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NOV 28 2022

Department of Water Resources
Eastern Region

11/27/22

Idaho Department of Water Resources

900 North Skyline Drive Suite A

Idaho Falls, Idaho 83402

David Craig

5 Riverside Drive

Salmon, Idaho 83467

Dear Department,

I recently received a copy from one of my neighbors of a protest filed by Sadie Barrett regarding a request by Tri-West Leasing (Gil and Kathy Kort, referred to as Tri-West hereafter) to correct the point of diversion on their domestic use water right #14748. Ms. Barrett's claims in her statement are so factually inaccurate that I am compelled to right this letter of refute. Ms. Barrett claims that Tri-West has some other domestic supply and is trying to change their domestic source to the Lake Creek Spring. This is simply not true. There are currently ten domestic users on Lake Creek Spring, not 9. Tri-West is one of them. I have personal knowledge of the Lake Creek Spring/Subdivision water spring. I am one of the ten users, and have been involved in maintenance and repairs to the spring for the past 2 years. The cost of repairs to the spring has traditionally been split amongst the 10 users and this has always included Tri-West. Tri-West has always sourced their domestic water from the cistern that serves all ten of us.

Barrett's claim that Tri-West is illegally obtaining irrigation water for their irrigation permit #75-7524 directly from the cistern is a blatant fabrication. Tri-West has a ½ horse submersible pump in the Lake Creek Spring cistern that is only piped to their home. All irrigating is done out of a pumphouse located hundreds of feet downhill from the Lake Creek Spring cistern. The irrigation pumphouse receives water from the Lake Creek Spring cistern overflow pipe. This pumphouse houses an irrigation pump separate from the small domestic pump in the Lake Creek Spring cistern. Barrett's claims regarding water shortages being caused by Tri-West's pumps are ridiculous. Their domestic use pump is suspended several feet from the bottom of the cistern, so they are the first to run out. It is physically impossible for the Tri-West pump to cause the siphon to break (air lock) in our piping, nor is it possible for their use to run anyone else out of water. We have had to re-prime our pipe one time since the Tri-West home was built and that was due to a breach in the pipe caused by excavation. When this incident occurred I personally restored the flow at no cost to the residents; Barrett's claim of expense to residents for occasional loss of siphon is factually untrue. Her claim that Tri-west has somehow caused shortages is equally ridiculous. To my knowledge, no one has experienced water shortages until this past summer. There has always been a robust supply of water exiting the overflow of the cistern. The collector that transports water from the Lake Creek Spring to the cistern became plugged with tree roots and failed during the summer of 2022. Because the collector failed, the spring found a new pathway to the surface and ran down the hill without entering our cistern. Tri-West spent much of the summer without domestic water to their house because of the severely diminished flow into the cistern and the fact that

their pump is suspended off the bottom. Barrett's refusal to curtail irrigation during this time contributed to residents being without water more than any other factor except the collector failure itself. I participated in repair of our collector in October of this year. We replaced the piping, collector medium, and barriers. With the flow of our spring once again going into the cistern, there is ample water for all ten users. At last test, there was a flow of unused water measuring 100 gallons per minute exiting the cistern via the overflow.

Barrett's statement that Tri-West has other sources for domestic water is not relevant and also untrue. The well located near their home (432712) is a shallow well used in conjunction with a ground source heat pump and is not considered potable. Tri-west's other water rights are irrigation rights. The domestic use right #14748 has a point of diversion in the Lake Creek Spring cistern. The paperwork should be corrected to show the correct point of diversion.

I would encourage the Department to conduct a field exam. A simple site visit will easily prove most of the allegations in Ms. Barrett's appeal to be false.

Sincerely,


David Craig
Manager, Natural Land Management

David Craig

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Eastern Region



LAKE CREEK SUBDIVISION

Water System Guide



OCTOBER 22, 2021

The Residents of Lake Creek Subdivision share an informal spring-fed water system for domestic use. This guide is intended to accomplish the following:

1. Distribute to Residents basic information about the system and how it works.
2. Provide detailed instructions on what to do when the piping system becomes air locked.
3. Provide detailed instructions for disinfecting the system in the event there is suspicion that sanitation has been compromised.
4. Keep the water safe for all users.
5. Promote cooperation and unity amongst the users of the system.

