

Emails Week of June 30, 2008

From: cstampingr@dakotacom.net

To: mcweb@tucsonaz.gov

Sent: Wednesday, July 02, 2008 12:06 PM

Subject: Tucson water

Dear Honorable Mayor and Council Members,

The USEPA has designated for potable drinking water a Secondary Maximum Level for total dissolved solids(TDS) which is 500 mg/L. Noticable effects above Secondary Maximum Level include hardness,deposits,colored water,staining,and salty taste(Ref:USEPA,Ground Water and Drinking Water:Guidancce for Nuisance Chemicals,USEPA 8101 K-92-001). A high concentration of TDS will make drinking water impalatable(REF.USEPA, Monitoring and Assessing Water Quality,Nov 30,2006).

The 2006 CAP Water Quality sampling data cite an average concentration of 663 mg/L. At the San Xavier pumping plant in 2006, five of the 12 monthly concentrations of TDS were above 700 mg/L with a highest concentration of 726 mg/L.(Ref:CAP Canal Water Quality,Central Arizona Project,2006)

At the end of 2007,Tucson`s , Avra Valley drinking water source consisted of 45% CAP water and 55% native ground water. Tucson Water`s statement which followed affects the future of every Tucson citizen , "Over time, it will contain increasing percentage of recharged Colorado River water(Ref:Tucson Water 2007 CCR). Tucson Water has not been reined in by the Tucson City Council to a maximum TDS concentration in its potable drinking water. Tucson Water in its monthly pamphlet(with bill),Your Water Connection, cites a minimum TDS(Zone 7) of 302 mg/L and a maximum TDS of 439 mg?L(Zone 2).

Under the provisions of the Arizona Administrative Code: R 18-11-108 A. Surface water shall be free from pollutants in amounts or combinations that: 3.Cause oo-taste or oder in drinking water. A position that R 18-11-108 does not apply to blended CAP water is offset by the argument that the State of Arizona has enacted a precedent in regulation for "off-taste or odor" in drinking water. In other words, does the State of Arizona stipulate that surface drinking water shall be free from pollutants in amounts or combinations that cause off-taste or odor whereas off-taste or odor in ground water is acceptable for drinking?

Water safety and water quality reports from Phoenix to its citizens included incorrect or misleading data-or emitted it entirely(Ref:National Resources Defense Council www.tapintoquality.com/home). Phoenix Water`s CCRs for drinking water cited the following:

Year	Maximum TDS,mg/L
2002	856
2003	872
2004	702
2005	666
2006	812
2007	770

Salt water reduces life of household appliances such as a water heater, evaporative cooler, faucets,garbage disposal,dishwasher and clothes washer(Ref:Phoenix.gov,Phoenix Cass background,phoenix.gov/water/cassback). In 1997,the Colorado River water brought 1.1 million tons of salts with the estimated 1.4 million acre feet of CAP water imported into Central Arizona(Ref:Where do the salts go,waterresources.com/Documents 223). For Tucson Water`s annual CAP water import of 148,420 acre feet, a total of 116,616 tons of salts would accompany the water into Tucson.

Designation of maximum allowable concentrations of TDS, in public drinking water, is the responsibility of elected authorities. Since the State of Arizona has not acted,the responsibility lies with the Tucson City Council ,to designate by city code, a maximum allowable concentration of TDS in the potable water processed by the Tucson Water Department.

Such action provides boundry conditions for future operations,planning,infrastructure, and costs to both Tucson Water and the Pima Waste Water Management.

Respectfully,Clyde H Stagner,a Tucson citizen.

Tucson Pima Water Study,
Tucson ,Az 85701

8565 Pembroke Dr
Tucson,Az,85715

Dear Study Group Members,

Subject:Wasted Bottled Water

Tucson tourists and business associates arriving at the Tucson Municipal Airport view a conglomerate of citizens-many toting plastic bottles of water. A similar sight is observed on the University of Arizona campus- and in city, county, and federal buildings. What an endorsement for Tucson Water Dept. Does the county and city allow their employees to purchase bottled water with taxpayer funds? Does stacked bottled water in Tucson retail outlets denote sustainability to Tucson visitors?

Tucson Water estimates 60% to 65% of its municipal customers don't drink tap water. Why? Tucson Water Dept. wholesales potable water to the following bottlers of water in Tucson(Ref:Internet):

Miraval
Water Street Station
Coca Cola Bottling Co. of Tucson
Water West(2 locations)
C&S Water Mart
Culligan/ Oasis Water
Sparklet's Water
Kalil Bottling Co.

Usually the water bottler uses reverse osmosis(RO) twice and then sterilizes the water. Twice as much water is used in production of a bottle of water than the bottle contains(Ref:Pacific Institute). In 2005, bottled water consumption was 99 liters per US citizen(Ref: Worldwatch Institute). The US Census estimated Tucson's 2005 population as 518,956.

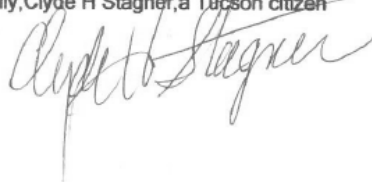
Converting two wasted liters of water(per one bottled) to quarts = 2.1134 quarts = 0.528 gal
 $518,956 \times 0.528 \times 99 = 27,126,867 \text{ gal} = 83.26 \text{ acre-ft}$
of Tucson potable water wasted annually.

Tucson Water Dept's water cost rate for commercial, all usage, is \$1.71 per ccf = \$1.71 per 748 gal = 0.0023 cents a gallon. Is the City of Tucson subsidizing private enterprise at the expense of its tax paying citizens? Does the City of Tucson stock the Tucson Food Bank with bottled water for the homeless and indigents? For emergencies?

Mental degrading of Tucson water quality can cause citizens to install(personal experience) reverse osmosis (RO) units which recover only 5 to 15% of the water entering the system:the remainder is discharged as waste water.An RO unit delivering 5 gal of treated water per day may discharge 40 to 90 gal of waste water per day (Ref:Wikipedia,internet).

Tucson,with its friendly citizens,and beautiful terrestrial cleanup,could do well with award winning clean water. Sustainability of the citizens of Tucson is Tucson sustainability.

Respectfully,Clyde H Stagner,a Tucson citizen



6/30/2008