



# CATTARAUGUS COUNTY BOARD OF HEALTH



**Public Health**  
Prevent. Promote. Protect.  
**Cattaraugus County**  
Health Department  
Established 1923

1 Leo Moss Drive, Olean, NY 14760, Tel. (716)373-8050, Fax (716) 701-3737

*Joseph Bohan, MD, President*

*Giles Hamlin, MD, Vice-President*

*Zahid Chohan, MD*  
*Sondra Fox, RN*  
*Richard Haberer*  
*Theresa Raftis*  
*David L Smith*  
*James Snyder*

## MINUTES

October 7, 2015

The 840<sup>th</sup> meeting of the Cattaraugus County Board of Health was held at The Point Restaurant, 800 East State Street, Olean, New York on October 7, 2015.

The following members were present:

Dr. Joseph Bohan	Richard Haberer
Dr. Zahid Chohan	Theresa Raftis
Dr. Giles Hamlin	David Smith
Sondra Fox, RN	James Snyder

Also present were:

Kevin D. Watkins, MD, MPH, Public Health Director  
Mark Howden, County Attorney  
Linda Edstrom, County Legislator  
Paula Stockman, County Legislator  
Donna Vickman, County Legislator  
Gilbert Witte, MD, Medical Director  
Dave Porter, Hearing Officer  
Kathy Ellis, Administrative Officer  
Raymond Jordan, Sr. Public Health Sanitarian  
Debra Lacher, Secretary to Public Health Director  
Eric Wohlers, Director of Environmental Health  
Rick Miller, Olean Times Herald

The meeting was called to order by Dr. Bohan. The roll was called and a quorum declared.

Mr. Haberer made a motion to approve the minutes of the Board of Health (BOH) meeting held on September 2, 2015, it was seconded by Ms. Raftis, and unanimously approved.

Mrs. Fox made a motion to approve the minutes of the Professional Advisory meeting held on July 15, 2015, seconded by Ms. Raftis and unanimously approved.

Dr. Bohan welcomed Board member David L. Smith, Middle School Principal of the Gowanda Central School district to his first meeting. He stated that Mr. Smith is a graduate of Buffalo State College, he completed his graduate work at St. Bonaventure University and he is a member of multiple health care associations. He added that his background will make him a valuable asset to the Board with his specific knowledge involving today's youth and health challenges within our community.

The nominating committee, which consisted of Sondra Fox and Theresa Raftis, presented their nomination of Dr. Giles Hamlin, for the vacant Vice President position on the Board. A motion was made by Mr. Snyder, seconded by Dr. Chohan and the motion was unanimously approved.

**DIRECTORS REPORT:** Dr. Watkins congratulated Dr. Hamlin on his appointment as Vice President. Dr. Watkins reported that the Center of Disease Control and Prevention (CDC) has taken measures to ensure that this year's influenza vaccine is more effective than last year. He stated that in 2014 CDC reported that the influenza vaccine was less than 23% effective because there was one strand circulating in the public, an influenza A H3N2 viral strain, that mutated from the influenza A H3N2 strain that made up part of the 2014 influenza vaccine. He went on to say that studies have shown that 5-20% of the United States population become sick with the flu each year, and a number of associated influenza deaths from respiratory and circulatory causes range from a low of 3,350 to a high of 48,000 deaths each year. Therefore the single best way to prevent flu is to get a flu vaccination each fall. He added, that everyone 6 months of age and older should be vaccinated against the flu. Dr. Watkins informed the Board that high risk individuals for serious flu complications include adults who are 50 years of age and older, especially those who are 65 or older, and children younger than 5, especially children younger than 2 years of age. He stated that people with certain health conditions are strongly recommended to be vaccinated; those with chronic lung disease, heart disease, blood disorders, kidney disorders, liver disorders, endocrine disorders, and residents of nursing homes and other chronic care facilities. He added that those who should not get vaccinated include those who have had a severe reaction to the flu vaccine or children less than six months of age. Dr. Watkins remarked that good health habits can help to stop the spread of germs and prevent respiratory illnesses like the flu. He recommended covering the mouth and nose when coughing or sneezing, and washing hands as frequently as possible. Avoid close contact with people who are sick and if sick, stay home.

Dr. Watkins informed the Board that over 300 county employees participated in the free influenza Point of Dispensing (POD) clinics and the department is still taking appointments. Dr. Witte reiterated that a person cannot get the flu from a flu vaccine, and if a person has an egg allergy there is now a flu vaccine that is available which is produced without the egg component. Dr. Witte went on to say that it takes about two weeks after vaccination for antibodies to develop and provide protection.

Dr. Watkins reminded the Board that October is breast cancer awareness month, which is an annual campaign increasing awareness of the disease. He stated that 1 in 8 or 12% of women in the United States will develop invasive breast cancer over the course of her life time. He went on to say that in 2015, it has been estimated that 232,000 new cases of invasive breast cancer are expected to be diagnosed in women in the US, along with 60,000 new cases of non-invasive breast cancer. He added that in men, there will be 2,000 new cases of invasive breast cancer. A man's lifetime risk of breast cancer is about 1 in 1,000.

Dr. Watkins remarked that although death rates have been decreasing since 1989 due to breast cancer, about 40,000 women are expected to die in 2015 due to breast cancer. Women under 50 have experienced the largest decrease in the number of deaths due to breast cancer. He stated that these decreases are thought to be the result of treatment, early detection through screening, and increased awareness. Dr. Watkins informed the Board that in Cattaraugus County the average annual breast cancer incidence is about 65. The mortality or death<sup>5</sup> due to breast cancer in Cattaraugus County is about 11 annual deaths per year. He stated that for women, breast cancer death rates are higher than those for any other cancer besides lung cancer. The health department is observing today to wear pink in support of cancer awareness day. Pink ribbon lapel pins were distributed to those in attendance at today's meeting, in honor of breast cancer awareness.

