

## Information on Recent Testing for Perchlorate

The Washington Aqueduct participated in a perchlorate sampling project funded by the U.S. Environmental Protection Agency (EPA). EPA conducted this project because perchlorate has been detected in the past at several locations in the Potomac River. This voluntary study was intended to help EPA, states, and water utilities gain a better understanding of perchlorate occurrence in the area.

The study ran from October 2007 through September 2008. The data below summarize results of sampling conducted during calendar year 2008.

**System Name: Washington Aqueduct**

**PWS ID: DC0000001**

**Range of perchlorate detections in treated water: 0.24 – 1.12 parts per billion (ppb) \***

**Average treated water perchlorate result: 0.45 ppb \***

*\* The analytical method used for this study (EPA 332.0) can detect perchlorate at very low levels (0.01 ppb). Although the method was developed by EPA's Office of Research and Development, the method is not officially "EPA-approved".*

There is not a national drinking water standard for perchlorate. EPA has adopted a reference dose of 0.0007 milligrams per kilogram of body weight per day (mg/kg-d) for perchlorate. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude) of daily oral exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of adverse effects during a lifetime. EPA's reference dose is the value recommended by the National Academy of Sciences (NAS) and was derived to protect the most sensitive population, the fetuses of pregnant women who are iodide deficient or who have a condition called hypothyroidism. Assuming that drinking water is the only source of perchlorate exposure, a concentration of perchlorate in water of 24.5 parts per billion (ppb) is equivalent to the reference dose noted above.

In January 2009, EPA issued an interim health advisory to assist state and local officials in addressing local contamination of perchlorate in drinking water. The interim health advisory level for perchlorate was set at 15 ppb. This value is based on the reference dose recommended by NAS. EPA adopted the recommended reference dose then calculated the interim health advisory level for perchlorate for the most sensitive subpopulation, the fetuses of pregnant women. The interim health advisory level is the estimate of the maximum concentration of perchlorate that can be in the drinking water of a pregnant woman without her total (food and water) exposure exceeding EPA's reference dose for perchlorate. The interim health advisory level takes into account high-end estimates of the amount of perchlorate that may be in her food and of the amount of water she may drink.

EPA is also seeking advice from the NAS before making a final regulatory determination on whether to issue a national regulation for perchlorate in drinking water.

## **Additional Information**

U.S. Environmental Protection Agency (EPA) Safe Drinking Water Hotline  
1-800-426-4791 (Mon. – Fri., 10am – 4pm)

Information on perchlorate in drinking water (EPA)  
<http://www.epa.gov/safewater/ccl/perchlorate/perchlorate.html>

Interim Drinking Water Health Advisory for Perchlorate (EPA)  
[http://www.epa.gov/safewater/contaminants/unregulated/pdfs/healthadvisory\\_perchlorate\\_interim.pdf](http://www.epa.gov/safewater/contaminants/unregulated/pdfs/healthadvisory_perchlorate_interim.pdf)

Drinking Water: Preliminary Regulatory Determination for Perchlorate (Federal Register)  
[http://www.epa.gov/safewater/ccl/reg\\_determine2.html#perchlorate](http://www.epa.gov/safewater/ccl/reg_determine2.html#perchlorate)

Integrated Risk Information System – Perchlorate and Perchlorate Salts (EPA)  
<http://www.epa.gov/iris/subst/1007.htm>

Perchlorates ToxFAQ (Agency for Toxic Substances and Disease Registry)  
<http://www.atsdr.cdc.gov/tfacts162.pdf>

Perchlorate Questions and Answers (U.S. Food and Drug Administration)  
<http://www.cfsan.fda.gov/~dms/clo4qa.html>