

TESTIMONY OF
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BEFORE THE
NEW JERSEY STATE LEGISLATURE
JOINT LEGISLATIVE TASK FORCE ON DRINKING WATER INFRASTRUCTURE
NOVEMBER 30, 2016

Good morning Co-Chairs Senator Greenstein and Assemblyman McKeon, and members of the Task Force. I am Joan Leary Matthews, senior attorney in the Water Program at the Natural Resources Defense Council. I appreciate the opportunity to testify today.

NRDC is an environmental advocacy organization with over 57,000 members and online activists in New Jersey, and more than 2 million nationwide. NRDC works to safeguard the earth – its people, its plants and animals, and the natural systems on which all life depends. We combine the power of our members and online activists with the expertise of some 500 scientists, lawyers, and policy advocates across the globe to ensure the rights of all people to the air, the water, and the wild.

In my current role, I lead NRDC's Urban Water Management team, overseeing NRDC's urban water, green infrastructure, and water-efficiency efforts, with an increasing emphasis on integrated water management. Until this past spring, I served for several years as the director of the Clean Water Division for the U.S. Environmental Protection Agency's Region 2, where I directed the agency's Clean Water Act, Safe Drinking Water Act, and other programs for New York, New Jersey, eight Indian Nations, Puerto Rico, and the U.S. Virgin Islands.

Additionally, my NRDC colleague Larry Levine, who is unable to attend today, serves on the Steering Committee of the Jersey Water Works collaborative, which other speakers this morning have described. Through Jersey Water Works, as well as coalition efforts with numerous other New Jersey-based organizations, he and others at NRDC have worked for years to improve state policies that protect New Jersey's waters from polluted urban runoff, sewage overflows, and lead and other sources of contamination, and to improve the state's aging drinking water and wastewater infrastructure. Our team of water experts at NRDC works on these same issues in states around the country, and at the federal policy level.

As you have heard from today's witnesses, New Jersey's water infrastructure problems are multi-faceted, widespread, and critical to the health and wellbeing of every resident of the state. I would like to focus today on several key issues, in particular:

- ***Water infrastructure as a whole:*** the links between drinking water infrastructure and wastewater and stormwater infrastructure;
- ***Funding and financing:*** how to equitably generate funds for necessary capital investments and ongoing operations and maintenance;
- ***Lead in drinking water in schools;***
- ***Other drinking water contaminants;*** and
- ***Impacts of climate change.***

1. Links between Drinking Water Infrastructure and Wastewater and Stormwater Infrastructure

The resolution creating this Task Force focused on drinking water infrastructure, and with good reason. The crisis in Flint, Michigan, reminds us all of the degraded state of our drinking water infrastructure, its centrality to the health and wellbeing of all people and to the economic vitality of our cities, and the vulnerability of disadvantaged communities to chronic underinvestment in and neglect of these systems.

It is important for this Task Force, as well, to understand our drinking water infrastructure needs as part of a wide set of interconnected municipal water infrastructure issues, including wastewater and stormwater infrastructure. Understanding these linkages will enable the state to comprehensively address its water infrastructure needs.

One critical linkage is money. The estimated costs to fix New Jersey's drinking water infrastructure represent less than one-third of the estimated total municipal water infrastructure needs. While the U.S. Environmental Protection Agency's Drinking Water Needs Survey estimates \$8 billion in need for drinking water systems, EPA's Clean Watersheds Needs Survey (2012) estimates over \$17 billion in needs for wastewater and stormwater infrastructure. Given the limitations of EPA's methodology, these numbers are almost certainly under-estimates.¹

All of these water infrastructure systems ultimately rely on the same principal sources of funding: revenue generated from utility ratepayers and (to a lesser extent) property taxes, and state and federal grants and subsidized loans. The same ratepayers are responsible for paying both water and sewer bills. The same taxpayers are responsible for the general revenues that fund grant and subsidized loan programs for both water and sewer service. Therefore, the politics, and hence the finances, of funding these systems are inextricably linked.

