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New York City Council Committee on Environmental Protection

Introduction 268 in relation to backflow prevention device reporting and certification and
Introductions 424 and 425 in relation to sewer system backups

250 Broadway
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Good afternoon, Chairman Constantinides and Members of the Committee. I am Anastasios Georgelis, Deputy Commissioner for Water and Sewer Operations in the New York City Department of Environmental Protection (DEP). With me is Michael DeLoach, Deputy Commissioner of Public Affairs and other DEP staff.

Thank you for the opportunity to testify on these three bills: Introduction 268, relating to reporting on backflow prevention devices and Introductions 424 and 425, relating to sewer backups.

The Bureau of Water and Sewer Operations (BWSO) oversees approximately 14,000 miles of water and sewer mains, and 150,000 catch basins in New York City. Our work includes day-to-day management of the underground water and sewer infrastructure, emergency response to events like water main breaks, as well as capital planning and oversight of water and sewer infrastructure projects.

Intro. 268 of 2018 would repeal and replace existing provisions in the Administrative Code relating to reporting on the installation and testing of backflow prevention devices (BPDs).

Protecting New York City’s public water supply is of paramount importance, and backflow prevention is one aspect of affording this protection. I would like to mention that DEP’s extensive water quality testing and monitoring program is the front-line defense in ensuring the quality of water in the distribution system. New York City tests its drinking water in the distribution system for approximately 240 chemical constituents, well above regulatory requirements. We perform more than 1,100 tests daily; 34,000 monthly; and 400,000 on an annual basis on over 36,000 samples collected from about 1,000 sampling locations throughout the City. Test results are reported to our regulators and are summarized in our annual report on the quality of New York City’s drinking water.

While we agree with the intent of this bill, we would like to work with the Council regarding new reporting requirements related to backflow prevention devices and replacing subdivision (d) of section 24-343.1 of the Administrative Code.
DEP has developed a comprehensive Cross Connection Control Program (Program) in which we first concentrate on those facilities representing the highest risk of possible contamination of our public water supply through cross connections. To assist building owners, we are constantly upgrading our Program guidelines, most recently in May 2017. We have made extensive efforts in the identification, inspection, enforcement and reporting of backflow prevention devices. Since 2012, we have reorganized the Program by setting up individual units within BWSO that focus on specific areas of expertise. The three units are Inspection, Enforcement, and Cross Connection Review. Our active program far exceeds our commitments to the New York State Department of Health and we continue our progress towards ensuring that any facility that requires a backflow prevention device has one.

DEP also maintains an active database comprising records on some 104,258 properties, up from 101,033 properties in my testimony last October. The number of properties tracked in this database is dynamic and changes due to the nature of the property’s usage profile. We have been compiling more detailed and current information about the number of buildings in the City that require backflow prevention devices via both data mining and field inspection. Small residential properties such as one- to four-family homes are not a subject of concern. Our approach has been to target our inspection resources more efficiently by identifying the types of commercial and residential properties that are most likely to pose a risk. Our Inspection Unit uses a GIS mapping system along with information from the Department of City Planning to generate a citywide map that targets potential high-risk areas and buildings.

Each year we aim to inspect 4,000 properties citywide. For calendar year 2017, we conducted 4,569 inspections. The results from these inspections were that 1,104 properties did not require a device. The remaining 3,458 properties required actions from our Enforcement Unit. In calendar year 2017, the Enforcement Unit sent 2,263 Commissioner’s Orders, of which 1,882 properties were newly notified of the need to install a backflow prevention device and 381 were for the need to replace a broken device, install additional devices or plans previously approved but with no record of an installed device. In calendar year 2017, 956 NOVs were issued for failure to install a device. Additionally, the Enforcement Unit processed 6,440 NOVs for failure to conduct the annual test. As it relates to the review process, in calendar year 2017, our Review Unit reviewed 6,546 initial test reports for newly installed devices and an additional 41,172 annual test reports for existing devices.

We continue to enhance our knowledge by employing inspectors in the field to do the labor-intensive job of inspecting previously identified properties.

As mentioned earlier, we agree with the intent of this bill and we would like to work with the Council regarding new reporting requirements.

