

NPS Water Quality FAQ



1. Why did the district decide to bring outside drinking water into 30 Newark schools on Wednesday, March 9th?

The health and safety of students and staff is our top priority, and these actions were the safest way to meet this goal. Newark Public Schools brought water into schools as a precautionary measure in response to results from an annual water quality test that showed at least one water sample, out of generally 10 samples taken per building, with lead levels above the federal action level of 15 parts per billion (ppb) in a subset of faucets at 30 NPS schools. While risks associated with lead in water may be lower than those associated with paint and other forms of exposure, experts have agreed that providing an alternate water source while further testing is conducted was the right thing to do. The overall results from water quality tests showed the vast majority of samples (about 590 of 650 samples) collected across the district showed little to no traces of lead.

2. What caused the elevated lead levels in those specific schools?

Newark Public Schools is working with the NJ Department of Environmental Protection (NJDEP) to determine what, if any, specific events may have led to this subset of faucets showing elevated lead levels in their water. Water quality management is an on-going responsibility of any municipality, school district, or organization that maintains buildings. The City of Newark conducts annual tests for water quality and we have confirmed that lead has not been found within the Newark Water Department's water system. We are reviewing the enforcement of our internal protocols to determine to what degree they were followed in those buildings by staff and custodians.

3. What are the health effects of elevated levels of lead in water?

There is no safe amount of lead in water. Chronic exposure to lead can be concerning, particularly to children in their developmental years who are most vulnerable to impacts from lead exposure. But drinking water alone is not typically associated with elevated blood lead levels. It is the buildup of lead from all sources over time that determines whether harmful health effects will occur.

Recently, in an interview with NJ.com, experts noted "the likelihood that they (elevated lead levels in water) could cause serious damage to Newark kids is small."

"It's not time to panic," Dr. Steven Marcus, Director of the Lead Poisoning Program at University Hospital and Assistant Professor at Rutgers New Jersey Medical School, said Thursday after assessing the lead levels reported Wednesday by the Department of Environmental Protection. "Compared to other risks like lead paint, (the amount of lead in the water) is much less likely to expose children to lead poisoning," he said.

According to Marcus, a one-centimeter paint chip containing lead paint poses "far worse exposure" to lead – about double the highest level recorded in Newark schools' water.

For more information on lead in drinking water, a New Jersey Department of Health fact sheet is available at http://www.nj.gov/health/ceohs/documents/dw_lead_factsheet.pdf.

4. How does lead get into water generally?

The NJDEP reports the following factors can influence elevated lead levels in water:

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- *Type of plumbing materials* – Lead solder used for connecting pipes contains about 50 percent lead. Careless soldering can increase the amount of lead dissolved into the water. Buildings built after the 1987 ban on the use of lead soldering are less likely to lead in drinking water. Brass fixtures and faucets contain up to 8 percent lead and are also a significant source of lead in drinking water.
- *Length of time water stands in pipes* – The longer the time water stands in the plumbing the more likely it is that lead will build up in drinking water.
- *Corrosiveness of water* – Corrosive water – caused by high acidity, low mineral content, or high chloride – can increase the amount of lead that can get into drinking water.
- *Grounding of electrical wires to water pipes* – The grounding of electrical wiring and telephone lines to water pipes can increase the rate of corrosion.

5. Why did the district provide water for 30 school buildings and not across all district schools?

In the district's annual water quality testing, samples were collected in all active NPS school buildings. In each building, the laboratory that conducts testing typically collects 10 water samples from each building. When results were returned to the district this year, 30 of those active school buildings had between 1 and 4 samples (out of 10) that showed an elevated level of lead in the water that tested above the federal action level. While the lead levels, the number of positive tests, and the location of these initial results varied, district leadership decided to exercise caution and take action in each building where any elevated level was detected.

Action was not taken in school buildings whose water quality testing results showed no lead levels in water above the federal action level of 15 ppb. In general, the vast majority (about 590 of 650 samples) collected across the district showed little to no traces of lead.

6. How long were NPS officials aware of test results?

Staff at Louis A. Spencer first sent an inquiry to facilities staff on Thursday, March 3rd regarding water quality. This inquiry prompted the director of facilities to ask for expedited results from the district's contracted lab that was in the midst of compiling results from samples that they collected as a part of their annual review between December 2015 and late-February 2016. Once initial results were received from a subset of schools, the director of facilities worked with district staff to compile and review that data, while simultaneously ordering re-testing and flushing protocols at select schools to confirm certain data elements.

Superintendent Cerf was provided with a comprehensive set of results for the current year on Monday, March 7th.

Upon receiving these results, the Superintendent immediately directed district officials to reach out to the appropriate local, county, state and federal agencies. Given the complex nature of water quality testing, the Newark Public Schools thought it necessary to confirm internal analysis of results with experts in order to ensure that the district's response to those results outlined was appropriate.

Within 24 hours of contacting outside agencies, NPS staff worked throughout the night to begin executing an extensive action plan that brought 95,000 liters of new water into 30 school buildings, and distributed information to staff and families through direct letters, phone calls, and in-person communication.