After peaking in the 1980s, federal and state grants for drinking water and wastewater infrastructure have declined precipitously, leaving utility ratepayers as the primary source of revenue. Predictably, water and sewer rates have risen to offset, in part, the decline in grant dollars, increasing burdens in particular on low-income households. Yet, water and sewer service overall remains underpriced to fund the full costs of service, including infrastructure operations, maintenance, replacement, and upgrades necessary to protect human health and the environment. Households commonly pay less for these essential services than for other "discretionary" services such as cable television. A suite of solutions to water infrastructure funding challenges, including concerns about the affordability of water and sewer service, are discussed later in this testimony.

A second set of linkages is operational. The more drinking water is used, the more wastewater is generated and must be treated. Therefore, water use efficiency – or inefficiency – affects the capital and operating needs – and costs -- of both drinking water and wastewater system, as detailed in a 2014 NRDC report, "Waste Less, Pollute Less."² As EPA summarized when explaining why federal wastewater infrastructure funds may be used for drinking water conservation efforts: "Water conservation and reuse programs can be developed to help systems avoid, downsize, or postpone

¹ These figures are based on incomplete self-reporting by utilities. Further, they do not include certain categories of need, such as stormwater infrastructure costs associated with flood control and drainage improvements, apart from water pollution control needs.

² www.nrdc.org/sites/default/files/clean-water-act-urban-conservation-IB.pdf

wastewater projects. There are also benefits from increased treatment plant efficiency and reduced energy costs.”³ In short, as explained by EPA’s WaterSense program, which promotes water-efficient appliances and fixtures: “Water efficiency can lessen the stress on [wastewater] systems and extend their useful life.”⁴ There are many opportunities for the state, and for individual water utilities, to adopt policies that improve water use efficiency. Some of them are cost free, such as incorporation of modern water efficiency standards into state and/or local building codes,⁵ and others will pay back the investment many times over.

Another operational link is less intuitive to non-engineers, but is potentially very significant: water that leaks from aging and cracked drinking water pipes can end up in aging and cracked wastewater pipes. (Sanitary sewers are situated deeper than drinking water pipes to ensure that sewage leaks do not contaminate drinking water lines.) Though there is little data on this phenomenon, wastewater utility managers will attest that significant volumes of treated drinking water can enter sewer lines in this way, thereby becoming wastewater that must be treated or that contributes to overflows of raw sewage from overburdened wastewater systems. Water loss audits, discussed below, are a necessary step towards addressing this problem.

A further example relates to stormwater management. Huge amounts of drinking water treated to drinking water quality are used for landscape irrigation, where drinking water quality – and the effort and cost needed to achieve it – is unnecessary. At the same time, tremendous volumes of stormwater runoff, which could be captured for reuse in landscape irrigation with minimal treatment, routinely flows into overburdened storm sewers and combined sewers, where it carries pollutants to local waterways and contributes to raw sewage overflows and urban flooding. Greater use of stormwater to substitute for municipal water supplies where appropriate would, therefore, simultaneously reduce the strains on drinking water, wastewater, and stormwater infrastructure.

Stormwater infrastructure deficiencies are also directly linked to wastewater infrastructure deficiencies. In 21 of New Jersey’s oldest and largest communities, stormwater directed into sanitary sewers triggers raw sewage overflows (into surface waters) and back-ups (into streets and basements). Further, the same surface waters that are fouled by sewer overflows are often fouled as well by runoff that washes pollution from roadways, parking lots, lawns, and rooftops directly into inadequate municipal storm sewers that drain directly to local water bodies, without any treatment. And just as neighborhood

³ U.S. EPA, Office of Water, *Funding Water Conservation and Reuse with the Clean Water State Revolving Fund*, EPA 832-F-99-050, June 1999 <http://www.dnrec.delaware.gov/fab/Documents/Workshop-webinar%20presentations/Funding%20Water%20Conservation%20and%20Reuse%20with%20the%20CWSRF.pdf>.

⁴ U.S. EPA, “Water Sense: Comprehensive List of All Frequent Questions,” www.epa.gov/WaterSense/full_list.html. (Accessed November 29, 2016.)

