

MCPS WATER SAFETY WORKGROUP

Location: Facilities Maintenance Depot, Conference Room 1

Date: December 6, 2018

Time: 1:00 - 4:00 pm

Agenda Items

1:00 – 1:30

Welcome and Introductions

Charge for the Workgroup (Lynne Zarate, MCPS)

1:30 – 2:00

Review Current State

1. MCPS Water Quality Program and 2018 Data (Brian Mullikin, MCPS)
2. Current state of Maryland's Water Supply Program for lead in drinking water (Tim Rule, MDE)

2:00-3:00

What questions should the workgroup consider? (All)

1. What factors contribute to elevated lead levels in water?
2. What is source of testing variation for repeated tests?
3. How should the blood lead levels data, tracked by state health officials, be used in evaluating the water safety standards and procedures?
4. What are the options for lead action levels that determine when to remediate?
5. Is there a practical limit for reducing lead content in plumbing systems?
6. What are other practices and standards being adopted by other states and school jurisdictions?
7. What role does periodic flushing have in ensuring water safety?
8. Are there additional best practice procedures that MCPS should implement?
9. Other Questions?

3:00-3:30

Deliverables for group to consider (All)

1. Answers, options and/or recommendations to questions above
2. Identify and recommend practices that can minimize the risk of exposure to lead in the drinking water at MCPS facilities
 - Flushing for low level outlets that test below the action level?
 - Other?

3:30-3:45

Next Steps

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Interagency Drinking Water Safety Work Group

Agency	Candidate	Title	Address	Phone Number	Email
MDE	Tim Rule	SDWA Implementation	Water Supply Program Water and Science Administration MDE 1800 Washington Boulevard, Ste. 450 Baltimore, MD 21230-1718	410.537.3688	tim.rule@maryland.gov
WSSC	Jin Shin	Division Manager, Water Quality	WSSC Consolidated Laboratory Facility 12245 Tech Road Silver Spring, MD 20904	301.206.8926	Jin.Shin@wsscwater.com
DEP	Nasser Kamazani	Senior Engineer	Water & Wastewater Group DEP 255 Rockville Pike Suite #120 Rockville, MD 20850	240.777.7717	Nasser.Kamazani@montgomerycountymd.gov
DHHS	Dr. Travis Gayles	Health Officer	DHHS 401 Hungerford Drive Rockville, MD 20850	240.777.1603	travis.gayles@montgomerycountymd.gov
MSDE	Fred Mason	Branch Chief, School Facilities	School Facilities Branch Public School Construction MSDE 200 West Baltimore Street Baltimore, MD 21201-2595	410.767.0097	fred.mason@maryland.gov
MCCPTA	Laura Stewart	Vice President of Advocacy	MCCPTA P.O. Box 10754 Rockville, MD 20849	240.601.9519	lmstewart120@gmail.com
MCCPTA	Rebecca Morley	Chair, Safe Water Committee	5804 Grosvenor Lane Bethesda, MD 20814	703.868.0554	rmorleyconsulting@outlook.com)
NSF	Harold Chase	Legislative Director	NSF International 2001 Pennsylvania Ave., NW Suite 950 Washington, DC 20006	202 822.1849	hchase@nsf.org
MCPS	Lynne Zarate	Director, Division of Maintenance	Facilities Maintenance Dept. 803 Turkey Thicket Drive Bldg A, 1 st Floor Gaithersburg, MD 20879	240.740.2500	Lynne_M_Zarate@mcpsmd.org
MCPS	Sean Gallagher	Assistant Director, Department of Facilities Management	45 West Gude Drive Suite 4000 Rockville, MD 20850	240-314-1060	Sean_Gallagher@mcpsmd.org
MCPS	Brian Mullikin	Environmental TeamLeader, Environmental Services and Indoor Air Quality Services	Facilities Maintenance Dept. 803 Turkey Thicket Drive Bldg A, 1 st Floor Gaithersburg, MD 20879	240.740.2324	Brian_A_mullikin@mcpsmd.org

DRAFT

Charter: The Water Safety Workgroup will develop recommendations for ensuring MCPS drinking water safety and quality.

