

EXAMINING MICROBEADS IN COSMETIC PRODUCTS

HEARING
BEFORE THE
SUBCOMMITTEE ON HEALTH
OF THE
COMMITTEE ON ENERGY AND
COMMERCE
HOUSE OF REPRESENTATIVES
ONE HUNDRED FOURTEENTH CONGRESS
FIRST SESSION

MAY 1, 2015

Serial No. 114-39



Printed for the use of the Committee on Energy and Commerce
energycommerce.house.gov

U.S. GOVERNMENT PUBLISHING OFFICE

96-979

WASHINGTON : 2016

For sale by the Superintendent of Documents, U.S. Government Publishing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON ENERGY AND COMMERCE

FRED UPTON, Michigan
Chairman

JOE BARTON, Texas
Chairman Emeritus
ED WHITFIELD, Kentucky
JOHN SHIMKUS, Illinois
JOSEPH R. PITTS, Pennsylvania
GREG WALDEN, Oregon
TIM MURPHY, Pennsylvania
MICHAEL C. BURGESS, Texas
MARSHA BLACKBURN, Tennessee

Vice Chairman
STEVE SCALISE, Louisiana
ROBERT E. LATTA, Ohio
CATHY McMORRIS RODGERS, Washington
GREGG HARPER, Mississippi
LEONARD LANCE, New Jersey
BRETT GUTHRIE, Kentucky
PETE OLSON, Texas
DAVID B. MCKINLEY, West Virginia
MIKE POMPEO, Kansas
ADAM KINZINGER, Illinois
H. MORGAN GRIFFITH, Virginia
GUS M. BILIRAKIS, Florida
BILL JOHNSON, Ohio
BILLY LONG, Missouri
RENEE L. ELLMERS, North Carolina
LARRY BUCSHON, Indiana
BILL FLORES, Texas
SUSAN W. BROOKS, Indiana
MARKWAYNE MULLIN, Oklahoma
RICHARD HUDSON, North Carolina
CHRIS COLLINS, New York
KEVIN CRAMER, North Dakota

FRANK PALLONE, JR., New Jersey
Ranking Member
BOBBY L. RUSH, Illinois
ANNA G. ESHOO, California
ELIOT L. ENGEL, New York
GENE GREEN, Texas
DIANA DeGETTE, Colorado
LOIS CAPPS, California
MICHAEL F. DOYLE, Pennsylvania
JANICE D. SCHAKOWSKY, Illinois
G.K. BUTTERFIELD, North Carolina
DORIS O. MATSUI, California
KATHY CASTOR, Florida
JOHN P. SARBANES, Maryland
JERRY McNERNEY, California
PETER WELCH, Vermont
BEN RAY LUJAN, New Mexico
PAUL TONKO, New York
JOHN A. YARMUTH, Kentucky
YVETTE D. CLARKE, New York
DAVID LOEBSACK, Iowa
KURT SCHRADER, Oregon
JOSEPH P. KENNEDY, III, Massachusetts
TONY CARDENAS, California

SUBCOMMITTEE ON HEALTH

JOSEPH R. PITTS, Pennsylvania
Chairman

BRETT GUTHRIE, Kentucky
Vice Chairman

ED WHITFIELD, Kentucky

JOHN SHIMKUS, Illinois

TIM MURPHY, Pennsylvania

MICHAEL C. BURGESS, Texas

MARSHA BLACKBURN, Tennessee

CATHY McMORRIS RODGERS, Washington

LEONARD LANCE, New Jersey

H. MORGAN GRIFFITH, Virginia

GUS M. BILIRAKIS, Florida

BILLY LONG, Missouri

RENEE L. ELLMERS, North Carolina

LARRY BUCSHON, Indiana

SUSAN W. BROOKS, Indiana

CHRIS COLLINS, New York

JOE BARTON, Texas

FRED UPTON, Michigan (*ex officio*)

GENE GREEN, Texas
Ranking Member

ELIOT L. ENGEL, New York

LOIS CAPPS, California

JANICE D. SCHAKOWSKY, Illinois

G.K. BUTTERFIELD, North Carolina

KATHY CASTOR, Florida

JOHN P. SARBANES, Maryland

DORIS O. MATSUI, California

BEN RAY LUJAN, New Mexico

KURT SCHRADER, Oregon

JOSEPH P. KENNEDY, III, Massachusetts

TONY CARDENAS, California

FRANK PALLONE, JR., New Jersey (*ex*

officio)

CONTENTS

	Page
Hon. Joseph R. Pitts, a Representative in Congress from the Commonwealth of Pennsylvania, opening statement	1
Prepared statement	4
Hon. Gene Green, a Representative in Congress from the State of Texas, opening statement	4
Hon. Fred Upton, a Representative in Congress from the State of Michigan, opening statement	6
Prepared statement	7
Hon. Frank Pallone, Jr., a Representative in Congress from the State of New Jersey, opening statement	7

WITNESSES

Dan Wyant, Director, Michigan Department of Environmental Quality	9
Prepared statement	12
Answers to submitted questions	52
Linda R. Greenstein, State Senator, New Jersey Legislature	16
Prepared statement	18
Answers to submitted questions ¹	57
Molly Flanagan, Alliance for the Great Lakes	21
Prepared statement	23
Answers to submitted questions	59
John Hurson, Executive Vice President of Government Relations, Personal Care Products Council	30
Prepared statement	32
Answers to submitted questions	66

SUBMITTED MATERIAL

H.R. 1321	2
Statement of 5 Gyres Institute, submitted by Mr. Pallone	48
Statement of Surfrider Foundation, submitted by Mr. Pallone	49
Statement of the American Chemistry Council, submitted by Mr. Shimkus	50

¹ Ms. Greenstein did not respond to submitted questions by the time of printing.

EXAMINING MICROBEADS IN COSMETIC PRODUCTS

FRIDAY, MAY 1, 2015

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 9:15 a.m., in room 2123, Rayburn House Office Building, Hon. Joseph R. Pitts (chairman of the subcommittee) presiding.

Present: Representatives Pitts, Guthrie, Shimkus, Burgess, Blackburn, Lance, Bilirakis, Long, Ellmers, Brooks, Collins, Upton (ex officio), Green, Schakowsky, Kennedy, and Pallone (ex officio).

Staff Present: Clay Alspach, Chief Counsel, Health; Gary Andres, Staff Director; Leighton Brown, Press Assistant; Noelle Clemente, Press Secretary; Andy Duberstein, Deputy Press Secretary; Carly McWilliams, Professional Staff Member, Health; Tim Pataki, Professional Staff Member; Graham Pittman, Legislative Clerk; Mark Ratner, Policy Advisor to the Chairman; Adrianna Simonelli, Legislative Associate, Health; Heidi Stirrup, Health Policy Coordinator; Ziky Ababiya, Minority Policy Analyst; Christine Brennan, Minority Press Secretary; Jeff Carroll, Minority Staff Director; Tiffany Guarascio, Minority Deputy Staff Director and Chief Health Advisor; Brendan Hennessey, Minority Policy and Research Advisor; Ashley Jones, Minority Director, Outreach and Member Services; and Tim Robinson, Minority Chief Counsel.

OPENING STATEMENT OF HON. JOSEPH R. PITTS, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF PENNSYLVANIA

Mr. PITTS. The subcommittee will come to order, and the chair will recognize himself for an opening statement.

Today's Health subcommittee hearing will be examining the sale, distribution, and use of cosmetics that contain synthetic plastic microbeads and what impact those microbeads may have on our waterways.

Our colleagues Representative Frank Pallone and Fred Upton have jointly introduced legislation, H.R. 1321, the Microbead-Free Waters Act of 2015, which would prohibit the sale or distribution of cosmetics containing synthetic plastic microbeads.

[The information follows:]



114TH CONGRESS
1ST SESSION

H. R. 1321

To prohibit the sale or distribution of cosmetics containing synthetic plastic microbeads.

IN THE HOUSE OF REPRESENTATIVES

MARCH 4, 2015

Mr. PALLONE (for himself and Mr. UPTON) introduced the following bill;
which was referred to the Committee on Energy and Commerce

A BILL

To prohibit the sale or distribution of cosmetics containing synthetic plastic microbeads.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Microbead-Free
5 Waters Act of 2015”.

1 **SEC. 2. PROHIBITION AGAINST SALE OR DISTRIBUTION OF**
2 **COSMETICS CONTAINING SYNTHETIC PLAS-**
3 **TIC MICROBEADS.**

4 (a) **IN GENERAL.**—Section 601 of the Federal Food,
5 Drug, and Cosmetic Act (21 U.S.C. 361) is amended by
6 adding at the end the following:

7 “(g) If it contains synthetic plastic microbeads.”.

8 (b) **APPLICABILITY.**—The amendment made by sub-
9 section (a) applies beginning on January 1, 2018.

○

Mr. PITTS. And a number of state legislatures have also taken independent action in this area.

Scientists have discovered the presence of these tiny plastic beads accumulating at high levels in the Great Lakes and other waterways. Microbeads are commonly used as an abrasion or exfoliating scrub and can be found in toothpaste, facial scrubs, some soaps, and even shampoos.

Admittedly, there is other plastic litter that has broken down from plastic debris, but the concern is that the synthetic plastic microbeads are difficult, if not impossible, to break down. We will hear from the cosmetic industry today about their commitment to phasing out the use of microbeads in their products. We also have two witnesses from the Great Lakes to discuss the impact on their waterways as well as New Jersey State Senator Greenstein, who co-sponsored the legislation in her home State.

The concern of course is that different State-based legislation will result in a patchwork of regulations and requirements, making it difficult, if not impossible, for manufacturers to comply with so many different laws.

Do I have any requests for time on my side?

If not, I yield back and recognize the ranking member, Mr. Green, for 5 minutes for his opening statement.

[The prepared statement of Mr. Pitts follows:]

PREPARED STATEMENT OF HON. JOSEPH R. PITTS

The Subcommittee will come to order.

The Chairman will recognize himself for an opening statement. Today's Health Subcommittee hearing will be examining the sale, distribution, and use of cosmetics that contain synthetic plastic microbeads and what impact those microbeads may have on our waterways.

Our colleagues, Reps. Frank Pallone (NJ) and Fred Upton (MI) have jointly introduced legislation, H.R. 1321—the "Microbead-Free Waters Act of 2015" which would prohibit the sale or distribution of cosmetics containing synthetic plastic microbeads and a number of state legislatures have also taken independent action in this area.

Scientists discovered the presence of these tiny plastic beads accumulating at high levels in the Great Lakes and other waterways.

Microbeads are commonly used as an abrasion, or exfoliating scrub, and can be found in toothpaste, facial scrubs, some soaps and even shampoos. When these microbeads wash down the drain, they end up in sewer systems and because they are small, and buoyant, they pass through sewage treatment plants and are discharged into rivers, lakes and oceans.

Admittedly, there are other plastic litter that had broken down from plastic debris, but the concern is that the synthetic plastic microbeads are difficult, if not impossible, to break down.

We will hear from the cosmetics industry today about their commitment to phasing out the use of microbeads in their products. We also have two witnesses from the Great Lakes to discuss the impact on their waterways as well as New Jersey State Senator Greenstein, who co-sponsored the legislation in her home state.

The concern, of course, is that different state-based legislation will result in a patchwork of regulations and requirements making it difficult, if not impossible, for manufacturers to comply with so many different laws.

I look forward to the testimony today and yield the balance of my time to Rep. _____

**OPENING STATEMENT OF HON. GENE GREEN, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS**

Mr. GREEN. Thank you, Mr. Chairman, and good morning.

I would like to thank Chairman Pitts for holding the hearing today and thank our distinguished panelists for joining us this morning in discussion of this important issue. I would also like to recognize the leadership of our chairman of the full committee and ranking member, Chairman Fred Upton and Ranking Member Frank Pallone, in coming together in a spirit of bipartisan and introducing the Microbead-Free Waters Act.

Plastics today is an integral part of daily life, from health care and food preservation to communications and home construction. Plastic's tremendous range of uses is based on its desirable products and properties, including durability, corrosion-resistance, and low cost. The plastic industry is our Nation's third largest manufacturing industry, responsible for \$350 billion in economic activity and hundreds of thousands of jobs in our country with several plastic manufacturers located in my district in Houston, Harris County, Texas. In much part due to the very properties that make plastic so universal in daily life, plastic can have a negative impact on our environment. All the more so when it is not disposed of properly and released into the environment without oversight and restriction.

This is what is happening with micro plastic products of microbeads. The microbeads, due to their tiny size, 5 millimeters or less, fail to be captured by modern wastewater treatment plants and end up in our Nation's rivers, lakes, and oceans. The accumulation of microbeads in our Nation's waters, particularly the Great Lakes, has been startling in recent years and deserves immediate Federal attention.

Recent studies in the Great Lakes have found debris concentration, much of it attributable to microbeads, that rival some of the largest ocean garbage patches. When released in the environment, microbeads present a clear risk to our Nation's waterways and wildlife, from the physical impacts of wildlife ingestion of microbeads to the harmful chemicals, such as PCBs and DDT, that can accumulate on these tiny plastic particles.

I am pleased to learn that most of the cosmetic industry, including nationwide manufacturers like Procter & Gamble, Johnson & Johnson, have voluntarily decided to replace microbeads in their personal care products with natural biodegradable alternatives, such as ground almonds, ground walnuts, cocoa beads, and sea salt. Nevertheless, due to the current technical restraints on our Nation's wastewater system, it is necessary that plastic and non-biodegradable microbeads in cosmetic products be removed from manufacture and sale at the earliest feasible date.

The legislation before us today will provide an appropriate Federal response to microbeads by amending the Federal Food, Drug, and Cosmetic Act to prohibit the sale and distribution of cosmetics containing microbeads by January 1 of 2018. I am support of that effort, and I hope we can use today's hearing and learn more improvements are necessary in this legislation and bring momentum towards passage and enactment.

Again, I thank you, Mr. Chair.

Is there anyone else on my side that would like the remainder of my time?

Hearing nothing, I yield back.

Mr. PITTS. If not, I thank the gentleman.

We are voting on the floor now. So we will finish opening statements before going to the floor, and I am pleased at this time to recognize the chairman of the full committee and one of the sponsors of the Pallone-Upton bill, Mr. Upton, 5 minutes for opening statement.

OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. UPTON. Well, thank you, Mr. Chairman.

I won't take 5 minutes. Microbeads, they are tiny, plastic, but big-time pollution, especially for our lakes, rivers, and streams.

So what is a microbead? Well, you may not know it or want to admit that you know a little bit about this, but millions of Americans use them on a daily basis. Microbeads are those tiny, little scrubbers in your soap, cleansers, and, yes, even in toothpaste. On their own, they are nearly visible, smaller than a pinhead, as you can see here, compared with the size of a penny.

But once they are flushed down the drain is when the problem really does begin. Because they are so small, they escape water filtration systems and end up in our bodies of waters, obviously, including the Great Lakes. They are known to absorb pollutants and are often mistaken as food by fish and wildlife. And simply put, microbeads are causing mega problems. That is why I partnered with our full committee ranking member, Frank Pallone, to co-author H.R. 1321, the Microbead-Free Waters Act of 2015.

There are also currently 26 States that have engaged on legislation to address this very important issue.

