The Microbead-Free Waters Act of 2015: connecting science and policy

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ENVIRONMENTAL LAW scholars have long lamented that it has become unthinkable for Congress to pass noteworthy environmental legislation. This is not uniformly the case, as shown by the Microbead-Free Waters Act of 2015. The act addressed a significant environmental issue—the discharge of certain microplastics to surface waters—and the strategic building blocks underlying the act may provide useful foundations for future policy-making efforts.

Plastics are an increasing threat to our oceans, lakes, and streams. A recent report estimated that each year at least 8 million tons of plastics leak into the oceans—the equivalent of one garbage truck per minute. The oceans are expected to contain more plastics than fish by 2050.

Microbeads represent one aspect of this problem. They are microspheres commonly used as exfoliants in consumer toiletry products such as facial and body cleansers and toothpastes. Most are nonbiodegradable. Microbeads form a high concentration of some products; one study found that a typical exfoliating shower gel contains as much microplastic in the cosmetic as is used to make the plastic packaging it comes in. Prior to the act, no illicit or illegal activity was necessary for microbeads to enter surface waters. On the contrary, washing them down the drain is an expected result of cosmetics and toothpaste disposal after use.

Plastic pollution is also an increasing concern for the Great Lakes. Early scientific research shows that concentrations of plastic microbeads are higher in some parts of the Great Lakes than corresponding concentrations in oceans—as many as 1.1 million bits of microplastics per square mile in some areas of the Lakes.

The confluence of growing scientific understanding of the threat to public health certainly contributed to the genesis of the act. The result, essentially a ban on manufacturing cosmetics containing microbeads, sailed through both houses of Congress without opposition. Three factors help explain the easy passage.

First, the act makes no effort to address our plastics problem in its entirety. Instead, it targets one clearly delineated aspect of the problem: cosmetics that contain microbeads. Had the act included broader provisions to, for example, limit the usage of plastic bags, one can surmise that it would never have passed both houses of Congress.

Second, its congressional sponsors rooted the act in the scientific evidence collected to date, allowing them to position the act as a public health bill first and an environmental protection bill second. This was appropriate. Microbeads pose perhaps an even greater concern for human health than do ordinary plastics. Like other plastics, microbeads bioconcentrate pathogens and other hazardous chemicals. However, unlike macroscale plastics, microbeads are easily ingestible by aquatic organisms and therefore have a greater potential to be concentrated up the food chain to humans. The scientific identification of these public health aspects of the issue may have eliminated—or at least rendered surmountable—the ordinary partisan blockade.

Third, the act enjoyed broad stakeholder support both from grassroots groups and (perhaps surprisingly) from industry. The American



Chemistry Council supported what it called a "sensible" effort to phase out microbeads. Other industry groups expressed comfort with the emplacement of a uniform national policy to avoid concerns over compliance with a patchwork of state regulations. In part, this support may also have been due to a belief that some companies would obtain a competitive advantage from continuing to use the inexpensive microbeads while other, more socially responsible, companies phased them out.

The act shows that Congress can indeed pass smart environmental legislation. But it doesn't come easily, as decades of failure have shown. Proponents of future environmental legislation can benefit from the act's example by setting a reasonable scope and focus, crafting a broad stakeholder coalition, and rooting environmental policy in sound science framed through a public health lens.

For a more complete discussion, see Strifling's article The Microbead-Free Waters Act of 2015: Model for Future Environmental Legislation, or Black Swan? in the Journal of Land Use & Environmental Law, vol. 32.