

Department of Utilities
Office of the Director


CITY OF SACRAMENTO
CALIFORNIA

1395 35th Avenue
Sacramento, CA 95822-2911
phone (916) 808-1400
fax (916) 808-1497

July 1, 2010

MEMORANDUM

TO: Mayor Kevin Johnson
City Council Members

FROM: Marty Hanneman, Director, Department of Utilities 

SUBJECT: Council Report Back re: Fluoride

This memo is in response to Council's discussion at the June 22nd budget hearing requesting information regarding fluoridation of the city's water supply. Council expressed interest in having the County Public Health official discuss the health benefits of fluoride and in having a policy discussion regarding rate payers having a choice whether fluoride is added to their water. Staff recommends a future Council workshop to discuss these issues.

The Department of Utilities' concern with water fluoridation is strictly from a fiscal stand point and not from a health benefit perspective. Fluoridation of the water supply is not a State or Federal mandated service, unlike the majority of the services provided by the Department of Utilities. Fluoride is an additive to the water for dental health purposes and is not essential for the production of safe drinking water and costs the department approximately \$1 million annually.

The Department of Utilities was notified earlier this year by Ms. Debra Payne, First 5 of Sacramento, that grant funds were available from her organization for a consultant study of our current fluoridation system to reduce our Operations and Maintenance costs, as well as grants for capital improvements. Subsequently, the Department met with Ms. Payne and representatives from the Dental Association to learn more about grant funding opportunities. As was mentioned during the DOU budget hearing, Utilities has begun the application process to receive a study grant, as there is no commitment to continue fluoridation required. The "capital improvement" grants provided by First 5 Sacramento require a 20 year commitment to continue fluoridation regardless of cost or financial status, with no funding for operational or maintenance costs. Staff does not intend to apply for any capital grant funds pending study results and Council direction.

The Department of Utilities will continue water fluoridation unless directed otherwise by City Council. Please see attached information for additional background.

Cc: Gus Vina, Interim City Manager
John Dangberg, Assistant City Manager
Attachment



CITY OF SACRAMENTO
DEPARTMENT
OF UTILITIES
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Fluoride in City of Sacramento's Water Treatment

History

City Council adopted a resolution in February 1998 stating that if another party would cover initial funding for purchase and installation of the fluoridation equipment, the Department of Utilities would cover the operational and maintenance costs, estimated at approximately \$350,000 per year at the two water treatment plants and 28 groundwater well sites. In 1999 the City Council authorized the City Manager to negotiate a \$1.41 million grant contract with the representatives of Fluoridation 2000 Work Group to fund the purchase and installation of the equipment necessary to add fluoride to the city's water supplies.

The City of Sacramento has been fluoridating its water supply for just over 10 years. Within that time, the actual cost of operating and maintaining the fluoridation systems has proven to be considerably more than the initial estimate of \$350,000 per year. In addition to the rising costs of chemicals, there are also escalating costs associated with labor, replacement parts, and other supplies needed for essential system operation and maintenance.

Recently all City of Sacramento departments were instructed to review the programs and services they provide and were asked to categorize each as mandatory, essential or existing. Of the many services provided by the Department of Utilities, fluoridation of the water supply is one that is not an EPA requirement and therefore would fall in the existing category. Fluoride is an additive to the water for dental health purposes and is not essential for the production of safe drinking water for the public. Therefore, fluoridation of the water supply has been identified as a service that should be suspended during the current budget crisis. While there is grant funding available to cover capital expenses of necessary infrastructure replacement, on-going operating and maintenance expenses will continue to impact our operating budgets. At this time it does not make fiscal sense to continue fluoridation at the expense of deferring mandated or essential services.