Problem Description: Plumbing systems have the potential risk of allowing lead and other contaminants into the water supply

Goal Statement: Provide clear, consensus-based recommendations for the Superintendent to ensure that MCPS provides safe and high quality drinking water

Event Dates: Dec 6th, 2018 – May 2019

Team Members: see attached list

Currently Available Relevant Information:

- MCPS Water Quality Program data
- EPA 3T's for Reducing Lead in Drinking Water
- EPA Lead and Copper Rule
- Maryland Regulations
- Other state and municipal lead regulations
- Other school jurisdiction drinking water quality programs
- Lead in water research

Scope: Identify practices that can minimize the risk of exposure to lead in the drinking water at MCPS facilities

Deliverables – Develop report provides the following:

1. Determine factors that contribute to elevated lead levels in water
2. Determine source or cause of testing variation for repeated tests
3. Determine how blood lead level (BLL) data should be used in evaluating the water safety standards and procedures
4. Identify options for lead action levels that determine when to remediate
5. Determine practical limit for reducing lead content in plumbing systems
6. Identify other practices and standards being adopted by other states and school jurisdictions
7. Determine role periodic flushing has in ensuring water safety
8. Identify additional best practice procedures that MCPS should implement

MCPS Water Safety Workgroup Proposed Milestones

Month	Milestone
December	Confirm/refine charter, scope, schedule
January	Refine questions & research answers Begin data review
February	Analyze data; define types of recommendations
March	Refine analysis, draft options/recommendations
April	Draft report
May	Finalize report

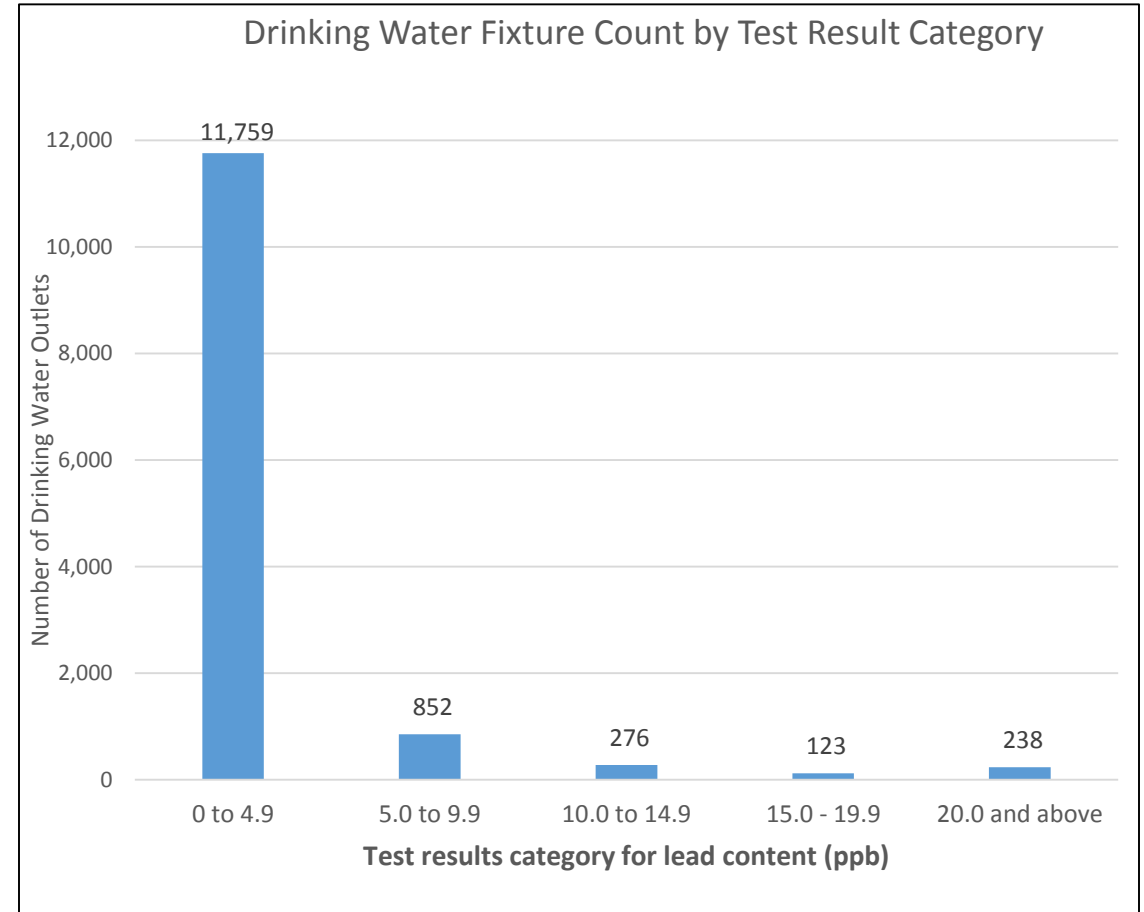
MCPS Water Quality Program and 2018 Data