⁵ For example, other jurisdictions have adopted water efficiency standards for bathroom plumbing fixtures based on EPA’s voluntary “WaterSense” criteria. These include New York City, Georgia, California, and Texas. New York State is considering adopting the same standards. See NYC Local Law 57 of 2010, available at http://www1.nyc.gov/assets/buildings/local_laws/ll57of2010.pdf; Georgia State Amendments to the International Plumbing Code (Revised Jan. 1, 2012), available at <http://www.dca.state.ga.us/development/constructioncodes/programs/documents/2012effective/effective/IPC-2012-effective.pdf>; Georgia Code § 8-2-3, available at <http://law.justia.com/codes/georgia/2006/8/8-2-3.html>; California Health and Safety Code § 17921.3, available at <http://codes.findlaw.com/ca/health-and-safety-code/hsc-sect-17921-3.html>; Texas Health and Safety Code, Title 5 Chapter 372, available at <http://www.statutes.legis.state.tx.us/Docs/HS/htm/HS.372.htm>. See also a compilation of states with standards for one or more bathroom fixtures that exceed minimum federal standards: <http://www.ncsl.org/research/environment-and-natural-resources/water-efficient-plumbing-fixtures635433474.aspx>.

flooding can result from sewer backups, so too can it result in backups from these separate storm sewer systems. Improving stormwater management – especially through the use of green infrastructure solutions, like porous pavement, green roofs, parks, roadside plantings and rain gardens, that stop rain where it falls – can therefore cost-effectively help address both wastewater and stormwater infrastructure needs. Capturing runoff and treating it as a resource, rather than a waste, reduces demand on traditional “gray” (i.e., concrete) sewage and stormwater systems, while creating new green spaces that improve communities and public health.

New Jersey has two critical opportunities to use the Clean Water Act to jumpstart green infrastructure implementation. NJDEP issued new permits in early 2014 to the communities with combined sewer overflows, directing them to develop “long term control plans” to reduce overflows within five years. The permits require robust consideration of green infrastructure as part of these plans. NJDEP is providing substantial support to the permittees, as is Jersey Water Works and its members in the non-profit, government, and private sectors, to develop and implement plans that embrace the full potential of green infrastructure. All state agencies should be encouraged to do the same, since green infrastructure touches on so many aspects of urban development and redevelopment (including roadways, housing, land use, etc.).

The second opportunity concerns NJDEP’s Clean Water Act permits for municipal storm sewer systems, and the agency’s Stormwater Management Rules, both of which have not been updated in more than a decade. NRDC and a coalition of about ten New Jersey-based organizations filed a legal petition with NJDEP in early 2014 calling on the agency to modernize its municipal stormwater permits.⁶ We called on the agency to make green infrastructure practices a cornerstone of the permit’s requirements. In parallel, updates are needed to the agency’s Stormwater Management Rules to make green infrastructure the default approach to managing runoff from new development and redevelopment. NJDEP is due to release draft statewide municipal stormwater permits imminently, and has also convened a stakeholder group to discuss potential revisions to the Stormwater Management Rules. NJDEP should take these opportunities to modernize both the permits and the regulations, enshrining green infrastructure as the standard practice in stormwater management statewide, as recommended by the nation’s top stormwater experts at the National Research Council and by the U.S. EPA, and as implemented by many other states.

2. Funding and Financing

It is beyond dispute that more spending on water infrastructure is needed to solve the challenges faced by New Jersey and states around the nation. The question is where these funds will come from, and how ultimately responsibility for bearing the costs will be allocated among federal, state, and local government, and among various categories of ratepayers. We cannot allow New Jersey’s water infrastructure needs to go unmet for want of funds, nor can we settle for lower environmental and public health standards in communities less able to pay the cost themselves.