Contractual & Regulatory Obligations

- Title 22 of the California Health and Safety Code requires the fluoridation of all public water system that have at least 10,000 service connections, if funding is made available from outside sources. Section 64433 (f) of these regulations also establishes the criteria for suspending fluoridation if there are not sufficient funds for operation and maintenance.
- The contract between the City of Sacramento and Fluoridation 2000 Work Group (WG) states that the agreement can be terminated by either the City of Sacramento or Fluoridation 2000 WG with or without cause, by providing written notice of termination. If the City of Sacramento is the terminating party, reimbursement to Fluoridation 2000 WG was required only if termination occurred prior to installation of the fluoridation facilities. Therefore, the City has met its obligation consistent with the terms of the agreement and is no longer obligated to continue the service nor provide reimbursement.
- According to the Department of Health & Human Services, Center for Disease Control & Prevention, if a utility suspends fluoridation it must notify the state drinking water administrator and dental director. They also recommend alerting public health professionals and the public as well through local media.

Cost Factor	PY 2008/2009	PY 2009/2010 Projected	PY 2010/2011 Projected (7% Inc. for chemicals)	2012 Projected
Crystalline Sodium Fluoride	\$ 55,100	\$ 60,000	\$ 64,200	\$ 68,695
Fluorosilicic Acid	\$ 403,500	\$ 438,750	\$ 469,460	\$ 502,325
Operations & Maintenance*	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Capital Improvement Project - Replacement of Equipment at E.A. WTP:				\$ 450,000
Total	\$ 858,600	\$ 898,750	\$ 933,660	\$ 1,421,020

*Note: Operations and maintenance costs are estimates based on limited CMMS data.

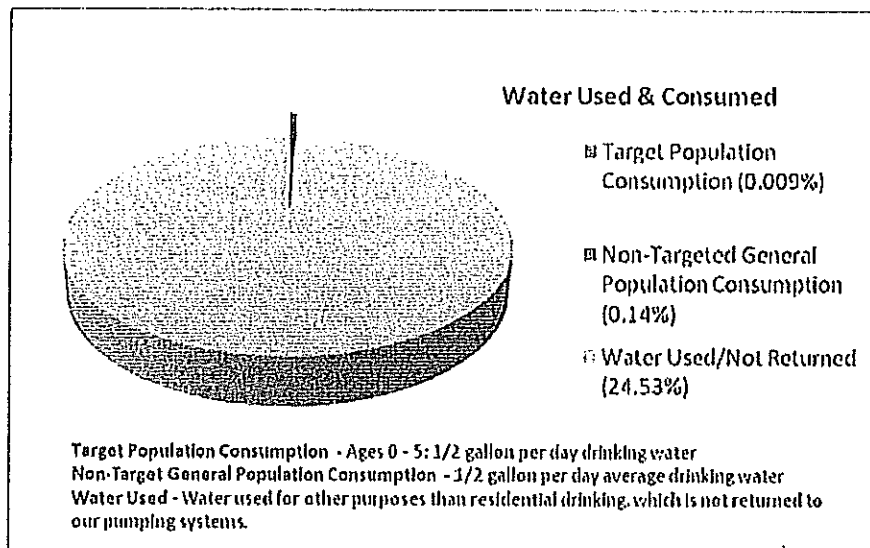
Fluoride in City of Sacramento's Water Treatment

Current Issues

- Crystalline sodium fluoride is no longer produced in the USA and now is only available from import manufacturers in China, Japan, and Belgium. It should be noted that Center for Disease Control (CDC) made strong recommendations that only the US product be used due to quality control and efficient operation of the saturator system.
- The Japan and China manufactured supplies have been found to be of a lower quality, causing costly equipment problems and failures. Shipments of sodium fluoride often have damaged bags that are leaking product through punctures or failed seals as well.
- The movement of suppliers away from domestically produced sodium fluoride is adversely affecting the fluoridation feed equipment of our 28 wells, primarily due to clogged fluoride injector pumps. Much of the loss of ground water well production is due to fluoride related issues.
- The fluoridation infrastructure at the E.A. Fairbairn Water Treatment Plant is overdue for replacement and will be very expensive to replace. Sacramento River Water Treatment Plant's fluoridation system will be due for replacement in 2014.
- Grant funding is available for capital costs, but in order to take advantage of this grant, all the operations and maintenance costs must be covered by the city and ultimately the rate payers. Such a contract would also obligate the city to fluoridate its water supply for 20 years regardless of the economic condition or budgetary constraints.