Brian Mullikin, Montgomery County Public Schools

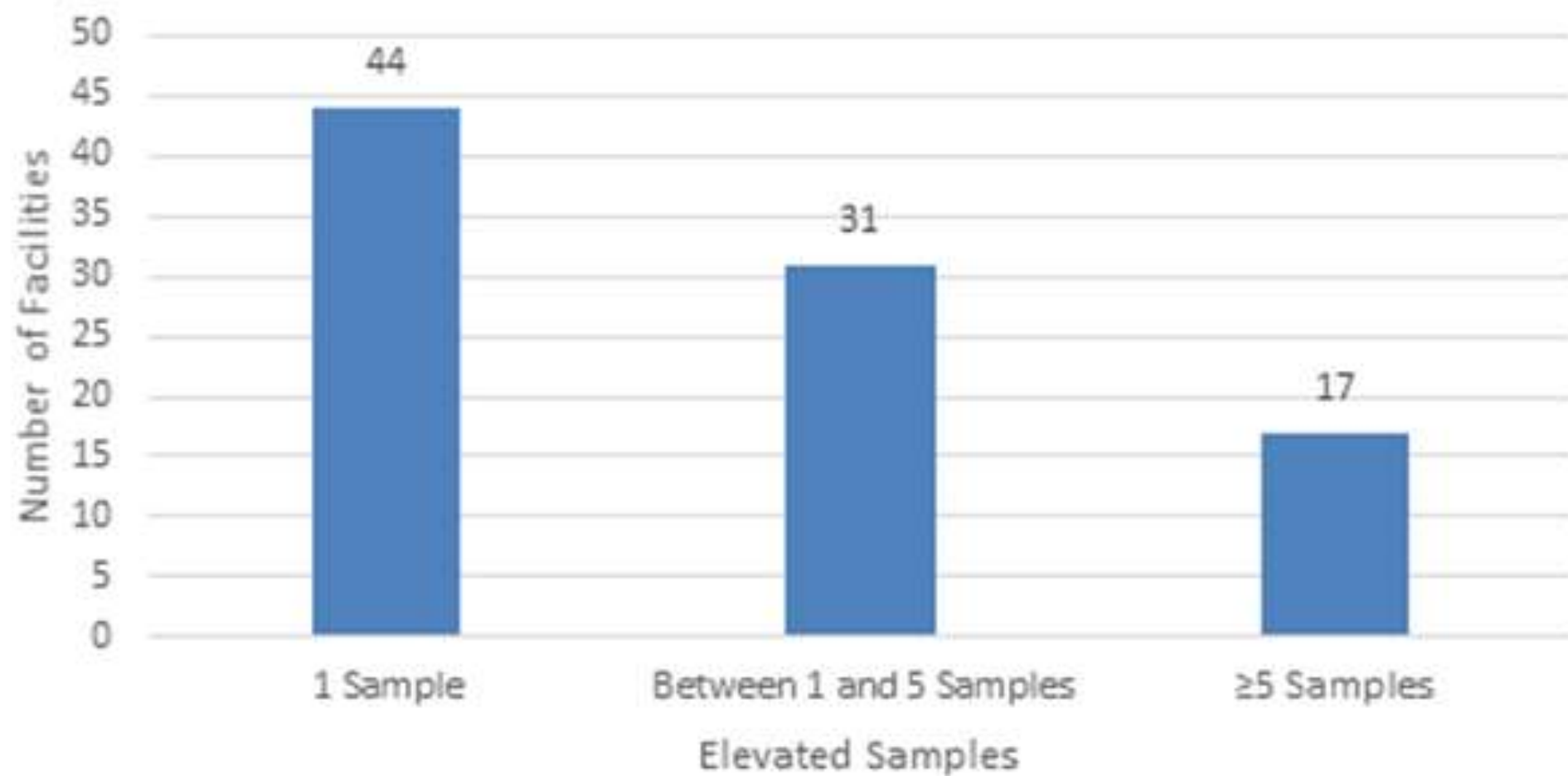
MCPS Water Testing Briefing

December 6, 2018

1. Previous systemwide testing/remediation conducted from 2004 to 2006.
2. MCPS conducted drinking water testing from January to June, 2018.
3. Results of testing – 13,248 fixtures tested; 238 elevated fixtures; 1.8 percent
4. Elevated fixtures in the process of being remediated. Retested prior to being returned to service.
5. All school test reports are posted for public access. Community letters with test report summary were communicated to parents and guardians.
6. Next steps – using subject matter experts, determine options for further reducing exposure to trace lead contamination. MCPS Water Safety Workgroup convening in December, 2018.



Number of Facilities by Elevated Sample Count



Testing for Lead in Drinking Water- Public and Nonpublic Schools Status Update

Tim Rule, Maryland Department of the Environment

Proposed Questions for the Workgroup

1. What factors contribute to elevated lead levels in water?
2. What is source of testing variation for repeated tests?
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4. What are the options for lead action levels that determine when to remediate?
5. Is there a practical limit for reducing lead content in plumbing systems?
6. What are other practices and standards being adopted by other states and school jurisdictions?
7. What role does periodic flushing have in ensuring water safety?
8. Are there additional best practice procedures that MCPS should implement?