Dr. Watkins reported that county legislators are considering a local law to prohibit the sale of personal care products containing microbeads in Cattaraugus County. A copy of the local law was provided to those in attendance. He stated that microbeads are plastic fragments or beads ranging in size from 5 micrometers to 1 millimeter. The microbeads are made from synthetic polymers including polyethylene, polylactic acid, polypropylene, or polystyrene. He remarked that microbeads are used in hundreds of products, often as abrasive scrubbers, including face washes, body washes, cosmetic, and cleaning supplies, and are used as a replacement for natural exfoliating materials. A copy of an article about micro beads and a copy of a list of products that contain micro beads were distributed to those in attendance. Dr. Watkins went on to say that a single tube of face wash contains more than 300,000 plastic beads which are cheaper than other natural foliates like apricot seeds. He added that microbeads are so small that they are not caught by most water treatment plants, so they end up in our lakes, streams, and the ocean. The beads, which resemble fish eggs, are mistaken for food and ingested by fish and other marine life. The plastics also act as a sponge for toxins soaking up pesticides, and heavy metals. He informed the Board that tuna and swordfish are turning up with microbeads in their stomachs. Last year Illinois became the first state to crack down on the sale of products with non-degradable microbeads. California, Colorado, Maine, and New Jersey have passed similar laws. He stated that New York State has considered adopting this law but it has currently been held up for review. In Western New York, Erie and Chautauqua counties have passed local laws to ban the sale of personal care products containing microbeads within their counties. Dr. Watkins informed the Board that if the local law is passed in Cattaraugus County, the Health Department will be required to enforce the local law. He explained that the Health Department will consider two plans in order to enforce this law. Plan A would ask for consideration to hire a new Public Health Sanitarian in order to carry out the surveillance. If that request is denied, Plan B would be to inform all business owners (retail, grocery etc.) about the local law, informing them that they have 180 days to remove these products from their shelves or face a fine, and to have them return a signed attestation letter to the department attesting that they are not selling these products. He stated that he believes this is a good proactive environmental protection action that is being undertaken by the county legislators but will have to be followed through with enforcement.

Dr. Watkins stated that the Health Department has submitted its 2016 budget, and have undergone the initial review with the County Administrator and his staff. The budget that will be submitted for approval by the County Legislatures will total \$ 11, 265,000 which is just a 1% increase from last year's budget of \$11,149,000. He added that there are no new positions or equipment added to this year's budget, the biggest endeavor being added is a new electronic medical records system for the clinic. He stated that by March 2016 the department must be up and running and using electronic prescriptions. He remarked that the department expects infrastructure problems in Salamanca but will work closely with information services in order to try and resolve these issues.

Dr. Watkins informed the Board that when the Clean Indoor Air Act (CIAA) was enacted, waivers were granted to establishments that agreed to modify their place of business by designating a separate room away from the general traffic utilizing special mechanical ventilation systems in order to control second hand smoke exposure to non-smokers who entered their establishment. He stated that Cattaraugus County has three businesses that have been granted these waivers and their permits will expire on December 31, 2015. Inspectors are sent out to complete an inspection of these facilities; in addition, letters are sent out notifying the businesses that their permits are set to expire and they must submit a renewal application along with their permit fee in order to continue their waiver status. The (3) waivers include Ischua Fire Department, Off Track Betting, and the VFW in Little Valley. Dr. Watkins asked the chair if he would entertain a motion to renew the three CIAA waivers for one year on the condition that the businesses pass their inspection. Mr. Haberer made a motion to allow the (3) businesses to reapply for the CIAA waiver for one year on the condition that the businesses pass their inspection, Mr. Snyder seconded the motion. A vote was taken, (7) votes were in favor and (1) vote, Sondra Fox, opposed; the motion carried. Dr. Watkins added that the county still has three membership associations which are exempt from the CIAA statute because in their organization all duties within the organization are performed by members who do not receive compensation, and by state statute, smoking is allowed in their facility. He stated that upon completion of a renewal membership application, membership permit waivers will be sent to Christopher Columbus Club, Olean American Legion, and Olean Veteran Club who fall under this type of waiver permit.

Dr. Watkins reported on the Veggie Mobile, he stated that this project took place through the collaboration of the Health Department, Canticle Farms, Olean Housing Authority, and the residents of Alder and Seneca Court. One of the Health Department Health Education volunteers Athena Godet-Calogeras, headed up the pilot project which proved to be a great success for our community. He reminded the Board that the poverty level within our county is between 17-18%; and whatever we can do to collaborate and make sure our residents are healthy will help to improve the overall health of our community.

Dr. Witte shared information on the Food Pantries in Cattaraugus County; one in particular is located at Bethany Lutheran Church across from the County building. He informed the Board that this food pantry currently has 20 volunteers, serving 800 recipients utilizing this service. He stated that in order to take part, a person must qualify by verifiable income parameters. Two-thirds of the families serviced are working households and the other one-third is seniors who are living on fixed incomes.

Mr. Haberer questioned if Dr. Watkins would be speaking during the public comment period in favor of the local law to ban the sale of personal care products that contain microbeads in Cattaraugus County. Dr. Watkins stated that he supports the local law and believes it's a great first step to stop some of the contamination that plague the environment in our waterways, but he had not planned to speak publicly at the hearing in regards to the matter. Mr. Wohlers added that a professor from Fredonia University, a leading expert in this field is coming to make a presentation to the Legislature during the public comment period.

After much discussion, Ms. Fox stated that this is a public health matter and the Health Department is being required to enforce the local law, therefore she felt that the Board should take a stance on whether they support the local law being introduced by the county legislators. Mr. Haberer made a motion to support Act No. 463-2015, Local Law Number 9-2015, "A Local Law Prohibiting the Sale of Personal Care Products Containing Microbeads in Cattaraugus County"; the motion was seconded by Mrs. Fox, and unanimously approved.