Moving now to Intro. 425, which would require that, by December 31, 2018, DEP submit and post on its website a plan to prevent sewer backups (SBUs), and Intro. 424, which would amend the Administrative Code to require that, where an SBU occurs more than once at the same location within a 12-month period, the portion of the sewer system causing the second or subsequent backup is identified and cleaned within 10 days of such subsequent backup.
Over the last decade, DEP has shifted from a reactive to a proactive, data-driven approach to operating and maintaining the sewer system. DEP employs the principles of adaptive management to continually improve our sewer maintenance program, while balancing our overarching responsibility to deliver high-quality drinking water and treat wastewater every day in an affordable and sustainable manner.

DEP also targets its efforts on reducing the amount of fats, oil and grease (FOG) discharged to the sewer system. These efforts include regulations that mandate the use of grease interceptors in certain commercial establishments, such as restaurants, as well as extensive public outreach to inform New Yorkers about actions they can take to prevent the improper disposal of grease into the system, a primary cause of SBUs.

DEP stepped up its FOG outreach efforts in 2015 to inform the public about grease problems in the sewer infrastructure. To date, we have reached over 80,000 households in targeted communities through a combination of activities including door-to-door canvassing and workshops with community organizations and local houses of worship. Additionally, our education staff conducts classroom and assembly programs, and has developed a special curriculum for teachers on the topic of grease and its proper disposal. We have established a compliance consultative program focused just on food service establishments, and DEP has just recently initiated a behavioral change advertising campaign with the Department of Health and Mental Hygiene to further educate residents in all neighborhoods. We have also reached out to other utilities to ensure we are using the best practices of the industry to reduce FOG to the sewer system.

Throughout the city, there are pocket areas that experience repeat sewer backup complaints. In these cases, we use analytical tools to identify streets that have a higher frequency of sewer backups. Once we identify these streets, we conduct a detailed inspection to identify the root cause of the backups. Since 2011, we have done this robust analysis on 2,530 locations. Once a root cause is identified, we deploy a targeted programmatic cleaning program to resolve the issue and monitor the site to ensure that the sewer continues to function.

If further issues arise on a site within 12 months, DEP will employ an even greater level of evaluation to identify what other contributing factors may be causing the sewer backups. Since 2012, DEP has done this level of analysis on 541 locations. Over the last 10 years, we have seen a 49% decrease in total sewer backup complaints citywide and a 70% decrease in the number of confirmed backups citywide.

Starting in July 2017, we began a three-year pilot program to conduct targeted sewer inspections in parts of the City that have a relatively higher rate of SBUs. The targeted areas we have chosen for this pilot program are Brooklyn Community Boards 13 and 15 and Queens Community Boards 12 and 13.

We are currently finishing year one of the pilot program and have completed our inspection target of 10,000 sewer segments. We will use the information gleaned from these 10,000 sewer segments, and those we inspect over the next two years of the pilot, to deepen our understanding of the traits specific to these locations and what has caused the repeat complaints.
Together, Intros. 424 and 425 mandate identification of locations with more than one SBU during a 12-month period and ensuring cleaning within 10 days. However, our three-year pilot incorporates escalating levels of response and investigation, which will allow us to accurately determine the causes of the increased rate of SBUs in our targeted areas. Understanding the root cause is a prerequisite to developing the solution. The most effective remedies flow from understanding the problem. The static timelines of 424 and 425 will not allow this.

We have committed considerable resources to this pilot and have collected a year’s worth of data. Legislation requiring us to shift focus to locations with less frequent SBUs will interfere with the progress of our pilot. We must be allowed to properly diagnose the root causes and then develop appropriately targeted remedies, which can involve cleaning, flushing, degreasing, debris removal and vactoring, to name a few. To do otherwise is backwards. We need time to complete our analysis of the data; and we need to continue our methodology as is to keep the integrity of our data. We would be glad to share our insights into root causes, best remedies, and best timelines as our pilot progresses. However, we ask that the Council not require that we experiment with arbitrary cures before we finish identifying the disease.

Given DEP’s robust commitment of staff and resources that has resulted in demonstrated success in continually reducing SBUs, we ask that the Council defer action on Intros. 424 and 425 until the completion of the three-year pilot in 2020. We are committed to keeping the committee apprised of our efforts and findings and welcome your comments and recommendations going forward.

Again, thank you for this opportunity to testify. I would be glad to answer any questions.