Many water and wastewater utilities in the state need investments at a level that exceed their ability to pay for them, on any reasonable time scale, under a business-as-usual approach to funding and financing water infrastructure. That it not to say that utilities cannot, or should not, raise more revenue locally to increase investment. As noted above, water and sewer service is typically underpriced relative to the cost of service. And, while increasing water and sewer rates can adversely affect low-income households, those effects are not inevitable and can be avoided with more equitable rate structures and

⁶ <https://www.nrdc.org/experts/larry-levine/groups-petition-nj-address-biggest-water-pollution-source-green-infrastructure>

low-income customer assistance programs, thereby allowing utilities to generate more rate revenues without undue burdens on those least able to afford rate increases. Further, no municipalities in New Jersey currently have stormwater utility fees, an essential funding mechanism used in over a thousand communities nationwide,⁷ but which does not have clear legislative authorization in New Jersey. Stormwater fees, based on impervious area (as a surrogate for the amount of runoff a property contributes to public sewers), equitably allocate the cost of stormwater infrastructure and create a dedicated revenue stream, while creating incentives for property owners to reduce runoff. Governor Christie has vetoed legislation authorizing local stormwater fees. The Legislature should again pass such legislation, and the Governor should sign it.

In addition to generating more revenue – and generating it more equitably – from ratepayers at the local level, significantly increased federal and state grants for water, wastewater, and stormwater are essential. Current federal funding of \$2.37 billion per year for water infrastructure falls far short of the enormous need. Moreover, since the 1970s and 1980s, it has shifted from almost entirely grant funding to almost entirely loans. With the incoming federal Administration, there has been much talk of potential new federal infrastructure funding. While it remains unclear what form any infrastructure funding proposal from the new Administration would take – and even what types of “infrastructure” would be included – the State should be at the forefront of pressing for the inclusion of new federal funding for water and wastewater infrastructure, and for prioritizing the use of such funding in low-income communities and in communities of color.

Moreover, the state does not need to wait for federal action to increase its own commitment to water infrastructure funding. For example, in 2015, New York State launched a new statewide water and wastewater infrastructure grant program that was expanded in 2016 and totals \$425 million in state appropriations to date.⁸ A broad coalition, including utilities, the construction industry, local governments, and environmental organizations backed this initiative, and continues to seek further expansion of the grant program. I have no doubt that Legislative efforts to develop a similar grant program in New Jersey would garner the same widespread political support. As with new federal funding, new state funding should be prioritized for low-income communities and communities of color.

In addition to major new infrastructure grant programs, the state should use the following strategies to help communities afford necessary water infrastructure investments. These strategies serve to reduce costs overall, or to offset burdens on low-income households when utilities raise rates to generate additional revenues needed for capital investment.

- **Customer assistance programs:** Increase the use of (and dollar amounts dedicated to) “customer assistance programs,” which subsidize or cap water and sewer bills for low-income homeowners and affordable multi-family housing owners. A recent EPA report catalogs such programs around the country, providing examples upon which New Jersey can draw.⁹ By far, the most effective approach includes what EPA describes as “bill discounts,” which provide a long-term reduction in (or even a cap on) customers’ bills, using an income-based needs test. The state can provide both technical assistance and direct funding to utilities to establish and

⁷ <https://www.wku.edu/engineering/civil/fpm/swusurvey/>

⁸ See (<http://assembly.state.ny.us/Press/20160401b/> and <https://www.efc.ny.gov/Default.aspx?tabid=609>).

⁹ EPA, Drinking Water and Wastewater Utility Customer Assistance Programs (2016), https://www.epa.gov/sites/production/files/2016-04/documents/dw-ww_utilities_cap_combined_508.pdf

expand such programs at the local level. Moreover, the Legislature should establish a statewide program analogous to the “Low Income Home Energy Assistance Program” – a stated-administered federal block grant that subsidizes energy bills for low-income households – to help low-income households pay their water and sewer bills.

- **Equitable rate structures:** The state should promote the use of utility rate structures that raise revenue more equitably. This includes tiered water and sewer rates (which charge higher per gallon rates for higher-volume users) and stormwater fees (which charge property owners based on impervious area, corresponding to their contribution of runoff into public sewers). In the case of stormwater fees, this would not only equitably allocate cost burdens, but would create an entirely new revenue stream dedicated to meeting stormwater infrastructure needs.
- **Improved asset management generally:** Require utilities to develop and implement effective asset management programs, which hold costs down for everyone in the long run, since preventive maintenance and repair on a regular cycle is far cheaper than reactive repairs when system components break from lack of maintenance or excessive age.
- **Increased adoption of cost-effective solutions like green infrastructure and water efficiency:** As discussed above, expanded use of green infrastructure and water efficiency strategies can help water, wastewater, and stormwater utilities more cost-effectively meet their needs, mitigating costs for all customers.

