

Seattle Public Schools  
Drinking Water Quality Improvement Program  
2007-2008 Annual Report

Published August 15, 2008

This is the first Annual Report for the Seattle School District ("District") Drinking Water Quality Program ("Program"). It describes the status of the Program through June 30, 2008. Future reports will be issued each summer.

### Introduction

The District considers student health and safety as a top priority. Over the last several years we have adopted and implemented a set of rigorous standards that have set nationally recognized standards for drinking water quality in public schools.

The program was mandated by the School Board, which adopted a Drinking Water Policy ("Policy") in 2004. The Policy is available at <http://www.seattleschools.org/area/policies/e/e10-01.pdf>. The Policy prescribes periodic testing of each drinking water source in each school and other buildings operated by the District, coupled with reporting of results, remediation and sets criteria requiring that bottled water be provided, if necessary, to assure students and staff have ready access to drinking water.

The most important testing criterion is testing for lead. The School Board set the maximum allowable level at 10 parts per billion (ppb), which is one-half the allowable level set by the US Environmental Protection Agency ("EPA") for schools. Tests are also conducted of all drinking water sources for cadmium and copper. Each school is tested at least every 3 years.

All results are available on the District's website. For each building they include a summary of current status, test results from prior to 2004 and results of tests since 2004. The link is: <http://www.seattleschools.org/area/ehs/drinkingwater/waterreports.htm>.

### Major Accomplishments

The District hired a water program coordinator to sample, document, analyze and report results. Recurring three-year testing was accomplished in 31 schools, with 93% percent of the sources tested passing all requirements. Standing sample passing rates increased from 60% in 2004 to 94% and flushed sample passing rates increased from 94% in 2004 to 99.6%. These results indicate marked improvement in overall water quality during the last four years.

Piping replacement continued, with another 4 schools receiving major piping work during summer 2007 and 5 more in 2008.

The District continues to be a national leader in school drinking water issues, having a significant number of research papers published.

The District's citizen oversight committee for drinking water issues completed its three year charter to provide review and advice to the District on management of the program.

### Specific Activities

#### Drinking Water Program Coordinator

The District hired Shelly Kerby in May 2007 to serve as the coordinator for the drinking water program. Her primary duties are to conduct water testing and document, analyze, and publish the results as well as respond to inquiries and concerns as they occur. She also assists in other aspects of the District's Environmental Safety Department. In the long term, it is expected that she will be able to devote approximately half of her time to other duties as an Environmental Coordinator.

Ms. Kerby's efforts have allowed the District to proceed with recurring 3-year testing on a regular basis and to reduce costs by minimizing the involvement of outside consultants.

#### Overall School Status:

As of June 2008, all school buildings were in regular service except:

Rainier View (on lease)

Hughes (South Lake Interim site)

New School @ Columbia (only portables are under bottled water, school building is in regular service).

Bottled water is being provided in these schools.

Recurring Testing Since June 1, 2007: The Program calls for recurring testing of all drinking water sources, to assure continued compliance with the Policy. This testing will take place at each school every 3 years, on a rotating schedule.

By May 31, 2008, recurring testing had been finished and results obtained on 31 schools, representing 1,258 drinking water sources, roughly 36% of the District. Approximately 93% of the sources tested met the Policy requirements.

For the 31 schools tested through May 31, 2008, representing 922 sources that had previously passed, the passing rate for lead is 93%. Of the 75 sources that tested higher than 10 ppb, 72 were for first draw results; the 30 seconds flushed results for these locations (which represents most of the water consumed) all met the District requirements. Of the 75 that tested higher than 10 ppb, 32 were above the EPA standard of 20 ppb for schools. Per the Policy, all sources testing above 10 ppb on either a first draw or flushed sample have been remediated and retested or shut off.

Ninety sources that had not previously met the Policy standards have also been tested. Of these, 74 or 80% passed all District requirements and were returned to service.

The District also tested 266 sources that had never been tested before. Of these, 230, or 86% passed. In most cases, these sources were in out-of-the-way locations inaccessible to students. To assure that all locations are identified for future testing, the coordinator has begun a systematic review of each school to identify and record all locations prior to retesting a school.