**NURSING DIVISION REPORT:** Dr. Watkins reported that Mrs. Andrews was attending a Family Planning Provider conference and he would present the nursing report in her absence. He stated that there were a number of communicable disease cases reported to New York State Department of Health: (21) Chlamydia, (3) Gonorrhea, (2) Campylobacter, (4) Hepatitis C, (1) Lyme case identified in Olean and (12) Aseptic Meningitis.

Dr. Watkins informed the Board that the influenza clinics are ongoing and will conclude by the end of the month. He also stated that there were (2) rabies post-exposure prophylaxis treatments given to county residents in October, (1) was due to a cat exposure and the other was due to a raccoon exposure.

There were (3) new identified elevated blood lead level cases at the point of care clinics within our Women Infant and Children (WIC) division.

Dr. Watkins reported that there were 109 admissions in homecare in September, the homecare census is now at 327, but the previous month was 352. He added that there were 15 Medicaid Obstetrical and Maternal Services (MOMS) visits in the month of September.

**ENVIRONMENTAL DIVISION REPORT:** Mr. Wohlers reported that when a child has their blood lead level tested a mandatory report to the state is generated which then makes a referral to the environmental health division if the blood lead level is 15ug/dl or higher (normal is  $\leq 9$ ug/dl). This requires that a lead paint investigation is conducted by the Health Department staff at the location where these children live and sometimes where they attend daycare/school to identify where the lead paint exposure is coming from. Typically the environmental health division receives 3-4 cases a year but last month we received (3) in one month. Letters are sent out to the property owner directing them on how to remediate this situation.

Mr. Wohlers reported that the Community Development Block Grant (CDGB) program, through New York State Office of Community Renewal, which is a grant program to assist low income families with replacing or repairing septic systems, and private water wells within our community, is coming to a close on April 10, 2016 and the Health Department will have to reapply for funding to continue this program. He stated that recently (3) more water well projects and (5) more septic system projects were completed. An additional (3) are out on bid and (4) more qualified applications have been received. Ms. Raftis inquired whether any advertising was done to make the community aware of the program. Mr. Wohlers stated that there has been advertising in the penny-savers, and that advertising with fliers in several businesses has been done in the past. He added that, the departments of social services and aging informs their clients about the program.

Dr. Bohan asked what are the guidelines used to qualify for the program. Mr. Wohlers stated in order to qualify for this program;

- The home must be owned and occupied by the person applying for assistance.
- Only single-family homes are eligible.
- Property taxes, homeowner's insurance, and mortgage must be current.
- Income guidelines apply.

1 person	2 people	3 people	4 people	5 people	6 people	7 people	8 people
\$31,750	\$36,250	\$40,800	\$45,300	\$48,950	\$52,550	\$56,200	\$59,850

Mr. Wohlers stated that he and Mrs. Andrews will be attending a Lyme Disease County Learning Collaborative meeting held in Albany later this month. Mr. Wohlers added that he also plans to attend the State Environmental Health Directors conference in Syracuse and one of the main topics will be the recent Legionella outbreak and the new cooling tower regulations. He reported that he visited several businesses with cooling towers within Cattaraugus County and it appears that everyone did meet the registration deadline of September 16, 2015.

**Old Business:** Dr. Bohan reported that enforcement appeals had been received on Board of Health (BOH) orders issued from the September 2015 BOH meeting. Docket #15-020 Randy's-Up-The-River and docket#15-021 Randy's-Up-The-River Catering by the owner Randy Korkowicz who requested that he be allowed to present his appeals in person at this BOH meeting. Copies of the original BOH orders and the written appeals were provided to all members of the Board prior to Mr. Korkowicz's presentation.

Mr. Korkowicz stated that he was appealing the boards order because his assessment of violations outlined in Docket #15-020 - were unfounded or corrected. He stated that the sliding glass door cooler had product in it that was just received from a food delivery that day. He claimed that the cooler was holding temperature but it was a little warmer than he would have liked it. A refrigeration repairman was called in and repaired the unit so it is now working at its optimum level. He went on to say that the walk-in cooler is 50% full not beyond capacity as stated by the sanitarian. Regarding the violation of reheating by a method not capable of heating to the proper temperature he claimed that the sanitarian was not there long enough to test the product at completion. Mr. Korkowicz requested that the fine be waived as he was attentive to the violations and the problems were addressed.

Docket #15-021-Mr. Korkowicz reported that the holding units were heated above 160 degrees Fahrenheit (°F) and served within two hours. The catering wagon sinks have not been working for quite some time and he has no desire to repair them as it would cause extra work each year to winterize the system. Instead jugs of water, hand soap, disinfecting soap and paper towels were supplied by the sink in the wagon. Dr. Bohan asked if anyone had questions for Mr. Korkowicz. The Board had no inquiries.

Mr. Ray Jordan, senior sanitarian, responded on behalf of the Health Department stating Mr. Korkowicz has not been compliant and has had repeated violations and that was why the hearing was held. Addressing docket #15-020 violation #1 all perishable foods have to be maintained at an adequate temperature of less than 45°F, if he is receiving product and the temperature is greater than 45°F he should refuse the food at delivery. As far as the sliding glass door cooler, food was not at the proper temperature per Mr. Rust's inspection report on July 21, 2015 and some food had to be discarded. Mr. Rust returned on July 28, 2015 and August 5, 2015 and on both days the refrigerator temperature was still greater than 45°F and food had to be discarded on both days as well. Mr. Jordan reported that the sliding glass door refrigerator was not actually working at the proper temperature until August 19, 2015. Regarding the last violation on docket #15-020, Mr. Rust's inspection report indicated that he was there for 1.7 hours and during that time food was not brought up to the temperature of 165°F as required.

