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MEMO

Date: **January 29, 2018**

From: **Carlee Oswald, Public Works Admin/ Energy Conservation**
Debbie Crossley, Public Works Admin/ Water III
Bob Bachman, Public Works Director

To: **Mayor and Council**

RE: **Water Conservation**

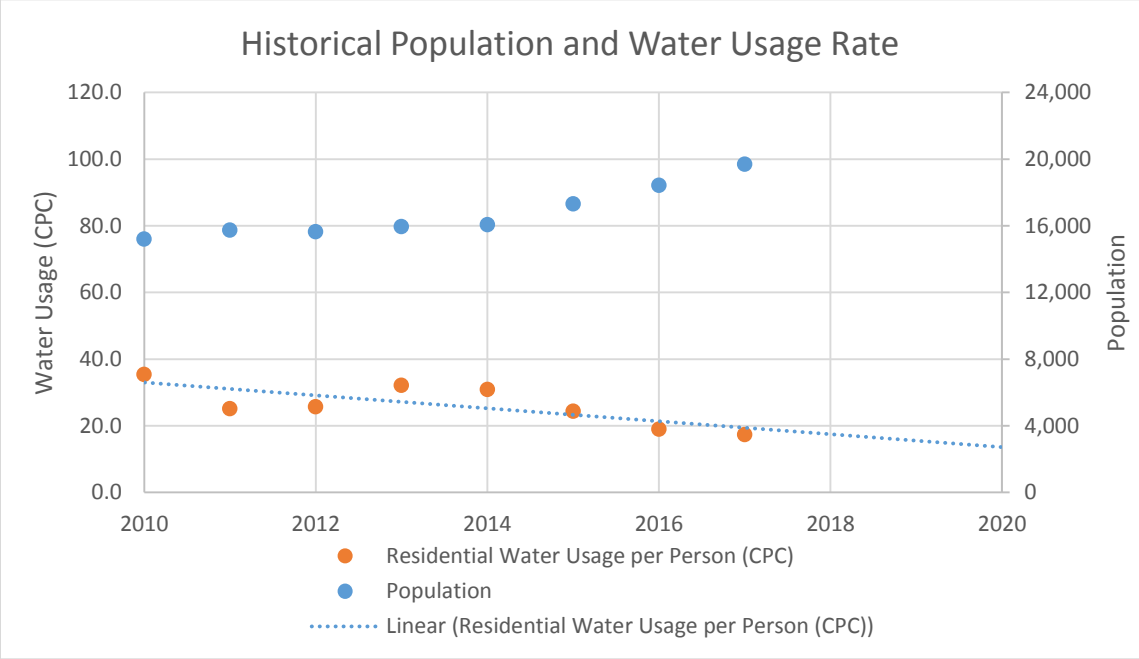
Mayor and Council,

I wanted to take this time to inform you about what kind of updates the water department has made in recent year to help the City save on water and energy. I have put together some data and figures supporting the positive impact it has had on us and our growing community. I wanted to put this together to express that we do care about water usage and to show you how we have implemented changes that have helped decrease our water usage and energy costs.

One such example is the elimination of backflows. In years past, potable water was used for irrigation water, which was a big expense for the City. By eliminating backflows and using ditch water for irrigation, we save millions of gallons of potable water a day, leading us to save additional energy and money. The water department has all the wells on rotation to not only contribute to the longevity of the equipment, but to lessen the impact of the aquifer. Furthermore, they shut down the irrigation system during weeks of frequent rainfall. We find it unnecessary to water landscapes that are being watered naturally. This change to the irrigation schedule not only increases our savings, but allows us to retain water which can add weeks on to our irrigation season.

As you can see below in **Figure 1**, the water usage in contribution per capita (CPC) is decreasing. This trend tells us that although the population is increasing, the water usage continues to decrease.

