

STATE ENVIRONMENTAL REGULATION

Expert Analysis

Suffolk County Acts on Microbeads As New York State Lags Behind

In October, Long Island's Suffolk County became the latest local government in New York State to ban the sale of consumer goods containing microbeads.¹ In joining Erie County² and Chautauqua County,³ Suffolk County accomplished something that the New York State Legislature has been unable to do—notwithstanding the growing consensus about the dangers of microbeads to the state's and the nation's waterways.⁴

Background

Microbeads are tiny plastic abrasives that facilitate cleaning, found in personal care products including many commonly used facial scrubs, body washes, hand cleansers, shampoos, and toothpastes. Microbeads are designed to be rinsed down the drain. They are, however, too small to be captured by most wastewater treatment plants, are discharged in the effluent from these plants, and end up in all kinds of water bodies. They have been detected in brooks, streams, rivers, and lakes. Microbeads are persistent, concentrate toxins on their surfaces, and are ingested by birds and fish, posing serious environmental and health risks.

As explained in a study conducted by New York State Attorney General Eric T. Schneiderman's office with the help of Dr. Sherri Mason, professor of chemistry and Environmental Sciences Program Coordinator of the State University of New York at Fredonia, titled, "Discharging Microbeads to Our Waters: An Examination of Wastewater Treatment Plants in New York,"⁵ microbeads vary in size. Microbeads found in scrubs typically range from 0.2 to 0.4 millimeters. Microbeads found in toothpaste are about 100 times smaller: around two to five micrometers in size.

By
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There is also variation in the shape of microbeads found in various consumer products, the report points out. Products can contain spherical or speckled microbeads, irregularly shaped microbeads, or a combination of both. The overwhelming majority of plastic abrasives in personal care products are irregularly shaped microbeads, with only 6 percent being spherical or speckled.

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The attorney general estimates that 19 tons of microbeads are being washed down the drain by New Yorkers each year.⁶ Where do microbeads go once they are washed down our drains? Dr. Mason, the New York Water Environment Association, and operators at 34 municipal and private sewage and wastewater treatment facilities across New York State collected and analyzed post-treatment water samples. They found microbeads in 74 percent of the samples. Specifically, the report notes that microbeads were detected in the effluent samples submitted by 25 of the 34 treatment plants. These plants range in capacity from 32,000 to 92 million gallons per day; some have advanced filtration equipment or use specialized membranes, others do not. The report concludes that microbeads likely are being

discharged by most of New York's more than 600 wastewater treatment plants.

The report lists the receiving waters for the tested plants. They include two of the Great Lakes (Erie and Ontario), the Finger Lakes, Lake Champlain, the Hudson River, the Mohawk River, the Delaware River, Long Island Sound, and the Atlantic Ocean. The tested treatment plants operate in 17 different counties across the state: Albany, Chautauqua, Columbia, Delaware, Erie, Essex, Greene, Kings, Monroe, Nassau, Niagara, Orange, St. Lawrence, Tompkins, Warren, Wayne, and Westchester. This shows how widespread the issue is throughout New York State.

For testing purposes, the report looked only for the more easily identifiable spherical or speckled microbeads. Because the report found these types of microbeads in these small-volume, one-time samples, although only analyzing for 6 percent of the universe of microbeads, it suggests that many of the irregularly shaped microbeads also are slipping past treatment and into New York waters, and that even the more rigorous wastewater treatment employed at some treatment plants may not be effective at removing microbeads.

The report observes that treatment plants are not designed to remove microbeads from the wastewater stream and that treatments potentially effective at removing microbeads are unproven. Moreover, according to the report, even if effective treatment technologies become available, the potential cost and time necessary to retrofit wastewater treatment plants with that technology is likely to be substantial. The report concludes that preventing use of microbeads in personal care products—and replacing microbeads⁷ with materials such as pumice, oatmeal, apricot, ground walnut husks, and other natural materials as abrasives—is a "more efficient approach to address the emerging problem of microbead pollution in New York's waters."

Enter the counties.

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The Local Laws

Suffolk County is the nation's largest suburban county, and the biggest municipality in the state of New York to approve microbead legislation to date. In unanimously approving "A Local Law to Prohibit the Sale of Personal Care Products Containing Microbeads," the county Legislature first set forth a series of findings, including that "microbeads enter the wastewater system when a product is used and washed off the body" and that due to their small size, "microbeads are not filtered out by wastewater treatment systems." The Legislature determined that "microbeads can become coated with toxic chemicals like PCBs, DDT, flame retardants and other industrial chemicals" and that, because microbeads are similar in size to the food sources for a number of fish, the fish "ingest them and the toxins that cling to the microbeads, contaminating the food chain."

Beginning on Jan. 1, 2018, the department must begin random inspection of at least 10 retailers per quarter to determine whether they are selling personal care products containing microbeads composed of polyethylene, polypropylene polyethylene terephthalate, nylon or poly (methyl) methacrylate plastic, or any similar plastic ingredient.

The Legislature also found that Suffolk County "would be directly impacted by the health hazards associated with contaminated seafood, should local waterways be polluted with microbeads" and that microbeads easily can be replaced in personal care products by natural exfoliates.

