



MEMORANDUM CITY MANAGER'S OFFICE

DATE: Wednesday, May 08, 2013

TO: Mayor and Council

FROM: Kevin Burke, City Manager

REGARDING: 2013 Reclaimed Water Shortage

BACKGROUND

The Wildcat Wastewater Treatment Plant (Wildcat WWTP) is not consistently producing Class A+ reclaimed water in accordance with our State ADEQ permit. Consequently, as of October 2012, the City stopped the discharge of any reclaimed water from Wildcat into the reclaimed distribution system. This means the City will not be able to meet the reclaimed water demand (as measured by 2012 consumption) by our 38 reclaimed water customers this irrigation season.

The purpose of this memo is twofold: 1) To notify the City Council of how I will handle this shortage of reclaimed water this irrigation season; and 2) to explain how I reached my decision.

DECISION

Staff is now working with ADEQ to amend the Consent Order to allow the use of Class A water in its reclaimed system while the City upgrades the treatment process at Wildcat WWTP. If ADEQ approves this request, which is not guaranteed, then the City will be able to supplement the reclaimed water supply with Class A water this irrigation season. Until that amendment is approved, and/or in the event that said amendment is not approved, the Utilities Director is recommending, and the City Manager will implement, under the authority vested in Ordinance 2004-23, to temporarily supplement 12% of the 2012 reclaimed water supply with potable water. Moreover, the City will charge reclaimed water users the full irrigation or "Lawn" Rate for the potable water used.

EXPLANATION

Summary

Using 2012 total demand for reclaimed water as the benchmark, staff has determined that on average, 83% of the reclaimed water purchased came from the Rio de Flag Water Reclamation Plant (WRP) (76% during irrigation season). The remaining 17% (24% during irrigation season) came from the Wildcat WWTP. That 17% (24% during irrigation season) equals approximately 63 million gallons over the course of 2012.

None of these numbers include Continental and Aspen Golf Courses. Unlike other reclaimed water customers they serve as a discharge point from the Wildcat WWTP. Continental is plumbed separate from the City's reclaimed system and always has been. Therefore, they are not subject to the conservation restrictions noted below, nor will their supply be supplemented with potable water.

Preferred Option

For the reclaimed customers, the preferred option in dealing with a reduced supply of Class A+ reclaimed water is to supplement the water produced by the Rio de Flag WRP with Class A reclaimed water produced by the Wildcat WWTP. Such action requires the City apply for a new ADEQ permit. A Class A permit requires a Nitrogen Management Plan (as the level of nitrogen is the difference between Class A and Class A+ (the latter having less nitrogen)). However, the process to acquire this new permit is anticipated to take longer than the irrigation season of May through October. Therefore, staff is working with ADEQ to amend the Consent Order to allow for the use of Class A for a limited time. Discussion with ADEQ revealed they are receptive to this idea, although they made it clear that no such amendment was guaranteed. At this point, staff is investigating what such a plan entails and how long it would take to develop. Therefore, the timing associated with the Consent Order Amendment is uncertain, but cannot be completed prior to the need to supplement Rio de Flag supply starting this month.

Decision Rationale

I considered the following information when making my decision to 1) supplement 12% of the 2012 reclaimed water supply with potable water; and 2) charge the reclaimed water users with the potable rate for this water:

1. Flagstaff's potable water supply is in good shape for the 2013 irrigation season.
 - Lake Mary peaked at 43% full this spring compared to 36% full in 2012.
 - The Inner Basin Pipeline is back on-line, which means we have approximately two million gallons per day or 60 million gallons per month more potable water than we had in 2012.
 - Our well-field capacity is 12.2 million gallons per day, which can supply the entire City with potable water without any supplements from Lake Mary or the Inner Basin.

2. Reclaimed users with no potable water tap will be limited this irrigation season to a total supply of 88% of their 2012 delivery benchmark.
 - This cap is calculated by taking the total delivery for reclaim water in 2012 from the Rio Plant and Wildcat during the irrigation season and subtracting half of the Wildcat supply.
 - This means that the City will direct deliver 31.5 million gallons less of reclaimed water in 2013 than we did in 2012.
3. The reclaimed customers must conserve water since the City will be selling them 12% less water than what the City sold them in 2012.
4. Taken in the context of the following facts, the amount of potable water (5.2 million gallons per month or 173,000 gallons per day) the City will supplement the reclaimed system with is actually relatively small:
 - Approximately 5 million gallons per day evaporate or seep from Lake Mary everyday throughout the irrigation season.
 - We use 377 million gallons of reclaimed water each year.
 - We use 2.7 billion gallons of potable water each year.
 - The Rio de Flag Plan can produce 54 million gallons per month, or 1.8 million gallons per day depending on inflow.
 - Wildcat discharges down the Rio de Flag an average of 2.6 million gallons per day during the winter and 1.3 million gallons per day during the irrigation season.
5. None of the actions listed in this memo force further restrictions on our potable water customers.
6. It is critical that we continue to make it possible for our reclaimed customers to irrigate this season despite the shortage of reclaimed water.
 - From a business perspective, golf courses generate tens of thousands of dollars in sales tax for the City each year.
 - 27% percent of our reclaimed water is used to irrigate parks, FUSD schoolyards, and NAU turf and vegetation. Failure to water will result in damage to the turf that will be expensive to restore.
7. The reclaimed water distribution system was constructed in the 1990's with a potable tap to supplement the distribution system in anticipation of shortfalls or infrastructure problems that may occur.
8. It is important to deter the further use of potable water by reclaimed water users for irrigation purposes.
 - The City will charge the reclaimed water users the reclaimed rate for their reclaimed water portion.

- The reclaimed users that receive the potable water supplement will be charged the currently published rate for potable irrigation water known as the "Lawn" Rate, which is higher than the reclaimed water rate.
- The City looked at adopting alternative rate structures but determined there is limited legal authority or time to make such rate changes. While there is authority to adjust the potable rate up under a declaration of either a "Water Emergency" or a "Water Crisis" under Ordinance 2004-23 (or Flagstaff Code 7-03-001-0014), there is no authority to increase the reclaimed rate or decrease the potable rate. (The potable rate is about four times higher than the reclaimed rate.)

9. A blended rate will be applied for reclaimed standpipe users.

CONCLUSION

I understand the use of potable water for irrigation purposes is not desirable by any Councilmember, Water Commission member or member of staff, but I believe this compromise is appropriate given the resources and circumstances associated with the situation. This will take effect retroactive to May 1, 2013 and be released publicly on May 8, 2013.



Kevin Burke