I am excited to partner with Ranking Member Pallone on an issue that is so important to not only my district in southwest Michigan but the entire Great Lakes region. Both, to me and my family personally, as someone who grew up on Lake Michigan and represents a large chunk of the Michigan coastline, I understand firsthand how important it is to maintain the beauty and integrity of our Great Lakes. The Great Lakes have survived many a foe, severe pollution, discharge from refineries, zebra mussels, an attempt to steal our water, particularly from Texas, just to name a few. Our fight against the Asian carp also continues. I will not stand for any activity that puts our beloved Great Lakes in jeopardy.

I look forward to working with my colleagues in a bipartisan manner to get this harmful pollution out of our waterways. We need this bill to fight the army of microbeads that is growing by the day in our waters.

I want to thank all of our witnesses, particularly my good friend and constituent, Dan Wyant, who heads the Michigan Department of Environmental Quality, and Molly Flanagan from the Alliance for the Great Lakes. As the Holland Sentinel editorialized in March, there is no reason keeping our faces feeling clean should require us to trash our lakes.

Yield back.

[The prepared statement of Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

Microbeads—they're tiny plastic, but big time pollution, especially for our lakes, rivers, and streams.

What's a microbead? You may not know it, or want to admit you exfoliate, but millions of Americans use them on a daily basis. Microbeads are those tiny little scrubbers in your soap, cleansers, and even toothpaste. On their own, they are nearly invisible, smaller than a pinhead—as you can see here compared with the size of a penny.

But once they've been flushed down the drain is when the problems begin. Because they are so small, they escape water filtration systems and end up in our bodies of water, including the Great Lakes. They are known to absorb pollutants, and are often mistaken as food by fish and wildlife. Simply put, microbeads are causing mega-problems.

This is why I partnered with our full committee Ranking Member Frank Pallone to author H.R. 1321, the Microbeads-Free Waters Act of 2015. There are also currently 26 states that have engaged on legislation to address this important issue.

I am excited to partner with the Ranking Member on an issue that is so important to my district in Southwest Michigan, the entire Great Lakes Region, and to me and my family personally. As someone who grew up on Lake Michigan and represents a large chunk of Michigan coastline, I understand firsthand how important it is to maintain the beauty and integrity of our Great Lakes. The Great Lakes have survived many a foe—severe pollution, oil spills, discharge from refineries, zebra mussels, and attempts to steal our water, just to name a few. Our fight against the Asian carp also continues. I will not stand for any activity that puts our beloved Great Lakes in jeopardy. I look forward to working with my colleagues in a bipartisan manner to get this harmful pollutant out of our waterways. We need this bill to fight the army of microbeads that is growing by the day in our waters.

I want to thank the witnesses for being here, especially my Michigan and Great Lakes friends, Dan Wyant of the Michigan Department of Environmental Quality and Molly Flanagan from the Alliance for the Great Lakes. And thank you for your efforts protecting our pristine lakes.

As the Holland Sentinel editorialized in March, "There's no reason keeping our faces feeling clean should require us to trash our lakes."

Mr. PITTS. The chair thanks the gentleman.

I now recognize the ranking member of the full committee, Mr. Pallone, for 5 minutes for an opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Mr. Chairman, for holding this morning's hearing examining microbeads in cosmetic products. The hearing also gives us an opportunity to discuss legislation that I have introduced with Chairman Upton, the Microbead-Free Waters Act of 2015. And I want to thank Chairman Upton for his support of the legislation. I would like to welcome our witnesses and thank them for sharing their knowledge with the committee today, particularly New Jersey State Senator Linda Greenstein, who is one of the counties that I represent. And Senator Greenstein is a leader in New Jersey who worked hard to pass a State law banning the manufacturing and sale of cosmetic products containing plastic microbeads. So welcome.

Cosmetic products like face and body washes contain tiny plastic particles or microbeads that are used as exfoliants. While these plastic products are not harmful to the user of the product, studies have shown that microbeads can easily escape the screens in wastewater treatment plants and enter our Nation's lakes, rivers, and oceans. A study by the 5 Gyres Institute, an organization dedicated to research and advocacy on the issue of plastic pollution,

found high concentrations of plastic microbeads in samples pulled from Lake Erie. In some cases, they found that plastic microbeads outnumbered more than 450,000 per square kilometer, and this plastic does not belong in our Nation's waters, and certainly not in such extreme amounts.

This high concentration of plastic microbeads in our country's lakes and other bodies of water is cause for concern for a number of reasons. Particles this small often float on the surface of the water and can attract other pollutants that collect on the water's surface. If consumed by fish and other organisms, these chemicals accumulated on the surface and inherent in the plastic itself can then travel up the food chain, potentially being transferred to humans who consume fish, bivalves, and crustaceans.

I have serious concerns about fish and other aquatic life potentially ingesting these plastic particles and the effect this could have on humans who consume the fish. While many of us strive to eat local seafood caught by fishermen in our communities, we often eat seafood from other areas of the country. So, until a national standard is set, we can't be certain these particles are kept out of our Nation's waters and are not being accidentally consumed by fish harvested from other regions of the country.

Further, there have been anecdotal reports by dentists and dental hygienists of plastic microbeads from toothpaste being lodged in a patient's gumline, which could trap bacteria and lead to gingivitis. While no clinical study has demonstrated negative oral health effects, I remain concerned about the potential risk.

Last month, Chairman Upton and I introduced the Microbead-Free Waters Act of 2015, legislation that requires FDA to prohibit the sale or distribution of cosmetics containing synthetic plastic microbeads beginning January 1, 2018. I want to thank Chairman Upton for joining me in this effort. I look forward to working with him to move this bill forward. Our legislation, bills, and efforts are already moving forward in many States including the one by Senator Greenstein in our home State of New Jersey.

The legislation as it is currently drafted allows FDA to define a synthetic plastic microbead. The bill also does not currently address over-the-counter OTC drug products containing microbeads, of which toothpaste and acne creams are the most common examples. But I remain open to including these products in the legislation. However, also understand there are concerns about FDA requiring an 18-month stabilization period for reformulated OTC products, so it may be difficult to replace microbeads from these products on the same timeline.

So I hope to hear more about this potential challenge from our witnesses today. I want to commend companies, such as Proctor & Gamble, Johnson & Johnson, who have already begun proactively phasing out the use of plastic microbeads in their products, but I believe we must set a Federal standard that requires all companies selling cosmetics and personal care products to remove plastic microbeads from these goods. And that is why we have introduced this bill, to provide certainty at the Federal level that these polluting plastics will finally be removed from our face scrubs, soaps, and other personal care products.

So, Mr. Chairman, thanks again for holding this hearing. We have been able to come together on an issue to advance a common-sense solution that benefits our constituents and the environment. I don't know, Mr. Chairman, there are beginning to be so many bipartisan bills around this committee lately, I don't know what we are going to have to do. Maybe we should have a course for the rest of the Congress on how to act bipartisan.

Mr. PITTS. We are going to have to call this public health Congress, I think.

Mr. PALLONE. I yield back.

Mr. PITTS. All right, the chair thanks the gentleman.

That concludes the opening statements.

For the members, as always, any written opening statements will be made part of the record. We still have 397 Members who have not voted, so we are going to try to get through the opening statements of the witnesses. Let me introduce our panel, and they will speak in this order: Dr. Dan Wyant, director of Michigan Department of Environmental Quality; State Senator Linda Greenstein, from New Jersey legislature; Ms. Molly Flanagan from the Alliance for the Great Lakes; and Mr. John Hurson, executive vice president of government relations at the Personal Care Products Council.

Your written testimony will be made a part of the record. You will each be given 5 minutes to summarize your testimony. Thank you very much for coming today.

And, Mr. Wyant, we will begin with you. You are recognized for your opening statement.

STATEMENTS OF DAN WYANT, DIRECTOR, MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY; LINDA R. GREENSTEIN, STATE SENATOR, NEW JERSEY LEGISLATURE; MOLLY FLANAGAN, ALLIANCE FOR THE GREAT LAKES; AND JOHN HURSON, EXECUTIVE VICE PRESIDENT OF GOVERNMENT RELATIONS, PERSONAL CARE PRODUCTS COUNCIL

STATEMENT OF DAN WYANT

Mr. WYANT. Mr. Chairman, thank you—

Mr. PITTS. Make sure you press the button there. If the light is on, that is good.

Mr. WYANT. Mr. Chairman, and distinguished subcommittee members, thank you. I am Dan Wyant, and I am Director of the Michigan Department of Environmental Quality and I appreciate this opportunity to come before you today to speak on this important issue of microbeads.

With four out of the five Great Lakes, 6.5 million acres of wetlands, and over 11,000 inland lakes, water is fundamental to the way Michigan views its future. Michigan is surrounded by 20 percent of the world's fresh water, and so water is, quite simply, why people come to Michigan to live, work, and play.

Michigan has a long history, as Chairman Upton certainly knows and has talked about, heritage of being a leader in water conservation and protection issues, and so my testimony today is going to be very consistent with what I have heard all of you talk about already.

We have worked very hard in Michigan to protect and restore our Great Lakes, from our tough ballast water standards to the diligent implementation of the Compact Agreement that protects the Great Lakes from water diversions, to our regional leadership on the Great Lakes Commission, and the Council of Great Lakes Governors. Michigan has been at the table ready to work on environmental challenges of the day.

Keeping in line with that, stewardship responsibility entrusted to my department, our focused now is shifting to the emerging issue of plastic microbeads in our water. As has been stated and as you are aware, plastic microbeads are a commonly used abrasive agent in personal care products, such as facial cleansers and toothpaste. Recent studies have noted that microbeads can pass through wastewater treatment plants into our surface waters.

Microbeads were found in the Great Lakes surface waters during a number of studies, particularly in 2012, 2013. Plastic microparticles, of which microbeads are a subset, were detected in Lakes Erie, Huron, and Superior at a rate that is quite concerning, 43,000 per square foot per kilometer, and almost 10 times higher in samples collected in Lake Erie downstream of two major Ohio cities.

So the presence of microplastics in the Great Lakes is a concern because these constituent plastics may be entering the food chain after the plastics are consumed by fish and wildlife. In addition, toxic pollutants already present in the Great Lakes may bind to these pollutants and plastics, making them even more harmful. Recent laboratory studies have shown that microplastics have the potential to adversely affect fish and other aquatic organisms.

Legislation is being debated in Michigan in our House and our State Senate that would phase out over the next couple of years the production and sale of personal care products that use microbeads. The legislation before this subcommittee and the same legislation that is being debated in Michigan I believe is a common-sense first step to the phaseout of the use of microbeads in personal care products. Although microbeads comprise only a portion of the plastic pollution detected in the Great Lakes, microbeads are an easily controllable component of that pollution.

The simple phaseout of their use in beauty products would reduce the amount of plastics passing through our wastewater systems and reduce the potential harm to our fish and wildlife. It is important that we put into place a thoughtful but diligent phaseout of the harmful microbeads while allowing industry a path forward for new product development and use if they can demonstrate that their products would not have an adverse impact on the water and its biological life.

Just as we don't tolerate plastics littering our roadside, we should not allow plastics to taint our beautiful Great Lakes. We urge action on this issue. We welcome a national approach. We have many complex issues to solve in the Great Lakes throughout our Nation's waterways, including invasive species and nutrient loading, just to name two. Microbeads is a clear issue. It is a clear threat. And there is a clear simple answer. And we support the phaseout of microbeads and a Federal approach. And we in the State of Michigan will continue to work to be part of that solution.

Mr. Chairman, I appreciate this opportunity to come before the subcommittee and speak on behalf of the Department of Environmental Quality and, more broadly, the people of the State of Michigan. Michiganders love the Great Lakes. They expect strong leadership, and we want to recognize your leadership and the committee's leadership to address this issue. I appreciate being here, and I will be happy to take any questions that you may have.

[The prepared statement of Mr. Wyant follows:]



STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



Microbeads in the Great Lakes

Testimony Before the U.S. House of Representatives
Committee on Energy and Commerce, Subcommittee on Health
Michigan Department of Environmental Quality Director Dan Wyant
May 1, 2015

Good morning Chairman Pitts, Ranking Member Green, and Distinguished Subcommittee on Health members. Thank you for the opportunity to come before you today to speak on the important issue of microbeads in the Great Lakes. I'm Dan Wyant, Director of the Michigan Department of Environmental Quality.

With 4 out of the 5 Great Lakes, 6.5 million acres of wetlands, and over 11,000 inland lakes, water is fundamental to Michigan's way of life. We are surrounded by 20% of the world's fresh water. It is, quite simply, why people come to Michigan to live, work, and play.

Michigan has a long history of being a leader on water conservation and protection issues. Forty-two years ago, we took over the federally-delegated National Pollutant Discharge Elimination System permitting from the U.S. Environmental Protection Agency. A decade later, we took on the responsibility for the Wetlands Permitting

Program. With over 73 years of permitting, compliance, and enforcement, Michigan is modeling the way for other states to assume delegation of these programs.

Just as importantly, Michigan has always worked to protect and restore the Great Lakes. From our tough ballast water standards, to the diligent implementation of the Compact Agreement that protects the Great Lakes from water diversions, to our regional leadership with the Great Lakes Commission and the Council of Great Lakes Governors, Michigan has been at the table ready to work on the challenges of the day.

Keeping in line with the stewardship responsibility entrusted to my Department through Michigan's Constitution, our focus is now shifting to the emerging issues of plastic microbeads in our water.

As you are aware, plastic microbeads are commonly-used abrasive agents in personal care products, such as facial cleansers and toothpaste. Studies have noted that microbeads can pass through wastewater treatment plants into our surface waters. Microbeads were found in Great Lakes surface waters during a study in 2012 and 2013. Microplastic particles, of which microbeads are a subset, were detected in Lakes Erie, Huron, and Superior at a rate of 43,000 per square kilometer, and almost ten times higher in samples collected in Lake Erie downstream of two major Ohio cities. The presence of plastics in the Great Lakes is a concern because constituents of plastics may be entering the food chain after the plastics are consumed by fish and other wildlife. In addition, toxic pollutants already present in the Great Lakes may bind to

these plastics, making them even more harmful. Recent laboratory studies have shown that microplastics have the potential to adversely affect fish and other aquatic organisms.

Legislation is being debated in the Michigan House of Representatives and Senate that would phase out over the next couple of years the production and sale of personal care products that use microbeads. The legislation that is before this Subcommittee, and that is being debated in Michigan's Legislature, is a common sense first step to the phaseout of the use of microbeads in personal care products. Although microbeads comprise only a portion of the plastic pollution detected in the Great Lakes, microbeads are an easily controllable component of the pollution. The simple phaseout of their use in beauty products will reduce the amount of plastics passing through our wastewater systems and will reduce the potential to harm our fish and wildlife.

It is important that we put into place a thoughtful but diligent phaseout of the harmful microbeads, while allowing industry a path forward for new product development and use if they can demonstrate that their products will not have an adverse impact on the water and its biological life. Our Great Lakes freshwater system, and the life that abounds in it, are just too important to the people of this state, the region, and the nation to continue a practice that we now realize has the potential for adverse consequences. Just as we don't tolerate plastics littering our roadsides and filling our landfills, we should not allow plastics – of any size – to taint our beautiful Great Lakes.