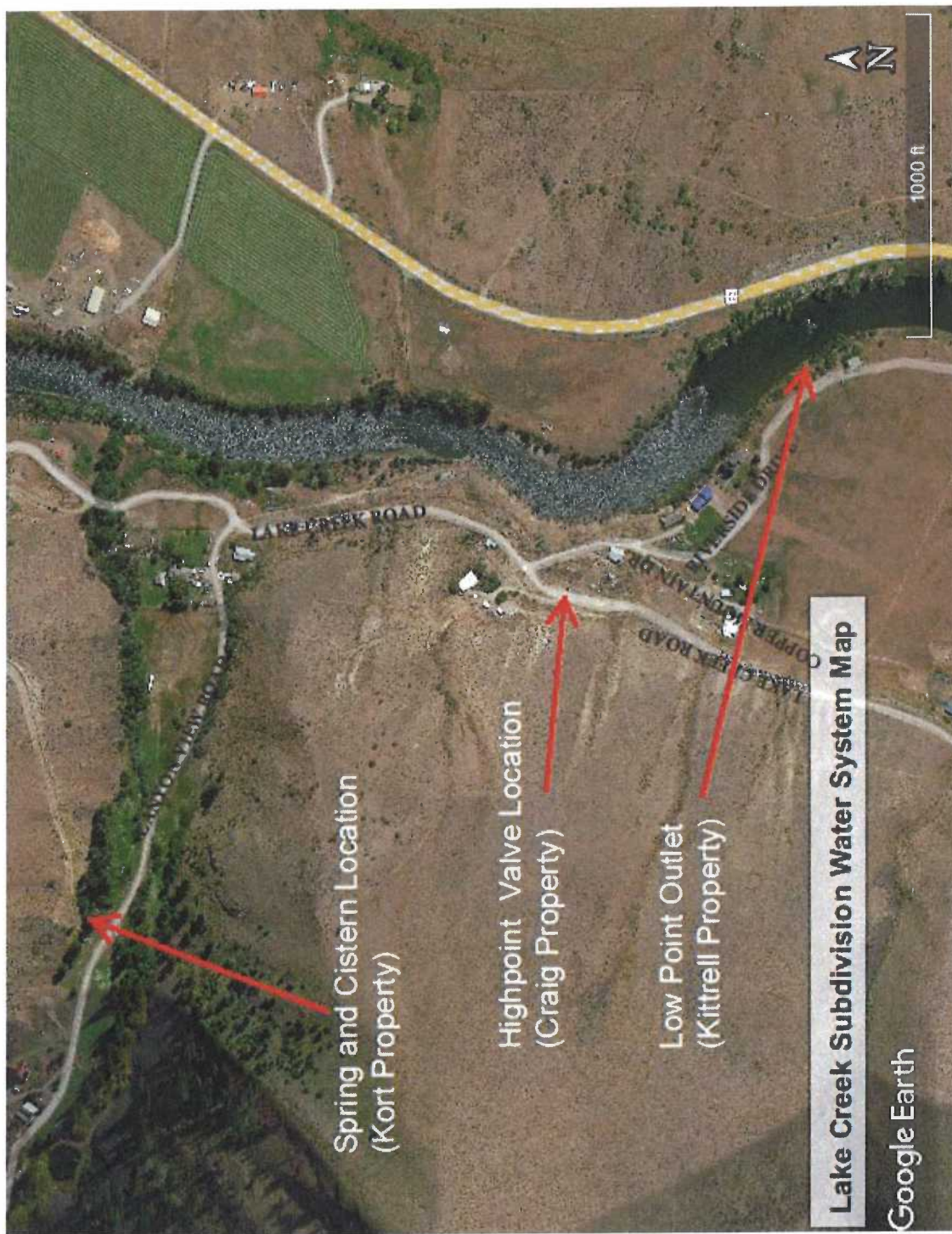
1. SYSTEM OVERVIEW

The system starts at a natural ground source spring located exactly one-quarter mile up Canyon View Road on Kort Property (see Water System Map). PVC piping collects the spring water where it comes out of the ground and feeds it into a 10,000 gallon concrete cistern (see picture 1).