Mr. Jordan reported that docket#15-021 occurred at the Taste of Olean with Mr. Korkowicz's mobile unit. Mr. Dayton was the inspector and he observed that the cooked hash was at 125°F, and the cooked chicken was at 130°F instead of 165°F as required. Mr. Jordan added that this is not the first time this violation occurred at an off-site event while using this mobile unit, and as far as hand washing facilities, there were none provided to staff on the day of inspection. He went on to say the department would be more than happy to accept the use of a large vessel of water, hand soap, and towels in lieu of a working sink but none was set up that day and this too is a repeated violation with this owner.

Mr. Korkowicz retorted that the inspector asked if the sinks were functioning, he never asked if alternative hand washing facilities were available.

Dr. Bohan thanked Mr. Korkowicz for appearing before the Board and explained that the Board would discuss his appeal and issue their decision within ten working days.

**Hearing Officer,** David Porter reported on the following enforcement cases from a hearing held on September 8, 2015.

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#### **DOCKET 15-025**

**Reid Stores, Inc., P.O. Box 987, Lockport, NY 14095, Store location 3511 Rt. 16, Hinsdale, NY**

**Violation: New York State Public Health Law Section 1399-cc. Tobacco product sold to a person under the age of 18.**

**Note Previous Docket 14-034**

**DOCKET 15-025 (continued)**

**Administrative Hearing: 9-8-2015**

Public Health Sanitarian: Chris Covert appeared for CCHD and was sworn in.

Respondent: Was properly served but did not appear.

Testimony of Ms. Covert:     a.) Enf.-1 was read and affirmed to be true and correct by Ms. identified as Peoples Exhibit #1. Respondents were offered a civil compromise.  
  b.) Cigarettes purchases identified as P.E. #2.  
  c.) Possession form (minor) identified as P.E. #3.  
  d.) Drivers license (minor) identified as P.E. #4.  
  e.) Training supplied to minor identified as P.E. #5.  
  f.) Birth certificate of minor identified as P.E. #6.  
  g.) Student permission form identified as P.E. #7.

The staff selling the product had been through a department certified training course. Sales clerk asked for identification, reviewed, handed it back to the minor and made the sale.

Hearing Officer Findings:     The respondent was in violation of New York State Public Health Law Section 1399-cc. Selling tobacco products to a person under the age of 18.

Recommendation:             That the respondent pay a \$1200.00 fine plus a \$50.00 surcharge by 10-30-15 with a \$10.00 per day per diem if not paid by that date. One (1) point will be assigned to the store that sold the product to the minor.

A motion was made by Mrs. Fox regarding docket 15-025 to accept Mr. Porter's recommendation, the motion was seconded by Mr. Smith, and unanimously approved.

The Board entered into executive session for counsel advice regarding the appeals on docket #15-020 and #15-021.

The Board exited the executive session and announced that no actions were taken, and resumed the regular Board meeting.

Mrs. Fox made a motion to deny the appeal for docket #15-020, the motion was seconded by Mr. Smith, and unanimously approved.

Mr. Smith made a motion to deny the appeal for docket #15-021, the motion was seconded by Dr. Hamlin, and unanimously approved.

Dr. Bohan informed the Board that there was a third appeal received on a BOH order issued from the September 2015 BOH meeting. Docket #15-005, Adam Hayes, which ordered Mr. Hayes to pay a \$150.00 fine and demonstrate proof of rabies vaccination for his dog. Mr. Hayes asked for a reduced fine due to financial hardship, lack of transportation, and that he had scheduled an appointment to have his dog vaccinated by October 17, 2015.

After discussion, a motion was made by Mr. Haberer to reduce the fine to \$75.00 on the condition that the \$75.00 fine is paid to the department, and the dog is vaccinated by October 17, 2015. However, if the conditions are not met, the fine of \$150 and a \$10.00 per diem (per day) be reinstated to the original date of September 30, 2015, the motion was seconded by Dr. Hamlin, and unanimously approved.

There being no further business to discuss, a motion to adjourn was made by Dr. Hamlin, and seconded by Mr. Smith and unanimously approved.

Respectfully submitted,

A handwritten signature in blue ink that reads "Kevin D. Watkins, M.D." The signature is written in a cursive style.

Kevin D. Watkins, M.D., M.P.H.  
Secretary to the Board of Health  
KDW/dl

Excess Public Entity Liability 1<sup>st</sup> Layer and Excess Public Entity Liability 2<sup>nd</sup> Layer, for an annual amount of \$90,000.00, to be paid as invoiced, now, therefore, be it

RESOLVED, that the Chair of the Legislature be, and hereby is, authorized and directed to execute a contract, on behalf of Cattaraugus County, contingent upon and subject to the inclusion in the 2016 budget of sufficient funds to cover the costs of the aforementioned services, with Aon Risk Services Central, Inc., for the provision of the above-described brokerage services, for a term commencing January 1, 2016 and terminating December 31, 2016, according to the above-described terms.

Approved by 8 members of the Finance Committee.

Adopted September 23, 2015 by voice vote.

ACT NO. 463-2015 by Mr. Sprague  
and Mrs. Labuhn  
and Mrs. Stockman, Ms. Vickman and Mr. Padlo<sup>1</sup>

LOCAL LAW NUMBER 9 - 2015  
COUNTY OF CATTARAUGUS, NEW YORK

Pursuant to Section 10 of the Municipal Home Rule Law.

A LOCAL LAW PROHIBITING THE SALE OF PERSONAL *CARE*<sup>2</sup> PRODUCTS  
CONTAINING MICROBEADS IN CATTARAUGUS COUNTY

**SECTION 1. Legislative Findings and Intent.** The Legislature hereby makes the following findings and determinations:

1.1 The Legislature hereby finds and determines that microbeads, a synthetic alternative ingredient to such natural materials as ground almonds, oatmeal and pumice, found in over one hundred personal *care*<sup>2</sup> products, including facial cleansers, shampoos and toothpastes, pose a serious threat to Cattaraugus County's environment.

