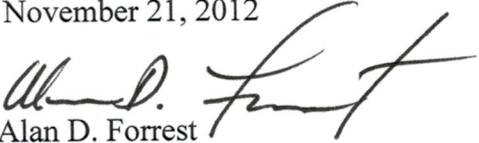




MEMORANDUM

DATE: November 21, 2012

TO: Honorable Mayor and
Council Members

FROM: 
Alan D. Forrest
Director
Tucson Water Department

SUBJECT: Annual Update of “Water Checkbook” Balance

The Mayor and Council established the water checkbook reporting process in June 2008 as a way to track the annual available renewable potable and effluent supplies from year to year. This memorandum reports the checkbook balance for the end of calendar year 2011, describes how the 2011 balances changed from 2010, and provides a four-year trend of the checkbook balance from 2008 - 2011. This update was presented to the Citizens’ Water Advisory Committee on TBD

- The available *potable* water checkbook balance following 2011 is 455 acre-feet (AF) *lower* than the balance for 2010 (a 1% decrease), primarily because water assurance letters now reserve water for a period of two years as opposed to the previous one year assurance.
- The available *effluent* water checkbook balance after 2011 is 1123 AF *lower* than 2010 (an 8% decrease) due to a smaller volume of effluent available in 2011 and higher customer demands.
- These same trends have been generally present since 2007, the first year of the checkbook balance report.

2011 Potable Water Checkbook Balance – Decreasing 1% from 2010

The City’s total renewable potable supplies in 2011 are 161,549 AF. It consists of CAP allocation, Central Arizona Groundwater Replenishment District and an Incidental Recharge credit. Attachment A illustrates the Potable Checkbook Balance for 2011 compared with 2010. The combined 2011 annual potable usage and reserved demand increased less than 1%, from 112,350 AF in 2010 to 112,472 AF in 2011. This increase is due primarily due to an increase in the volume of water held in reserve for future developments:

- Total potable usage decreased 2,163 AF (2%), from 109,850 AF in 2010 to 107,687 AF in 2011.
- Water held in reserve for future developments increased from 2,500 AF in 2010 to 4,785 AF in 2011, a 2,285 AF (91%) increase. This increase reflects a change in policy which allows water assurance letters to be valid for a period of two years, as opposed to the previous one year expiration, in order to provide more security for the development community to navigate the development approval process prior to the expiration of the assurance letter.

- The available renewable potable checkbook balance has decreased 1%, from 49,532 AF in 2010 to 49,077 AF in 2011.

2011 Effluent (Non-Potable Water) Checkbook Balance – decreasing 8% from 2010

As shown Attachment A, the available effluent checkbook balance is the difference between the City’s total annual effluent supply and the annual reclaimed water usage. For 2011, there was a 681 AF decrease (about 2%) in the City’s effluent supply (from 27,468 AF in 2010 to 26,787 AF in 2011). The decrease in effluent supply is directly related to the decrease in potable water usage in the community in 2011.

At the same time, reclaimed water usage was 442 AF higher in 2011 than in 2010 (a 4% increase). Reclaimed water deliveries vary from year to year, even if the number of customers remains constant because of economic circumstances as well as rainfall and temperature irrigation needs.

As a consequence of the above factors, the City’s available renewable effluent checkbook balance decreased 1,123 AF (8%), from 14,870 AF in 2010 to 13,747 AF in 2011. It is noted that this “available effluent checkbook balance” produces some benefit for the City, as it is recharged in the Santa Cruz Riverbed as part of multi-jurisdictional managed recharge projects, for which the City receives some effluent storage credits.

Future Impact of Conservation Effluent Pool – The 2000 Supplemental Effluent IGA with Pima County created a framework for establishing a Conservation Effluent Pool (CEP) that would support approved riparian projects. An implementation IGA for the CEP was recently approved by the City and County, and sets the stage for the allocation of up to 10,000 AF per year of effluent from metropolitan treatment plants to approved riparian projects. Of this amount, 1,000 AF (10%) would be contributed by Pima County, and the remaining 9,000 AF would be divided proportionately among the City and with the other jurisdictions that the City has entered into effluent-sharing agreements with.

If during 2011 the CEP had been operational and all 10,000 AF of the CEP had been allocated to riparian projects, the City would have dedicated approximately 7,400 AF of its effluent entitlement to the CEP. This amount represents approximately half of the City’s 2011 available effluent checkbook balance of 13,747 AF.

Water Checkbook Trends

The annual checkbook balances for potable and effluent supplies since 2008 is shown on Attachment A. The trend shows an increase in the potable checkbook balance due to reductions in actual potable usage until 2011 where the potable balance slightly decreased due to the higher reserved demand associated with water assurance letters which do not expire for two years. The declining trend in the effluent checkbook balance is tied primarily to the reduction in potable deliveries: as potable deliveries decline, so does the amount of effluent that the metropolitan wastewater treatment plants produce.

Future Considerations

The annual water checkbook balance report provides a snapshot of the renewable water resources available to the City of Tucson. Over time, it will communicate trends and therefore enhance our ability to understand the pressures on renewable water supplies as the community continues to grow. Should you have any questions about this water checkbook update, please contact me at 791-2666.

JO/2012WaterCheckbookUpdate-090712inmem

Attachment A: 4-Year Checkbook Balances (Potable and Effluent Supplies)

c: Richard Miranda, City Manager
Albert Elias, Assistant City Manager
Andrea Ibanez, Interim Director of Housing & Community Services
Ernie Duarte, Director of Planning & Development Services
Citizens' Water Advisory Committee