PICTURE 1

The cistern has two outlets. A 4" outlet in the bottom feeds the piping system for Lake Creek Subdivision's domestic water supply. A second 4" outlet near the top of the tank provides an overflow for unused water to flow downhill to a secondary pumphouse where it is used under an irrigation water right. Directly down stream of the cistern, there are three pipes sticking out of the ground (see picture 2). There is a white PVC vent pipe that does a u-turn near the top. There is a 4" PVC riser tube with a T handle sticking out of it that provides access to a main shut off valve. The main shutoff valve closes supply of water from the cistern to the entire piping system. The third pipe is a grey PVC pipe with a 2" standard fire hose connection and an automatic air vent. When the main valve is closed, the automatic air vent will let air into the piping system to prevent the continued discharge below from collapsing pipes. The piping system to the Residents along the river undulates, which means it goes both downhill and uphill (See figure 3).



Spring and Cistern Location
(Kort Property)

Highpoint Valve Location
(Craig Property)

Low Point Outlet
(Kittrell Property)

Lake Creek Subdivision Water System Map

Google Earth

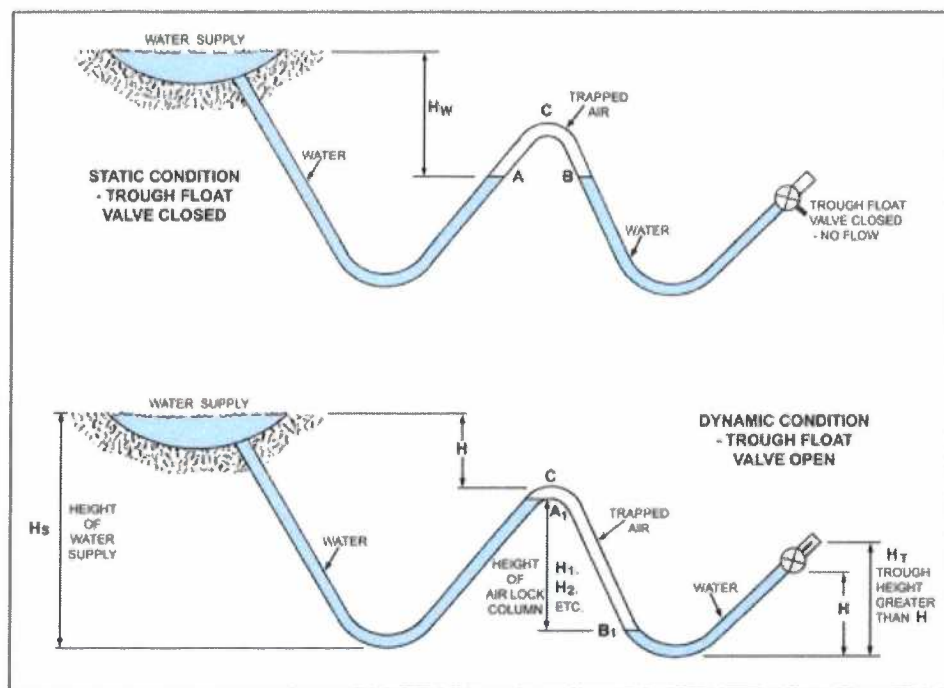
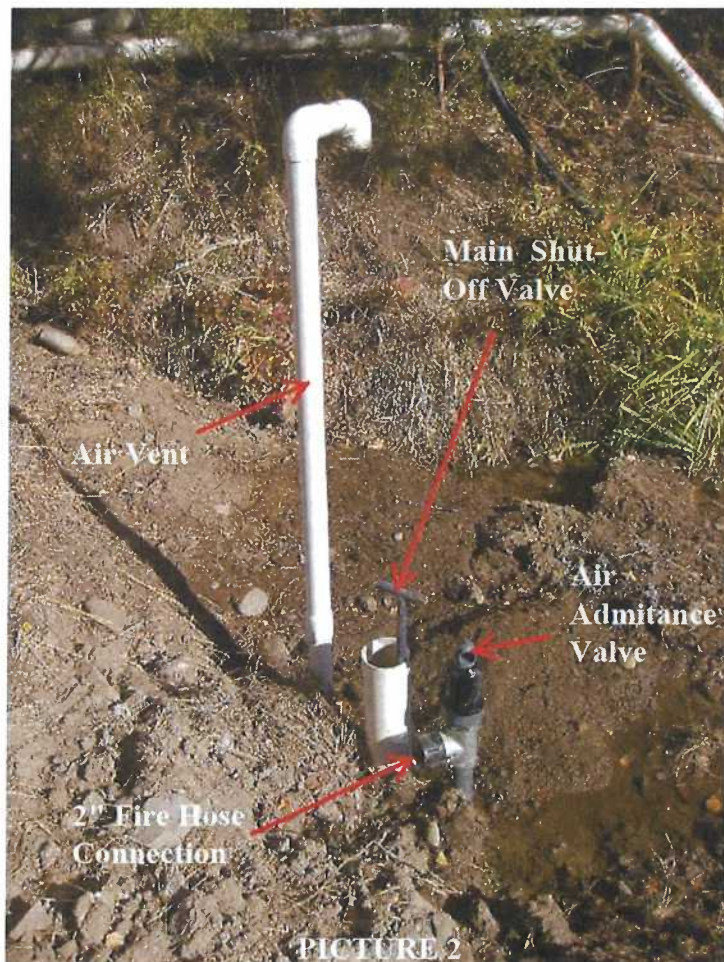


