
2. **Flooding/silting.** This is a major hazard to the lower well, the major source of Bear Creek's water production. In addition to the river, flooding and silt from runoff on the hillside to the north have threatened the water quality of the lower well. Flooding also has the potential of

cutting off access by water personnel to all or part of the subdivision. **John Bannerman & Gene Kazor** will address this hazard and potential mitigation actions.

3. **Electric power outage.** An prolonged outage that stops the pumps at both wells and prevents the storage tanks from being kept full poses a major risk to the community. In addition to Xcel outages, or downed lines can cause fires and in some case equipment failures. It can also impede data communications between the upper and power well houses, and with Pathways, the company that manages our water metering system. The generator at the lower well house is getting old and relies on Diesel fuel. It is only used to power the water system – not the community at large. A question was raised as to whether a newer and smaller propane generator would be effective to meet the needs of the association. **Gary Burke** volunteered to analyze this hazard and propose BMPs mitigate it.
4. **Fire.** Fires can occur within the subdivision in a house or garage, or wildfire can threaten the entire subdivision. Fires, in addition to a power outage, can pose a threat to both wells, contaminate the river, and cut off access and ingress to all or parts of the subdivision, including the well houses. While fire poses a risk to both wells, Ron Martin made the point that the upper well is the most important because it contains the two storage tanks, which are fiberglass and will melt. Because powerlines into subdivision are on poles until they cross the river if the break they place the lower well and the structure holding the large diesel powered generator at risk and may not allow adequate time for a firefighting response. **Keith Hayden and Mike Tebo**, will look at this hazard from the water system perspective.
5. **A spill upstream** - Any type of spill or leak into the river upstream of the lower well can contaminate the lower well and the water it produces. The spill could include those occurring on the highway, or some known risk along the river. **Tony Ladino and John Bannerman** will look into this hazard.

The Committee then discussed other potential hazards:

- **Physical Damage to the well houses** by something other than fire or flooding poses a risk to the system. This could be a fallen tree, a rock fall, or a large vehicle that runs into the well house. **Mike Tebo and Ron Martin** will look at this potential risk and suggest mitigation actions.
- **The Mammoth mine Tailing Ponds at Platoro.** This hazard is listed in the San Luis Valley Hazard Mitigation Plan and the in the Conejos Ranch and Conejos Campground SWARs. Initial research indicated that the pond's contents have, in the past, been discharged into the river under the supervision of the Colorado Environmental Department. Because these discharges are very similar to a spill from a tanker truck, **Tony Ladino and John Bannerman** will look for more information on the releases, dispersion, and time of travel. If the discharges are toxic, the mine will be included under **Spills**.

- **Septic Tanks** within the Subdivision. Since Septic tanks must be 100 feet from the river, only those residences that are near the river pose a risk. The committee decided that the education of the homeowners might be all that is required.
- **Cyber security Attacks.** Ron explained how the well houses communicated with one another, and how the four members who have access to the new system that was recently installed provides a reasonable degree of protection from outside hackers. It was decided that the Water Committee should develop a BMP document regarding password protection. One issue that may need to be addressed is how to mitigate the loss of communications if there is damage to the bridge on which Jade's fiber optic cables are attached. **Ron Martin** agreed to contact Jade and look into the cable crossing, and the general security of the jade system itself. Mitigation of a break in the Jade cable crossing the bridge may be added to the SWPP under the flooding category.
- **Noxious Weed Control.** The San Luis Valley Hazard Mitigation plan lists Noxious Weed Control as a risk. Generally speaking, there is not wide spread use of weed poisons within Bear Creek, and any produced use by the Department of Transportation along Highway 17 above the river will not contain toxic substances. It was decided that the Board needed to provide seasonal education information to the members regarding the danger of using toxic weed control liquids.
- **General Pump Failure.** It was agreed that pumps can cease working for any number of reasons, many of which do not involve contamination of Bear Creek's source water or the occurrence of a hazardous event. That being said, the inability to store an adequate amount of water can create a serious health risk for the residents of Bear Creek and impact the BMPs set forth in the SWPP. The committee concluded the *Water Committee* needs to develop BMPs to address how to mitigate and handle *all water pump failures*.
- **Road Dust Retardant.** Gary Burke explained that the BCLOA Board has carefully considered the composition of the dust retardant used by Mountain Valley on Bear Creek's roads, including the MSDS for the liquid, which indicates it is not toxic and poses no threat to the ground water.

Stake Holders. The Committee approved the following list of stakeholders to be involved in the meetings set up by Ms. Mallory Hiss:

1. Rodney king
2. Conejos Sheriff
3. State police rep in charge of our district
4. Local Fire Department personnel
5. Nathan Coombs (CWCD)
6. Linda Herrera, Conejos County Land Use Administrator
7. Denise Jiron, Conejos County Health Department
8. The Xcel line supervisor for the canyon (not an office-type in Alamosa or elsewhere)
9. local Fire Protection Districts
10. Local USFSS, CSFS, BLM and any other agencies/departments involved in coordination of a Hazardous Response.

## FOLLOW UP ACTION ITEMS

1. The chair bannerman will provide a template for the members to use for their draft reports and BMP lists.
2. Each team will meet and confer with one another, if necessary with BC owners who have professional or actual hands on experience dealing with the assigned hazard and begin analyzing the BMPs that are most suited to mitigate the hazard. They should take photos or gather other materials they need to prepare their section of the SWPP. In doing so they are encouraged to look at and utilize portions of other SWPPs for similar hazards in similarly situated Colorado Communities.
3. **Team Reports are due May 24, 2023.** They should be sent to all committeemembers for comment and Bannerman for compilation.
4. Contact Mallory Hiss regarding the next steps, including setting up stake holder meetings.

Submitted by

**John Bannerman**, Chair

On April 27, 2023

CC: BCLOA Board  
Committee Members  
Ms. Mallory Hiss, CRWA