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Water Quality and Contamination Hearing

SENATE STANDING COMMITTEE ON HEALTH SENATE STANDING COMMITTEE ON ENVIRONMENTAL CONSERVATION ASSEMBLY STANDING COMMITTEE ON ENVIRONMENTAL CONSERVATION ASSEMBLY STANDING COMMITTEE ON HEALTH

September 7, 2016 - Albany, NY

Thank you for the opportunity to provide testimony regarding NY's water quality and contamination. CCE is focused on drinking water and surface water issues throughout New York. From the Great Lakes to the Long Island Sound, we are in shoreline, waterfront, and watershed communities and know firsthand the pressing and emerging issues. Clean water is not a luxury item, it is a necessity. For human health, ecological health and economic health, clean water is the backbone of making New York great.

We offer the following comments on how the Senate and the Assembly can build upon and continue their focus and commitment to clean water for all New Yorkers.

CLEAN WATER INFRASTRUCTURE

The U.S. Environmental Protection Agency released its Clean Watersheds Survey earlier this year and New York leads the nation with \$31.4 billion needed to upgrade failing wastewater infrastructure, (11.6% of national total). The NYS Department of Health estimates that we need \$38 billion to upgrade drinking water infrastructure. That means we need approximately \$70 billion over 20 years to upgrade our water infrastructure. It's a gross understatement to say needs far outpace available resources. According to the Environmental Facility Corporation's (EFC's) 2016 Intended Use Plan for Clean Water State Revolving Loan Fund, \$6 billion was listed for wastewater infrastructure projects, but only \$738 million is available in loan funds.

Recent investments are a welcome step in the right direction; however, the state's water infrastructure woes are rampant. Aging and failing sewage infrastructure discharge raw sewage into local waterways, jeopardize human health, close beaches, harm fish and wildlife, and damage local economies. According to reports generated by New York's Sewage Pollution Right to Know law, there are 5 overflows of raw or partially treated sewage into our waters every day.

Drinking water infrastructure is also in a state of constant disrepair, with communities facing ever-increasing water main breaks every year. For example, the Erie County Water Authority dealt with more than 1,400 water main breaks in one year. A recent water main break in Erie

County led to a "boil water advisory" in 10 municipalities in Erie and Genesee Counties, which affected over 250,000 residents for days. These types of water main breaks are not unique to WNY, and can temporarily close businesses and schools, and hurt our local economies.

Water infrastructure is not only about protecting public health, investing in clean water is critical to New York's economic development. We know that investing in infrastructure supports jobs, with every billion in infrastructure investment supporting approximately 29,000 construction jobs. However, we rarely look at the long-term return on the investment. Our state's economy cannot thrive if it is tied to antiquated water infrastructure. Business leaders recognize the difficulties that exist in attracting new development to communities when local infrastructure is not reliable; people and businesses rightfully expect access to safe drinking water and clean waterways.

With federal investment in clean water infrastructure going down each year (down 44% since 2010), and recognizing that these costs are too much for local governments alone, the legislature took a critical step forward when it passed the *Water Infrastructure Improvement Act of 2015*. With additional funding added in the 2016-17 NYS budget, the program is providing \$400 million over three years for grants to upgrade wastewater and drinking water infrastructure.

The program has recently invested \$175 million in its second round of funding to communities across the state, funding nearly 100 projects to upgrade sewage and drinking water infrastructure. The governor and legislature deserve praise for putting the state in the right direction, but to truly address our infrastructure needs in the long term, we need to do more.

Long term problems require long term solutions. With approximately \$70 billion in water infrastructure needs over the next 20 years, CCE urges the legislature and Governor to establish the Water Infrastructure Improvement program as a permanent line in the New York State budget.

CCE also urges the legislature and Governor to look for opportunities to increase funding for the program in the 2017-18 NYS budget and years thereafter. Increased funding will address more of our infrastructure needs, leverage additional federal and local dollars, save taxpayers money, and help to protect our shared environment.