Figure 3 Formation of a Total Air Lock



The high point of the undulation is only 12 inches below the water level in the cistern. SHUTTING THE MAIN SHUTOFF VALVE WILL LET AIR INTO THE SYSTEM AND CAUSE AN AIRLOCK PREVENTING WATER FROM FLOWING TO THE USERS BEYOND THE UNDULATION (see figure 3). When the system becomes air locked (or partially air locked), the piping system will need to be manually charged using a pump. See section 2 for the procedure to do this. The piping follows the Canyon View Road down to Lake Creek Road. It follows Lake Creek Road South to the intersection with Riverside Drive where it tees and continues down both lanes. On Lake Creek Road, the 4" pipe enters a pump house that is mostly below grade. (see Water System Map and picture 3) Inside this pump house there is a pair of valves (see picture 4). One shuts off water to the pump in the vault, which supplies 9 Copper Mountain Drive (Linda Hawkins). The other operates an outlet that serves as a high point outlet. It is important in the event of an air lock, a partial air lock, or the need to close off the supply valve to 9 copper drive that the pump be unplugged to prevent damage to the pump from lack of supply water. The second line from the intersection of Lake Creek Road and Riverside Drive continues down Riverside Drive. 5 Riverside Drive (David and Melissa Craig) also has a pump as well that needs shut off in the event of loss of water. The remaining users are far enough below the spring head to get by with gravity only, producing water pressures from 30 psi to 45 psi at the end point (26 Riverside Drive, Kittrell). The residence at 26 Riverside Drive leaves a hose running a moderate amount 24/7/365 to keep flow running through the undulating system see pictures 5 and 6). This keeps the water fresh and prevents build up of air should no other use be occurring.



PICTURE 3



PICTURE 4

2. RE-PRIMING THE SYSTEM IN THE EVENT OF AN AIR LOCK OR PARTIAL AIR LOCK

Re-priming the system is relatively simple provided that the following procedure is followed exactly.

To reprime the system, you will need the following:

- a. A portable gasoline powered pump with 2" fire hose. The pump should be a high volume, low pressure pump, typically referred to as a "trash pump". Do not use a pump capable of generating high pressure (greater than 45 psi) as damage to the piping system could occur.
- b. The combination to the lock on the cistern lid
- c. At least two people, preferably with radio communication, but not required.
- d. An adjustable wrench to open and close the high point valve

Step 1. Open the lid to the cistern and lower the portable pump intake hose into the water in the cistern.

Step 2. If the main shut off valve is not closed, close it now (see picture 2)

Step 3. Connect the pump fire hose to the fire hose connection on the grey pipe below the cistern (see picture 1)

Step 3. If the main shut off valve is not closed, close it now (see picture 2)

Step 4. Turn the hose bib at 26 Riverside Drive that serves as the low point drain to the fully open position. (see Water System Map and pictures 5 and 6)





