

Testimony of Eric Landau
Associate Commissioner of Public Affairs
New York City Department of Environmental Protection
before the
New York City Council Committee on Consumer Affairs
concerning

Intro. 928 – In relation to banning personal care products containing microbeads
250 Broadway – Committee Room
October 26, 2015, 10 am

Good morning, Chairman Espinal and Members of the Committee. My name is Eric Landau, Associate Commissioner of Public Affairs at the New York City Department of Environmental Protection (DEP). I am joined today by David Lipsky, Senior Policy Advisor in the Bureau of Sustainability. Thank you for the opportunity to testify on Introduction 928.

As you know, DEP's mission is to protect public health and the environment by supplying clean drinking water, collecting and treating wastewater, and reducing air, noise, and hazardous materials pollution.

Intro. 928 proposes to ban the sale of personal care products containing microbeads, which are intentionally added, non-biodegradable, solid plastic particles measuring less than five millimeters in size and used to exfoliate or cleanse in a rinse-off product. Unlike other forms of plastic pollution, the microbeads in personal care products such as facial scrubs, washes and toothpaste are designed to be washed down the drain.

DEP treats an average of 1.3 billion gallons a day of wastewater at its 14 wastewater treatment plants (WWTPs) around the city. The treatment process is complex and highly regulated. The resulting effluent is chlorinated and meets permitted effluent limits before being discharged into the local waterways. However, the vast majority of wastewater treatment systems, including ours, are not capable of capturing microbeads, allowing them to pass directly into the surrounding waters and, eventually, to the ocean.

Plastic is the predominant form of marine debris, and is estimated to comprise 60-80% of all marine debris, as well as 90% of all floating debris. Most plastic marine debris exists as small plastic particles, as even large pieces of plastic break down into small particles due to ultraviolet radiation exposure and subsequent photo-degradation. Aquatic organisms cannot distinguish these plastic pieces from small fish, plankton or krill, and ingest them.

In addition to the physical impacts of plastic pollution, microplastics may have toxicological effects. Research suggests that microplastics attract and adsorb persistent organic pollutants, such as PCBs, DDT, and PBDEs (polybrominated diphenyl ethers). Studies conducted by the University of California's Santa Barbara National Center for Ecological Analysis and Synthesis (NCEAS) show that about 78% of the chemicals recognized by the U.S. Environmental Protection Agency are associated with microplastic pollution. Additional studies at NCEAS show that toxic concentrations of pollutants and additives enter the tissue of animals that have

eaten microplastic. These pollutants accumulate in the flesh of fish, having the potential to affect marine ecosystems and, ultimately, the health of people who consume them.

As a result of their presence in personal care products and other uses, microbeads and microplastics are now ubiquitous in the marine and freshwater environments, as has been well documented in scientific literature. With respect to New York State, results of sampling of wastewater treatment plants within the state by the New York State Attorney General's office found microbeads in the effluent of 25 of the 34 wastewater treatment plants sampled. The presence of microbeads in lakes Erie and Ontario has been documented by 5 Gyres Institute and SUNY Fredonia researchers.

We believe that microbeads are an easily replaced source of plastic pollution that presents unnecessary risks better avoided by removing them from personal care products. Not only is it preferable to remove them from products beforehand than to try to remove them during the treatment process at our plants, but biodegradable alternatives to microbeads in personal care products that do not contribute to marine debris already exist, including natural, abrasive materials such as beeswax, shells, nuts, seeds, and sand, which are widely used by some product manufacturers. It is for all of these reasons that the Department of Environmental Protection supports the intent of this legislation and looks forward to working with the Council and the Department of Consumer Affairs on questions of enforcement and implementation.

Thank you again for the opportunity to testify today. David and I would be happy to address any of your questions.