PHARMACEUTICAL POLLUTION IN OUR WATERS

According to the IMS Institute for Healthcare Informatics, pharmaceutical companies hit a record \$374 billion in sales for pharmaceutical drugs in 2014, which equated to an estimated 4.3 billion prescriptions filled. In 2015, US sales grew 12.2% to \$424.8 billion for yet another record breaking year. *It is estimated that 200 million pounds of drugs go unused a year*. A lack of options to safely dispose of this growing amount of unused drugs is contributing to the national drug abuse epidemic that is now the leading cause of injury death in the U.S., ahead of car accidents. The lack of disposal options is also perpetuating the antiquated practice of flushing unused or expired drugs, which is polluting waters across the state with trace amounts of pharmaceutical drugs.

Pharmaceutical drug contamination in our groundwater, rivers, estuaries, lakes, and bays is an emerging issue throughout New York. According to a 2008 Associated Press national investigative team, pharmaceutical drugs, including antibiotics, mood stabilizers, and hormones, have been found in the drinking water of over 41 million Americans. During 1999 and 2000, the Toxic Substances Hydrology Program of the U.S. Geological Survey (USGS) collected and analyzed water samples from 139 streams in 30 states. Streams sampled were considered susceptible to contamination from various wastewater sources, such as those downstream from intense urbanization. Scientists analyzed streams for 95 different organic wastewater contaminants, including pharmaceutical compounds. One or more chemicals were detected in 80 percent of the streams sampled, and 82 of the 95 chemicals were detected at least once.

While flushing is no longer recommended, it remains a frequent disposal practice by many residents, as well as in long-term care facilities, nursing homes, and other health care facilities. This practice is occurring despite the fact that sewage treatment plants, septic systems, and drinking water infrastructure are not designed to remove these contaminants. A 2004 study lead by the University of Wisconsin-Madison of conventional wastewater treatment plants found detectable levels of 13 of 19 different pharmaceuticals post-treatment, including ibuprofen, testosterone, drugs that lower cholesterol, and inhibit seizures. The team found plants eliminated only five of the 19 contaminants from discharged water.

The effects of constant, low-level human exposure to pharmaceuticals are uncertain, and more research is needed in this area. Potential health concerns include hormone disruption, antibiotic resistance, and synergistic effects from interactions with other pharmaceuticals. However, recent studies have shown that exposure to pharmaceutical compounds negatively impacts aquatic life. A 2008 Sound Health Status and Trends in the Long Island Sound article about research conducted by Dr. Anne McElroy of Stony Brook University noted the investigator found evidence of high levels of endocrine disrupting chemicals in male silversides in western LIS. One source of these chemicals is pharmaceutical drugs, including the female hormone estrogen. A synthetic form of estrogen found in birth control pills is causing eggs to form in fish testicular tissue, a decrease in sperm counts, and disruption of development and growth. Since natural and synthetic estrogen cannot be removed or broken down at wastewater treatment plants, these compounds are discharged into the environment.

Policy Solutions

Recent changes in state and federal regulations allow for the expansion of safe disposal programs throughout NY, including take back programs at retail pharmacies. However, despite these changes there is still a lack of accessible options available for individuals and healthcare facilities to safely dispose of unwanted drugs. CCE recommends the following policy solutions to help address the prevalent yet preventable practice of flushing drugs.

Extended Producer Responsibility

Extended Producer Responsibility (EPR) laws require that pharmaceutical manufacturers manage their products' waste at its end-of-life. To comply with such legislation pharmaceutical manufacturers will design, manage, and fund take-back programs to securely collect unwanted medicines from the public and ensure the collected materials are properly managed. Pharmaceutical EPR laws provide a sustainable funding mechanism for proper drug disposal by

holding pharmaceutical companies accountable for managing their products throughout the entire product life cycle, instead of relying on taxpayers to fund management of these drugs at product's end-of-life. Numerous countries, eight counties in the U.S. (in California and Washington), and the State of Massachusetts have some form or pharmaceutical EPR.