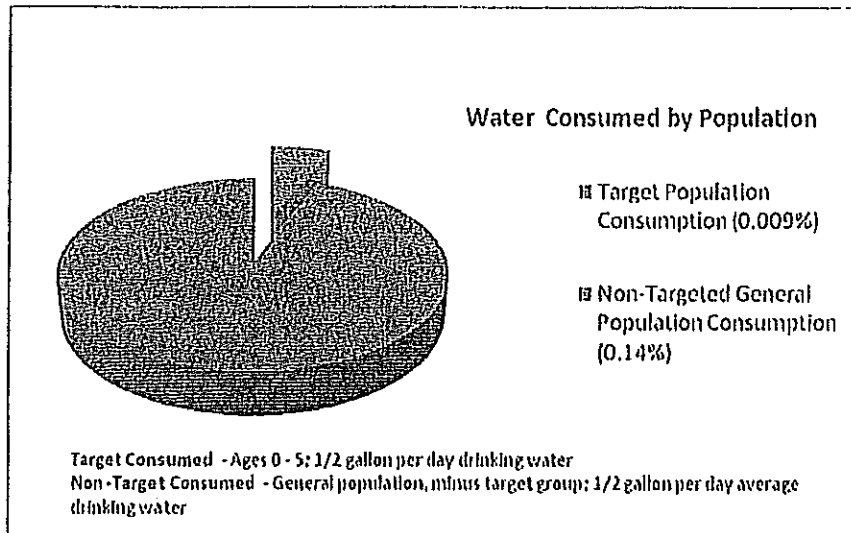
Water Production and Usage

Fluoridating water is a very costly and labor intensive process and requires constant monitoring of fluoride concentrations to ensure proper dosages. The chemical is very corrosive, so all equipment that is used in the fluoridation process has a very short life expectancy and needs to be replaced frequently. The crystalline sodium fluoride that is used at the 28 well sites not only causes the need for frequent equipment replacement, but also causes frequent and complex system failures. Such system failures mean that while wells are out of service and until the problem has been identified and resolved, the wells are not being used to deliver potable water to rate payers. Well shut downs also affect our ability to meet water pressure requirements, which are mandated in Title 22.



Fluoride in City of Sacramento's Water Treatment

When looking at the amount of water that is used, compared to the amount that is consumed, it does not make economic sense to continue to fluoridate the entire water supply. The target population of fluoridated drinking water is infants and small children. According to the 2000 US Census, Sacramento had a population of 407,018 people. The number of children age five and under, living in Sacramento at that time was 29,066, which is 7.1% of Sacramento's population. This means that of the 58 billion gallons the City of Sacramento is producing and treating annually, only 14 billion gallons are used by residential and commercial customers and .009 % of that is potentially consumed by the targeted group. (That would be comparable to taking one gallon of milk, using six and one half drops of it and pouring the rest of the gallon in the sink.)



Conclusions

Title 22 requires fluoridation for larger service agencies such as the city, but it also allows fluoridation to be suspended when it proves too costly to maintain. The Department of Utilities continues to search for ways to reduce costs and improve efficiency. Per direction from the City Manager's Office and the City Council, departments have been asked to identify services and programs that are not mandated and can be eliminated. Due to continued escalating costs and a severe budget deficit, the City of Sacramento should consider suspending fluoridation of the water, raising utility rates to cover escalating costs, or identify an alternate source to fund the capital costs as well as continued operation and maintenance costs to provide this non-essential service.