1.2 Microbeads have been documented to collect harmful pollutants, already present in the environment, and harm fish and other aquatic organisms that form the base of the aquatic food chain.

1.3 Microbeads have been found in high quantity in New York State's water bodies.

1.4 Research has indicated that the majority of these microbeads are entering bodies of water through disposal down household drains following the use of such personal *care*<sup>2</sup> products. Without significant and costly improvements to Cattaraugus County's sewage treatment facilities, and the many private and municipal sewage treatment facilities throughout Cattaraugus County,<sup>2</sup> microbeads contained in personal *care*<sup>2</sup> products have the potential to pollute the water bodies and waterways located within Cattaraugus County.

1.5 It is the intent of the Legislature to protect and preserve the waterways located within Cattaraugus County, which are vital to the health and wellbeing of the public, as well as the protection and preservation of wildlife. The waterways within Cattaraugus County include, *without limitation*,<sup>2</sup> the following:

Allegheny River	Dodge Creek	Lime Lake Outlet	Red House Lake
Allen Brook	Drakes Run	Limestone Brook	Rice Brook
Baliley Brook	Dry Brook Creek	Linlyco Lake	Robinson Run
Barker Run	Dry Creek	Little Bone Run	Saunders Creek

Battle Creek	Dublin Creek	Little Conewango Creek	Sawmill Run
Bay State Brook	East Branch Bucktooth Run	Little Indian Creek	Science Lake
Bear Creek	East Otto Creek	Little Valley Creek	Scott Branch
Beaver Lake	Elk Creek	Louds Creek	Skim Lake
Beaver Meadow Creek	Elkins Brook	Mansfield Creek	Slab City Creek
Beehunter Creek a/k/a			
Beeline Creek	Elm Creek	Maples Club Pond	Snow Brook
Big Indian Creek	Elton Creek	McIntosh Creek	South Branch Cattaraugus Creek
Blrch Run	English Creek	McKinstry Creek	South Branch Sawmill Run
Blrch Run Pond #1	Fay Hollow Brook	McMurray Creek	South Branch State Line Run
Blaisdell Creek	Five Mile Creek	Meetinghouse Run	State Line Run
Bolivar Brook	Flatstone Creek	Mill Creek	Stephens Lake
Bone Run	Fly Creek	Mill Run Brook	Stoddard Creek
Bova Creek	Forks Creek	Mud Creek	Stony Creek
Boyce Run	Four Mile Creek	Moore's Pond	Storrs Creek
Breeds Run	France Brook	Murray Brook	Sucker Pond
Browns Run	Franklinville Retention Pond	New Albion Lake	Sunfish Run
Allegany Reservoir	Frog Pond	Newton Run	Ten Mile Creek
Bryant Hill Creek	Gates Creek	Nichols Run	Thatcher Brook
Buttermilk Creek	Godfrey Hollow Branch	Nigh Creek	Timber Lake
Butternut Brook	Goodell Creek	Nine Mile Creek	Titus Run
Cabic Pond	Gooseneck Creek	North Branch Conewango Creek	Tunungwant Creek
Caneadea Creek	Great Valley Creek	North Branch Indian Creek	Two Mile Creek
Carrollton Run	Guernsey Run	North Branch Mill Creek	Union Valley Creek
Case Lake	Gulf Brook	North Branch Sawmill Run	Utley Brook
Cass Run	Gulf Creek	Oil Creek	Vee Pond
Cattaraugus Creek	Haines Creek	Olean Creek	Waterman Brook
Cherry Creek	Harwood Lake	Oswayo Creek	Wayman Branch
Chipmunk Creek	Haskell Creek	Palsley Park Pond	West Branch Bucktooth Run
Clear Creek	Hidden Creek	Perrysburg Conservation Club Pond	West Branch Conewango Creek
Cold Spring Creek	Holts Run	Peters Creek	West Branch Creek
Conewango Creek	Honey Brook	Phillips Brook	West Branch Four Mile Creek
Connoisarauley Creek	Hotchkiss Run	Pickup Lake	Wheeler Brook
Coon Branch	Indian Creek	Pierce Run	Whig Street Creek
Coon Creek	Irish Brook	Plum Brook	Willis Creek
County Pond A	Ischua Creek	Plum Creek	Willoughby Creek
County Pond B	Johnson Brook	Point Peter Brook	Windfall Creek
Crandall Pond	Johnson Creek	Porter Creek	Wolf Run Creek
Cricks Run	King Brook	Pratts Brook	Wrights Creek
Crystal Lake	Kings Brook	Quaker Lake	Yeager Brook
Cuba Lake Outlet	Lake Flavia	Quaker Run	
Davis Brook	Leonard Brook	Rainbow Lake	
Deer Creek	Lillibridge Creek	Rawson Creek	
Devereaux Branch	Lime Lake	Red House Brook	

**SECTION 2. Definitions.** As used in this Local Law, the following terms shall have the meanings indicated:

2.1 "Microbead" shall mean any intentionally added plastic particle measured to be five millimeters or less in size used to exfoliate or cleanse in a personal care product.

2.2 "Personal care product" shall mean any (a) article intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance, including but not limited to soap, exfoliates, shampoos, toothpastes and scrubs, and (b) article intended for use as a component of any such article. The term "personal care<sup>2</sup> product" shall not include any product for which a prescription is required for distribution or dispensation as provided in Section 281 of New York State Public Health Law or Section 6810 of New York State Education Law.