Pharmaceutical companies do not contribute any resources to safe disposal programs in New York. This should no longer be tolerable. With record sales and profits going to the big pharmaceutical companies, it is time for them to pay their fair share to safely dispose of unwanted, unused, and expired medications that are contributing to the drug abuse epidemic and water pollution across our state.

New York already has EPR programs for electronic waste, rechargeable batteries, and mercury thermostats. CCE urges the legislature to enact EPR legislation that would require pharmaceutical companies to fund safe disposal programs throughout NY for the public, health care institutions, and veterinary offices.

State-Funded Take-Back Programs

Absent a manufacturer-funded EPR program, New York State has increased investments in safe pharmaceutical programs statewide. Successful programs include:

- **DEC Program:** The DEC runs a safe disposal program for hospitals and health care facilities within the NYC watershed, on Long Island, and in Monroe County. The DEC picks up unused or expired pharmaceutical drugs from hospitals and other health care facilities. Right now, the program is limited to the aforementioned regions. There is a need and a demand for DEC to expand this program to other areas in NYS.
- **DOH Program:** In the 2015-16 budget, the Legislature allocated \$350,000 through the NYS DOH to provide increased public access to safe pharmaceutical disposal across the state. The program has demonstrated great success, *collecting well over two tons of expired and unused drugs*. The program reaches from Buffalo to Long Island, and provides both the general public and healthcare facilities with greater access to safe pharmaceutical disposal. The program has:
 - Installed Drop-Boxes in 11 Grocery Stores: King Kullen grocery store pharmacies throughout Nassau and Suffolk Counties installed drop boxes and collected over 2,000lbs of pharmaceuticals to date.
 - Installed 12 Drop Boxes (24-Hour) in 12 Communities: Lloyd Harbor, Village of Floral Park, City of Glen Cove, Village of Lynbrook, Village of Garden City, South Country Ambulance Company of Brookhaven (Bellport and East Patchogue), and Onondaga County (5)
 - Held 31 Safe Disposal Drop-off Events: Suffolk County (2), Village of Hempstead (18), Town of Huntington (2), Town of Mamaroneck (3), Town of North Hempstead (6)
 - Established a Pharmaceutical pick-up program for healthcare facilities in Erie County. This program works with over 20 long term healthcare facilities throughout Erie County to ensure safe pharmaceutical disposal, and holds safe disposal events for the public and healthcare facilities, targeting rural communities in particular.

In the 2016-17 NYS budget, the Governor and legislature increased funding for safe pharmaceutical disposal programs. Funding supported the continuation of DEC's healthcare drug pickup program, \$350,000 for a Department of Health take-back program, and \$1 million for a new line in the Environmental Protection Fund (EPF) to support a DEC program for safe pharmaceutical disposal statewide. *CCE commends the legislature and Governor for funding these important programs, and recommends that the legislature and Governor continue to fund these important safe pharmaceutical disposal programs in the 2017-18 budget.*

COAL TAR SEALCOAT

Coal tar sealcoat is a black, viscous liquid sprayed or painted on many asphalt parking lots, driveways, and playgrounds to protect and enhance the appearance of the underlying asphalt. Coal tar sealcoat contains elevated levels of polycyclic aromatic hydrocarbons (PAHs), which is a probable carcinogen and is toxic to aquatic life. Friction from vehicle tires abrades sealcoat into small particles that is then tracked indoors or washed down storm drains and eventually discharged into our waterways, adversely impacting water quality and harming aquatic life. Recent studies by the U.S. Geological Survey (USGS) have found that coal tar sealants emit more PAHs into our environment every year than the entire US vehicle fleet, that these sealants are the largest source of PAH contamination in urban lakes, and that the use of coal tar sealant likely is the primary cause of upward trends in PAHs in much of the United States.

