

Fluoride Information - Frequently Asked Questions
Proposed Fluoridation of the City of Portland's Drinking Water Supply
Updated: April 24, 2013

Q: Will the City of Portland add fluoride to its drinking water?

A: The decision to add fluoride to Portland's drinking water will be determined by a public vote in the May 21, 2013 Special Election. Pending the outcome of the May 2013 election, the Water Bureau suspended its work to plan, design and construct a fluoride treatment facility.

Background: On September 12, 2012, the Portland City Council unanimously passed [Ordinance No. 185612](#) that authorized and directed the Portland Water Bureau to add fluoride to the drinking water supply. Through a referendum process, the Council's decision to fluoridate Portland's water is now subject to a public vote.

Q: Why did the City of Portland consider adding fluoride to drinking water at this time?

A: A citizens group approached former Commissioner Randy Leonard to ask him to sponsor a fluoridation measure to combat what the group called a rising problem of tooth decay in many children in Portland, especially for low-income and minority families. Then Commissioner Leonard and current Commissioner Nick Fish concluded that the qualified science and facts about the health promotion effects of fluoride, even for adults, were sufficient reasons to call for the September 12, 2012 Council vote to add fluoride to Portland's drinking water.

Q: Does the Oregon Health Authority or Multnomah County Health Department have a position on drinking water fluoridation?

A: Both the Oregon Health Authority (OHA) and Multnomah County Health Department support the fluoridation of Portland's drinking water. The US Department of Health and Human Services promotes the benefits of water fluoridation as well.

Q: Are there any other large cities in the United States that do not add fluoride to their drinking water at this time?

A: Portland is the largest city in the United States that does not fluoridate its drinking water. Currently, Wichita Kansas; Fresno, California; Tucson, Arizona; and Albuquerque, New Mexico also do not fluoridate their drinking water.

Q: Would the water that Portland provides to other cities and water districts also be fluoridated?

A: Yes. Since the potential fluoridation facility would be located near the Bull Run water source, wholesale customers would receive fluoridated water.

Q: Where can I get information about the health effects of fluoridated water?

A: The [Center for Disease Control website](#) has a great deal of information about the subject of Community Water Fluoridation.

FLUORIDE DETAILS

Q: Would fluoride be added to both the Bull Run and Groundwater supplies?

A: It is assumed that fluoridation of groundwater from the South Shore Columbia Well Field would not be required since it is not used on a regular basis. As Portland's supplemental water source, groundwater is blended with Bull Run water at the city's reservoir at Powell Butte, the hub of the Portland's water system. In the rare event where the Bull Run supply is required to be shut down, groundwater is used as the city's sole source of water. The short-term nature of such an event is such that building a separate fluoridation system for the groundwater supply is not cost-effective.

Q: What type of fluoride would be used?

A: Fluoride would be added to the water system at a 23 percent solution of fluorosilicic acid. Fluorosilicic acid is commercially available as a 20 to 35 percent solution. The most common concentration used in water treatment applications is 23 percent.

Q: What is the standard recommended concentration of fluoride for municipal water supplies?

A: The concentration recommended by the national Centers for Disease Control (CDC) is 0.7 milligrams per liter.

Q: How can I better understand the fluoride concentration that will be added to the water supply?

A: According to the Colorado Department of Public Health and Environment's website, 0.7 mg/liter is equivalent to one part per million, or the equivalent of one drop of water in 55 gallons of water, or one person out of a million people, or one minute out of two years.

Q: Does fluoride change the taste of drinking water?

A: No. No one should be able to taste the difference if fluoride is added to the water. Also, there is no smell to fluoridated drinking water.

Q: Would fluoridation mean adding 1.1 million pounds a year of fluorosilicic acid into Portland's water?

A: Average annual fluorosilicic acid usage is approximately 120,000 gallons, or 1.2 million pounds of liquid chemical. This equates to approximately 215,000 pounds/year of actual fluoride as fluorosilicic acid is not pure fluoride and contains a high proportion of water. Fluorosilicic acid will be fed as a 23 percent solution, which has an available fluoride ion content of 79.2 percent.

Q: Are there filters available that I can use in my house to remove the fluoride, if voters approve to add it to the water supply?

A: There are four recognized methods to remove fluoride from water: activated alumina, reverse osmosis, bone char or brimac, and steam distillation. Activated Alumina Defluoridation filters are available for home use but are relatively expensive (\$30/filter) and require frequent replacement. Distillation Filtration Systems are also commercially available for purchase to remove fluoride from water.

COSTS

Q: What are the costs of adding fluoride – how much would an average customer have to pay if fluoride is added to the drinking water?

A: The Portland Water Bureau's current estimate to design and construct a fluoride delivery facility is \$5 million. The cost to operate and maintain the facility is projected to be approximately \$500,000 per year. The cost would be about **25 cents** per month per household.

Q: Where will the \$5 million needed for the construction of a water fluoridation facility come from?

A: Currently, there are no designated funds for the fluoride facility included in the Portland Water Bureau's Capital Improvement Program (CIP). Approximately 80 percent of the bureau's CIP is currently funded via revenue bonds. About \$4 million of an approved Fluoride Project would be funded by bonds. Funds may be made available with budget adjustments next fall for any effort in Fiscal Year 2013-2014, and be included as part of the budget request for Fiscal Year 2014-2015 and beyond.

Q: Regarding the term “funds may be made available,” will the CIP for FY 2013-2014 be increased because of the fluoride project, or will other projects be delayed to fund the fluoride facility construction?