- Step 5. Open the high point valve in the pumphouse on Lake Creek Road to the fully open position (see picture 4). The person that opens this valve needs to remain at the location and be prepared to close this valve.
- Step 6. The second person can now start the portable pump at the cistern. This will begin pumping water into the piping system. Trapped air will be forced out through the high point valve and the short pipe connected to it. It will take 3 to 10 minutes for all of the air to be purged, depending on how much air was in the system and the size of the pump.
- Step 7. The person monitoring the high point valve (see picture 4) will watch the outflow from the valve until they are getting free flowing water without air. If there is radio communication between both persons, the person at the high point valve should inform the person manning the portable pump at the cistern that they are going to shut the high point valve. Close the high point valve (see picture 4). Once the high point valve is closed, the person at the cistern should shut off the portable pump, disconnect the fire hose, replace the cap at the fire hose connection, and immediately open the main valve at the cistern (see picture 2). *If the firehose is not disconnected and the cap replaced before opening the main valve, the person doing so will get quite wet as this fitting is below the water level in the cistern. This process should be completed quickly as once the portable pump is turned off, the piping system will begin taking in air until the main valve can be turned back on. This air will be minimal and will rise back to the air vent at the cistern and not cause a problem as long as the process is completed quickly.* In the event communication is not possible, the person at the portable pump at the cistern should closely monitor the pump for signs of increased water pressure. When the high point valve is closed, there should be an audibly discernable jump in pressure that will signal the need to shut off the portable pump, disconnect the fire hose, replace the fire hose connection cap, and open the main valve from the cistern (see picture 2). If the portable pump is equipped with a pressure gauge, simply monitor the gauge.
- Step 8. If there is concern that the sanitation of the system has been compromised, disinfect the system per section 3 below.

Step 9. Replace and lock the cistern lid.

Step 10. Return the low point drain at 26 Riverside Drive to a slightly open position (approximately 1 gallon per minute.) This can be done the next day if desired, leaving it fully open for 12 hours will help flush the system of any sediment dislodged from the piping and/or additional air bubbles that might remain in the system.

3. DISINFECTING THE SYSTEM

If there is an event that causes suspicion of compromised sanitation, the system should be sanitized. Sanitation will require the cooperation of all residents hooked up to the system. The easiest and most common way to sanitize potable water is to use chlorine. A successful sanitizing requires a chlorine concentration of 100 to 200 parts per million. This can be accomplished using either unscented household bleach, or chlorine powder granules. The amount of chlorine required is based on the size of our system. For 5.25% household bleach, shock treatment would require 16 gallons, while 1 pound of 70% chlorine granules will provide the same chlorine levels. The household bleach is probably more readily available in Salmon, Idaho. Chlorine does not store well long term, so having a local source is important. IT IS IMPORTANT THAT ALL RESIDENTS ARE INCLUDED IN THE SHOCK TREATMENT PROCESS. CHLORINE LEVELS ABOVE 5 PARTS PER MILLION ARE NOT SAFE TO DRINK. Shock treatment requires 12 hours during which time the water system will be unavailable for use. Care should be taken to prevent water with high levels of chlorine from being delivered to stock, entering a stream, or entering septic systems. High levels of chlorine will damage the microbes that are essential to working septic systems. Spring water needs to be diverted from entering the cistern during the disinfecting process.

Step 1. Notify all residents of the plan and schedule for shock treating the system. If shock treating is needed but cannot happen for a period of time, residents should be advised to boil drinking water. Residents should be advised to draw and store water for flushing toilets, etc. if they desire.

Step 2. At the scheduled time, all residents should turn off all water use. The end point drain at 26 Riverside Drive (see Water System Map and pictures 5 and 6) should be turned off. All stock watering tanks also need to be shut off.

Step 3. Spring water must be diverted around the cistern.

Step 4. Add the appropriate amount of chlorine to the cistern. Use 16 gallons of unscented 5.25% household bleach, OR 1 pound of 70% chlorine powder granules. If using granules, broadcast them evenly over the water surface to ensure even distribution. Let sit for one hour.

Step 5. Have each resident run a faucet or hose only until they can smell chlorine. Preferably this would happen starting with the resident closest to the cistern and proceed one at a time until the furthest resident has chlorine smell at their tap.