3. Measuring and Reducing Water Losses

Professor Van Abs emphasized the importance of asset management in maintaining – and restoring – the integrity of our drinking water systems. One of the most prominent ways in which poor asset management manifests is through water main breaks. Old, deteriorated pipes, sometimes in combination with excessive water pressure within a distribution system, result in “water losses,” the technical term for leakage from a drinking water system. Some of this water loss is highly visible above ground; still more is chronic below-ground leakage, which remains out of sight and out of mind. These water main breaks and leaks can cost utilities and their ratepayers millions of dollars; damage roads, businesses, homes, and other property; allow pathogens to penetrate the system or multiply in areas of decay; and waste huge volumes of water. As the state’s current drought warnings remind us, we cannot afford to waste water in this way.

New Jersey can, with a push by the Legislature if needed, immediately take a necessary first step towards solving this problem. Most drinking water utilities do not even know how much water they are losing, or what the causes are in their systems, because they do not effectively audit their water losses. Effective audits would provide the information necessary to reduce water losses and prioritize investments.

States around the nation are beginning to require all utilities to perform and report the results of annual water loss audits using a standard methodology, developed by the American Water Works Association that reflects current best practice in the industry. Some of these states are also requiring independent validation of the self-reported audit data, and some are setting performance benchmarks to reduce losses over time.

In New Jersey, utilities under the jurisdiction of the Delaware River Basin Commission (DRBC) are required to perform and report the results of annual water loss audits using the AWWA methodology.¹⁰ NRDC commissioned a detailed review of water loss audit reports filed by the 76 DRBC-regulated New Jersey water suppliers, which estimates that leakage totaled 14 million gallons per day (mgd) in 2013. Of this amount, at least 3.5 mgd appears highly likely to be “economically recoverable” – i.e., investments to reduce leakage will result in savings that equal or exceed the costs. The review also estimated apparent losses – the failure to accurately record and collect revenue from water actually delivered to customers – totaling 2.1 mgd, valued at \$5.2 million in lost revenue, in 2013. Significantly, however, the DRBC water loss data is all self-reported by utilities, and in the absence of a system of data validation, these audit reports must be viewed as preliminary indicators rather than definitive findings. Compared to a validated water audit data set from around the country, these water loss estimates were lower, but water costs were higher. Higher costs increase the financial impact of non-revenue water on utility revenues, and conversely increase the financial rewards of water loss reduction measures.

The majority of New Jersey residents, however, are served by utilities outside of the DRBC area. These other utilities are not required to perform the AWWA audits, as neither NJDEP nor the NJ Board of Public Utilities (which regulates investor-owned utilities) requires them.

An NRDC website, “Cutting Our Losses,” summarizes water loss auditing policies in every state, including in New Jersey, and highlights the best policies in leading states.¹¹ The website also includes model state legislation, which has already formed the basis of legislation passed by two states within the last year. Water loss audit legislation has actually been introduced in the New Jersey Legislature every session since 2002.¹² But the bill is based on outdated audit methods, and has never advanced out of committee. NRDC’s model legislation provides a template for the Legislature to take prompt and effective action on this issue. I would also point out that NJDEP and NJBPU have authority to require these audits by regulation.

4. Lead in Drinking Water in Schools

The crisis in Flint, Michigan highlights the long-neglected problem of lead drinking water pipes, which can leach harmful lead into drinking water in homes, schools, hospitals, and businesses. There is no safe level of exposure to lead, and it is especially harmful to children because exposure can cause irreversible damage to developing brains and nervous systems, even at very low levels.¹³ Lead can decrease a child’s cognitive capacity, cause behavior problems, and limit the ability to concentrate – all of which, in turn, affect the ability to learn in school.

