

Rico Planning Commission Memorandum

Date: October 15th, 2020

TO: Town of Rico Planning Commission  
FROM: Kari Distefano, Rico Town Manager  
SUBJECT: Items on the Agenda

*Proposed Bedrock Subdivision*

As the Rico Planning Commission discussed last month, it is appropriate to have a joint work session with the Rico Board Trustees to discuss major subdivisions in general and Rico's limitations with respect to water supply.

The North Rico Well is currently supplying water to the Town of Rico but the water rights on this well are limited. Based on the settlement between Rico and the Dolores Water Conservancy District, Rico has rights to .178 cubic feet per second (cfs), which equates to 80 gallons per minute or 3.5 million gallons per month for uses including municipal and industrial, domestic, commercial, irrigation and recreational.

There are 286 water taps in Rico, however only 200 are active and approximately 60 meters are used part time or intermittently. Records from past years show that monthly water use generally stays between 1 million gallons per month and 1.6 million gallons per month or approximately 33% of our allowable use. Please see the graphs included in this packet.

In addition to the well that is currently serving the Town, Rico has water rights on Silver Creek and a water system that was decommissioned in 2014. The decree for the Silver Creek diversion point allows Rico 0.28 cfs with an additional 2.72 cfs being conditional. Due to changes in the Colorado Department of Health and Environment (CDPHE) regulations regarding filtration of surface water, the Silver Creek system is no longer in compliance and is being used only as an emergency back-up should the well fail.

Growth, economic activity and lack of affordable housing in Telluride suggest that Rico is poised to experience an uptick in housing starts. Lots are still relatively reasonable and middle managers and tradesmen who would like to remain in the area but are unable to afford housing in Telluride are starting to look at Rico as a possible home. Reactivating the

Silver Creek system would allow for moderate growth as well as redundancy should the well fail.

I have included in this packet an analysis of Rico's water system by Harris Engineering that was done in June of 2016. This report includes an analysis of lots and buildable lots and suggests that while there are approximately 400 homes that could be served with the existing well, there are approximately 650 buildable lots. GIS information from Dolores County indicates that there are 481 existing parcels within the Town limits. Dolores County considers any group of lots owned by a single entity one parcel and does not consider whether or not the lots are platted separately or contemplate the ability to subdivide. Regardless of the number, there is not enough well water to serve Rico at potential build-out unless we are able to re-activate the Silver Creek System.

The preliminary engineering report we got from SGM Engineering that examined re-activating Silver Creek estimates that it would cost \$330,000 to rebuild the infiltration system, \$160,000 to protect the existing water pipe line that goes to the tanks from potential debris flows and \$3,400,000 to upgrade the treatment system to the degree that is would be in compliance with current Colorado Department of Public Health and Environment standards. The estimate for the total project cost would be \$3,890,000.

There was discussion last month about several approaches to the Bedrock Subdivision. As a result of that discussion, I looked at parcels within the Town of Rico that are either directly adjacent to or within 300 feet of the existing water system. I have included a map of a that area in this packet. There are several approaches the Town could take to determining which landowner gets guaranteed water taps:

- Enact a moratorium on future subdivisions until the Town could afford to re-activate Silver Creek and issue taps on existing parcels on a first come, first serve basis until we reach 400 taps or begin to see steady water use that approaches our maximum capacity allowing for fire suppression needs and major leaks.
- Enact a moratorium on future subdivisions unless the developer of the subdivision could persuade other landowners within town to give up their rights to a tap. This system would be similar to a transfer of development rights process.
- Develop a points system that would allow subdivision if the potential subdivision accumulated points based on proximity to existing water lines

and a contribution to a capital improvement fund that would eventually allow the Town to re-activate the Silver Creek system.

As you will remember, the outcome of the last September Planning Commission meeting was to suggest to the applicants for the Bedrock Subdivision that the subdivision be phased so as not to exceed the number of parcels that are currently platted in that area.

**HARRIS WATER ENGINEERING, INC.**  
**954 EAST SECOND AVENUE, #202**  
**DURANGO, COLORADO 81301**  
**970-259-5322**  
**steve@durangowater.com**

June 30, 2016

Memorandum

To: Mike England, Town Manager  
Marti Whitmore, Town Attorney  
From: Steven C Harris, PE  
Subject: Update of 2009 PER Water Supply and the Safe Number of Homes

I have been involved since 1995 with the Town of Rico in assessing the water supply and the safe number of homes that can be served from the available water supply. During the last 20 years there have been several evaluations and updates to reflect new information. This memo is an update of information available since the November, 2009 - Preliminary Engineering Report "Alluvium Pipeline Water Supply Project" (2009 PER).