We urge action on this issue. We welcome a national approach to the rapid phaseout of these additives as an important step. We have many complex issues to solve in the Great Lakes and throughout the nation's waterways, including invasive species and nutrient loadings to name but two. Microbeads is a clear issue and a clear threat to the fish and the biology of our great freshwater system – and it is an issue with a clear, simple answer. With no mechanism to process microbeads or capture them in wastewater treatment systems, they must be phased out. Without a clear federal approach, we will continue to pursue a state-specific approach as part of our clear obligation to Great Lakes stewardship as Illinois and Indiana have done this past year and other states are appropriately considering. While these state-specific measures will provide a baseline level of protection, the patchwork approach could leave key vulnerabilities for the Great Lakes system. A federal approach would ensure consistency throughout the system.

Again, I appreciate the opportunity to come before this Subcommittee to speak on behalf of the Michigan Department of Environmental Quality and, more broadly, the people of the state of Michigan. Michiganders love the Great Lakes, and they expect strong leadership on issues related to the lakes. I am happy to answer any questions you may have.

Mr. PITTS. The chair thanks the gentleman.

We are out of time on the clock on the floor, but we still have 297 people who have not voted, so we are going to continue.

And I will recognize Senator Greenstein, 5 minutes for opening statement.

STATEMENT OF LINDA R. GREENSTEIN

Ms. GREENSTEIN. Thank you very much, Chairman Pitts, Ranking Member Green, with greetings to Chairman Upton of the full committee and Ranking Member Pallone and members of the committee. Thank you for your invitation to be here today as you consider H.R. 1321, bipartisan Federal legislation that is aimed at stopping the entry into our waterways of billions of pieces of small bits of plastic known as microbeads, an effort that is similarly addressed under laws recently enacted in five States: New Jersey, Illinois, Colorado, Indiana, and Maine. I think in my testimony I said two. We were among the first two. There actually have very recently been three others, so five States.

Before I begin I would like to acknowledge my home State Congressman and a co-sponsor of H.R. 1321, Representative Frank Pallone, whose leadership on environmental issues is legendary in the Garden State and whose invitation to testify is the reason that I am here this morning.

Thank you, Congressman.

I mentioned a moment ago that New Jersey is one of five States that has adopted legislation outlawing the use of microbeads. They are used by the personal care products industry in everything from toothpaste to over-the-counter skin treatments and exfoliants like facial scrubs. The problem is that these plastics are so small and nonbiodegradable, and they escape catchment screens at our sewage plants and wind up by the billions in our water supplies.

These microplastics were recently found by research scientists, as you just heard, in all five of the Great Lakes, as well as in fish that make their homes in the Great Lakes and in fish-eating birds. These microbeads absorb toxins and so can be very dangerous to wildlife and ultimately to human beings. In New Jersey, two-thirds of our drinking water supply is drawn from local waterways like the Delaware or the Passaic Rivers. And so we, too, have our issues with microplastics. That is why, once their presence became known, we moved quickly to eliminate them through the bipartisan legislation that I co-authored. I would like to note that the bill passed unanimously in the New Jersey Senate and by an overwhelming margin in the Assembly.

And a funny thing happened on the way to this bill being signed into law in Trenton just 6 weeks ago. Groups that can often politely be called, quote, "at odds with each other" came together as one in agreement that these plastics should be eliminated from our waterways.

The Chemistry Council of New Jersey, in a position shared by the American Chemistry Council and member companies, joined with the Sierra Club and other environmental groups to support our legislative efforts. Also Johnson & Johnson, the Consumer Health Care Products Association, and the Personal Care Products Council were all together on this issue. And I think if they can do

it in New Jersey, they can do it everywhere else, and hopefully with a Federal law.

Like your efforts here in Congress, we also agree to give the personal care products industry time to adjust and to find alternatives to these plastics.

So the New Jersey bill uses a gradual approach to stepping down the production of these synthetic microbeads until they are completely off the market by January of 2020. It starts with the elimination of the tiny plastics from use in the manufacture of products beginning January 1, 2018, and then prohibiting the sale of such products after January 1, 2019. And, by January 1, 2020, no person shall sell an over-the-counter drug with microbeads.

The industry is already turning to natural alternatives, using crushed walnut shells, sea salt, and pumice stone, to produce the desired effect that the plastic microbead does. In our bill the penalty is \$500 for each offense. We did lower our penalties from the original ones that we had, and our Department of Environmental Protection commissioner can institute a civil action for injunctive relief. There is no private right of action. We took that out as well.

I appreciate the opportunity to appear today and will be available for any questions members may have, and I thank you, Chairman and members.

[The prepared statement of Ms. Greenstein follows:]

Senator Linda R. Greenstein’s Testimony on HR 1321 before the Subcommittee on Health, House Energy & Commerce Committee, hearing entitled “Examining Microbeads in Cosmetic Products”

Washington, D.C.

May 1, 2015

Chairman Upton, Ranking Member Pallone and Members of the Committee, thank you for your invitation to be here today as you consider *HR 1321*, bipartisan federal legislation that is aimed at stopping the entry into our waterways of billions of pieces of small bits of plastic known as “microbeads” ... an effort that is similarly addressed under laws recently enacted in two other states, my own New Jersey and Illinois.

Before I begin, I would like to acknowledge my home state Congressman and a co-sponsor with Chairman Upton of **HR 1321**, Representative Frank Pallone, whose leadership on environmental issues is legendary in our Garden State and whose invitation to testify is the reason I am here before you this morning. Thank you Congressman.

I mentioned a moment ago that New Jersey is one of two states in the nation that has adopted legislation outlawing the use of these microbeads. They’re used by the personal care products industry in everything from toothpaste to

over-the-counter skin treatments and exfoliants, like facial scrubs.

The problem is that these plastics are so small that they escape catchment screens at our sewage plants and wind up by the billions in our water supplies. As the Chairman is well aware, these microplastics were recently found by research scientists in all five of the Great Lakes as well as in fish that make their home in the Great Lakes and in fish-eating birds.

In New Jersey, much of our drinking water supply is drawn from local waterways like the Delaware or the Passaic rivers, and so we, too, have our issues with microplastics.

That's why once their presence became known, we moved quickly to eliminate them through the bi-partisan legislation that I co-authored. I'd like to note that the bill passed unanimously in the New Jersey Senate and by an overwhelming margin in the Assembly.

And a funny thing happened on the way to this bill being signed into law in Trenton just six weeks ago – groups that can often politely be called “at odds with each other” came together as one in agreement that these plastics should be eliminated from our waterways.

The Chemistry Council of New Jersey, in a position shared by the American Chemistry Council, and their member

companies joined with the Sierra Club and other environmental groups to support our legislative efforts.

But like your effort here in Congress, we also agreed to give the personal care products industry time to adjust and to find alternatives to the plastics now used in these products.

So the New Jersey bill uses a gradual approach to stepping down the production of these synthetic microbeads until they are completely off the market by January 2020. It starts with the elimination of the tiny plastics from use in the manufacture of personal care products beginning January 1st 2018 and then on to prohibiting the sale of such products after January 1st 2019. That's also when over-the-counter drugs using microbeads will be outlawed in New Jersey.

The industry is already turning to natural alternatives to the microbeads, using crushed walnut shells, sea salt and pumice stone, for example, to produce the desired effect that the plastic microbead does.

I appreciate the opportunity to appear today before the Committee and I'm available for any questions Members may have.

Thank you Mr. Chairman and thank you Members.

Mr. PITTS. The chair thanks the gentlelady.

We are voting, of course. We still have 185 Members who haven't voted. We are going to keep going. If you can abbreviate a little, I think we will make it through.

The chair recognizes Ms. Flanagan.

STATEMENT OF MOLLY FLANAGAN

Ms. FLANAGAN. Good morning. Chairman Pitts, Ranking Member Green, members of the committee, thank you for inviting me to appear today to address the threat that plastic microbeads pose to the Great Lakes. My name is Molly Flanagan. I am vice president of policy for the Alliance for the Great Lakes. For more than 40 years, the Alliance for the Great Lakes has been working to protect and restore the Great Lakes.

We have frontline experience with the impacts of debris on the Great Lakes because each year more than 14,000 of our volunteers show up to clean up Great Lakes' beaches through our Adopt-a-Beach program. The Alliance supports Federal efforts to remove plastic microbeads from consumer products. The extremely small size of plastic microbeads allows them to easily wash down drains, pass through sewer systems and then head directly into our Nation's waterways.

A study by the New York State Office of the Attorney General released in April 2015 detected microbeads in the effluent samples of 74 percent of the wastewater treatment plants participating in the study. Research by Dr. Sherri Mason of the State University of New York at Fredonia and Dr. Marcus Eriksen of the 5 Gyres Institute found microplastic fragments in each of the Great Lakes and throughout water column in concentrations that rival or surpass those found in the Nation's oceans. Plastic microbeads attract and accumulate toxic chemicals, such as PCBs and DDT, which are present in waters throughout the United States, including the Great Lakes.

An ongoing study of fish in the Great Lakes has shown plastic contamination in all 25 species that have been analyzed to date. You have the opportunity to stop this needless source of pollution by passing a Federal ban on the use of plastic microbeads. Continuing to allow plastic microbeads to enter the Great Lakes runs counter to our current protection and restoration efforts. Adding new sources of stress to the Lakes undermines the \$1.9 billion in Federal funding that have been spent in the last 5 years through the bipartisan Great Lakes Restoration Initiative. Needlessly sending billions of plastic microbeads into waters we are spending so much time, energy, and money restoring is simply irresponsible.

Microbeads can be found in over 100 personal care products, but it doesn't have to be that way because readily available alternatives existed. As noted by other speakers, a number of large companies in the cosmetic and personal care industry have voluntarily pledged to remove plastic microbeads from their products. We applaud these efforts. They are positive examples of good corporate stewardship. We also note that these voluntarily efforts have a variety of timelines for phaseout, may not include timelines at all, and do not consistently indicate what the company will use to replace microbeads. For example, the concept of marine biodegrad-

able microbeads has been brought up in a number of States as they have considered bans. Unfortunately, there are no national or international standards for the biodegradability of plastics in ambient water environments. Until peer-reviewed research or testing by the American Society for Testing and Materials can provide standards for the biodegradability of plastics in Great Lakes' water conditions, biodegradable plastics should not be exempt from a ban.

The Alliance believes that the right Federal regulatory approach can solve this problem. We urge Congress to pass a Federal ban on all forms of plastic microbeads in cosmetic and personal care products that, number one, charges the Food and Drug Administration with clearly defining plastic microbeads based on current scientific research and standards testing by authorities like the American Society for Testing and Materials.

Number two, if terms such as "synthetic" and "biodegradable" are used in statute or regulations with regard to microbeads, these terms must be clearly defined by the FDA to ensure that substances such as bioplastics are not excluded from biodegradability requirements.

And, number three, it should set a realistic and achievable timeline to phase out cosmetic and personal care products that contain microbeads, ideally beginning 1 year from the enactment of this legislation.

You have a great opportunity before you. We know that plastic microbeads are entering our waterways every day and that readily available alternatives exist. The Alliance for the Great Lakes and our supporters urge the United States Congress to pass a ban on the manufacture and sale of cosmetic and personal care products that contain all forms of plastic microbeads.

The Alliance thanks Congressmen Upton and Pallone for introducing H.R. 1321 and considering our comments. Chairman Pitts, Ranking Member Green, thank you for holding this hearing. I look forward to answering your questions.

[The prepared statement of Ms. Flanagan follows:]



**Written Testimony of Molly Flanagan, Vice President of Policy,
Alliance for the Great Lakes**

Examining Microbeads in Cosmetic Products

**Committee on Energy and Commerce
Subcommittee on Health
Hon. Joe Pitts, Chairman
Hon. Gene Green, Ranking Member**

May 1, 2015

Introduction

Chairman Pitts and Ranking Member Green, thank you for inviting me to appear before this subcommittee to address the threat posed to the Great Lakes by plastic microbeads. My name is Molly Flanagan, and I am the Vice President of Policy for the Alliance for the Great Lakes. For more than 40 years, the Alliance has worked to protect and restore the world's largest source of surface freshwater with our network of more than 15,000 supporters and volunteers. We are also a member of the governance board of the Healing Our Waters – Great Lakes Coalition, a coalition of more than 120 organizations that share a common goal of restoring our tremendous freshwater asset.

I am here today to support efforts to remove plastic microbeads from consumer products. The Alliance has front line experience with the impacts of debris on our Great Lakes. Over 14,000 of our volunteers are located in the Great Lakes region, working each year to clean up beaches and natural habitats through our Adopt-a-Beach™ program. Further, we have partnered with the National Oceanic and Atmospheric Administration on the creation and implementation of a regional marine debris reduction strategy for the Great Lakes. In 2014 alone, the Alliance for the

Examining Microbeads in Cosmetic Products
Statement of Molly Flanagan

Great Lakes' Adopt-a-Beach™ program collected over 50,000 pounds of trash and marine debris from the shores of the lakes. Research from the University of Waterloo and our own estimates based on the data collected by volunteers concludes that over 75% of the items collected are partially or fully comprised of plastic.

There is only so much we can do on the land to eliminate debris and pollution. A true solution to the plastic pollution problem must focus on the sources of plastic pollution. Recent research has shown that microplastics, including plastic microbeads, from personal care and cosmetic products, are present in high concentrations in the Great Lakes. You have the opportunity to stop this needless source of pollution by passing a federal ban on use of plastic microbeads.

Microplastics in the Great Lakes

Microplastics are plastic pieces smaller than 5 millimeters that are either intentionally manufactured to be small or a result of the fragmentation of larger plastic productsⁱ. Their presence is well documented in the world's oceans, but recent research on the Great Lakes shows concentrations that rival or surpass those found in the marine environment. In 2012, Dr. Sherri Mason of the State University of New York at Fredonia and Marcus Eriksen of the 5 Gyres Institute found microplastic fragments numbering more than 460,000 per square kilometer in Lake Erieⁱⁱ and in 2013, as many as 1.1 million per square kilometer in Lake Ontario.ⁱⁱⁱ In a separate study, researchers on the St. Lawrence River found high levels of microplastics present in sediment samples from the bottom of the St. Lawrence River, indicating that these tiny pieces of plastic move through the entire Great Lakes system and the entire water column.^{iv}

Further analysis concluded that fifty-eight percent of all microplastics smaller than 1 mm collected in the Great Lakes were spherical.^v These items were manufactured^{vi} for cosmetic and personal care products that use microbeads as abrasive or aesthetic additives. These products can contain up to 350,000 plastic microbeads per package.^{vii}

Examining Microbeads in Cosmetic Products
Statement of Molly Flanagan

The threat of plastic microbeads

Too small to be easily spotted and removed, plastic microbeads smaller than 5 mm in size do not appear to clutter beaches and foul shorelines as plastic bottles, cigarette butts or derelict fishing gear do, but they pose a pernicious problem. Plastic microbeads are composed of polypropylene (PP), polyethylene (PE), polyethylene terephthalate (PET), nylon or Poly(methyl) methacrylate (PMMA). These forms of plastic attract and accumulate hydrophobic toxic chemicals, such as polychlorinated biphenyls (PCBs), DDT, and polycyclic aromatic hydrocarbons (PAHs), which are unfortunately present in bodies of waters, including the Great Lakes. Plastic microbeads can be perceived as food and ingested by wildlife. An on-going study of fish within the Great Lakes has shown plastic contamination within all 25 species analyzed to-date. Not only does plastic ingested by wildlife directly impact nutritional intake by replacing food sources, it can also leach toxins accumulated on the plastic from the environment.^{viii}

The extremely small size of plastic microbeads allows them to easily wash down drains, through sewer systems, and directly into waterways. A study by the New York State Office of the Attorney General released in April 2015 detected microbeads in the effluent samples of 74% of the wastewater treatment plants participating in the study.^{ix} At a time of limited funding for wastewater treatment plants and other water infrastructure, the potential cost and time necessary to upgrade wastewater treatment plants with yet-to-be-developed technologies that could filter these plastic microbeads far outweighs the cost of preventing their introduction in the system by banning their use in cosmetic and personal care products.