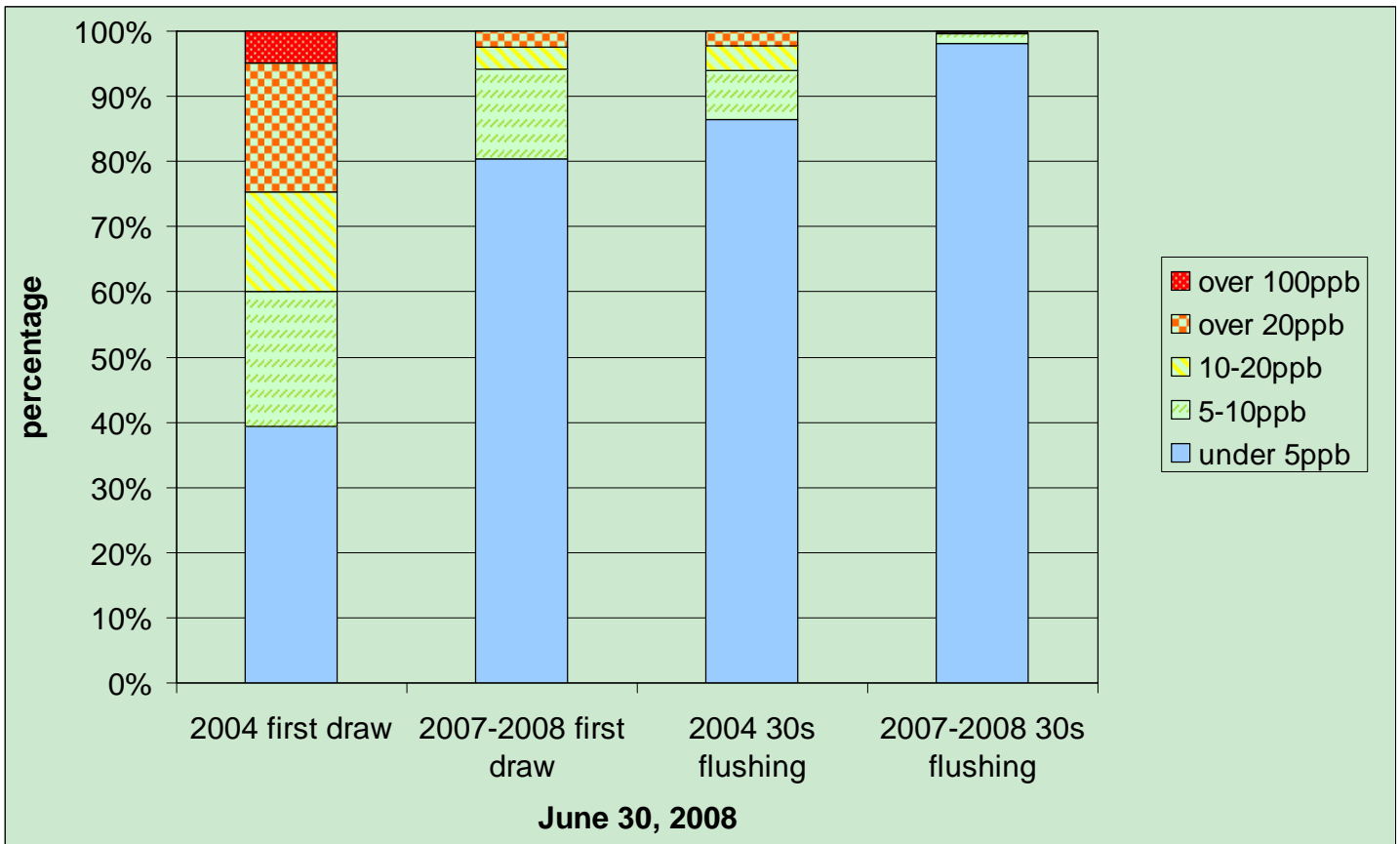
A detailed summary is attached for all tested schools since June 1, 2007 (Attachment 2).

Results for each school being retested (recurring testing or piping replacement) are summarized on Attachment 3 showing, for each school, number of locations tested, number of passing and failing, number of results above EPA standard, number of signs posted and bottled water locations, and highest and lowest result, average result.