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- 7. Why weren't parents, families and staff members notified sooner?**
8. At Newark Public Schools, the health and safety of our students and staff is our highest priority. The district took every necessary step to expedite the analysis, carefully reviewing the data in order to develop a comprehensive plan to effectively protect the well-being of our students and staff.

It's important to note that water quality test results take time to interpret. The district leadership needed to consult with experts in the field, as well as local and state agencies, to ensure we were implementing the most effective course of action. There must be a thorough analysis in order to identify the appropriate course of action. Water quality testing is only conducted by certified laboratories who must use sampling procedures outlined by federal regulations. Water quality results can be very sensitive, depending on how the sample is collected. Any finding from a sampling method requires careful analysis to determine if proper procedures were applied when collecting the sample, to better understand the location of given samples, and how the location where the sample was taken is typically utilized (i.e. if the location is utilized for drinking water purposes). Often times re-testing is recommended at other points of use in a building once an elevated sample has been collected to confirm or better understand the implications of results.

See more information about water testing from the EPA here:

<http://www.epa.gov/dwanalyticalmethods>.

- 9. Why did the district send out a memo in 2014 instructing staff to flush sinks to prevent lead build-up?**

The 2014 Memo is an example of a maintenance letter sent regularly dating back to 2004 reinforcing common protocols that have been used to manage water quality in schools. Water quality and lead level management is an on-going responsibility of any municipality, school district, or organization; particularly for those with building stock that was built before lead regulations were put into place in the 1970's and 1980's, like the Newark Public Schools.

In 2004 the Newark Public Schools began a water system flushing program of all water sources used for drinking and food preparation. This procedure was undertaken in conjunction with the federal EPA Region 2, as a means by which lead levels can be maintained at the federal standard of 15 ppb or below. The head custodian, under the direction of each school's principal, was charged with ensuring this protocol is followed daily. Lead reduction filters were installed throughout the school district and high lead content fixtures were removed and replaced.

- 10. How long have there been elevated lead levels in the 30 schools identified?**

As a part of voluntary annual testing, an outside laboratory began taking samples from schools in December and finished collecting samples in late February. All test results shared, which are our current and best indicators of current water quality, are taken from that time period.

- 11. What about previous years?**

NPS conducts annual testing and is reviewing past results in partnership with the NJ Department of Environmental Protection to determine if there is a connection between past and present results.

Water-quality management to keep lead levels down requires on-going attention. In past years, if

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an elevated level was detected, the protocol in place was to change the filter or the fixture at the point of use where the sample was taken. In addition, NPS has maintained the following protocols for water quality management:

- Lead reduction filters in place on all water fountains and kitchen sinks across the district
- Regular replacement of those filters; monitored by the head custodian in each building
- On-going guidance to schools on flushing protocols
- Annual tests of lead level in water

As noted, while these protocols were in place, NPS leadership is currently undertaking a thorough internal review to better understand the extent to which these protocols were carried out at the school level. This review requires pulling records, past work orders and tracking the details of each remedial act. Documenting full compliance with NPS directives will be difficult over a period that spans over a decade and dates back to the Bolden Administration. While past results will show examples of elevated levels, these results do not necessarily mean that lead levels remained elevated in those locations since the time of those tests.

12. If there were elevated levels in the past, what is different this time?

When presented with results of testing on Monday, March 7th, Superintendent Cerf made the decision to reach out to local, state, and federal authorities for additional expertise and support, rather than follow past protocols which did not require local or state involvement. This decision was made for two primary reasons: 1.) The elevation of lead levels in certain school buildings, along with the breadth of elevated results, made implementing past protocols seem inadequate. 2.) Upon conducting an initial review of monitoring processes for past protocols, the Superintendent was not satisfied with immediately available data and answers.

The team, in consultation with outside experts, determined that the most prudent course of action was to bring additional water sources into any school building with an elevated reading and turn off water fountains temporarily.

13. Why not close these schools while further testing is conducted?

The district is following the guidance of the experts at the NJDEP and EPA by keeping schools open with access to safe and clean drinking water. With the assistance of the local and state agencies, NPS was able to provide schools with 95,000 liters of clean water within 24 hours of making the decision to shut off drinking water in those buildings, and now has a plan in place that will keep water distributed to all buildings through Spring Break.

14. What happens next?

The Department of Environmental Protection has developed a water-testing regimen that will include all 67 school locations in the district, with initial sampling to take place in the 30 school district buildings that recorded elevated levels of lead on certain taps in recent results. The DEP anticipates receiving results for tests at the individual school level as soon as a week after the start of testing, and on a rolling basis thereafter. It will determine next steps on a case-by-case basis.

The DEP is also coordinating with Newark Public Schools to assure the district continues to have ample alternate water supply for students, faculty and staff. There is currently adequate water supply available through Spring Break - the week of March 21 - which includes water already delivered by the State, Newark City and Essex County. The district is also in process of having water coolers installed in various schools.