Section 2 of the Suffolk law contains a number of definitions. It defines "microbeads" as "intentionally added plastic particles used to exfoliate or cleanse in a rinse-off personal care product that are made of synthetic polymers or biopolymers, are either entirely solid or hollow, and measure less than 5 millimeters in diameter." It defines "personal care product" as "any consumer product manufactured for use in personal hygiene and beautification," including, but not limited to, "antibacterial soaps; hand soaps; bar soaps; liquid soaps; facial and body washes; facial and body cleansers; facial masks; exfoliating products; face, foot and body scrubs; body, skin and foot polishes; body, skin and foot buffers; body, skin and foot foams; micro

technology items; acne treatment products; shampoos; conditioners; toothpaste; shaving creams or gels; and foot care products." The defined term excludes any product for which a prescription is required for distribution or dispensation under New York law.

The operative section of the law follows the definitions. It provides that, effective Jan. 1, 2018, "no person shall sell or offer for sale any personal care product which contains microbeads within the County of Suffolk." The law contains two exceptions to this deadline. Personal care products containing microbeads that are regulated by the U.S. Food and Drug Administration are banned after Dec. 31, 2018, and over-the-counter drugs containing microbeads are banned after Dec. 31, 2019.

The Suffolk law contains a progressive enforcement regime. In particular, beginning on July 1, 2017, the Suffolk County Department of Health Services is obligated to inform retailers selling personal care products of the requirements of the law. Then, beginning on Jan. 1, 2018, the department must begin random inspection of at least 10 retailers per quarter to determine whether they are selling personal care products containing microbeads composed of polyethylene, polypropylene polyethylene terephthalate, nylon or poly (methyl) methacrylate plastic, or any similar plastic ingredient.

Violation of the law is punishable by a civil fine of up to \$500 for a first offense, a fine of up to \$750 for a second offense, and a fine of up to \$1,000 for all subsequent violations.

Interestingly, the Suffolk law also contains a "reverse preemption" section. It provides that Suffolk County's law shall be "null and void" on the day that federal or statewide legislation goes into effect, incorporating either the same or substantially similar provisions as are contained in the Suffolk law, or in the event that a pertinent state or federal administrative agency issues and promulgates regulations preempting the Suffolk law.

Conclusion

It is not clear when, or if, a federal⁸ or a New York state law will be enacted to ban the sale of products containing microbeads. In 2014, Attorney General Schneiderman sent a program bill to the State Legislature, the "Microbead-Free Waters Act," to prohibit the distribution and sale of personal cosmetic products containing microbeads less than five millimeters in size. To date, the Legislature has failed to pass any bill banning the sale of consumer goods with microbeads.

Although states including California,⁹ Illinois,¹⁰ and Maryland¹¹ have banned the beads, and although local legislators in New York are acting, the absence of New York state legislative action is a large gap in the environmental regulatory scheme addressing the use of microbeads.

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1. See, "A Local Law to Prohibit the Sale of Personal Care Products Containing Microbeads," available at <http://legis.suffolkcountyny.gov/Resos2015/i1661-15.pdf>.

2. See, County of Erie, "Local Microbead Prohibition Law," Local Law #3. 2015, filed on 8/18/2015.

3. Ulster, Albany, Cattaraugus, and Monroe counties as well as New York City are considering similar legislation.

4. See, e.g., Eleanor Randolph, "Microbeads: The Very Tiny Troublemakers," available at <http://takingnote.blogs.nytimes.com/2015/09/15/microbeads-the-very-tiny-troublemakers/?emc=eta1>.

Some companies are acting on their own. For example, citing a "growing preference," Procter & Gamble has said that its "goal is to remove polyethylene microbeads from all our cleansers and toothpastes by 2017." See, http://us.pg.com/our_brands/product_safety/ingredient_safety/microbeads.

5. Office of the N.Y. State Attorney General, "Discharging Microbeads to Our Waters: An Examination of Wastewater Treatment Plants in New York," April 2015, available at http://www.ag.ny.gov/pdfs/2015_Microbeads_Report_FINAL.pdf.

6. See, Press Release, "A.G. Schneiderman And Senator Gillibrand Announce New Push to Ban Plastic Microbeads in Personal Care Products," July 20, 2015, available at <http://www.ag.ny.gov/press-release/ag-schneiderman-and-senator-gillibrand-announce-new-push-ban-plastic-microbeads>.

7. Microbeads may be listed as "polyethylene" or "polypropylene" as an ingredient in a product.

8. The Microbead-Free Waters Act of 2015 was introduced in the U.S. Senate on May 21, 2015, by New York Senator Kirsten Gillibrand and Senators Rob Portman (R-Ohio), Debbie Stabenow (D-Mich.), Mark Kirk (R-Ill.), and Gary Peters (D-Mich.). The legislation is co-sponsored by Senators Tammy Baldwin (D-Wis.) and Sherrod Brown (D-Ohio). Rep. Frank Pallone (D-N.J.) has introduced companion legislation in the House of Representatives.

9. See, California AB888, available at https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB888.

10. See, Illinois SB2727, available at <http://www.ilga.gov/legislation/BillStatus.asp?GAID=12&GA=98&DocNum=2727&DocTypeID=SB&SessionID=85&LegID=78471&SpecSess=&Session=>

11. See, Maryland House Bill 216, available at <http://mgaleg.maryland.gov/2015RS/bills/hb/hb0216E.pdf>.