The Great Lakes Cannot Absorb More Damage

Continuing to allow plastic microbeads to enter the Great Lakes when a solution is at hand runs counter to current protection efforts. Adding new sources of stress to the lakes undermines the \$1.9 billion in federal investments made to restore them over the last five years through the bipartisan Great Lakes Restoration Initiative. Congressional action and regional collaboration

Examining Microbeads in Cosmetic Products
Statement of Molly Flanagan

have helped a healthier Great Lakes support recreational fisheries for perch, black bass, walleye, lake trout, salmon, pike, steelhead, and others for millions of anglers that spent an estimated \$1.2 billion during Great Lakes fishing trips and \$1.3 billion on equipment for activities related to Great Lakes fishing.^x When you combine these direct expenditures with the more than 58,000 jobs they create, with salaries totaling \$2.1 billion, it adds up to a total impact of slightly more than \$7 billion in the entire U.S. economy.^{xi} The health of the Great Lakes is not immune to threats, new and old, including invasive species like Asian carp, harmful algal blooms caused by excessive nutrient runoff from farms and cities and habitat destruction. Needlessly sending billions of plastic microbeads into waters we are spending so much time, energy, and money restoring is simply irresponsible – we do not need to add a new threat to the Great Lakes.

Alternatives Are Available – We Can Solve This Problem

Plastic microbeads were patented in the early 1970s, but were not regularly used commercially until the 1990s. Today microbeads are found in over 100 products including facial wash, body wash, toothpaste and some over the counter drugs.^{xii} Prior to the use of plastic microbeads, many cosmetic and personal care products used abrasive beads derived from materials such as ground almonds, ground walnuts, cocoa beans, oatmeal and sea salt. These products exist in the same market as products that contain plastic microbeads at a similar price point and do not result in plastic particles polluting the Great Lakes.

A number of large companies in the cosmetic and personal care industry have voluntarily pledged to remove plastic microbeads from their products. We applaud these efforts as examples of good corporate stewardship. We also note that these voluntary efforts have a variety of timelines for phase out, may not have a timeline at all, and do not consistently indicate what the company will use to replace microbeads. For example, the concept of marine biodegradable plastic microbeads sounds encouraging at first take. Unfortunately, the only existing standard for marine biodegradability never applied to freshwater and has since been withdrawn for additional review since April 2014. There are no national or international

Examining Microbeads in Cosmetic Products
Statement of Molly Flanagan

standards for the biodegradability of plastics in ambient water environments. The industry's first job as good stewards of the Great Lakes must be to demonstrate that alternatives to plastic microbeads can truly and completely biodegrade, or mineralize, in the naturally occurring conditions of the Great Lakes and other water bodies. This should occur rapidly without creating harmful byproducts. Until peer-reviewed scientific research or testing by the American Society for Testing and Materials can provide standards for the biodegradability of plastics that confirm real biodegradability in Great Lakes water conditions, biodegradable plastics should not be exempt from a ban.

Recommendations

We are encouraged that several states, including Illinois, New Jersey, and Maine, have banned plastic microbeads in cosmetic and personal care products. Other states, including Indiana, Wisconsin, Michigan, New York and others, are currently working on bans. The Alliance believes that the right federal regulatory approach can solve this problem. To completely protect the Great Lakes and other water bodies in the United States from plastic microbeads, we urge Congress to pass a federal ban on all forms of plastic microbeads in cosmetic and personal care products that:

- 1. Charges the Food and Drug Administration (FDA) with clearly defining -plastic microbeads based on current scientific research and standards testing by authorities such as the American Society for Testing and Materials;*
- 2. If terms such as "synthetic" and "biodegradable" are used in statute and regulation with regard to microbeads, these terms should also be clearly defined by FDA to ensure that substances such as bioplastics are not excluded from biodegradability requirements, and that biodegradability occurs to mineralization in freshwater and marine environments;*

Examining Microbeads in Cosmetic Products
Statement of Molly Flanagan

3. *Sets a realistic and achievable timeline to phase out cosmetic and personal care products that contain plastic microbeads, beginning one year from the passage of this legislation; and*
4. *Ensures that any products marketed and labeled as biodegradable meet Federal Trade Commission standards as articulated in FTC "Green Guides" for environmental marketing claims.*

Conclusion

You have a great opportunity before you. We know that an unnecessary ingredient in some cosmetic and personal care products - plastic microbeads - is entering our waterways every day. We have a private sector that understands that the public demands products that do not pollute the Great Lakes and has the tools and knowledge in hand to replace plastic microbeads in products and avoid undermining our work to protect and restore the lakes.

The Alliance for the Great Lakes and our supporters urge the United States Congress to pass a ban on the manufacture and sale of cosmetic and personal care products that contain all forms of plastic microbeads. The Alliance thanks Congressmen Upton and Pallone for introducing this legislation and considering our comments. Representative Pitts and Ranking Member Green, thank you for holding this hearing. I look forward to assisting on any actions this subcommittee can take to support this effort.

Examining Microbeads in Cosmetic Products
Statement of Molly Flanagan

References

- ⁱ Arthur, C., J. Baker and H. Bamford (Eds). (2009). *Proceedings of the International Research Workshop on the Occurrence, Effects and Fate of Microplastic Marine Debris*. Sept 9-11, 2008. NOAA Technical Memorandum NOS-OR&R-3.
- ⁱⁱ M Erikson et al. "Microplastic pollution in the surface waters of the Laurentian Great Lakes." *Marine Pollution Bulletin* 77.1-2 (2013): 177-182. Available at: <http://www.sciencedirect.com/science/article/pii/S0025326X13006097>.
- ⁱⁱⁱ Casler, Andrew. "Water contamination brings A.G. microbead ban proposal." *The Ithaca Journal*, Feb 19, 2015. Available at <http://www.ithacajournal.com/story/news/local/2015/02/19/state-ag-proposes-microbead-ban/23674637/>
- ^{iv} Castañeda, R.A., Avlijas, S., Simard, M.A., and Ricciardi, A. (2014) "Microplastic pollution in St. Lawrence River Sediments," *Canadian Journal of Fisheries and Aquatic Sciences*, 71(12): 1767-1771.
- ^v Office of NYS AG Eric Schneiderman. "Unseen Threat: How Microbeads Threaten New York Waters, Wildlife, Health, and Environment." (2014) Available at http://ag.ny.gov/pdfs/Microbeads_Report_5_14_14.pdf
- ^{vi} Ibid.
- ^{vii} 5 Gyres Institute. "Microplastics in consumer products and in the marine environment" Position Paper, 2013. Available at http://5gyres.org/media/5_Gyres_Position_Paper_on_Microplastics.pdf
- 5 Gyres Institute. "Microplastics in consumer products and in the marine environment" Position Paper, 2013. Available at http://5gyres.org/media/5_Gyres_Position_Paper_on_Microplastics.pdf
- ^{viii} The National Oceanic and Atmospheric Association. (2011). *What We Know About: Plastic Marine Debris*. The National Oceanic and Atmospheric Association: Author. Retrieved from http://marinedebris.noaa.gov/sites/default/files/Gen_Plastichi_9-20-11_1.pdf
- ^{ix} Office of NYS AG Eric Schneiderman. "Discharging Microbeads to Our Waters: An Examination of Wastewater Treatment Plants in New York" (2015) Available at http://www.ag.ny.gov/pdfs/2015_Microbeads_Report_FINAL.pdf
- ^x Southwick Associates, *Sportfishing in America: An Economic Engine and Conservation Powerhouse*, American Sportfishing Association, Multistate Conservation Grant Program, 2007. Hereinafter cited as "Southwick Associates 2007."
- ^{xi} Congressional Research Service "Asian Carp and the Great Lakes Region". Available at <https://www.fas.org/sqp/crs/misc/R41082.pdf>
- ^{xii} Office of NYS AG Eric Schneiderman. "Unseen Threat: How Microbeads Threaten New York Waters, Wildlife, Health, and Environment." (2014) Available at http://ag.ny.gov/pdfs/Microbeads_Report_5_14_14.pdf

Mr. PITTS. The chair thanks the gentlelady.

We still have 89 Members that haven't voted. We are going to go to the last witness.

Mr. Hurson, you are recognized for 5 minutes for an opening statement.

STATEMENT OF JOHN HURSON

Mr. HURSON. Thank you, Mr. Chairman.

Chairman Pitts, Ranking Member Green, Chairman Upton, and Ranking Member Pallone and members of the committee. Thank you for the opportunity to testify in support of discontinuing the use of plastic microbeads in personal care cleansing products and specifically to address H.R. 1321, the Microbead-Free Waters Act. The Personal Care Products Council is the leading trade association, representing 600 large-, medium-, and small-sized companies that manufacture and distribute the vast majority of cosmetic and personal care products marketed in the U.S. As makers of a diverse range of products that consumers trust and rely on every day, from sunscreen, shampoo, and toothpaste to moisturizer, lipstick, and fragrance, personal care product companies are global leaders committed to safety, quality, and innovation.

The American cosmetics industry employs more than 2.8 million people nationwide with more than \$260 billion in global annual sales. Our industry is dynamic and continuously develops innovative products to meet consumer demands and expectations. Our member companies invest more than \$3.6 billion each year on scientific research and development. As a result of this research, 2,000 new products are launched each year, and numerous scientific studies are published on enhancing or developing new safety methods.

Equally important is that our industry shares a common interest with other stakeholders in protecting the environment, and our members take questions regarding the presence of microbeads in our waterways very seriously. Our industry has a longstanding commitment to the global environmental stewardship of its products.

Historically, plastic microbeads have been used in some personal care cleansing products because of their safe and effective exfoliating properties. These plastic beads have an excellent health and safety profile; do not present adverse effects, such as allergic reactions; are gentle on the skin, especially for consumers with sensitive skin conditions.

Over the last 5 years, numerous reports in the press and some scientific literature have indicated the occurrence of plastic microbeads in our oceans and lakes. It should be noted that the source of these plastic microbeads are varied and difficult to ascertain. These may include clothing fibers, boat paint particles, degrading plastic bags and plastic bottles, and personal care products. However, out of an abundance of caution and despite the absence of any peer-reviewed science on the contribution from personal care products to plastic microbeads in the aquatic environment, our member companies have committed to discontinuing formulating products with plastic microbeads in favor of other viable alternatives.

While we do support the discontinued use of plastic microbeads, it is important to recognize that product reformulation is an extremely complex process. Various and necessary steps include raw materials research and development; product testing and qualification to meet safety and regulatory requirements; manufacturing and postmarket surveillance for continual evaluation. This process takes many years. Furthermore, because of our commitment to the safety of our products, we must affirm that the alternative ingredient will not cause unintended consequences and will meet our consumers' safety and product needs.

In 2014, a wide range of environmental, government, and business stakeholders came together in the State of Illinois to negotiate legislation to phase out plastic microbeads. All stakeholders supported the bill, which passed both houses unanimously and was signed into law in June of last year. New Jersey, Maine, Indiana, and Colorado have enacted similar legislation. And the Council of State Governments, a bipartisan government organization of State government officials, has adopted the Illinois law as suggested model legislation. Our industry supports Federal plastic microbeads legislation establishing a national, uniform standard that provides certainty for both consumers and businesses by setting appropriate and pragmatic phaseout dates, appropriate definitions of synthetic plastic microbeads, and inclusion of over-the-counter drugs containing plastic microbeads.

It is especially important to carefully define synthetic plastic microbeads in the statute to avoid inadvertently prohibiting the use of natural alternatives and to make sure the prohibition provides clear direction to companies regarding reformulation. The dates for prohibition of manufacture and sell through of both personal care products and OTC products are also critical to assure a level playing field for both large and small companies as they reformulate. With the right policy framework, we can remain an innovative industry, providing our consumers with the safest, high-quality products they expect and deserve while also doing our role to continue to protect the environment.

Thank you again for the opportunity to be here today. On behalf of the members of the Personal Care Products Council, we look forward to working with the committee on this legislation.

[The prepared statement of Mr. Hurson follows:]

**TESTIMONY OF
John Hurson
Executive Vice President, Government Affairs
Personal Care Products Council
BEFORE THE U.S. HOUSE COMMITTEE ON ENERGY AND COMMERCE
May 1, 2015**

Chairman Pitts, Ranking Member Green, Chairman Upton, Ranking Member Pallone, and members of the Committee, thank you for the opportunity to testify in support of discontinuing the use of plastic microbeads in personal care cleansing products and specifically to address H.R. 1321, the Microbead-Free Waters Act.

The Personal Care Products Council is the leading trade association representing approximately 600 large, medium and small sized companies that manufacture and distribute the vast majority of cosmetic and personal care products marketed in the U.S. As makers of a diverse range of products that consumers trust and rely on every day, from sunscreen, shampoo and toothpaste to moisturizer, lipstick and fragrance, personal care products companies are global leaders committed to safety, quality and innovation.

The American cosmetics industry employs more than 2.8 million people nationwide with more than \$260 billion in global annual sales. Our industry is dynamic, and continuously develops innovative products to meet consumer demands and expectations. Our member companies invest more than \$3.6 billion each year on scientific research and development. As a result of this research, 2,000 new products are launched each year, and numerous scientific studies are published on enhancing or developing new safety methods.

Equally important, is that our industry shares a common interest with other stakeholders in protecting the environment, and our members take questions regarding the presence of microbeads in our waterways very seriously. Our industry has a long standing commitment to the global environmental stewardship of its products.

Historically, plastic microbeads have been used in some personal care cleansing products because of their safe and effective exfoliating properties. These plastic beads have an excellent health and safety profile, do not present adverse events such as allergic reactions, are gentle on the skin, especially for consumers with sensitive skin conditions, and are inert.

Over the last five years, numerous reports in the press and some scientific literature have indicated the occurrence of plastic microbeads in our oceans, lakes, and beaches. It should be noted that the sources of these plastic microbeads are varied and difficult to ascertain. These may include clothing fibers, boat paint particles, degrading plastic bags and bottles, in addition to personal care products. However, out of an abundance of caution and despite the absence of any peer-reviewed science on the contribution from personal care products to plastic microbeads in the aquatic environment, our member companies have committed to discontinue formulating products with plastic microbeads in favor of other viable alternatives.

While we do support the discontinued use of plastic microbeads, it is important to recognize that product reformulation is an extremely complex process. Various and necessary steps include raw materials research and development, product testing and qualification, ensuring that safety and regulatory requirements are met, manufacturing, and post market surveillance for continual evaluation – this can take many years. Furthermore, because of our commitment to the safety of

our products, we must ensure that the alternative ingredient will not cause unintended consequences and will meet our consumers' safety and product needs.

In 2014, a wide range of environmental, government and business stakeholders came together in the state of Illinois to negotiate legislation to phase out plastic microbeads. All stakeholders supported the bill, which passed both houses unanimously and was signed into law in June of last year. New Jersey, Maine, Indiana and Colorado have enacted similar legislation, and the Council of State Governments has adopted the Illinois law as suggested model legislation.

