

Meeting Date: April 23, 2014  
Staff Contact: Barbara Gastian, Compliance Division Manager

**TITLE:** R-14-6 – Requiring Supplemental Fluoridation of Water for the  
Albuquerque Bernalillo County Water Utility Authority

**ACTION:** Final Adoption

**SUMMARY:**

The Albuquerque City Council adopted a policy to add fluoride to the local drinking water distribution system in the early 1970s. The addition of supplemental fluoride continued until early 2011. At that point the Water Authority, following a presentation to and discussion by the Board, ceased the practice pending adoption of a new standard for optimal fluoridation by the Department of Health and Human Services Centers for Disease Control (CDC) and the Environmental Protection Agency (EPA).

County Commissioner Hart Stebbins has requested that the Water Authority resume fluoridation given that the CDC and EPA have yet to issue a final standard. These agencies are nevertheless expected to affirm their 2011 interim recommendation of an optimal fluoride concentration of 0.7 milligrams per liter (mg/L) of water, replacing the previous recommended range of 0.7 to 1.2 mg/L. The average concentration of naturally occurring fluoride in the Water Authority's drinking water distribution system is around 0.4 to 0.5 mg/L.

Per Commissioner Hart Stebbins' request, this Resolution would require that the Water Authority add supplemental fluoride to meet a target of 0.7 mg/L on an annual basis, to be monitored and reported in the Water Authority's Annual Water Quality Report.

The Water Authority Board, at the request of County Commissioner O'Malley, deferred action on this Resolution at its February 2014 meeting to allow more time for public input and requested that a town hall be hosted to have opposing sides present data and allow the public to comment.

Pursuant to this, the Water Authority held an advertised public meeting on the topic of fluoridation on April 9, 2014. Formal presentations were made by dentists Dr. David Kennedy, DDS and Prof. Howard Pollick, BDS, MPH, with Kennedy speaking in opposition to fluoridation and Pollick speaking in support.

These presentations were followed by a public comment period during which some 44 individuals voiced their opinions, with 13 people speaking in favor of fluoridation and 31 speaking in opposition to the practice.

A transcript of the meeting, including public comments, has been provided to Board members for their review, as have copies of the experts' PowerPoint presentations and subsequent communications from members of the public. This information has also been posted on the Authority's website for public viewing.

**FISCAL IMPACT:**

An appropriation of \$400,000 for FY14 is made in this Resolution for design and construction of the fluoridation system equipment at the San Juan-Chama drinking water plant.

An appropriation of \$50,000 is made in the SJCWTP program budget and \$50,000 in the General Government – SJCWTP program budget to provide the necessary funding for purchase of chemicals and operation and maintenance of the fluoridation system for the fourth quarter of FY2014. The total annual recurring cost for operation and maintenance of the fluoridation system is estimated at \$400,000.

# ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY

BILL NO. R-14-6

## RESOLUTION

### **REQUIRING SUPPLEMENTAL FLUORIDATION OF WATER FOR THE ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY**

WHEREAS, the United States Department of Health and Human Services (HHS) Centers for Disease Control (CDC) has named water fluoridation one of the Ten Great Public Health Interventions of the 20th Century; and

WHEREAS, fluoride naturally occurs in the Albuquerque Basin aquifer and in the Rio Grande; and

WHEREAS, other common sources of fluoride include toothpaste and mouth rinses, prescription fluoride supplements, and fluoride applied by dental professionals; and

WHEREAS, community water system supplemental fluoridation began in 1945; and

WHEREAS, the Water Authority began supplemental fluoride by City Council Resolution in the late 1980's; and

WHEREAS, the City Council target concentration for supplemental fluoride was 1.2 parts per million; and

WHEREAS, the National Academies of Science Assessment in 2006 resulted in a recommendation that the Environmental Protection Agency (EPA) update the health and exposure assessments to take into account bone and dental effects and to consider all sources of fluoride; and

WHEREAS, in January 2011 the HHS recommended an optimum fluoride concentration of 0.7 milligrams fluoride per liter of water (mg/L) to replace the then current recommended range of 0.7 to 1.2 mg/L; and

WHEREAS, the proposed new recommended optimal level was based on a September 2010 review of information; and