9. Other Questions?

Next Steps

- Next meeting?
 - Thursday January 24, 9 -12
 - Tuesday January 29, 9 -12
- MCPS Water Safety Workgroup Proposed Milestones

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- Communications/Logistics – Google drive

Water Safety Work Group

Meeting notes from December 6, 2018

Participants:

Harold Chase	National Sanitation Foundation (NSF) International, Legislative Director
Sean Gallagher	Montgomery County Public Schools (MCPS), Assistant Director, Department of Facilities Management
Carol Gregg	MCPS, Fiscal Assistant, Environmental Services and Indoor Air Quality Services
Nasser Kamazani	Montgomery County Government (MCG), Senior Engineer, Department of Environmental Protection
Teresa Lloyd	MCPS, Environmental Specialist
Rebecca Morley	Montgomery County Council of PTAs (MCCPTA), Chair, Safe Water Committee
Brian Mullikin	MCPS, Team Leader, Environmental Services and Indoor Air Quality Services
Tim Rule	Maryland Department of the Environment (MDE), SDWA Implementation
Jin Shin	Washington Suburban Sanitary Commission (WSSC), Division Manager, Water Quality
Laura Stewart	MCCPTA, Vice President of Advocacy
Lynne Zarate	MCPS, Director, Division of Maintenance

Absent:

Dr. Travis Gayles	Department of Health and Human Services (DHHS), Health Officer
Fred Mason	Maryland State Department of Education (MSDE), Branch Chief, School Facilities

Welcome and Introductions:

The workgroup participants were introduced and some corrections were made to the roster.