**Background Information**

The following are key findings of the previous water supply evaluations.

- Previous to the 2002 and 2003 drought, the Silver Creek supply was believed to be adequate to supply the Town through buildout if not further. However, the drought showed that Silver Creek was not a reliable source of water and at best could serve the number of homes served by the water system in 2002 (about 250 connections).
- The increasing regulatory requirements for treatment of surface water has severely restricted the ability to treat Silver Creek water. The existing membrane GE units were installed over 10 years ago but can no longer consistently meet the water treatment criteria. A complete new water treatment plant would be required to continue to use Silver Creek water but funding is not currently available to construct a new facility.
- The alluvium well which began use in 2013 is permitted and decreed to provide up to 80 gpm. Testing prior to development of the well and use during operation, indicate that the well can provide 80 gpm on a consistent basis. Increasing this water supply beyond the current decreed amount would be very challenging for a number of reasons, including decreed instream flow rights that would be senior to any enlargement of this right.
- The alluvium well was determined to be a ground water source and therefore only needs disinfection, no filtration.

- Due to the 2002 drought and the current inability to treat the Silver Creek water, the alluvium well at 80 gpm is the only the reliable source of water currently available to the Town of Rico.
- The 2009 PER Section V.I.C. “Proposed Water Supply from Alluvium Well” page 10 estimated the safe number of homes that can be served at 410.

### **Current Evaluation**

The 80 gpm well can provide a maximum of 110,000 gallons per day. The average daily use in June and July from 2007 to 2015 is approximately 70,000 gallons per day. There are currently approximately 270 single family homes or equivalent connected to the Rico water system. There are a few commercial connections but the water use is similar to a single family home. There are no large commercial uses such as an apartment buildings but there is the Rico Hotel that has about 25 rooms and a bed and breakfast with around 10 rooms.

There are approximately 1,300 platted historic lots in Rico. The Town required that two of the 25' by 100' historic lots are required to build a home in order to meet the septic requirements; therefore, there is approximately 650 buildable lots. Included in the 1,300 is the Atlantic Cable Subdivision with 45 ± lots that are a little bigger (average 0.3 to 0.5 acres) and the Silver Glance #2 Subdivision with 13 lots around 0.5 ± acre; however, these lots have plat restrictions that they cannot be re-subdivided, also cannot have an accessory dwelling. There are also ten or so larger parcels like the nine acres in the River Corridor plus others in the same area of smaller size of 1-4 acres that may be developed in the future; however, there may be flood plain issues with some of these lots. In summary, there are a maximum of approximately 650 buildable lots of which 270 are already developed, leaving a maximum of 380 homes that could be built. New homes are being constructed at a rate of 1 to 5 per year.

Proportioning the maximum available 110,000 gallons per day and the current usage of 70,000 gallons per day for approximately 270 single family homes, results in a maximum number of homes that can be served at approximately 400. Rico has a maximum of approximately 650 buildable lots; however, there is only a current water supply for approximately 400. Based on existing conditions, Rico will have difficulty providing water to all of the buildable lots assuming single family homes on each lot. Larger developments on any of these lots would exacerbate the potential water supply problem.