SECTION 3. Restrictions on the Sale of Microbeads in Cattaraugus County. It shall be unlawful for any person, firm, corporation, or any other entity no matter how constructed to sell, offer or expose for sale, give or furnish any personal *care*<sup>2</sup> product which contains microbeads as defined herein.

SECTION 4. Enforcement.

4.1 The County of Cattaraugus through its Department of Health ("the Department") shall have sole jurisdiction to enforce the provisions of this local law.

4.2 Any person, firm, corporation, or other entity who/which violates Section 3 of this local law shall be liable for a civil penalty not to exceed two thousand five hundred dollars for each day during which such violation continues, and in addition thereto, such person, firm, corporation, or other entity may be enjoined from continuing such violation. For a second violation, such person, firm, corporation, or other entity shall be liable for a civil penalty not to exceed five thousand dollars for each day during which such violation continues, and in addition thereto, such person, firm, corporation, or other entity may be enjoined from continuing such violation.

4.3 The Cattaraugus County Attorney may bring actions in the name of Cattaraugus County to recover the civil penalty provided by this local law and to enjoin violations of such law in any court of competent jurisdiction.

SECTION 5. Reverse Preemption. This local law shall be null and void on the day that state-wide or federal legislation goes into effect, incorporating either the same or substantially similar provisions as are contained in this law, or in the event that a pertinent state or federal administrative agency issues and promulgates regulations preempting such action by the County of Cattaraugus. The Cattaraugus County Legislature shall determine by resolution whether or not identical or substantially similar state-wide legislation has been enacted for purposes of triggering the provisions of this section.

SECTION 6. Severability. If any clause, sentence, paragraph, subdivision, section or part of this law or the application thereof to any person, individual, corporation, firm, partnership, or business shall be adjudged by any court of competent jurisdiction to be invalid or unconstitutional, such order or judgment shall not affect, impair or invalidate the remainder thereof but shall be confined in its operation to the clause, sentence, paragraph, subdivision, section or part of this law, or in its specific application.

SECTION 7. Effective Date. This local law shall become effective 180 days after filing with the Secretary of State.

Approved by 8 members of the Finance Committee and 5 members of the Human Services Committee.

<sup>1</sup>The following legislators requested their names be listed as additional sponsors: "Mrs. Stockman, Ms. Vickman and Mr. Padlo".

<sup>2</sup>MRS. LABUHN moved, seconded by Mr. Sprague, to amend as follows: Throughout the local law including the title, delete: "cosmetic", and replace with: "care"; in Section 1.4 after "facilities," add: "and the many private and municipal sewage treatment facilities throughout Cattaraugus County,"; in Section 1.5, delete: "the Allegheny River and", and replace with: ", without limitation,". Carried.

No further action taken at this time.

## Scientific Evidence Supports a Ban on Microbeads

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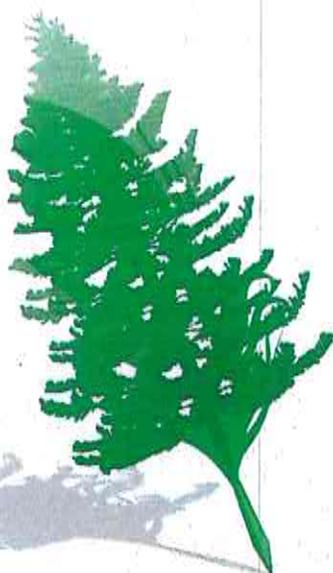
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SCIENTIFIC  
OPINION  
NON-PEER  
REVIEWED



### ■ MICROBEADS ADD TO THE INCREASING ACCUMULATION OF MICROPLASTIC POLLUTION

Microplastic has been reported in every major open ocean and many freshwater lakes and rivers. Its small size makes it bioavailable to thousands of species across nearly all trophic levels. Because of the difficulty of large-scale cleanup, environmental managers, scientists, and environmentalists have stressed that the best solution to microplastic pollution is source reduction. Recently, one source of microplastic has received much attention in the media and from policy makers: plastic microbeads.

### ■ BACKGROUND ON THE BEAD

Microbeads are plastic fragments or beads ranging in size from roughly 5  $\mu\text{m}$  to 1 mm. They are made from synthetic polymers including polyethylene, polylactic acid (PLA), polypropylene,

polystyrene, or polyethylene terephthalate. Microbeads are used in hundreds of products, often as abrasive scrubbers, including face washes, body washes, cosmetics, and cleaning supplies, and are used as a replacement for natural exfoliating materials, such as pumice, oatmeal, or walnut husks.

Microbeads are designed to be discarded down the drain. Because of their small size, some microbeads are littered into the environment via final effluent or biosolids (sewage sludge) from wastewater treatment plants (WWTPs)<sup>1–3</sup> and have become one of the many types of microplastic debris reported in aquatic habitats.

### ■ SMALL BEAD, LARGE CONTAMINATION

Microplastics enter aquatic habitats via several sources. *How much of this contamination is caused by microbeads?* We do not yet know. Because of the large volume in production and current end-of-life strategy, microbeads have the potential to be a source of many microplastic particles to aquatic habitats. One approach for estimating the contamination is to quantify microbeads in effluent from WWTPs. To provide an example of the potential for environmental contamination, we use the limited available information to estimate how many microbeads may be entering aquatic habitats from the United States alone.

Water collected by WWTPs goes through several treatment processes. As part of these processes, wastewater is sent to settling tanks to separate suspended solids (sludge) from the liquid phase (effluent). Here, 95–99.9% of the microbeads may settle out into the sludge, leaving the remaining beads in the effluent.<sup>1,2</sup> Studies report a range of 0–7 microbeads  $\text{L}^{-1}$  of final effluent,<sup>1–3</sup> which is often discharged directly to aquatic habitats.