The workgroup reviewed the draft charter. "Problem description" was changed to "There is a potential risk of allowing lead and other contaminants into the water supply"

Review of Current State:

Brian Mullikin, MCPS, provided a review of the MCPS program and shared a MCPS Water Testing Briefing. See Attachment 1.

Tim Rule, MDE, presented a PowerPoint presentation entitled, Testing for Lead in Drinking Water – Public and Nonpublic Schools Status Update. See Attachment 2.

The group clarified that for the purpose of this workgroup, "elevated" will be defined as "exceeding the action level of 20 parts per billion (ppb) as per House Bill 270 (HB270)."

What questions should the workgroup consider?

For the rest of meeting, the group discussed the questions that the workgroup will consider. The results of this discussion are a total of 9 categories of questions, presented in the outline below. To the right of the question lists the agency/member that will begin gathering information. Notes are also included where there was technical information to share.

1. What factors contribute to elevated lead levels in water?

- a. Is there age and manufacturer data on elevated fixtures? [MCPS](#)
- b. Create a geographic information system (GIS) map that shows elevated results by: [MCPS](#)
 - I. Age of school facility and neighborhood

- II. Relative distance from distribution water treatment plant
 - Note** - residual chlorine decreases as distance from plant increases
 - I. Number of elevated samples
- c. What is the effect of fixture use pattern (frequency of use)? [MCPS](#)
 - I. Are there some kitchen outlets not being used?
 - II. Are there any non-drinking outlets being used for consumption?
 - d. What are contributions from valves or other disturbance/particles? [WSSC](#)
 - e. What is the correlation between results and [WSSC](#)
 - I. Residual chlorine?
 - II. Anticorrosion treatment?
 - III. Passivation time?
 - f. Do different public water systems (i.e. Poolesville) variations in corrosion treatment contribute to lead levels?
 - g. Do lead service lines contribute to elevated lead levels? [WSSC](#)

Notes

- Large Lines are not usually lead lines
- Lead lines are typically 2" lines, not large enough for a school
- Lead lines rarely used after 1940

- h. Do MCPS facilities built before 1940 have lead service lines? [MCPS](#)
 - I. Check existence of facilities built between 1920-1940's

2. **What is source of testing variation for repeated tests?** [MCPS](#)

For the 238 elevated outlets tested repeatedly, some had higher results on the second test, others had lower results. Is there a reason?

Notes:

- Fixtures were tested two or three times.
- Testing was conducted on separate days, different draws.
- Identical sampling protocols were followed.
- Fixtures had been turned off between initial and follow up sampling, high levels could result from the friction of the valve being turned, disturbing particles

3. **How should the blood lead levels data, tracked by state health officials, be used in evaluating the water safety standards and procedures?**

- a. What are the blood level testing requirements in Maryland? [DHHS](#)
- b. Is drinking water sampled when there is an elevated blood lead level (BLL)? [DHHS](#)
- c. What is correlation between student's BLL & school water data? [DHHS](#)
- d. What other data is collected when there is an elevated BLL? [DHHS](#)
- e. Develop geographic information system mapping of elevated BLL and school water data [MCPS](#)

4. **What are the options for lead actions levels that determine when to remediate?**

- a. Workgroup needs to review:
 - I. Government Accounting Office (GAO) report – health based? [MCPTA](#)
 - II. EPA's revised 3T's [ALL](#)
 - III. EPA is revising lead and cooper rule
 - IV. National Sanitation Foundation (NSF) standards - based on health advisory from EPA [NSF](#)
 - V. American Academy of Pediatrics (AAP) report [MCCPTA](#)
- b. Workgroup should develop a tiered plan so that different outlets have different thresholds based on use [ALL](#)
 - I. Consider pre-K as a special category
 - II. Make recommendations for graduated/staggered implementation
 - III. Refer to Washington State school systems