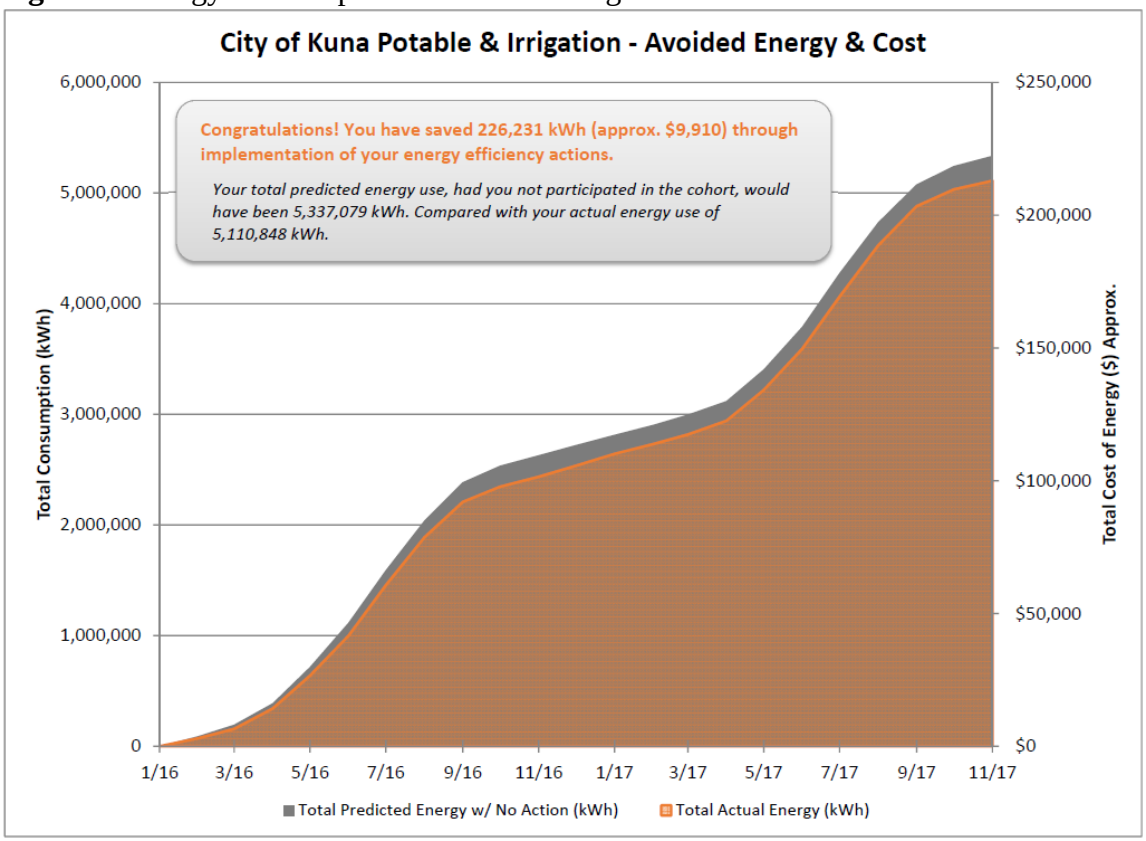
Figure 1. Population and Water Consumption Trends.



Water usage data provided by Debbie Crossley and the Water Department

The Public Works Department is also a member of Cascade Energy's Water Supply Optimization Cohort. We provided them with previous years' water usage to establish a baseline. In 2016, we created energy conservation goal: a 5% savings target amounting to 126,738 kWh. Since joining the Energy Cohort, we have received monthly reports on our energy performance for potable and irrigation water. **Figure 2** shows that we have fallen below our predicted energy consumption each month.

Figure 2. Energy Consumption and Cost Savings.



Source: Cascade Energy; Kuna Energy Tracking Model November 2017

Our most recent report (November 2017) showed that our cumulative energy savings has totaled 226,231 kWh, surpassing our energy goal. This can also be seen above in **Figure 2**.

We work hard and we work well with Idaho Power and Cascade Energy in making sure that we are on track with our savings. We do what we can to save on water and costs for our city, its residents and the environment. In conclusion, the City is actively taking measures to conserve water and energy and expects to continue being proactive with its water usage and energy savings in all areas. We should all be happy with these results and proud of everyone's efforts in contributing to them.

If you have any questions or concerns, feel free to contact Bob Bachman or myself.

Thank you for your time,

Carlee Oswald
Public Works Administrator/ Energy Conservation