Our industry supports federal plastic microbeads legislation establishing a national uniform standard that provides certainty for both consumers and businesses, by setting appropriate and pragmatic phase out dates, appropriate definitions of synthetic plastic microbeads, and inclusion of over the counter drugs containing plastic microbeads.

It is especially important to carefully define synthetic plastic microbeads in the statute to avoid inadvertently prohibiting the use of natural alternatives and to make sure the prohibition provides clear direction to companies regarding reformulation. The dates for prohibition of manufacture and sell through of both personal care products and OTC products are also critical to assure a level playing field for both large and small companies as they reformulate.

With the right policy framework, we can remain an innovative industry providing our consumers with the safest, high quality products they expect and deserve while also doing our role to continue to protect the environment.

Thank you again for the opportunity to be here today. On behalf of the members of the Personal Care Products Council, we look forward to working with the Committee on this legislation.

Mr. PITTS. The chair thanks all the witnesses for their opening statements.

We will recess for about an hour. We have got a series of votes. So we will reconvene as soon as the last vote is taken for questioning of the witnesses. Thank you very much for your patience. This committee stands in recess.

[Recess.]

Mr. PITTS. All right. If the panel will take your seats, we will reconvene. The subcommittee will reconvene. And I thank the witnesses and everyone for their patience.

And I will begin questioning and recognize myself for 5 minutes for that purpose. And these are questions for all the panelists. So we will just go down the line.

So the first question is—many of the largest consumer product companies already have committed to phasing out the use of synthetic plastic microbeads under very aggressive timeframes.

The question is: What additional benefit would a Federal phase-out of microbeads provide? Will the market move away from the use of microbeads without Federal oversight?

Mr. Wyant.

Mr. WYANT. Mr. Chairman, thank you.

My opinion is that a Federal ban will ensure, essentially, elimination of a patchwork. States are moving quite aggressively, as has been pointed out. And, with that, there is going to be a number of approaches.

I do compliment the personal care products industry in recognizing that there is a phaseout voluntarily in place. But on both sides of that, it is just my opinion that you would get consistency, you would get uniformity, and you would close the vulnerability for those who were not phasing out. And that is why we would support a Federal approach.

Mr. PITTS. Senator Greenstein.

Ms. GREENSTEIN. Thank you, sir.

I agree that uniformity is going to be the major advantage, but even now we see some disagreements. The first few States like New Jersey that got in right on the ground floor didn't seem to have these disagreements. But an example that I was talking with some of my colleagues about is that there has been brought up the idea of biodegradable plastics.

So what we are going to have is that, as the industry moves forward, they will be saying, "Well, make an exception for the biodegradables," even though they don't really exist now, as I understand it, "Make other exceptions." And I think we are going to see a real patchwork, as you heard. I do agree with that.

So I think it is very important, especially on something like this where we do have a lot of buy-in from the industry, to see if we can get a Federal law. I think that would work best.

Mr. PITTS. Ms. Flanagan.

Ms. FLANAGAN. I also agree that a Federal law makes sense. I applaud the personal care industry for the great steps that they are already taking to phase out these products.

But it is not happening across the board. It is not happening on the same timeline, and they are not defining what will replace these microbeads in the same way.

So a Federal ban would give us consistency and ensure that all companies are removing plastic microbeads from their products. Thank you.

Mr. PITTS. Mr. Hurson, the question was—many of the largest consumer product companies already have committed to phasing out the use of synthetic plastic microbeads under very aggressive timeframes.

What additional benefit would a Federal phaseout of microbeads provide? And will the market move away from the use of microbeads without Federal oversight?

Mr. HURSON. I do think that the Federal approach is very, very important. First of all, you have a lot of States that have not yet taken action, and we need a Federal standard, a national standard, to cover all of those States.

And I think the consistency of having Federal legislation in terms of both the timing and the definitions is going to be extremely important and very helpful.

Mr. PITTS. OK. Let me continue with you. We will go back the other way.

Why is it important to carefully define synthetic plastic microbeads in the statute?

Mr. HURSON. It is important to define it in the statute for two reasons. First of all, it gives clarity to businesses as to how to reformulate them, what would be acceptable and not acceptable in the reformulation. And the second reason is because we want to get this done.

I mean, the problem with waiting by having a Federal agency have to look at this again, it will just take a lot of time, and I think we want to get this thing solved and done and have these banned by a certain date. So—

Mr. PITTS. OK. And we will go to Ms. Flanagan.

And I want to add one more question to that. Not only the importance of defining the microbeads in the statute, but why would adding a phaseout date be important, if you can respond, Ms. Flanagan?

Ms. FLANAGAN. Sure. So in terms of adding definitions, I think definitions could be included in statute or in regulation, but the importance of having careful definitions is so that industry does understand what is expected of them and so that we ensure that substances like bioplastics that may not be biodegradable aren't allowed. And what we are saying is that we just need to make sure that any standards and any definitions are based on current scientific research.

And then, in terms of phaseout periods, I think it is important to have phaseout periods in order to make sure that all industries are meeting the standards on the same timeframe.

Mr. PITTS. Senator Greenstein.

Ms. GREENSTEIN. Well, I will start with the phaseout dates. On the phaseout dates issue, in New Jersey, that was one of the places where we compromised. That was one of the places where the Governor in his conditional veto talked about the importance—he wanted lower fines because he didn't want people to go out of business, and he also wanted to give the industry a chance to adapt

to this and to do what they needed to do. We made sure that the dates were very reasonable.

I also think it is very important to define someplace, regulation or in the law—preferably in the law—exactly what we are talking about. So, in this case, I think definitions are critical. And the example I gave earlier about biodegradable and non-biodegradable products would be an example of where this is very important. We have to say what we are talking about so that industry is on notice.

Mr. PITTS. Mr. Wyant.

Mr. WYANT. I agree with clarity, consistency. And then the last point that you raise, I think it then encompasses and captures the entire, in our case, Great Lakes system.

Mr. PITTS. Thank you. My time is expired.

I now recognize the ranking member, Mr. Green. 5 minutes for questions.

Mr. GREEN. Ms. Flanagan, thank you for your testimony.

What currently are the known impacts of microbeads on our waterways and wildlife?

Ms. FLANAGAN. So we know that fish and wildlife mistake plastic microbeads as food. And so fish will eat microbeads instead of eating other food sources. They don't provide any nutrition and can accumulate both in the gut of the fish and get into the circulatory system.

And then, as larger predators eat those fish, those microbeads, which attract toxins like DDT and PCBs, get concentrated throughout the food chain, which could then cause harm to human beings who are eating those larger fish.

Mr. GREEN. Have microbeads been found to negatively impact human health? And to carry on what you just said, has it been—because I know in our area we have a dioxin problem in our waterway and obviously, the fish feed on it and humans catch those fish.

Is that the same thing in the Great Lakes, I assume?

Ms. FLANAGAN. I don't know the answer to that related to microbeads. I do know that fish, when they have PCBs or other contaminants concentrated in their tissue, that that does have an effect on human health, which is why we have fish consumption advisories in most Great Lakes waterways. I would imagine that plastic microbeads would work in much the same way, but I don't know for sure.

Mr. GREEN. Mr. Hurson, in regards to the Microbeads Free Waters Act, is the January 1, 2018, ban on the sale and distribution of microbeads contained in cosmetics a realistic time for the industry to reformulate the products?

Mr. HURSON. The January 1, 2018, in the model bills at a State level was a ban on manufacture, and then there is a year later for the ban on sale. That is sort of the compromise that we reached.

There has to be a period of sell-through. So the banning of the manufacture is one thing, but getting all the product off the shelves will probably take another year.

Mr. GREEN. OK. The legislation currently allows the FDA to define the term "synthetic plastic microbead." However, the States have already passed laws banning microbeads have included a specific definition of the term.

I understand that getting the definition right is important to ensure that all plastic microbeads are removed from products, but also to ensure that unintended consequences aren't caught in the definition.

Chemistry changes literally every day. And if we define it so fine, there is going to be someone who will change that and maybe have the same product that is just a little bit different.

How have the States dealt with that?

Sure, Senator.

Ms. GREENSTEIN. OK. It is true that we will have changes as the science develops. No question about that. But I think at this particular time we have to deal with what we do know.

There have been some recent studies. I know that, in 2012, there was a major study of the Great Lakes area and how that is being polluted by these microbeads. And there is also a study that I saw in the Tulane Environmental Law Journal that talks about the case for the ban.

And we have the definitions that we have right now. We know that the non-biodegradable plastic is the thing that we were aiming at in our definition. So—

Mr. GREEN. And I would hope the EPA would be cognizant of what the States have done on things that have worked and come up with a similar definition that you have.

Ms. GREENSTEIN. Well, we think that our definition was good. And I think the five States that have passed it have used similar definitions. So we are hoping that the Federal one would do that as well.

Mr. GREEN. Mr. Hurson, in your testimony, you noted that the cosmetic industry supports the inclusion of over-the-counter drugs containing microbeads in the Federal ban.

Would you elaborate on the concern about OTCs in microbeads?

Mr. HURSON. Yes. Be happy to do that.

The industry does support the inclusion of over-the-counter drugs that contain plastic microbeads. Those would be mostly toothpaste and, also, acne cream. Those are both products that are on the market that contain these beads, acne cream in particular because of the sensitivity of the skin, and that is why they were used.

But in order to get at all these products, we think those OTC products should be included. There is an issue related to regulation of OTCs different than the regulation of cosmetics. OTCs are regulated through an FDA monograph, and that requires certain additional types of testing of OTCs.

So in terms of reformulating, we think the OTCs need an additional year to get the ban in place and to get the product sell-through. So that is an issue related to FDA regulation.

Mr. GREEN. OK. Mr. Chairman, I am out of time. Thank you.

Mr. PITTS. Chair thanks the gentleman and now recognizes gentleman from New York, Mr. Collins. 5 minutes for questions.

Mr. COLLINS. Thank you very much.

As someone who has Lake Erie on the western end of my district and Lake Ontario on the northern end, certainly in Lake Erie the microbead issue is front and center right now. And our waterways are a major piece of our economy.

So my question is for Senate Greenstein. And you mentioned in your testimony that you agreed that it is—and we have all discussed this, I think—it is important to give the personal care products industry time to adjust to find alternatives, and I think we know why.

But on the record, could you go into a little bit more discussion on that. And what is the timeframe, knowing that the products are a little bit different?

Ms. GREENSTEIN. Well, what we did in our legislation is we had—I am just looking for the exact dates here.

On or after January 1, 2018, no person shall produce or manufacture in the State a personal care product containing synthetic plastic microbeads except at that point for an over-the-counter drug.

Then on the date of January 1, 2019, no person shall sell, offer for sale, or offer for promotion a personal care product with the synthetic plastic microbeads except for an OTC drug. And, finally, January 1, 2020, no sale, promotion, offer of an OTC drug.

So we had different dates for each of those, the production, the sale, the over-the-counter. It was just in discussions with these companies that they felt they needed this additional time.

Mr. COLLINS. Sure. So the good news for us in a way is seeing what New Jersey has done. In your discussions with the industry, they were comfortable that those timeframes were something they could live with.

And I have to assume, many of them, they are not going to make a product for New Jersey and a different product for everyone else, that by leading the way in New Jersey, they are going to be transitioning.

And I think a Federal law here does make a lot of sense, but I have to think common sense says they are going to make one kind of toothpaste and—

Ms. GREENSTEIN. Right. I think that is true except that, perhaps some of the industry would—although they have been starting on their own and trying to do this even before the law went into effect, I think they would scramble to some extent to find some different definitions, some product that perhaps they could do, that might be OK under our State law.

But if we had a good, uniform, comprehensive Federal law, I think it would guide them in how they should—

Mr. COLLINS. So what is going on in Europe? A lot of times on these types of issues we seem to see Europe would take a stance before us. Do they have standards now in Europe?

Ms. GREENSTEIN. Actually, you are right. They usually are ahead of us on some of these kinds of things. But on this, from the little bit that I have read about international standards, I think they don't have good standards on it, which is interesting.

Mr. COLLINS. Well, that is. So we would actually be setting the stage—

Ms. GREENSTEIN. I think we are, and I think we are on the forefront on this issue.

Mr. COLLINS. Yes. Well, I think—

Ms. GREENSTEIN. Usually that isn't the case on this type of thing.

Mr. COLLINS. No, it isn't. So, again, I am glad to see what New Jersey has done.

Ms. GREENSTEIN. Thank you.

Mr. COLLINS. It is a big issue, again, up in Lake Erie especially. So—

Ms. GREENSTEIN. I know it is.

Mr. COLLINS. That is all I have got, Chairman. I yield back.

Mr. PITTS. Chair thanks the gentleman and now recognizes the ranking member of the full committee, Mr. Pallone. 5 minutes for questions.

Mr. PALLONE. Thank you, Mr. Chairman.

I wanted to try to get in a question of Mr. Hurson and then to Senator Greenstein.

So, Mr. Hurson, first, I wanted to focus a bit on the prevalence of the natural biodegradable alternatives to plastic microbeads.

I know that many companies are transitioning away from plastic to natural exfoliants, like the walnut shell powder, and I am pleased to see that trend, coupled with proactive commitments from major companies like P&G and J&J to phase out plastic microbeads in their products.

But I think it is important for us to pass this legislation to ensure that all companies manufacturing and selling personal care products in the U.S. Phase out these plastic ingredients.

So could I ask you if you could tell me what actions your member companies are taking to transition to natural biodegradable exfoliants. I know you talked about this a little, but—

Mr. HURSON. Thank you.

The industry is actively doing research and trying to find the right kinds of raw materials that they could substitute and that have the same effectiveness. That is an ongoing practice right now.

This industry is always reformulating products. It is sort of how it does business because they always want new things on the market. So it is an active industry in terms of reformulating and trying to get it right.

But it does take time to both source the materials, make sure they are effective, that they are effective for what the consumers want. So that is actually happening now, all that resourcing.

Mr. PALLONE. And in transitioning to natural exfoliants, do you think it is going to be particularly burdensome or cause the companies to be unable bring effective products to market?

Mr. HURSON. It is obviously going to be difficult and it takes time, but it is not something these companies can't do. They are experts at reformulating. That is what they do every year. There are 2,000 new products a year. So they can do it, but it will take some time.

It is not a simple thing where you just pull out one ingredient and put in another. It actually takes a lot of research and testing and time to get it done. So it is happening now, and it will happen and they will do it.

Mr. PALLONE. All right. Thank you.

Let me go back to my friend here, the Senator. I would like you to discuss—I know you talked about the New Jersey law. And obviously, you have done a great job in getting this passed.

But can you tell me briefly about—well, I know you have kind of gotten into this already, but just give me a little more information about the bipartisan nature of this in New Jersey and how industry and environmental groups came together to support the bill.

Ms. GREENSTEIN. Well, it was really a combination. It was bipartisan on a political level. Everybody joined in, and there was not a single partisan aspect to the passage of the bill. Everybody became part of it.

I think I said it passed the Senate unanimously and almost unanimously in the Assembly. I think some people were just absent. So it definitely had bipartisan support, and not everything does.

But in addition to that, we had the support of groups that normally don't get together on the same bill. So we had the Sierra Club and then we had all of the industry, the chemistry industry and the personal products and all of the different parts of the industry who would really lose money, in a sense, by moving to this new formulation, but, nevertheless, felt this was the right direction to go.