The ultimate solution to lead in drinking water is removal of all lead water service lines. The nation’s largest drinking water utility trade association, the American Water Works Association, has

¹⁰ <http://www.nj.gov/drbc/programs/supply/audits/>.

¹¹ <https://www.nrdc.org/resources/cutting-our-losses>

¹² See A. 1614 (2016), <http://www.njleg.state.nj.us/bills/BillView.asp>. On the Legislature’s webpage for this bill, clicking on “last session bill number” will show the corresponding bill from the previous session, and then from prior sessions all the way back to 2002.

¹³ Drinking Water Requirements for Lead, U.S. EPA, <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water> (“The [maximum contaminant level goal] for lead is zero. EPA has set this level based on the best available science which shows there is no safe level of exposure to lead.”).

recommended that all lead service lines be replaced to reduce the threat of lead contamination.¹⁴ There is some good news here: new, lower-cost techniques for replacing service lines in Lansing, Michigan, and elsewhere demonstrate that innovative approaches are bringing costs down.¹⁵ Until complete removal is achieved, improved testing and public notification, with priority remediation in key locations such as schools, is essential.

I would like to take this opportunity to highlight one short-term, critical need in New Jersey, concerning the remediation of lead in public schools' drinking water. In March 2016, the New Jersey Department of Environmental Protection announced that the annual testing of water taps in the Newark Public Schools district revealed that 30 schools recorded levels of lead above the federal action level set by the U.S. EPA at 15 parts per billion. Since then, annual water testing data from the Newark district has been released dating back to 2010, indicating that more than 80 percent of the school facilities assessed had a sample in excess of the federal action level. Almost one-quarter of the tested schools had at least one sample that was more than ten times higher than the action level in that time period, with some samples exceeding the action level by as much as 100 times.

While news of lead-contaminated water throughout the Newark school district made headlines this spring, the City of Newark and its environmental justice communities have struggled for years with the greatest number of lead-poisoned children in New Jersey.¹⁶ Children in Newark face multiple health challenges due to cumulative impacts from environmental burdens, including poor air quality causing asthma and lost school time.

Despite this, the New Jersey State Department of Education and Schools Development Authority informed Newark public school State District Superintendent Christopher Cerf that "any and all assessments or remediation efforts for lead" would not be eligible for School Development Authority funding intended to make emergent repairs in schools under State control.¹⁷ This blanket refusal by the State, particularly when plumbing work is expressly identified as the type of project envisioned for the funds, is unlawful under the New Jersey Supreme Court's Abbott v. Burke line of cases¹⁸ and the Education Facilities Construction and Financing Act.¹⁹

¹⁴ American Water Works Association (hereinafter AWWA), "Board Supports Recommendation for Complete Removal of Lead Service Lines," press release, March 8, 2016, www.awwa.org/resources-tools/public-affairs/press-room/pressrelease/articleid/4069/awwa-board-supports-recommendation-for-completeremoval-of-lead-service-lines.aspx.

¹⁵ Statement of Randall Roost, Lansing Board of Water & Light, at AWWA seminar, "Lead Service Line Replacement: Vital Tips from Leading Utility Managers," May 3, 2016; *see also* Eric Lacy, "Lansing BWL's Push to Remove Lead Water Lines Continues," *Lansing Journal*, January 22, 2016, www.lansingstatejournal.com/story/news/local/2016/01/22/lead-water-lineremoval/79108766/.

¹⁶ *See* N.J. Dep't of Health, Childhood Lead Poisoning in New Jersey Annual Report 27-30 (2014), available at <http://www.state.nj.us/health/fhs/documents/childhoodlead2014.pdf>.

¹⁷ *See* attached for reference.

¹⁸ *See* 153 N.J. 480 (1998). The State is required to fully fund and ensure adequate school facilities for all students as a critical component of its responsibility to provide students in SDA districts with their constitutionally guaranteed education. The state Supreme Court has explicitly directed the State to fund "the complete cost" of "remediating the infrastructure and life cycle deficiencies that have been identified in the Abbott districts." 153 N.J. 480, 524 (1998) (Abbott V).