Fewer than seven microbeads per liter of effluent may not sound significant; however, WWTPs in the United States are collectively capable of treating >160 trillion L of water everyday.<sup>4</sup> Using a conservative estimate, assuming all WWTPs operate at half capacity (i.e., treating 80 trillion L/

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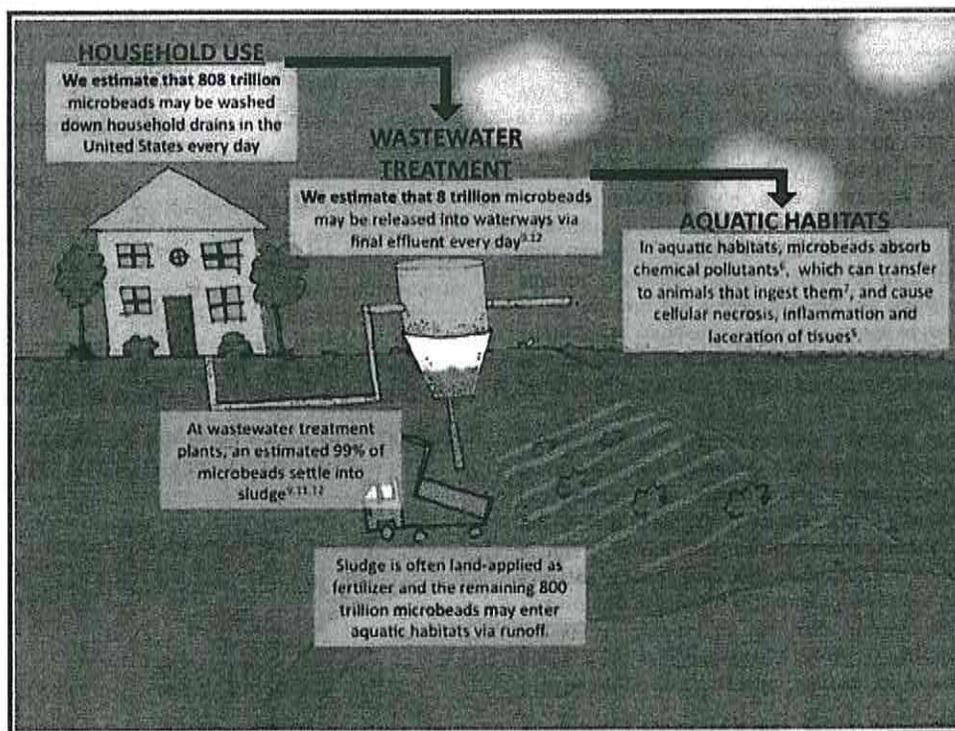


Figure 1. Schematic diagram showing the route that microbeads take from our homes to the aquatic environment.

day) and that 0.1 microbeads are found per L of effluent (the average of the two studies which found a smaller amount of microbeads<sup>2,3</sup>), we calculate that 8 trillion microbeads per day are emitted into aquatic habitats in the United States (Figure 1). If you line these microbeads up side by side, assuming they are 100  $\mu\text{m}$  spheres, the United States emits enough microbeads to cover >300 tennis courts daily. If we assume 99% of microbeads are captured during sedimentation, the remaining 800 trillion microbeads settle into the sludge. Sludge is often spread over areas of land and thus runoff from precipitation and irrigation may enable these particles to enter aquatic habitats (Figure 1). Such calculations clarify that waste management is not an effective solution to prevent microbead pollution. We must look upstream to prevent microbeads from entering WWTPs; this is best accomplished by removing microbeads from products.

#### ■ THE MOVEMENT TO BAN THE BEAD

Public support for banning microbeads is growing and has prompted action from multinational companies, NGOs, and policy-makers. For instance, Unilever, The Body Shop, IKEA, Target Corporation, L'Oreal, Colgate/Palmolive, Procter & Gamble, and Johnson & Johnson pledged to stop using microbeads in their "rinse-off personal care products", and >70 NGOs from more than 30 countries are working on or helped pass legislative action to ban microbeads from personal care products. For example, several US states including Illinois, Colorado, Connecticut, New Jersey, Maine, Maryland, and Wisconsin and the province of Ontario in Canada have regulated or banned microbeads.

While laudable, the agreements and legislation enacted thus far do not remove all sources of microbeads from the aquatic environment because of the wording of these documents. First,

there are applications (e.g., cosmetics, deodorants, lotions, nail polish, and cleaners) for microbeads that go down the drain but are not considered "personal care" or "rinse-off products". Other issues include how the terms "plastic" and "biodegradable" are defined. For example, the legislation passed in Illinois defines "plastic" as something that retains its "defined shape during life cycle and after disposal". This allows microbeads to be made from plastics that biodegrade slightly, thus changing their defined shape in an unspecified time period. What seems to cause the most confusion is how the term "biodegradable" is defined. Several companies and legislation promise to remove "non-biodegradable" microbeads from personal care products. When the term biodegradable is not defined or international standards for biodegradability are cited that do not mandate full degradation in aquatic environments, it allows for materials to be used in products that only degrade slightly during a 1-year period (e.g., PLA<sup>5</sup>). New wording should ensure that a material that is persistent, bioaccumulative, or toxic is not added to products designed to go down the drain.

Preventing microbeads from becoming microplastic pollution will take time. In several debates, the argument has been raised that there is not yet enough scientific evidence to support banning microbeads. Though there are gaps in our understanding of the precise impact of microbeads on aquatic ecosystems, this should not delay action. Several extant questions regarding the persistence, fate, and hazards of microbeads can be addressed via more general studies of microplastic debris. Microplastics of the same type, size, and shape as microbeads are persistent, impractical to remove, and have negative impacts on aquatic organisms. The probability of risk from microbead pollution is high while the solution to this problem is simple. Banning microbeads from products that

enter wastewater will ultimately protect water quality, wildlife, and resources used by people.