And this is the direction that we are going and they felt that push and everybody got together on it. So I think it would be great if everything were that way. Unfortunately, everything isn't. But this bill certainly moved in that—

Mr. PALLONE. Well, there has been a lot of it around here lately, I have to say.

Ms. GREENSTEIN. I tell you, that is great.

Mr. PALLONE. Now, of course, you know, you said that we should have a national standard, and there was a recent study released by the New York Office of the Attorney General that detected microbeads in samples from 25 of 34 wastewater treatment plants that were surveyed in New York.

Given that New Jersey and New York share many of the same waterways, does that concern you? And again, if you wanted to talk again about the need for a national standard, I think most people are aware of it, but certainly we are acutely aware of the fact that, being a small State and sharing waterways with New York and Pennsylvania, you know, that we can't just do things on our own.

Ms. GREENSTEIN. Well, I actually did see that study, and I noticed that several of the waterways would be ones that we would share. So, yes, we are all affected by what goes on in the States around us and sometimes several States away.

And that study did concern me, along with several other studies that I looked at. And there have been quite a few since the year 2012 and more and more, starting with the Great Lakes and working up to areas like ours in New York.

So what was the second part of the question?

Mr. PALLONE. Yes. You answered it. Thank you.

Ms. GREENSTEIN. That essentially, I think, is extremely important and the need for the national standard, as you heard from, I think, all of us here, uniformity, definitely, making it all clear to the industry so they know which direction to go.

There is no point in having 50 different laws, and it seems like we are moving that way. Because just in a very short period of

time, three new laws were signed. And there are a bunch on governors' desks, and pretty soon we will have 50 different laws.

I think it would behoove us to have a Federal law that makes it very clear to the industry where we are going.

Mr. PALLONE. Thank you.

Ms. GREENSTEIN. Thank you.

Mr. PALLONE. Thanks for being here.

Mr. PITTS. The chair thanks the gentleman.

Mr. PALLONE. Oh, Mr. Chairman.

Mr. PITTS. Yes.

Mr. PALLONE. Can I just ask unanimous consent to enter into the record a letter from 5 Gyres, which I mentioned in my opening statement, and also from the Surfrider Foundation on this issue?

Mr. PITTS. All right. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. PITTS. And I have a unanimous consent request from the American Chemistry Council submitted by Mr. Shimkus to be put into the record. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. PITTS. The chair recognizes the vice chair of the subcommittee, Mr. Guthrie, 5 minutes for questions.

Mr. GUTHRIE. Thank the chairman for yielding.

I appreciate all of you being here today. And I have a question to all of the panelists. I would like to address this going down the line, I guess.

Wasn't there microbeads that are used in other industries that are contributing to this problem? But I would like to hear from each of you why you think eliminating the use in personal care products will be a profound start to correcting the problem.

If you will just start, Mr. Wyant.

Mr. WYANT. There are other plastics, clearly, but this is, I think, a practical, commonsense solution. More science could come to bear on this, but what we do know is we are accumulating microbeads in the Great Lakes, and we have a great concern about that.

We now know their bio-accumulative effects when wildlife consumes microbeads, and we know that has the potential of human health impact over time.

So we just think it makes common sense and it is the right thing to do. Phasing out, I think, is the, again, win-win that we look forward to, consistency, uniformity, and then no loopholes in the system. And that is why we support it.

Mr. GUTHRIE. I am going to continue on down the line because I want to get to a couple other questions.

But specifically why in personal care products? I don't understand the issue with microbeads, why you think it would be a profound difference to do it in just personal care products when other industries do it.

Ms. GREENSTEIN. I am going to assume that personal care products would be the main area where we get the microbeads. Now, certainly there are other kinds of plastics that come from many different sources. All of the articles I read focused on microbeads. That is personal care. But, frankly, I think we do need to go beyond it.

One of the things that really either impressed or depressed me, depending on how you look at it, was these large—I guess they call them garbage patches—in both the North Atlantic and the Great Pacific, which are not just microbeads, but they have relatively high concentrations of certain kinds of plastics and chemical sludge because these mix together. And there are enormous patches just, I guess, under the surface of the water in both of our oceans.

So we definitely are polluting with manmade products. I think, frankly, we should look beyond just microbeads, but microbeads go with personal care products. So that is what we are focusing on right now. But we have to look at the other plastic and other chemical pollution that is going into our oceans.

Mr. GUTHRIE. OK. I will just go on to Ms. Flanagan.

But my understanding, though—and I will just go on to Ms. Flanagan—is that microbeads that are personal care products aren't just in personal care products. They are in—I understand there is other plastics.

So, Ms. Flanagan.

Ms. FLANAGAN. Yes. There are other sources of microplastics. From my understanding, it can come off of certain types of fleece or other microfibers. So you can get microplastics that aren't necessarily spherical.

I do think plastic microbeads are a good place to start. In the study that I referenced during my testimony by Dr. Sherri Mason of the State University of New York at Fredonia and Dr. Marcus Eriksen of the 5 Gyres Institute, when they surveyed the Great Lakes and looked at microplastics, 58 percent of all the microplastics that were smaller than 1 millimeter collected in the Great Lakes were spherical.

So you are not going to tackle the entire microplastics issue by getting at microbeads, but you are going to be addressing a significant chunk of it.

Mr. GUTHRIE. Oh, thank you.

And Mr. Hurson.

Mr. HURSON. It is a very good question.

There is not any reliable scientific information at this point as to the sourcing of microbeads, but it is very clear they are used in personal care products. So we are committed to getting them out of personal care products.

That is the simple answer to your question, which is we know they are in our products. We want to get out of them. Our companies are already reformulating out.

But since there isn't any definitive science study at the moment as to the sourcing of all the microbeads that are out there in the environment—there are other industries that use them.

So it is a great question. But at least we can start here, and we think it is smart to start with a national standard and a very clear idea of what we are trying to get at.

Mr. GUTHRIE. So, Mr. Hurson, just continuing, should over-the-counter products be included in this legislation? And what are the requirements for the over-the-counter for just regular cosmetic products?

Mr. HURSON. As an industry, we do support the inclusion of over-the-counter products like toothpaste and acne cream that do have

microbeads. It does mean that we have to look a little bit more carefully at the time lines because, because of the way those products are regulated by FDA, there is additional testing that has to be done.

So when you reformulate those products, you literally have to spend 18 months—you put the new formulation—put it on the shelf. It is called stabilization testing. You have to make sure that the new ingredient doesn't in some way affect the active ingredients in an over-the-counter drug, and that is why you need more time to reformulate in that product category.

Mr. GUTHRIE. OK. In your previous answer, you said that microbeads are from other industries, that nobody knows exactly where the ones collecting are from, but you recognize they are in your products; so, if we want to address the problem, if you are contributing to it, addressing it by getting microbeads out your products.

What ingredients are companies using to replace these products? I mean, what is the replacement for that?

Mr. HURSON. We are looking for all kinds of natural ingredients that could replace it. You have things like salt, sugar, ground-up walnut shells, ground-up apricot pits.

But when you think about manufacturing these products, first of all, you have to source them. You know, you have to find a place to buy those and supply those ingredients, and that could be tricky as the entire industry moves at the same time. It might be hard to source them.

And then the other thing is you have to recalculate and redo your manufacturing processes because you are going to have a different reaction in trying to put that particular ingredient into the products. You might have different machinery that you need.

So it does take time to actually get this done. But it is the natural things that we are trying to find that would give us the same scrub type of effect in exfoliating.

Mr. GUTHRIE. Well, thank you.

And this is an issue that I am learning more about and didn't really understand it until we started focusing on it through this committee.

And that is what this process is for and why your testimony is important. And, hopefully, we will work into a solution because I understand there is a real problem we need to address. So thank you very much.

And I yield back.

Mr. PITTS. The chair thanks the gentleman and now recognize the gentlelady from Illinois, Ms. Schakowsky. 5 minutes for questions.

Ms. SCHAKOWSKY. Thank you.

I would like to continue along those lines talking about the various products that we want to get off the market.

So, Mr. Hurson, you said in your testimony that the Personal Care Products Council supports the discontinued use of plastic microbeads, in general. And I am not quoting, but you made kind of a general statement.

So you do support a ban that applies both to personal care products and to over-the-counter drugs like acne? And you were talking

about how much longer it might take for those. But you do support that?

Mr. HURSON. Yes, we do.

Ms. SCHAKOWSKY. OK. Thank you very much.

I wanted to ask Ms. Flanagan a question. And, first of all, let me just say I am very proud that Illinois was the first.

And congratulations, Representative Greenstein—for New Jersey following.

And all this has happened pretty quickly. Five States now have laws, and many more are considering it because clearly it is viewed as a serious hazard.

So I am trying to get a sense of just how critical this is in the Great Lakes, an estimate for how—not exactly how many microbeads. But how present is it in the lakes right now?

Ms. FLANAGAN. Sure. So microbeads have been found in all of the Great Lakes and throughout the water column and in concentrations that rival or surpass the concentrations of microbeads found in the oceans. So it is a pretty critical problem in the Great Lakes region, and it is a problem throughout all of the lakes and even into the St. Lawrence River.

And then, of course, the issue is that fish throughout the region mistake these microbeads for food and can concentrate toxins up the food chain. And so, there are a number of critical issues facing the Great Lakes: invasive species, nutrient problems. Microbeads are just one of them.

You are spending a lot of money through the Great Lakes Restoration Initiative to address those issues. Thank you for that. And I think that avoiding this needless additional threat to the Great Lakes makes a lot of sense.

Ms. SCHAKOWSKY. So clearly it ought to be a priority to get Great Lakes States involved in banning them.

Ms. FLANAGAN. Yes. Absolutely. I think, if the Federal Government can come to agreement on standards and regulation that will ensure that plastic microbeads are out of personal care products, that that would be a good solution.

Aside a Federal ban, then, yes. Having the Great Lakes States act collectively would be important for—

Ms. SCHAKOWSKY. Yes. Of course, if there were a Federal ban.

But then what about internationally? Has Canada made any moves?

Ms. FLANAGAN. I just got an update from a colleague in Canada. They do not have bans now. But the Province of Ontario is learning more about this problem and considering taking action, and in Ottawa the Federal Government has also, I think, approved some additional study of the issue. So additional work is certainly needed on both sides of the border.

Ms. SCHAKOWSKY. I think one of you had testified earlier that it is not really a danger to human beings. Obviously, I guess, if it is external, that is true.

Is that the case?

Ms. GREENSTEIN. Well, I think I might have said earlier, when it comes to dangers to the environment, that is pretty much documented at this point. Dangerous to water. Dangerous to animals. And, of course, that goes up the food chain.

But actual studies of human health and how it is affected, there really is not a lot of scientific study of that yet. I think we are moving in that direction. But right at the moment, if you said pick out a study that shows the dangers to human health, I don't think we quite have that yet.

Ms. SCHAKOWSKY. Toothpaste. Clearly, if you are brushing your teeth, the chances are great that you swallow those.

Ms. GREENSTEIN. The chances are great.

Ms. SCHAKOWSKY. And so it would seem to me, if we are concerned about the fish and up the food chain, that that would be an area that we would want to look at.

Anybody else want to comment on that?

Ms. FLANAGAN. I would just agree with you that, the fact that we know fish are eating these microbeads, that they are concentrating up the food chain, that they even could pose a risk to human health, is enough of a reason to get them out of the Great Lakes and out of our waterways.

Ms. SCHAKOWSKY. And, finally, again for Mr. Hurson, so tell me what the Council is doing in terms of educating its members.

Oh, I am sorry, Mr. Chairman. I see I am over time. Can he answer that?

Mr. HURSON. I would be happy to answer it.

The Council has been very active in this area at the State level. We were the ones who were part of the negotiations in your State when Illinois passed the first bill.

And we also took the Illinois bill to the Council of State Governments to get it as model legislation to be recommended to all the States, and that is one of the reasons you have had three additional States, besides Illinois and New Jersey, pass it this year. It is under consideration in at least 10 to 15 more States right now.

So we are very active in advocating the banning of these microbeads in personal care products and certain over-the-counter products. We also are very active in the science side, trying to get more information about how the flow does work in our wastewater treatment plants, as well as trying to educate internationally, both in Europe and in Canada, trying to get them to understand how important it is to get these ingredients out of these products.

Ms. SCHAKOWSKY. Thank you for that.

I yield back.

Mr. PITTS. Chair thanks the gentlelady and now recognize the gentleman from New Jersey, Mr. Lance. 5 minutes for questions.

Mr. LANCE. Thank you, Mr. Chairman.

It is an honor to meet you, Ms. Flanagan, and, Mr. Wyant. And I have worked in the past with Mr. Hurson.

But on the panel the person I know best is Senator Greenstein. The Senator and I served together in the lower house of the New Jersey Legislature, the General Assembly, and then in the upper house of the New Jersey Legislature, the State Senate, and the Senator is familiar with Washington, having graduated from Georgetown Law School. And I see Mr. Greenstein in the audience as well.

I guess I would want to know, Linda, who was absent in the Assembly and didn't vote for your bill.

Ms. GREENSTEIN. We will be checking that out.

Mr. LANCE. I hope it is not my two members of the General Assembly.

Let me first ask, Mr. Wyant. I understand before your distinguished tenure at the Department of Environmental Quality in Michigan you were also the director of the Department of Agriculture for both a Republican and a Democratic governor.

Is there an interplay between agricultural matters and environmental protection on this issue?

Mr. WYANT. I wouldn't say necessarily on this issue. Michigan's perspective is—clearly we know microbeads are making it into the Great Lakes and the Michigan waters. Clearly we know, when we test wastewater treatment facilities, we discover microbeads.

And then we can draw the natural conclusion and issue—the relationship with agriculture and nutrient-loading and water quality issues is quite apparent. And so there are other significant nexuses.

And so I guess I would add in close with the fact that the fact that we do get, in some cases, toxins, not necessarily agriculture-related, you know, we know that, again, big industrial States have legacy issues. That is our concern.

Mr. LANCE. Thank you.

And to Senator Greenstein, as I understand the New Jersey legislation, you crafted it in such a way that it was a model based also on what has happened in Illinois.

Could you explain to the committee why the phaseout period was designed the way it was and, also, the importance of providing an adequate timeframe for compliance.

Ms. GREENSTEIN. Yes. I believe in some earlier versions of the bill we may have had a little bit of a tighter timeframe.

But in the Governor's conditional veto, the two things he was very concerned about was adequate time for the industry—so we needed to spread that out a bit—and he was also concerned that the fines were too—we were going up to like \$10,000. So we brought it to \$500. And, also, we had included a private right of action. He wanted that out as well.

So we went along with everything he said because we wanted the bill to pass and we thought it was still a very good bill, even with those changes.

Mr. LANCE. Thank you.

As a matter of information to the committee, in New Jersey, the Governor of our State has the power to modify legislation that reaches his desk. And that modification is then sent back to both houses of the State legislature, and both houses have the opportunity to agree with the Governor's modifications by simple majority. And that is a way in which the two elected branches in New Jersey work together.

And I certainly commend all of those involved in New Jersey, including, in particular, my friend, Senator Greenstein.

Mr. Chairman, I yield back the balance of my time.

Mr. PITTS. Chair thanks the gentleman.

Just one question.

Clarification. In the material, we read of glass microbeads as well. This legislation only applies to plastic microbeads.

Are you familiar with microbeads which are glass? Are they utilized? Are there any dangers with that, Mr. Hurson?