1           WHEREAS, the EPA's Safe Drinking Water Act standards for fluoride are 4.0  
2 parts per million (Maximum Contaminant Level Goal) and 2.0 parts per million  
3 (Secondary Maximum Contaminant Level); and

4           WHEREAS, neither EPA nor CDC have finalized the recommended optimum  
5 level for fluoride; and

6           WHEREAS, the Water Authority stopped supplemental fluoridation awaiting the  
7 recommended optimum level from the EPA/CDC in 2012; and

8           WHEREAS, without supplemental fluoride the average concentrations in the  
9 water distribution system without supplemental fluoride obtained from the Water  
10 Authority's quarterly monitoring ranges from 0.4 to 0.5 parts per million; and

11           WHEREAS, the Water Authority Board would like to begin supplemental  
12 fluoridation; and

13           BE IT RESOLVED BY THE WATER AUTHORITY:

14           Section 1. The Albuquerque Bernalillo County Water Utility Authority shall add  
15 supplemental fluoride to the distribution system as follows:

16           Section 2. The target level in the distribution system is 0.7 parts per million  
17 which will be monitored and reported on an annual basis in the Water Authority's Annual  
18 Water Quality Report; and

19           Section 3. Supplemental fluoride may not be necessary if the target can be  
20 achieved naturally using a combination of surface and ground water; and

21           Section 4. An appropriation of \$400,000 is hereby made in decade line 9417  
22 "Surface Water Treatment Plant Fluoridation Program" to provide funding needed to  
23 design and construct fluoridation system equipment at the San Juan-Chama drinking  
24 water plant; and

25           Section 5. An appropriation of \$50,000 is hereby made in the SJCWTP  
26 program budget and \$50,000 in the General Government – SJCWTP program budget to  
27 provide the necessary funding for purchase of chemicals and operation and  
28 maintenance of the fluoridation system for the fourth quarter of FY2014; and

29           Section 6. The staff shall update the Water Authority Board at the time a new  
30 optimum level is adopted by the EPA/CDC or at least once per year whichever comes  
31 first; and

32           Section 7. Supplemental fluoridation shall continue until this resolution is  
33 rescinded.

# *Drinking Water Fluoridation: Status Report*

Barbara Gastian  
Compliance Manager  
April 9, 2014



## *Fluoridation of Albuquerque's Drinking Water*

- Early 1970's: City of Albuquerque begins fluoridation of municipal water supply
- 2005: Water Authority continues the practice after assuming control of the drinking water system
- Target level 0.9 to 1.2 parts per million (ppm)

## *2006 National Academies of Science Assessment*

- Undertaken at request of U.S. Environmental Protection Agency (EPA)
- Reviewed new data on fluoride
- Resulted in recommendation that EPA update health and exposure assessments to take into account:
  - bone and dental effects; and
  - consideration of all sources of fluoride.

# *January 2011 U.S. Department of Health and Human Services (HHS) Centers for Disease Control (CDC) Proposal*

- Proposed new recommended *optimal* fluoride level 0.7 ppm
- Reduced from 0.7-1.2 ppm
- Final optimal level recommendation expected spring of 2011
- Water Authority stopped adding supplemental fluoride in March 2011 pending final recommendation
- Final recommendation still pending

## *EPA Maximum Contaminant Level (MCL)*

- Primary MCL 4.0 ppm
- Secondary MCL 2.0 ppm

# *Current Drinking Water Fluoride Concentration in Water Authority Service Area*

Naturally occurring fluoride levels

- Production wells: average 0.7 ppm
- Surface Water Treatment Plant (San Juan-Chama project): averages 0.4 ppm

Blended water supply

- Quarterly distribution system monitoring:
  - 2012 average 0.5 ppm
  - 2013 average 0.4 ppm

## ***Proposal Before the Water Authority Board***

- Add supplemental fluoride to bring entire service area to CDC optimal 0.7 ppm level
- For maximum operational efficiency, fluoride would be added at a central location: Surface Water Treatment Plant (San Juan-Chama project)
- Estimated \$400,000 infrastructure cost (one-time cost)
- Estimated \$100,000 yearly Operations & Maintenance costs