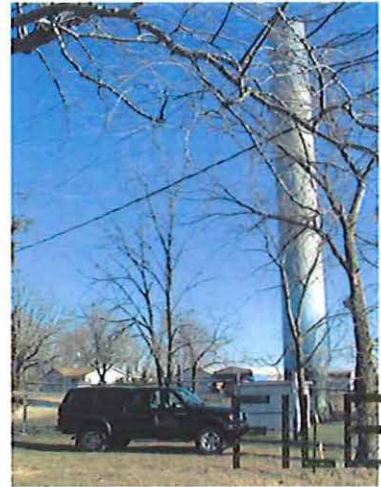


Riverfork Water Company
P.O. Box 1080
Nixa, MO 65714
417 725-3980



January 21, 2015

NOV 30 2015

Riverfork Water Company

**Missouri Public
Service Commission**

During the summer of 2012 a residential customer reported that low pressure occurred at their house. This was the first time that we were made aware that there was low pressure. In response to this report, we were advised that the Missouri Department of Natural Resources placed a device on the house that measured water pressure. We have never seen a report on this test or given the protocol on how the test was conducted. It is our understanding that pressure was measured by attaching the measuring device to a hose bib at the house, not at the water main servicing the house or at the water meter. We do not know if there was any evaluation of the adequacy of the plumbing (Stone County does not have a plumbing code) of the house or if there were times when several water using appliances were in operation and outdoor watering was going on.

There may have been instances of low pressure when under previous ownership because a booster pump was installed in the well house. This booster pump ran continuously and needed to be replaced every year or so at a relatively costly amount of money. We used a well pump service company to provide the replacement. We were told that the booster pump was only pumping the in a circle and actually not increasing the pressure. We were also told by the Missouri Department of Natural Resources that the booster was "illegal." For several years after the booster was taken out of service there were no known complaints about low pressure. That was until the summer of 2012 went the area was experiencing drought conditions and the Riverfork system residents were using large amounts of water for their lawns and gardens.

We were fortunate that the Engineering Company that did the original system design was still in business and familiar with the system. And they were also able to provide us with the design prints which were not given to us by the previous owner. We were able to consult with Rozell Engineering about the low pressure experienced by the home owner on the West of Highway M. They advised that the well and standpipe were sized for the development on the East of highway M. The well and standpipe was placed at the highest point and the natural slope of the subdivision toward the Findlay River and supplied adequate water pressure. There have been additions to the original subdivision both on the East and West Sides on Highway M which taxed

Exhibit No. 1
Date 11-19-15 Reporter TCV
File No. WR-2015-0192



both the capability of the well which also affected the pressure. Here are some of the comments from the Engineering company's field survey:

"This is an existing water system that currently has 148 service connections in multiple subdivisions with a population of 370. The system is operated under PWS ID No. M05036315. The system is served by one state-approved well drilled in 1988 to a total depth of 723 feet and is cased with six-inch steel casing to a depth of 351 feet. The well is equipped with a 15 H.P. pump that produces 44 gallons per minute. System storage and pressure are provided by a 100 foot tall standpipe with a total capacity of approximately 57,000 gallons.

There have been issues with low pressure in the part of this system that is located north and west of Highway "M". Water mains were extended into this area from the original system several years ago. Since part of this area sets at a slightly higher elevation than the base of the standpipe, the static pressures are lower than what exists in the remainder of the system south and east of Highway "M". When the system is taxed, as it was during the summer of 2012 due to very dry conditions, the existing well pump has trouble keeping up with demand and maintaining an acceptable water level in the standpipe that would provide minimal pressures in the area in question. The owner of the system is therefore proposing to drill a new state-approved well in the area north of Highway "M" along with a ground level storage tank, high service pumps, and pressure tanks. This option was chosen for several reasons. First, the existing six-inch well can only produce so much water and is limited on the size of pump it can accept. The proposed eight inch well will be able to produce more water for existing and future use and will be able to accommodate much larger pumps. Second, by placing the new well in the area north of Highway "M" at the higher elevation and employing high service pumps and pressure tanks, pressures in this area can be maintained at an acceptable level. Third, most of the area south of Highway "M" is developed and this was the only area where land was available to build improvements to the system.

Once the improvements are in place, it is proposed to isolate the system into two parts by use of a gate valve in the water main that crosses Highway "M" from the south to the north. The original well and standpipe will continue to serve the area south and east of Highway "M" while the new system will serve the area to the north. This will allow the pressures in the affected area to be increased to an acceptable level and at the same time not adversely affect areas at lower elevations. Of course, if necessary, the gate valve can be opened to allow water flow from either supply source to feed the entire system in case of a pump failure at either well. The design calculations that follow were compiled assuming that the new well could serve the entire system, if necessary, as well as some future growth."

To find a solution to inadequate well capacity, we in consultation with the engineering company determined that a second well was needed, however there was no place to put a second well. A solution came available when Rick Russell asked if he could connect to the water system for a small development on the West of Highway M. We agreed to this with the condition that he would give us a place to drill a second well. We also requested that Rozell Engineering be used for his design work since they were working with us on system pressure when the system is taxed during extreme dry conditions. Progress went along well and the DNR was called in to determine if the location for a second well was suitable. It was and the DNR provided the well depth and casing requirements. We also contacted Ozark Electric Coop to determine if 440 three

phase electric service was available. During this time Rick Russell developed Parkinson's disease. We didn't realize the extent of his sickness, but communications dropped off. We later found that Rich passed away.

In respect to his wife Cindy and family we waited for time to pass in order to proceed with the well project. She did contact us as she had sold her house located west of Highway M and wanted to start selling the lots that remained on her development. She agreed to the preselected site and Rozell began the survey in order to deed the property over to Riverfork Water Company. The lot plan was registered with Stone County as we had to get a variance from the original plan. This was completed and Rozell then proceeded with the engineering plan which was submitted to the DNR. During this time the Southwest office of the DNR made several contacts with Rozell Engineering. Rozell advised the DNR what was the best option from a long term engineering standpoint. Riverfork Water Company was only made aware of the DNR contacts with Rozell by Rozell. Even with this information, the DNR is threatening us with "enforcement" actions if we do not agree to reinstall a booster pump. This would be a cheaper option than drilling a new well and having storage and pressure tanks dedicated for the system to the west of Highway M. But when there is a next drought and the system is taxed by excessive water usage we will be right back where we started. And then are we going to be ordered to spend the additional money to solve the issue as originally engineered?

We are going to sign the DNR order. We wanted to go on record as to the effort we have made to find and implement a long term solution to supplying adequate water to the Riverfork customers. We know that we take a chance in obtaining recognition by the Missouri Public Service Commission for the money spent by their granting rate increases for any improvements.

While all this was going on, the Missouri Department of Natural Resources has been issuing "violations" for not being able to comply with their directives. **We have been ordered to notify Riverfork Water customers that the water system has failed to address the Significant Deficiency for "widespread" low pressures issues.**

We have also been ordered to submit engineering plans to DNR for a booster pump. Engineering plans have been submitted to address improvements to the system which would not only address low pressure but inadequate water supply.