- Step 6. Once the chlorinated water has been distributed throughout the system, the system needs to sit for 12 hours. No water use is advised during this time. The water will not be safe for consumption, and the high levels of chlorine are potentially damaging to septic systems.
- Step 7. Once the determined disinfecting period has passed, the chlorinated water needs to be flushed from the system. During the flushing period, someone needs to monitor the water level in the cistern. Several residents should turn on hoses and begin discharging the chlorinated water. The chlorine could be hazardous to certain vegetation, so should be discharged in a non-sensitive area such as a driveway where the chlorine will naturally dissipate through evaporation. Internal faucets should not be used as they discharge into drains and septic system damage could occur.
- Step 8. The person in charge of monitoring the water level in the cistern will divert the spring water back to flowing into the cistern when the cistern is close to empty. Care should be taken to discharge almost all of the chlorinated water before resuming the flow of spring water into the cistern, but not so much that the outlet sucks air potentially air locking the system and creating the need to recharge the piping system.
- Step 9. Once the spring is diverted back into the cistern, the endpoint drain at 26 Riverside Drive (see Water System Map and pictures 5 and 6) can be turned back on to a normal trickle of approximately 1 gallon per minute.
- Step 10. Residents should continue to run water until they no longer smell chlorine. Most people can smell chlorine at levels above 3.4 parts per million, so once they no longer smell chlorine, the water will once again be safe to use!
- Step 11. Any Stock watering tanks should also be flushed and returned to service.

4. KEEPING THE WATER SAFE

Many of the homes using the water system in Lake Creek Subdivision were built many years ago and lack features required in newer homes such as back flow devices, check valves, and anti-siphon hose bibs. That means we are all interconnected into one large network of pipes that run from the spring all the way to each toilet, hose, and faucet. As a community, it is our responsibility to be aware of this interconnection and take care to watch out for each other by being aware of possible sources of contamination. For example, if there is a breach in the system, it is likely that water in garden hoses could be sucked back into the system. That means an old garden hose whose end is in that old water trough might suck the contents of that water trough right into our water system... Keep from exposing hoses to pesticides, and other contaminants. Disconnect hoses when not in use. Above all, if there is an incident, communicate!

5. OUR COMMUNITY, OUR WATER

The water system that we currently use has been around for a long time. It has traditionally been safe, dependable, and very economical. With a little effort, this should continue for many years to

come. The informal nature of our shared system is part of what makes it great! The spring delivers quality water, the system works, and we all have great, nearly free water. With a little cooperation and communication, we should be able to continue this blessing. Appendix A contains the current names, addresses and contact information for those who are connected to the system. As residents change, this list needs to be updated and kept current for communication needs.

Appendix A: Contact Information

Address: 37 Canyon View Road
Resident(s): Gilbert and Kathy Kort
Phone: 949-244-0736
Cell Phone: 949-246-5678 (Kathy)
Email: grksa13@gmail.com

Address: 10 Riverside Drive
Resident(s): Wade and Sadie Ayala
Phone: 270-350-0142
Cell Phone: 209-469-0533 (Sadie)
Email: chisel.aviation@gmail.com

Address: 5 Canyon View Road
Resident(s): Kyle Faulkner
Phone: 208-756-2247
Cell Phone: 208-756-7302
Email: kylefaulkner@centurytel.net

Address: 12 Riverside Drive
Resident(s): Richard Aksland
Phone: 209-608-2999
Cell Phone:
Email: raksland@msm.com

Address: 2 Canyon View Road
Resident(s): Rolland Miller
Phone: 208-756-4718
Cell Phone:
Email: judy.miller2006@gmail.com

Address: 14 Riverside Drive
Resident(s): Lydia Leyba
Phone: 208-993-3956
Cell Phone:
Email: lydialeyba@hotmail.com

Address: 139 Lake Creek Road
Resident(s): Leslie Shumate
Phone: 208-756-2042
Cell Phone:
Email: shumate@centurytel.net

Address: 26 Riverside Drive
Resident(s): William Kittrell
Phone: 208-756-1528
Cell Phone:
Email: Kittrellbill@gmail.com

Address: 5 Riverside Drive
Resident(s): David and Melissa Craig
Phone: 208-756-1019
Cell Phone: 503-789-8034
Email: david@questaff.com

Address: 9 Copper Mountain Drive
Resident(s): Linda Hawkins
Phone: 208-756-1807
Cell Phone:
Email: linda-hawk@hotmail.com

The combination to the lock on the cistern is: 2012