Runoff from coal tar-seal coated pavement, even runoff collected more than 3 months after sealcoat application, is acutely toxic to fathead minnows and water fleas, two species commonly used to assess toxicity to aquatic life. Exposure to even highly diluted runoff from coal-tar-seal coated pavement can cause DNA damage and impair DNA repair. These findings demonstrate that coal-tar-sealcoat runoff can remain a risk to aquatic life for months after application.

Viable, safer alternatives to coal tar sealcoat are already on the market. For example, asphaltbased sealcoat, primarily used west of the Continental Divide, typically contains about 50 mg/kg PAHs. By contrast, Coal-tar-based sealcoat, primarily used east of the Continental Divide (except in States, counties, and municipalities where use of coal-tar-based sealcoat is prohibited), typically contains 50,000 to 100,000 mg/kg PAHs. In the private sector, many leading national retailers (Lowe's, Walmart, Home Depot and others) no longer sell coal tar sealants to private homeowners, but instead only carry safer kinds of sealants.

Governments are beginning to recognize the pollution problem caused by coal tar sealants. Washington, Massachusetts, Minnesota and the District of Columbia, as well as 30 local governments, have enacted coal tar sealant bans or restrictions. Suffolk County, on Long Island, has banned the use and sale of coal tar sealants. But in the rest of New York State, coal tar sealant is still legal and widely used by contractors. *CCE urges New York State to ban the use* of coal tar sealcoat to protect water quality and public health in New York State.

DEC STAFFING

In order to tackle our most pressing water pollution issues, from nitrogen to emerging contaminants to preventing illegal dumping, it is imperative that the NYS Department of Environmental Conservation (DEC) have the staffing to properly enforce the rules and regulations that protect our ground and surface waters. While the legislature has made

significant progress in providing funding for important programs to protect water quality, particularly through the historic \$300 million EPF in the 2016-17 budget, we still rely on the underfunded and understaffed DEC to implement and enforce these programs on the ground.

While the legislature did increase DEC funding in the 2016-2017 budget, DEC staffing is *still* not back up to their peak 2007-08 levels. DEC had 3,779 full time staff in 2008 and was allocated over \$1.1 billion. The 2016-2017 budget has DEC funding up to just under \$1 billion, but staff levels remain low. Next year, there will only be 2,946 full time staff members. As the economy has recovered, DEC staff levels still remain dangerously low. The DEC is not doing more with less; they are doing less with less.

DEC Region 1 has only one inspector to cover illegal dumping and sand mining for the entire Long Island region. One inspector to cover all of Nassau and Suffolk Counties, from Montauk to Mineola, from Great Neck to Greenport. To make matters worse, there has not been a single significant environmental violation filed for sand mining operations on Long Island in the last 20 years. The right regulations and laws are important but if the DEC, as the regulatory agency, is unable to provide surveillance and the necessary inspection activities, then illegal dumping will continue to endanger the health and safety of the island's sole source aquifer and public health.

The DEC's Division of Water plays a critical role in protecting water quality, and yet has been hit with significant staff cuts in recent years. Water pollution inspections, enforcement actions, and water testing and monitoring have all been reduced in recent years. This disproves the mantra that an agency will "do more with less". Unfortunately, the reality is that it is reasonable to expect an agency to do less with less.

DEC programs are critical to protecting Long Island's sole-source aquifer, including creating and implementing the LI Nitrogen Action Plan, expanding safe pharmaceutical disposal programs for health care facilities, implementing the sewage pollution right to know law, enforcing new solid waste regulations to prevent illegal dumping and sand mining operations, creating standards for emerging contaminants, conducting biotoxin monitoring for harmful algal blooms throughout the state, and so much.

With New York's continued commitment to climate change adaptation and mitigation, improving water quality, fixing failing sewage infrastructure, and meeting a myriad of other growing environmental concerns, the DEC must have adequate resources to not only staff necessary existing programs but also respond to new threats and unforeseen and emergency situations such as Superstorm Sandy, Hurricane Irene water crises situation such as Hoosick Falls and toxic algae blooms expanding across NY waterways. CCE recommends that the legislature increase funding for NYS DEC staffing in the 2017-18 NYS budget.