A. If the Portland Water Bureau is directed to begin fluoridation, the anticipated cost for Fiscal Year 2013-2014 would come from delaying some scheduled work and would be reported in the City's Fall Budget adjustment.

Q: Will new bonds be issued for the project, or does the \$4 million in bonds come from bonds already planned for Fiscal Year 2013-2014?

A. No new bonds would be issued specifically for this project. If the fluoride project moves forward, the Water Bureau anticipates spending about \$1 million to complete the facility design, so the full amount is not required immediately. Funding for the construction of the fluoride facility would be included in the next scheduled bond sale in fall 2014.

Q: Are there any federal grants or other sources of revenue to help defray the costs of adding fluoride to the drinking water?

A: No. The cost to build and operate the fluoride facility would be paid through rates charged to Portland Water Bureau retail and wholesale customers.

Q: How much has the Water Bureau spent so far on fluoridation plans?

A: To date, approximately \$152,657. Following the City Council's decision on September 12, 2012 to begin fluoridation by March 2014, the bureau contracted for outside professional technical engineering (PTE) services – external experts to plan and design a fluoride facility. The total PTE cost was \$102,657. These services were for: (1) Land Use permitting (\$55,192). The Water Bureau did not submit a Land Use application for any fluoride related facilities. A Land Use application was submitted for the bureau's Lusted Hill Facility's operations building and generator; (2) a civil engineering Basis of Design Report (\$33,499); (3) a Draft Geotechnical Survey Report for the proposed Lusted Hill site (\$13,996). In addition, about \$50,000 in Portland Water Bureau internal labor cost was spent through November 8, 2012, the date when the bureau ceased work on the project, including consultant services.

THE FLUORIDE FACILITY

Q: If the voters approve, will adding fluoride be delayed until the fluoridation plant is built?

A: Yes. Fluoridation would not start until the fluoride facility is completed.

Q: How long will it take to build a fluoridation facility?

A: The bureau estimates that it will take a minimum of 1.5 years is required to permit, design and construct the fluoride facility. Construction would take about one year to complete.

Q: What would be the projected start year for fluoridation?

A: Based on this schedule, fluoridation would start in 2015.

THE VOTE

Q: What is the referendum status?

A: Chronology of events:

- 09.12.2012 - the Portland City Council unanimously passed [Ordinance No. 185612](#) that authorized and directed the Portland Water Bureau to add fluoride to the drinking water supply.
- 09.20.2012 - The City Attorney delivers a [ballot title](#) to Auditor.
- 10.02.2012 - A [Ballot title challenge](#) is filed in Multnomah County Circuit Court.
- 10.11.2012 - The City Auditor's Office received referendum petition signature sheets which the chief petitioners estimated had 43,236 signatures.
- 11.07.2012 - The City Auditor's Office received statistical sampling reports from the Multnomah County Elections Office that estimated the petition had 33,015 valid City of Portland registered voters and therefore qualifies for the ballot.
- 11.08.2012 - The City Auditor's Office certified to the County Elections Offices the referendum petition for placement on the ballot. According to Portland City Code 2.04.100 A. Council may, within 30 days, or until December 8th, 2012, repeal an ordinance which is the subject of a referendum petition.
- 12.11.2012 - Multnomah County Circuit Judge Karin Immergut [issues](#) ruling on the ballot title challenge.
- 12.20.2102 - The Portland City Council passes [Resolution #36993](#) to place Referendum Petition PDX 02 on a special election ballot to be held May 21, 2013.
- 12.21.2012 - The City Auditor's Office files a [Notice of Measure Election](#) with Multnomah County Elections. PDX 02 Referendum has now been certified to the May 21, 2013 ballot and given a measure number (26-151).

Q: Why is fluoride not on the ballot in other cities that would receive Portland's fluoridated water?

A: The May 21 vote on fluoride is a referendum to the City of Portland voters to validate an Ordinance passed by the Portland City Council. Other jurisdictions that receive water through our wholesale customers do not have the opportunity to vote on this measure because it is an action by the Portland City Council only. The Portland City Council is the entity that directs the functions of the Portland Water Bureau.

Q: Is there also another fluoride petition circulating? What is that for?

A: Yes. The referendum that Portland voters will be voting on in May 2013 challenges the City Council's decision in September 2012 to begin fluoridating Portland's drinking water. There is also a petition being circulated that would amend the Portland City Charter to prohibit fluoridation in the future. If sufficient signatures are gathered, that question will be on the May 20, 2014 Primary Election ballot.

Status of Petition:

- 08.22.2012 - Prospective petition filed.
- 08.30.2012 – The City Auditor's office determines that the prospective petition meets the requirements of Section 1(2) (D), Article IV of the Oregon Constitution.
- 09.06.2012 – The City Attorney delivers a [ballot title](#) to Auditor.
- 09.07.2012 – A [Ballot title challenge](#) was filed in the Multnomah County Circuit Court.
- 11.26.2012 - Judge Karin Immergut [issues](#) a final ruling on PDX 1 ballot title challenge.
- 01.17.2013 – The Chief Petitioners submit cover and signature sheets for circulation.
- 01.17.2013 The City Auditor's Office approves cover and signature sheets; chief petitioners must submit signatures no later than January 17th, 2014 (four months before the May 20, 2014 Primary Election).

More information is available on the City Auditor's [2014 Initiative Petition Log](#).