Mr. HURSON. Mr. Chairman, I am not aware of glass microbeads being used in our products. I think one of the alternatives that people are looking at would be like a pumice stone type of microbead. But I am not aware that they are researching looking at glass.

Mr. PITTS. Ms. Flanagan?

Ms. FLANAGAN. I am not familiar with glass microbeads. I am not saying they don't exist, but I am not familiar with them.

Mr. PITTS. Senator?

Ms. GREENSTEIN. Also have not read anything about that. And the only thing that I can think of is maybe for decorative purposes. But they wouldn't be used in these kinds of products because glass in toothpaste—let's hope that doesn't happen.

Mr. PITTS. Hope not.

Mr. Wyant.

Mr. WYANT. I am not aware of any issues as it relates to glass.

Mr. PITTS. All right. I think the other members who were here are at another hearing. I apologize for that.

We will have follow-up questions. If we submit them to you in writing, would you please respond promptly? Thank you.

And I remind members that they have 10 business days to submit the questions for the record. And members should submit their questions by the close of business on Friday, May the 15th.

Very interesting hearing. We intend to act on it. Thank you very much for your patience today and all the good information you provided to the committee.

At this time, without objection, the subcommittee is adjourned.

[Whereupon, at 11:34 a.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]



Date: April 28, 2015

Dear Representative Pitts and Honorable Members of the Committee,

We submit our testimony in support of legislation to keep plastic microbeads out of our waterways, from the drain to the ocean. In 2012 we published our findings of microbeads in the Great Lakes¹, and most recently we published the first global estimate of microplastic pollution worldwide². This science shows that plastic pollution, specifically microplastics in our global waters, is an issue of growing ecological concern, and underscores the importance of responsible oversight of the use of plastics in personal care products.

The scientific community understands the lifecycle of microbeads:

- Normal use of facial cleansers and toothpastes wash microbeads down the drain.
- Typical waste treatment facilities are not capable of keeping all microbeads out of US waterways.
- Microbeads, and other microplastics, do not degrade, absorb toxins, and have been ingested by marine life, including game fish harvested for food.

Although many companies, including Procter & Gamble, Johnson & Johnson and Unilever have announced their own phase-outs, we all agree that this legislation will level the playing field. Our primary objective is to keep all plastics out of our lakes, rivers, and oceans – including biodegradable plastics. Efforts to allow exemptions for biodegradable plastics are problematic, unless these alternatives can be shown to break down completely before entering our waterways.

Our solution is simple.

- Microplastic and microbeads do not belong in personal care products.
- Any alternative to plastic microbeads must degrade fully before it enters any aquatic environment.

The scientific community would like to see our legislators utilize the best science available to protect our natural resources. The continued use of plastic microbeads in consumer products, or the use of PLA or other alternatives that are non-biodegradable in our waterways, will perpetuate this critical environmental issue, putting additional ecological stress upon our precious marine and aquatic resources.


Marcus Eriksen, PhD
Director of Research

¹ Eriksen, M., S. Mason, S. Wilson, C. Box, A. Zellers, W. Edwards, H. Farley, and S. Amato. 2013. Microplastic pollution in the surface waters of the Laurentian Great Lakes. *Marine Pollution Bulletin* 77(1-2):177-182.

² Eriksen, M., L. C. M. Lebreton, H. S. Carson, M. Thiel, C. J. Moore, J. C. Borerro, F. Galgani, P. G. Ryan, J. Reisser. 2014. Plastic pollution in the world's oceans: more than 5 trillion plastic pieces weighing over 250,000 tons afloat at sea. *PLoS ONE* 9(12): e111913



April 30, 2015

Committee on Energy & Commerce
 U.S. House of Representatives
 2125 Rayburn House Office Building
 Washington, DC 20515
 VIA FACSIMILE (202) 225-2927

Re: Support for Microbead-Free Waters Act H.R. 1321

Dear Chairman Upton and Committee Members:

Surfrider Foundation is a non-profit 501(c)(3) organization that is dedicated to the protection and enjoyment of oceans, waves and beaches through a powerful activists network. We represent over 250,000 supporters, activists and members nationwide who care about the conservation of our coasts and oceans. We are submitting this letter to indicate our support for H.R. 1321 Microbead-Free Waters Act of 2015 by Rep. Pallone (D-NJ) and Rep. Fred Upton (R-MI), which prohibits sale of personal care products with synthetic plastic microbeads, which can enter our wastewater system and directly impact waterways and coastal waters.

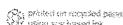
Microplastic particles are found in all oceanic gyres, bays, gulfs and seas worldwide. Plastic does not biodegrade into elements or compounds commonly found in nature like other organic materials, but instead, photodegrades into smaller pieces of plastic causing land and water pollution that is virtually impossible to remediate. Plastic consumption by marine life can lead to intestinal clogging and starvation, and fish can become contaminated by the plastic's absorbed toxins, which bioaccumulate up the food chain negatively impacting animals who feed on fish, including humans. These toxins pose serious threats to humans and wildlife that consume them.

Surfrider Foundation is supportive of the bill as written; however, we do want to caution against any amendment that would allow for a "biodegradability" exception. There must not be an exemption for "biodegradable" plastics, as such products do not actually exist. Plastics claimed to be biodegradable do not actually biodegrade into benign substances, but to break down into smaller pieces that exacerbate the plastic pollution problem. Further, as with traditional plastics, "biodegradable" plastics contain chemical additives that may be unknown and additionally dangerous. Any such exemption creates a loophole for the microplastics-using industry, which will render any attempts to mitigate the foregoing problems utterly futile.

Surfrider Foundation thanks the Committee for its consideration of federal actions to address marine plastic pollution. We support this bill as an effort to protect our waters from microbead pollution and keep our nation's valuable natural resources safe for generations to come.

Sincerely,

Angela T. Howe, Esq.
 Legal Director
 Surfrider Foundation



Global Headquarters P.O. Box 8010 San Clemente, California USA 92674-6010
 tel: (949) 492 8170 fax: (949) 492 8142 email: info@surfrider.org www.surfrider.org





American Chemistry Council Statement for the Record

**Examining Plastic Microbeads in Personal Care Products
Submitted to House Energy and Commerce Committee
Subcommittee on Health**

May 1, 2015

Introduction

The American Chemistry Council (ACC) welcomes the opportunity to work with Chairman Fred Upton and Ranking Member Frank Pallone to develop consensus legislation that would phase out plastic microbeads that are used to exfoliate or cleanse in rinse-off personal care products. We join many environmentalists and personal care product manufacturers who also support this legislation.

American Chemistry Council and Plastic Microbeads in Personal Care Products

The Plastics Division of ACC represents the producers of raw materials used to create a wide variety of plastic products that help make our lives better, healthier and safer -- from lightweight and resource-efficient packaging that keeps our food safer and fresher than ever before; to energy-saving cars, buildings and appliances; to the cell phones that keep us connected. While we know that plastics provide many important benefits to modern life, we agree that they do not belong in lakes, oceans or other waterways.

For several years we have actively engaged in education, research and campaigns to reduce the environmental impact of plastics. ACC and America's plastics makers have helped lead the development of our industry's 'Global Declaration on Solutions for Marine Litter,' which has been signed by more than 60 plastics associations in 34 countries. Designed to keep plastics out of our oceans and waterways, this initiative has empowered our industry to implement more than 185 projects to reduce marine debris.

Consistent with this position, ACC actively supported legislation in Illinois, New Jersey, Maine and other states. These bills were thoughtfully and deliberately constructed to prevent plastic microbeads in personal care products from entering waterways.

We support a consistent national approach to this issue, and we believe such an effort would benefit the environment, as well as plastics producers and consumers. We are prepared to support federal legislation based on the consensus-based policy models that have been developed and enacted in New Jersey and Illinois following two years of careful debate.



We look forward to working with Chairman Upton and Ranking Member Pallone, as well as all the members of the House Energy and Commerce Committee and its Health Subcommittee, to advance solutions that benefit our environment.

Conclusion

Given the importance of protecting the environment, we support federal legislation based on the strong actions taken in New Jersey and Illinois to phase out plastic microbeads that are used to exfoliate or cleanse in rinse-off personal care products.

If you have any questions about ACC's positions, please contact Booth Jameson at Booth_Jameson@americanchemistry.com

The American Chemistry Council (ACC) represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing. The business of chemistry is an \$812 billion enterprise and a key element of the nation's economy. It is the nation's largest exporter, accounting for twelve percent of all U.S. exports. Chemistry companies are among the nation's largest energy consumers.



FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Minority (202) 225-2927
Minority (202) 225-3541

May 20, 2015

Mr. Dan Wyant
Director
Michigan Department of Environmental Quality
P.O. Box 30473
Lansing, MI 48909

Dear Mr. Wyant:

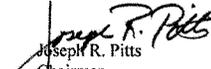
Thank you for appearing before the Subcommittee on Health on May 1, 2015, to testify at the hearing entitled "Examining Microbeads in Cosmetic Products."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on June 3, 2015. Your responses should be mailed to Graham Pittman, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to graham.pittman@mail.house.gov

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Gene Green, Ranking Member, Subcommittee on Health

Attachment



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

June 2, 2015

VIA E-MAIL AND U.S. MAIL

The Honorable Joseph R. Pitts
United States House of Representatives
Washington, DC 20515

Dear Representative Pitts:

Thank you for your letter of May 20, 2015, in which you provided additional questions from United States Representatives Susan Brooks and G. K. Butterfield concerning my testimony to the Subcommittee on Health at the May 1, 2015, hearing entitled "Examining Microbeads in Cosmetic Products." Enclosed are responses to those questions.

If you need further information or assistance, please contact Mr. William Creal, Chief, Water Resources Division, at 517-284-5470; crealw@michigan.gov; or Michigan Department of Environmental Quality (MDEQ), P.O. Box 30458, Lansing, Michigan 48909-7958; or you may contact me.

Sincerely,

Dan Wyant
Director
517-284-6700

Enclosure

cc/enc: United States Representative Gene Green
Mr. Graham Pittman, United States House of Representatives
Mr. Bill McBride, Governor's Washington Office
Mr. Eric Brown, Governor's Washington Office
Mr. Jim Sygo, Chief Deputy Director, MDEQ
Ms. Madhu R. Anderson, Deputy Director, MDEQ
Ms. Maggie Pallone, Director of Legislative Affairs, MDEQ
Mr. William Creal, MDEQ
Ms. Kimberly Fish, MDEQ

Enclosure
Additional Questions for the Record

The following are answers to additional questions for the record posed by United States Representatives Susan Brooks and G. K. Butterfield in response to the May 1, 2015, testimony provided by Michigan Department of Environmental Quality Director Dan Wyant to the Subcommittee on Health.

United States Representative Susan Brooks

- 1. Are microbeads having different impacts on different parts of the country or are microbeads having a blanket impact on all U.S. waterways? Are there certain states where this is more problematic than others?**

Microbeads are expected to be present in waterways throughout the United States because the majority of wastewater treatment plants are unable to remove these small pieces of plastic prior to discharge. Research is currently determining the potential impacts of these microbeads on human health and the environment.

- 2. States are very active on this issue; can you all please provide insight on the state legislation currently pending? Are there a lot of different standards being put in place? If so, what are the primary differences in the legislation?**

Illinois was the first state to successfully pass a statewide ban on the manufacture and sale of personal care products containing microbeads. We are aware of at least eight other states where similar legislation has been proposed or passed. Four different bills have been introduced in Michigan. The most substantive difference in the proposed legislation is whether "biodegradable plastics" are exempt from the ban.

- 3. How would you define cosmetic plastic microbeads so that you don't unintentionally include other natural components?**

Recent proposed legislation in Michigan defines plastic as "a synthetic material made from linking monomers through a chemical reaction to create an organic polymer chain that can be molded or extruded at high heat into various solid forms retaining their defined shapes during their life cycle and after disposal." The word "synthetic" implies that it is made by humans so it would not apply to natural components.

United States Representative G. K. Butterfield**1. Are there any estimates about what proportion of microbeads in the Great Lakes are due to personal care products and what proportion are from other sources?**

The microbeads found in personal care products are almost always less than 1 millimeter (mm) in size. The study that originally quantified the amount of microplastic pollution in the Great Lakes determined that 81 percent of the plastic particles collected were less than 1 mm in size. Pellets (i.e., microbeads) made up 58 percent of the plastic particles that were less than 1 mm in size.

2. What are the other sources of microbeads, other than personal care products?

No information was found on other significant sources of microbeads in surface waters. The study that originally identified large quantities of microbeads in the Great Lakes compared the microbeads they found to microbeads that were isolated from two national brands of facial cleansers and determined they were similar in shape, size, color, and elemental composition.

A report by the Minnesota Pollution Control Agency stated that "Some microbeads found in the environment are preproduction, meaning they spilled during transportation or manufacturing and made their way into surface water without first having been incorporated into a product. Microbead plastic powders are used to make many different plastic products, as well as [in] printing and coatings. Other microbeads are used in various kinds of polishes and cleaning products, including personal care products."

It is noteworthy that personal care products, like facial cleansers and toothpaste, are the only sources of microbeads where it is presumed that the microbeads will be discharged down drains.

3. What has been the cost to the state of Michigan in attempting to clean up the microbeads?

Since no attempt has been made to clean up microbeads in the environment, there have been no costs to the state of Michigan.

4. Is reducing the use of microbeads more cost effective than more stringently filtering drinking water?

Preventing the use of microbeads in personal care products would be much more cost-effective than upgrading drinking water or wastewater treatment systems. We are unaware of any studies that have estimated the cost of upgrading drinking and wastewater treatment systems to screen out microbeads. However, the state of

New York determined that 403 of 610 wastewater treatment plants have no advanced treatment systems that would effectively remove microbeads. The remaining wastewater treatment plants had some sort of advanced treatment systems, but New York was not certain whether these treatment systems would effectively remove microbeads. Even though New York could not estimate the cost of upgrading all of their wastewater treatment systems, the sheer number of treatment systems that would need to be upgraded implies that this approach would be cost-prohibitive.

Proposing to modify treatment systems to remove microbeads would be illogical given that many of the manufacturers of personal care products are voluntarily removing microbeads from their products.

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

May 20, 2015

The Honorable Linda R. Greenstein
Senator
New Jersey Senate
1249 South River Road
Suite 105
Cranbury, NJ 08512

Dear Senator Greenstein:

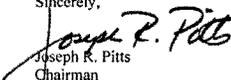
Thank you for appearing before the Subcommittee on Health on May 1, 2015, to testify at the hearing entitled "Examining Microbeads in Cosmetic Products."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on June 3, 2015. Your responses should be mailed to Graham Pittman, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to graham.pittman@mail.house.gov

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Gene Green, Ranking Member, Subcommittee on Health

Attachment

Attachment —Additional Questions for the Record

The Honorable Representative Brooks

1. Are microbeads having different impacts on different parts of the country or are microbeads having a blanket impact on all U.S. waterways? Are there certain states where this is more problematic than others?
2. States are very active on this issue; can you all please provide insight on the state legislation currently pending? Are there a lot of different standards being put in place? If, so what are the primary differences in the legislation?