5. **Is there a practical limit for reducing lead content in plumbing systems?**

- a. What are current MCPS remediation practices? [MCPS](#)

- I. MCPS replaces the fixture, supply line and valve for all drinking outlets with initial elevated levels of lead
 - II. MCPS will consider permanent removal of drinking outlets that are not being used or have post-remediation elevated levels of lead
 - b. How is the replacement plumbing equipment selected? [MCPS](#)
 - I. MCPS Procurement documents require that plumbing materials which are to be used for the installation or repair of plumbing intended to dispense water for human consumption shall comply with all Federal and State regulations
 - c. What is the requirement for new fixtures? [NSF](#)
 - I. NSF61
 - II. Other?
 - d. Are there different NSF standards for kitchen and classroom bubblers? [NSF](#)
 - e. Is there data on the practical limit? 5 ppb? [MCCPTA](#)
 - f. What is the cost?
6. **What other practices and standards have been adopted by other states and school jurisdictions?**
- a. Develop summary table of action levels for other states or school districts (consider Colorado, Washington State, Washington DC, Prince Georges County, NY, Detroit, PA, NJ) [ALL](#)
 - b. Are DC (5 ppb) and Prince Georges County (10 ppb) action levels real or aspirational? MCPS
 - c. How was 5 ppb set as action level for MDE wavier? [MDE](#)
 - d. What are filtration options? [MCCPTA](#)
 - I. Individual faucet and/or
 - II. Whole school.
 - e. What are other schools districts considering (signs, bottled water, water filling stations with filtration systems)? [ALL](#)
 - f. For filters, what type of certification for filters is required? What level and contaminant is specified? [NSF](#)
7. **What role does periodic flushing have in ensuring water safety?**
- a. What does the 30 second draw indicate? [MCPS](#)

Note:

 - Generally, results indicate a substantial reduction with flushing
 - MCPS will provide detailed resample data
 - b. What are other flushing best practices? [MCCPTA](#)
 - I. Should individual school plans be developed to minimize stagnation?
 - II. What are the water management plans used at commercial buildings and hospitals in Europe? [NSF](#)
 - c. How consistent is MCPS flushing program? [MCPS](#)
8. **Are there additional best practice procedures that MCPS should implement?**
- a. Automatic flushing mechanism [NSF](#)
 - b. Filtration
 - c. Signage– [ALL](#)
 - I. Should positive/negative fixtures have signs?
 - II. What do other schools do?
 - III. Is signage installed in all bathrooms?
 - d. Best Practice Implementation could be [ALL](#)
 - I. Prioritized and planned for staggered/multi-year rollout
 - II. Include a periodic review
9. **What is most effective way to communicate with parents and educate at home practices?**
- Review existing communication techniques; suggestions include [MCPS](#)
- a. Letters to parents should:
 - I. Be translated into multiple languages
 - II. State that the action level is not based on a health based standard
 - III. Educate on home practices
 - b. MCPS Webpage
 - I. Include links to other sites (YouTube, WSSC)

Next Steps:

1. Create Google drive to communicate with everyone in group. The drive will contain folders for each meeting and/or the questions.
2. Select date for next meeting - Thursday, January 24th or 29th (Doodle will be sent to group)
3. Circulate meeting notes within the group for comment
4. Begin to compile data as discussed in the meeting
5. Draft a report by April.

Meeting Analysis**Plus**

Brain storming very helpful

Wide range of expertise made meeting very productive

Involvement of external stakeholders

Different viewpoints in the field

Temperature and lighting adequate

Delta

Fix phone system for next meeting

Facility difficult to access due to road construction

Need signage on 4th floor of parking garage

Advise attendees street parking is also available