¹⁹ N.J.S.A. 18A:7G-1 et seq *See* Emergent Project Program, SDA, https://www.njsda.gov/njsda/Schools/Emergent_Project_Program.html (noting that emergent projects "include the repair or replacement of roofs; windows; exterior masonry; heating and cooling systems; and plumbing, electrical, mechanical and security systems, as well as addressing water infiltration issues").

The Department of Education and School Development Authority determination must be reversed immediately, so that the Newark Public School district can receive State funding for the plumbing system work necessary to remediate the district's system-wide lead contamination.

The Legislature must ensure that the State fulfills its constitutional obligation under the Education Clause and the Abbott v. Burke rulings to provide students with safe and healthy school facilities. Specifically, acting through this Task Force and/or other appropriate legislative committees, the Legislature should exercise its oversight authority over the Department of Education and the School Development Authority to ensure that they allow not only Newark, but school districts throughout the state, to seek funding for emergent repairs to remedy lead-contaminated water. NRDC, our colleagues at the Education Law Center, and our community partners stand ready to assist the Legislature in that effort.

5. Other Drinking Water Contaminants

Far too many drinking water treatment plants in the U.S. continue to rely solely upon outdated technologies for treatment such as coagulation, sand filtration, and chlorination. These technologies can work well to remove some basic contaminants, like certain microorganisms, but cannot remove many of the modern contaminants, such as pesticides, industrial chemicals, pharmaceuticals, and other chemicals that are widespread in water.²⁰ We need to invest in modernizing our treatment plants, as some leaders in the industry have done.

In many cases, the federal government has failed to set standards for “newer” contaminants in drinking water. States like New Jersey can help fill the gap, until the federal government takes action.

For example, we would like to commend the New Jersey Department of Environmental Protection for setting a strong maximum contaminant limit for perfluorooctanoic acid (PFOA), a synthetic chemical that was used, among other things, to manufacture Teflon. PFOA is found more frequently in New Jersey drinking water than in many other states – at least 12 water systems in the state have already been found to have elevated levels of the contaminant.²¹ The U.S. EPA has found that PFOA is linked to severe health effects, including cancer, fetal growth problems, and high cholesterol. Despite these findings, the federal agency has declined to set a maximum contaminant level under the Safe Drinking Water Act.

In a regulatory universe where the EPA has failed to act, New Jersey has stepped up to protect its residents, setting what may be the most stringent advisory standard for PFOA in the nation. At 14 parts per trillion, New Jersey’s advisory level is significantly lower than EPA’s health advisory of 70 parts per trillion. Of course, to ensure the effectiveness of this standard, it will have to be vigorously enforced, and we will be watching carefully to see that such enforcement takes place.

²⁰ NRDC, “Report Finds Deteriorating Infrastructure, Pollution Threaten Municipal Drinking Water Supplies,” 2003, <https://www.nrdc.org/media/2003/030611>; Erik Olson et al., NRDC, “What’s on Tap?” 2003, <https://www.nrdc.org/sites/default/files/whatsontap.pdf>; Brian Cohen and Erik Olson, “Victorian Water Treatment Enters the 21st Century,” NRDC, 1995.

²¹ Atlantic City Municipal Utilities Authority; Brick Township MUA; Garfield Water Department; Greenwich Township Water Department; Montclair Water Bureau; New Jersey American’s Raritan system; New Jersey American’s Logan system; New Jersey American’s Pennsgrove system; Orange Water Department; Paulsboro Water Department; Rahway Water Department, and South Orange Water Department.