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115

Majority (202) 225-2937
Minority (202) 225-2641

May 20, 2015

Ms. Molly M. Flanagan
Vice President, Policy
Alliance for the Great Lakes
150 North Michigan Avenue
Suite 700
Chicago, IL 60601

Dear Ms. Flanagan:

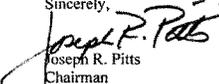
Thank you for appearing before the Subcommittee on Health on May 1, 2015, to testify at the hearing entitled "Examining Microbeads in Cosmetic Products."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on June 3, 2015. Your responses should be mailed to Graham Pittman, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to graham.pittman@mail.house.gov

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Gene Green, Ranking Member, Subcommittee on Health

Attachment



June 1, 2015

Chairman Joseph R. Pitts
Subcommittee on Health
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Pitts:

Thank you for the opportunity to testify before the Subcommittee on Health on May 1, 2015 at the hearing entitled, "Examining Microbeads in Cosmetic Products."

Attached please find answers to the questions submitted to me by Representative Brooks.

The Alliance for the Great Lakes looks forward to working with you and members of the committee on this issue.

Sincerely,

Molly M. Flanagan
Vice President, Policy

The Honorable Representative Brooks:

Question 1: Are microbeads having different impacts on different parts of the country or are microbeads having a blanket impact on all U.S. waterways? Are there certain states where this is more problematic than others?

Because this is a relatively new area of inquiry among the scientific community, there have only been a few investigations documenting the prevalence of microbeads in aquatic environments. These include surface waters of the Great Lakes and San Francisco Bay, sediments in the St. Lawrence River and Lake Ontario, and effluent discharged by wastewater treatment facilities in the state of New York. Currently there are studies underway looking at 29 of the rivers that feed the Great Lakes.

The studies in the Great Lakes¹⁻³ included open water surveys in Lakes Superior, Huron, Michigan, Erie and Ontario. Sampling of water near the shore also occurred in Lakes Superior, Huron, Erie, and St. Clair. All samples contained high counts of microplastic particles including microbeads. The data identified microbeads in all five lakes with abundance up to 450,000 particles/km². In January 2015, scientists sampled nine different locations in the San Francisco Bay. Preliminary results suggest that some sampling sites had as many as 440,000 particles/km².⁴ Researchers also detected microbeads in the sediments of the St. Lawrence River in 8 out of 10 sampling sites along a 320 km stretch of the river. The highest reported density was 1.4X10¹¹ microbeads/km².⁵ For the river systems, so far samples from only 7 sites have been analyzed, and report maximum abundance of 502,000 particles/km².⁶

In the state of New York, in addition to sampling conducted in Lakes Erie and Ontario, a study evaluated whether waste water treatment systems were able to remove microbeads from the wastewater stream. Among 610 facilities in the state, 403 do not have advanced filtration or tertiary screens installed suggesting that these facilities are not able to capture microbeads and prevent them from entering the receiving waters.⁷ Yet, even facilities with advanced treatment allow microbeads to pass through. Samples from 34 facilities across the state were tested for microbeads and microbeads were found in samples from 25 of them, some with advanced treatment technologies.⁸ These facilities discharge to waterbodies that include the Lake Erie and Ontario, the Finger Lakes, Lake Champlain, Hudson River, Mohawk River, Delaware River, Long Island Sound, and the Atlantic Ocean. Even though data has not been collected in other waterways aside from the ones mentioned above, existing evidence suggests that microbeads enter the environment through wastewater and therefore are likely ubiquitous in waterways across the U.S.

1. Hare, M., Edwards, W. & Mason, S. Plastic Microdebris in the Lower Great Lakes. in

150 N. Michigan Ave. • Suite 700 • Chicago, Illinois 60601 • (312) 939-0838 • alliance@greatlakes.org • www.greatlakes.org

Buffalo • Chicago • Cleveland • Detroit • Grand Haven • Milwaukee

2. Eriksen, M. *et al.* Microplastic pollution in the surface waters of the Laurentian Great Lakes. *Mar. Pollut. Bull.* 77, 177–182 (2013).
3. BOEHM, G.D., VIAL, B.S., HALPERIN, S.E., CABLE, R. & DUHAIME, M.B. Great Lakes' Microplastics: Developing novel methods of microplastic extraction and quantification. in
4. Paul Rogers. Plastic pollution: California lawmakers to vote on banning 'microbeads' from personal care products. *San Jose Mercury News* (2015). at <http://www.mercurynews.com/science/ci_28136071/plastic-pollution-california-lawmakers-vote-banning-microbeads-from>
5. Castañeda, R. A., Avlijas, S., Simard, M. A. & Ricciardi, A. Microplastic pollution in St. Lawrence River sediments. *Can. J. Fish. Aquat. Sci.* 1–5 (2014). doi:10.1139/cjfas-2014-0281
6. BALDWIN, A.K., CORSI, S.R., MASON, S.A. & LENAHER, P.L. Microplastics in Great Lakes Tributaries. in
7. *Unseen Threat: How Microbeads Harm New York Waters, Wildlife, Health And Environment.* (Office of New York State Attorney General, 2014). at <http://ag.ny.gov/pdfs/Microbeads_Report_5_14_14.pdf>
8. *Discharging Microbeads to Our Waters: An Examination of Wastewater Treatment Plants in New York.* (Office of New York State Attorney General, 2015). at <http://www.ag.ny.gov/pdfs/2015_Microbeads_Report_FINAL.pdf>

Question 2: States are very active on this issue; can you all please provide insight on state legislation currently pending? Are there a lot of different standards being put in place? If so, what are the primary differences in the legislation?

In 2014, New York became the first state to introduce legislation to ban the production and sale of personal care products containing plastic microbeads. Since then, twenty-two states have taken some level of legislative action. At this time, six states (Colorado, Illinois, Indiana, Maine, Maryland, and New Jersey) have passed legislation in both chambers of their state legislatures that has been signed into law by their governors. Sixteen additional states (Arizona, California, Connecticut, Hawaii, Massachusetts, Michigan, Minnesota, New York, Oregon, North Carolina, Iowa, Rhode Island, Texas, Utah, Vermont, Washington, and Wisconsin) currently have legislation that has been introduced, has been passed by one chamber of the state legislature, or has multiple bills under consideration. This leaves over half (28 states) that do not currently have active legislative to address the ecological impact of plastic microbeads in personal care products. Four states (Mississippi, Ohio, Virginia, and Wyoming) introduced bills last session that did not make it out of committee and do not currently have bills pending.

For the twenty-eight states that have passed or are considering legislation, there are differences in how 'plastic microbeads' are defined and the timelines that are put in place to phase out plastic microbeads in the products. To develop their definitions, states have considered three elements of a microbead: size, composition, and use. All of the states that have passed or are considering legislation have defined the size of plastic microbeads as 5 mm or less. Size, however, is the only area of the definition that is consistent across the states. When considering the composition of a plastic microbead, there is more variation.

One main difference in legislation is the concept of biodegradability. Six states (IL, MD, ME, IN, CO, NJ) which have passed legislation and seven states (AZ, TX, RI, VT, NC, WI, WA) which are considering legislation have defined plastic microbeads as 'nonbiodegradable' plastic microbeads. Five states (CA, CT, IA, MI, OR) that are considering legislation have not differentiated between biodegradable and nonbiodegradable, however, and have defined plastic microbeads as any form of plastic less than 5 mm in a personal care product. Finally, four states (HI, MA, MN, NY) have different definitions in their house and senate, with one specifying biodegradability and the other house not.

For the states that have defined plastic microbeads as nonbiodegradable, there is variation in the definition of biodegradability. Of the six states that have passed legislation, Maryland is the only state to clearly define biodegradability as something "that is capable of decomposing back into natural elements: 1) in a natural environment, including a marine environment or 2) in wastewater treatment plan processes, in accordance with relevant established guidelines of ASTM International, Organization for Economic Co-Operation and Development, or comparable

organizations or authority recognized by this department.”ⁱⁱ The other five states did not define biodegradability in their bills. Of the seven states that are considering legislation, three states (NC, RI, VT) have defined biodegradability as “the capability of a substance to break down completely in the natural environment that the substance is likely to encounter within 24 months of its disposal, through a biological process of decomposition into elements or compounds commonly found in that environment.”ⁱⁱⁱ Finally, as stated above, a number of states (CA, CT, IA, MI, OR) have legislation that would ban all forms of plastic microbeads, both nonbiodegradable and biodegradable, so there is no need to define biodegradability in their bills. If terms like biodegradable or nonbiodegradable are included in state or federal legislation, the Alliance for the Great Lakes supports defining these terms to ensure that any substitutions for plastic microbeads break down in natural marine and freshwater environments in a reasonable timeframe. We do not want to replace plastic microbeads with something that we discover has the same problems as plastic microbeads a few years from now.

Another area of variation in the definition of a microbead concerns the use of the plastic microbead. All of the legislation, either enacted or proposed, aim to address plastic microbeads that are added intentionally but several bills specify microbeads that are “used to exfoliate or cleanse in a rinse-off product”. While a seemingly small variation, this clause in the definition does not address plastic microbeads used in products that are not designed to exfoliate or be rinsed off such as toothpaste.

In contrast to the variations in definitions, the timelines for phasing out products that continue plastic microbeads are more consistent across most states. The majority of legislation proposes an end to the manufacture of these products (except for over the counter drugs) by December 21, 2017 or January 1, 2018, an end to the sale of these products (except for over the counter drugs) and an end to the manufacture of over the drugs by December 21, 2018 or January 1, 2019, and an end to the sale of personal care products, including over the counter drugs, by December 21, 2019 or January 1, 2020. New York, however, has proposed legislation in their assembly and senate that would ban all forms of plastic microbeads in personal care and over the counter products by January 1, 2016.ⁱⁱⁱ

In conclusion, the variety of definitions for biodegradability and for the use of personal care products as well as the potential for different phase timelines could create a confusing patchwork of standards across the country. Additionally, the twenty-eight states that do not have active legislation or have yet to take action could allow plastic microbeads to still harm the water, ecosystems, and communities of state’s that have enacted legislation to ban these products.

ⁱ<http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=billpage&tab=subject3&id=hb0216&stab=01&vs=2015RS>

ⁱⁱ <http://www.ncleg.net/gascripts/BillLookUp/BillLookUp.pl?BillID=H629&Session=2015>

ⁱⁱⁱ <http://open.nysenate.gov/legislation/bill/A5896-2015>

150 N. Michigan Ave. • Suite 700 • Chicago, Illinois 60601 • (312) 939-0838 • alliance@greatlakes.org • www.greatlakes.org

Buffalo • Chicago • Cleveland • Detroit • Grand Haven • Milwaukee

FRED UPTON, MICHIGAN
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-2927
Minority (202) 225-3641

May 20, 2015

Mr. John Hurson
Executive Vice President, Government Affairs
Personal Care Products Council
1620 L Street, N.W.
Suite 1200
Washington, D.C. 20036

Dear Mr. Hurson:

Thank you for appearing before the Subcommittee on Health on May 1, 2015, to testify at the hearing entitled "Examining Microbeads in Cosmetic Products."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on June 3, 2015. Your responses should be mailed to Graham Pittman, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to graham.pittman@mail.house.gov

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,


Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Gene Green, Ranking Member, Subcommittee on Health

Attachment

Representative Brooks Q1: Are microbeads having different impacts on different parts of the country or are microbeads having a blanket impact on all U.S. waterways? Are there certain states where this is more problematic than others?

A: While comprehensive data do not exist today to determine if microbeads are occurring in all U.S. waterways, it is likely that the potential presence of microbeads is different across the country and coming from a variety of sources. This may be due to several possible causes:

- Waterways that have facilities that manufacture microbeads alongside them will likely have higher concentrations of microbeads (at least prior to waste water treatment facility removal).
- Different water treatment facilities across the country have different removal capabilities, and thus could result in different levels of microbeads in the environment.
- It's unclear what contribution various sources of microbeads have in the aquatic environment. However, if any microbeads are coming from rinse off consumer products, waterways near high population areas would be expected to have higher levels of microbeads going into waste water treatment facilities.

Representative Butterfield Q1: What is involved in the process of reformulation and what is the cost to companies to reformulate?

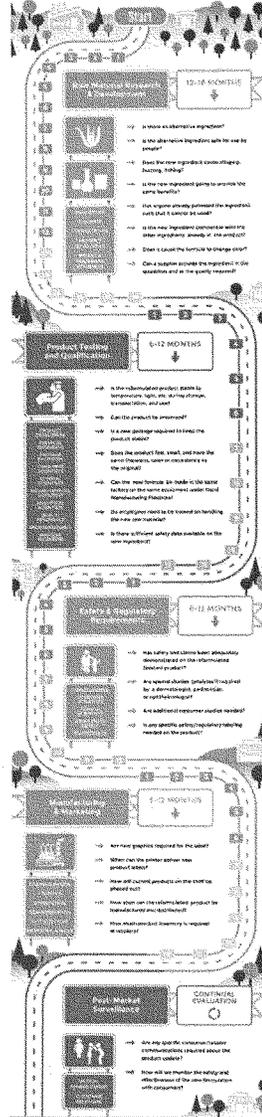
A: When product reformulation is necessary, it is very complex, time-consuming and expensive. It is not a matter of simply switching out one ingredient for a different ingredient. A lot of questions need to be answered by many experts before an updated product can go to market. The process typically involves:

- Research & development to identify, test and qualify a replacement ingredient
- Efficacy/effectiveness consumer testing and qualification of the reformulated product containing the new ingredient
- Meeting safety and regulatory requirements for the new ingredient and product
- Scale-up and qualification of new manufacturing process, distribution, etc. (i.e. supply chain issues)

The following infographic helps to explain the complicated process of product reformulation.

THE ROAD TO REFORMULATING PERSONAL CARE PRODUCTS

Why does it take so long to reformulate a personal care product? A lot of questions need to be answered by a lot of experts before an updated product can go to market.



Representative Butterfield Q2: What amount of time does the industry need to phase out the use of microbeads?

A: Illinois was the first state to ban the use of synthetic plastic microbeads in personal care products. The effective dates ban the manufacture of products effective December 31, 2017 and ban the sale of products containing microbeads effective December 31, 2018. An additional year is provided for over-the-counter drugs, as these products follow a different FDA regulatory scheme.

This timeframe ensures manufacturers of all sizes have adequate time to reformulate with alternative ingredients that are safe for consumers, the environment and meet all requirements of the Federal Food, Drug and Cosmetic Act.

Representative Butterfield Q3: What steps have some in your industry already taken to address the inclusion of microbeads in products?

A: Plastic microbeads are used in cosmetic and personal care products because of their safe and effective exfoliating properties. However, despite the absence of any peer-reviewed science on the contribution from personal care products of plastic microbeads in the aquatic environment, and out of an abundance of caution, many personal care products companies have voluntarily committed to discontinue formulating with plastic microbeads in cleansing products in favor of other viable alternatives.

Representative Butterfield Q4: Is the industry united in asking for a federal solution?

A: The nation's personal care products companies are pleased to support efforts that demonstrate our longstanding commitment to the global stewardship of their products. We urge policy makers to work with all sectors of the business community as they seek to eliminate plastic waste in our waterways and to identify effective and realistic solutions that consider the existing and emerging science as it becomes available.

Our industry, NGOs and various other stakeholders worked collaboratively in 2014 to pass landmark legislation in Illinois banning microbeads from cleansing and rinse-off personal care products. Shortly thereafter, the Council of State Governments approved model legislation – based on the success in Illinois – banning microbeads in personal care products, and accepted it as “Suggested State Legislation” in order to help officials in other states shape public policy on this issue. Our preference is to advocate for similar legislation to be enacted throughout the United States (i.e., a federal approach). This would avoid a patchwork of potentially different regulations across the states.