One useful way to look at these results is to compare the test results from 2004. Looking at various statistics for schools that were tested in the last year (excluding schools with complete pipe replacement), it is apparent that water quality has improved in the last 4 years:

	2004	2007-2008
Percentage of first draw results passing	60	94
Percentage of first draw results below 5 ppb (1/2 SPS standard)	39	80
Percentage of first draw results below 20ppb (EPA standard)	75	97.5
Percentage of 30 seconds flushing results passing	94	99.6

The following bar chart shows visually the improvement in water quality over the last four years.



The District expects to test another 32 schools by June 30, 2009.

Bottled Water: Bottled water is being provided at a number of locations in buildings in regular service, as necessary to meet the access criteria. A total of 58 individual sources are currently served with bottled water. This represents a decrease of 40 locations in the last year. A list of bottled water locations is attached.

Regular Flushing Program: The Policy provides for flushing of drinking water sources four times annually. The most recent required flushing occurred in the week prior to the resumption of school after the spring break. Regular notices went out to all custodians and reports were received back from the school custodians. All schools were flushed as required. The flushing reports are filed in the Coordinator's office.

Flushing is planned for early September before the start of school.

Filter Replacement: The District currently has installations for activated carbon filters at 267 sources. The cartridges are to be replaced twice annually, each summer and winter break. Orders were sent to replace these filters and a total of 534 filter cartridges were replaced, on schedule.

Research Papers Published: Through the effort to improve water quality since 2004, the District has sponsored research in a number of areas. These papers involve a number of aspects of drinking water quality, including: Pb release from end-use plumbing components in the District and lead variability testing. A complete listing of papers is provided in Attachment 5.

Oversight Committee/Proposed Policy Changes: On October 16, 2007 the Oversight Committee ("Committee") appointed by the School Board recommended changes to the Policy. Some of the changes would strengthen the Policy by including nurses' offices as locations requiring access to water and by requiring an annual report. The District staff has recommended these changes be adopted by the School Board. Other proposed changes would make minor revisions to the testing for lead, making it easier for some sources to pass. District staff did not recommend these changes for adoption because of concerns that the public might perceive these to be a weakening of the Policy's rigorous standards.

The Committee also recommended that an annual report be prepared and published to interested persons, including analyses of the overall water quality at schools. This report satisfies that recommendation.

The Committee's 3-year charter expired in February 2008. No further action is anticipated to extend or reinstate the Committee.

The District wishes to thank the members of the Committee for the many hours of public service they provided and their vigorous efforts to upgrade the District's drinking water quality program.

Testing Plan and Activities Scheduled through July 1, 2009: From July 1, 2008 to July 1, 2009, the District expects to complete testing on 31 schools that were due for retesting and to have reported the results on the District's website. The schools are listed on Attachment A3.

Piping Replacement: Four schools had piping replacements in 2004, another eight schools had full or partial replacements in 2005 with four more in 2006. All have been returned to regular service.

During summer 2007, four school buildings had piping replaced. In addition, the renovation of Cleveland High School was completed in 2007. Sources were tested at all five schools and the schools are now in regular service.

Construction is under way for additional piping replacement at five schools during summer 2008. For summer 2009, eight schools are planned to have piping work performed. In addition, the Garfield and South Lake projects are nearly completion and will be tested prior to school opening.

For a list that includes all schools with piping projects in 2007 through 2009, please see attachment 7.

Publication:

This report will be posted on the District's Facilities website and provided to the following:

School Board  
School Principals  
Local and Regional Media  
Oversight Committee members  
Seattle Public Utilities  
Washington Department of Health  
Public Health of Seattle and King County  
HDR (District water quality consultant)  
Key District Staff (Superintendent, CFOO, Facilities Director, Education Directors)

For further information, contact Shelly Kerby, Drinking Water Quality Program Coordinator, 252-0703 or Ron English, Drinking Water Quality Program Manager, 252-0651.

Attachments:

1. [List of Bottled Water Locations](#)
2. [Test Results summary by School](#)
  - 2.1. Lead Test Results Summary by school
  - 2.2. Evaluation of Lead Failures over 20 ppb
  - 2.3. Copper and Cadmium Test Results Summary by School
3. [List of Schools to be Tested by July 1, 2009](#)
4. [Comparison of Results in 2004 and 2008](#)
5. [Research Papers Published](#)
6. [Useful Links](#)
7. [School Piping Projects](#)