6. Impacts of Climate Change

Finally, I wish to emphasize that climate change will increase the stress on New Jersey's drinking water, wastewater, and stormwater infrastructure, underscoring the need for comprehensive and long-term solutions to the state's water infrastructure challenges. An EPA fact sheet released in August 2016, titled "What Climate Change Means for New Jersey," explains:

Rising temperatures and shifting rainfall patterns are likely to increase the intensity of both floods and droughts. Average annual precipitation in New Jersey has increased 5 to 10 percent in the last century, and precipitation from extremely heavy storms has increased 70 percent in the Northeast since 1958. During the next century, annual precipitation and the frequency of heavy downpours are likely to keep rising. Precipitation is likely to increase during winter and spring, but not change significantly during summer and fall. Rising temperatures will melt snow earlier in spring and increase evaporation, and thereby dry the soil during summer and fall. So changing the climate is likely to intensify river flooding during winter and spring and drought during summer and fall.²²

New Jersey cannot afford to wait to address the state's drinking water, wastewater, and stormwater infrastructure challenges. And, in doing so, the state must ensure that new policies and capital investments are tailored to accommodate not only the precipitation patterns of today, but also those we can anticipate for decades to come.

²² <https://www3.epa.gov/climatechange/Downloads/impacts-adaptation/climate-change-NJ.pdf>



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Christopher D. Cerf
Superintendent

August 30, 2016

Dear Mr. Della Fave,

I am in receipt of your letter expressing your interest in the current status of Newark Public Schools' effort to manage the water issues discovered earlier this year in several District schools. This has been a summer of learning for us and dare I say the entire State of New Jersey. The State has now issued its guidelines for testing protocols. A review of the newly crafted guidance suggests that steps taken by the District, as well as the lessons learned, have significantly influenced the State's direction.

Since we last met, the District has continued to test all outlets in all schools. These tests have been catalogued and shared with the Department of Environmental Protection. As part of the school opening process, each school will receive its test results and a back pack letter for parents during the first week of school. We will also update the District's website with all test results (by school), as has been our practice since testing began. We delayed this notification during the summer to ensure that all the affected school communities received the correct information.

Our test results demonstrate that several schools originally placed on bottled water could be put back on regular drinking water. Only schools with an adequate number of drinking water sources below the federal action level will be eligible for this change. All drinking water outlets that have tested above the action level remain turned off. All non-drinking sources in all schools that have tested above the action level have consistent signage indicating they are not to be used for drinking or food preparation.

Immediately following school opening, we will begin installing filters on all drinking fountains tested below action level as a precaution to continue to keep them at acceptable levels and to ensure consistency in practice.

For schools that have kitchen sinks that test above the federal action level, Reverse Osmosis Systems are being installed before the beginning of school. We have also changed the fixture/outlet in the kitchen where these levels have occurred. In other kitchens, any fixture that displays an actionable level on first draw but drops to below an actionable level on flush will be continuously treated using a flush protocol, which is being implemented using a rigorous monitoring process. This course of action is recommended and approved by the Department of Environmental Protection.

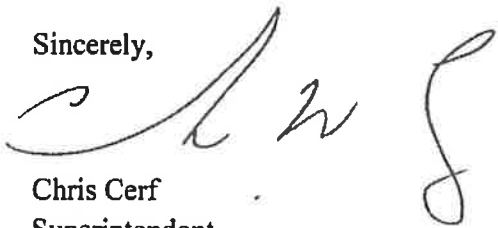
The district will continue to test and maintain compliance in conjunction with the new State law that went into effect on July 25, 2016.

We continue to research the potential resources for lead testing and remediation and will be pursuing a public bid process for evaluation and assessment of all buildings with the goal of developing a comprehensive plan. This plan is dependent upon the district securing funds to be used for capital work remediation. We are continuing to work with both the State and City to secure debt service aid and bond dollars to move forward. Our discussions seem to be yielding positive results.

In your letter you indicated that, "The District was not planning to apply for emergent project status for lead." That is incorrect. We have applied and always intended to apply. The State and SDA clearly indicated to the district that any and all assessments or remediation efforts for lead would not be funded by the Emergent Project Process. The recent release of the SDA's application process indicates specific categories the District can apply for. Unfortunately, neither plumbing nor lead is allowed. I have attached for your information a copy of the projects for which we are currently in phase 2 of the application.

We look forward to our continued partnership and will continue to provide additional updates as new information or strategies are employed. We appreciate your guidance on this ongoing issue.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chris Cerf". The signature is written in black ink and is positioned to the right of the typed name.

Chris Cerf
Superintendent