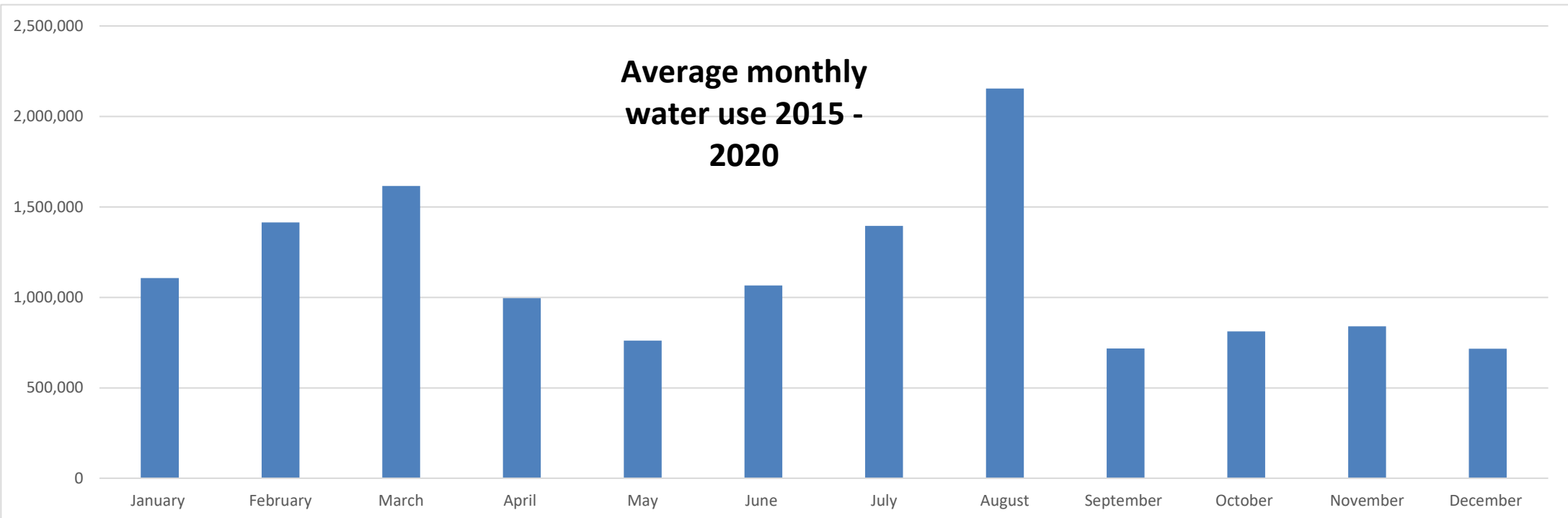
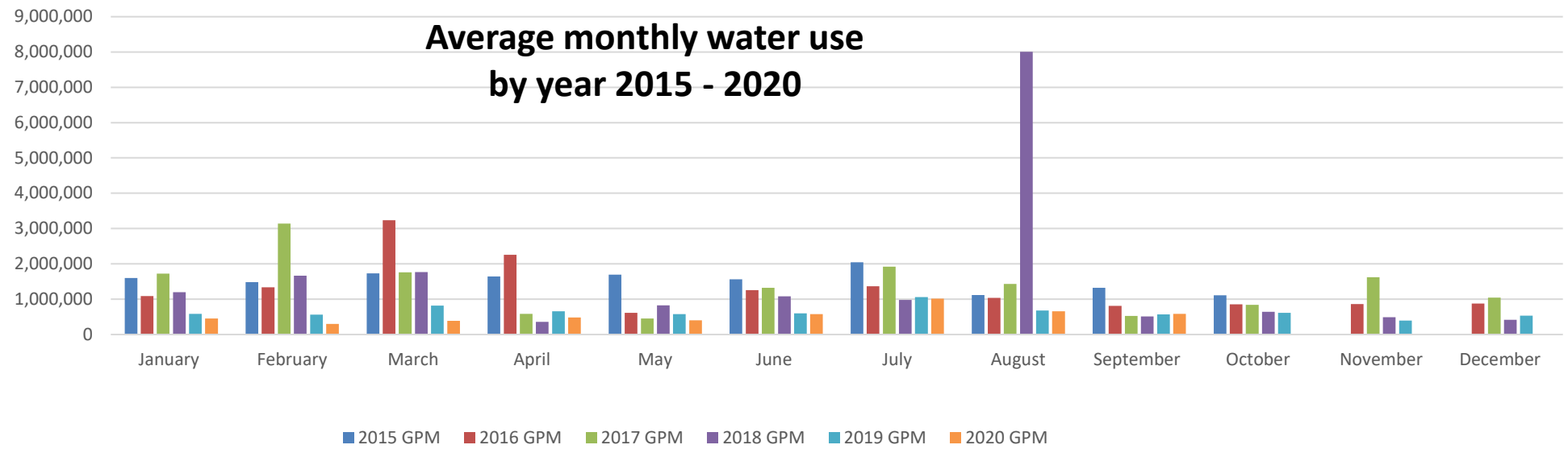
Potential methods to increase the water availability assuming that funds are available include:

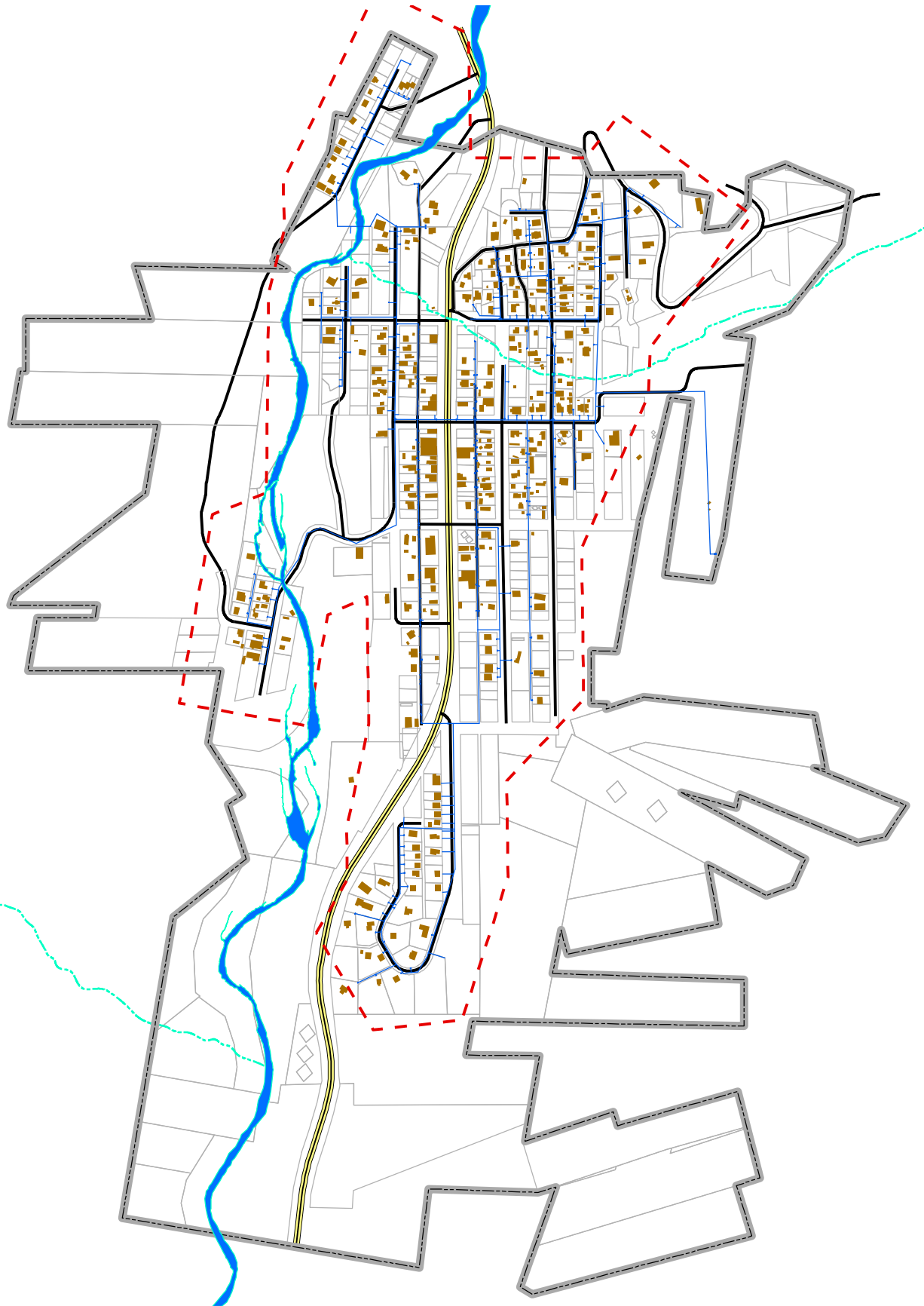
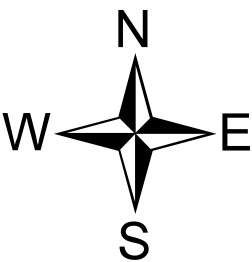
Continue to upgrade the water distribution system to reduce leaks particularly to reduce the peak demand in June and July.

Rebuild the Silver Creek treatment plant to meet current regulations which would allow continued use of the existing 0.28 cfs (125 gpm) available during a drought. A cost estimate for this plant has not been prepared but is likely high. The new treatment plant should allow the Town to serve all 650 buildable lots.

The 1996 PER described another source of water which is to diverted water from the Dolores River downstream of Rico to a new treatment plant. This would be an entirely new set of facilities and much more expensive than any other options.

Based on the current facilities and water usage information, the existing 80 gpm cannot supply much more than about 400 lots which confirms the evaluation in the 2009 PER. Higher density of units on any of the lots will exacerbate the problem. To provide more water, significant funding is needed to first rebuild the Silver Creek treatment plant.





### Legend

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|--------------------|----------------------|
| Waterline          | Creeks               |
| Dolores River      | Town of Rico Parcels |
| Water Service Area | Roads                |
| Rico Town Boundary | Highway 145          |
| Structures         |                      |