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#### Notes

The authors declare no competing financial interest.

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### REFERENCES

- (1) Baltic Marine Environment Protection Commission HELCOM. *BASE Project—Implementation of the Baltic Sea Action Plan in Russia*, Technical Report Published for IVL Swedish Environmental Research Institute, August 2014; Swedish Environmental Research Institute: Stockholm, Sweden, 2014.
- (2) Magnusson, K.; Wahlberg, C. *Screening of Microplastic Particles in and down-Stream of a Wastewater Treatment Plant*, Technical Report published for IVL Swedish Environmental Research Institute, August 2014; Swedish Environmental Research Institute: Stockholm, Sweden, 2014.
- (3) Martin, C.; Eizhvertina, O. *Quantitative Analysis of Microplastics in WWTP Effluent in the Niagara Region*, Technical Report published for Niagara College Environmental Technician—Field and Lab (co-op): Final Term Project, 2014; Niagara College Canada: Niagara-on-the-Lake, Canada, 2014.
- (4) U.S. Census 2000. *Wastewater Treatment Facilities, 2006*. [http://www.allcountries.org/uscensus/391\\_wastewater\\_treatment\\_facilities.html](http://www.allcountries.org/uscensus/391_wastewater_treatment_facilities.html).
- (5) CalRecycle *PLA and PHA Biodegradation in the Marine Environment*, Technical Report published for Department of Resources Recycling and Recovery, Publication DRRR-2012-1435; Department of Resources Recycling and Recovery: Sacramento, CA, 2012.



**These products contain microbeads**

Random sample

July 2015

For updates check: [www.beatharmicrobead.org](http://www.beatharmicrobead.org)

Initiated by Plastic Soup Foundation and North Sea Foundation (the Netherlands)



**Ingredient**

**Product name**

**Brand/Concern**

**Producer**

**Scrubs / Peelings**

Aveeno	Johnson & Johnson	Brightening daily scrub	Polyethylene (PE)
AXE	Johnson & Johnson	Scrub with Vit. C	Polyethylene (PE)
Acne Free		Oil-Free Acne Cleanser-Gentle Exfoliating Microbeads	
Ahava		Dead Sea Water Mineral Body Exfoliator	
Ahava		Dead Sea Essentials-Relaxing Almond Exfoliating Body Cleanser	
Clean & Clear	Johnson & Johnson	Advantage 3 in 1, facial scrub	Polyethylene (PE)
Clean & Clear	Johnson & Johnson	Morning burst facial scrub, oil free	Polyethylene (PE)
Clean & Clear	Johnson & Johnson	Blackhead eraser scrub, oil free	Polyethylene (PE)
Clean & Clear	Johnson & Johnson	Deep action exfoliating scrub, oil free	Polyethylene (PE)
Aveeno		Active Naturals-Positively Radiant Skin Brightening Daily Scrub	
Aveeno		Active Naturals- Positively Ageless Resurfacing Scrub with Vitamin C	
Ayur-medic		Anti-Bacterial Wash with Exfoliating Beads	
Bath & Body works		Pure Paradise 2-in-1 Body Scrub and Wash	
Bliss		Lemon + Sage Body Scrub	
Bliss		Super Minty Soap'n' Scrub Energizing Exfoliator for the Body	
Bliss		Vanilla + Bergamot Body Buff with shea butter + sweet almond oil	
Bliss		Expert Anti-Blemish 2-in-1 Scrub and Mask	
Boots		Evenly Gorgeous Exfoliating Body Wash (burnt brown sugar and karite butter)	Polyethylene (PE)
Caress		Tahitian Renewal Exfoliating Body Wash (pomegranate seeds and coconut milk)	Polyethylene (PE)
Caress		Deep Cleansing Exfoliator	
Caudalie		Spa Treatments-Foot Scrub (with olive butter, tea tree oil & peppermint)	
Champneys		Bright Plus HP Gentle Brightening Exfoliator	
Clarins		Advantage 3-in-1 Exfoliating Cleanser	
Clean & Clear		Morning Burst Facial Scrub-Oil Free	
Clean & Clear		Blackhead Eraser Scrub-Oil Free	
Clean & Clear		Deep Acion Exfoliating Scrub-Oil Free	
Clean & Clear		Daily Clear-Refreshing Superfruit Scrub	
Clearasil	Reckitt Benckiser	7 Day Scrub Cream Rinse-Off Formula	
Clinique	Estée Lauder Companies	Exfoliating Scrub	
Clinique	Estée Lauder Companies		



INTERNATIONAL  
CAMPAIGN AGAINST  
MICROBEADS  
IN COSMETICS



Brand/Concern	Producer	Product name	Ingredient
CVS	CVS pharmacy	Oil free acne scrub	Polyethylene (PE)
Dermalogica		Clear Start-Blackhead Clearing Pore Control Scrub	Polypropylene (PP)
Dior		Instant Gentle Exfoliant	
Elisabeth Arden	Elisabeth Arden	Prevenge anti-aging treatment boosting cleanser	Polyethylene (PE)
Equate beauty	Walmart	Blackhead Clearing Scrub	Polyethylene (PE)
Every Man Jack	Every man Jack, Inc	Face scrub pre shave mint	Polyethylene (PE)
Every Man Jack		Body Wash and Shower Gel-Citrus Scrub	
Guerlain		Terracotta Sun Scrub-Tan Enhancing Scrub	
Heel To Toe		Warming Foot Scrub	
Hempz		Sandalwood & Apple Herbal Body Scrub	
Kate Somerville		ExfoliKate Intensive Exfoliating Treatment	
Kiehl's		Facial Fuel-Energizing Scrub-Skin buffer for Men	
Kiehl's		Clearly Corrective-Skin Brightening Exfoliator Treatment	
Olay	Procter & Gamble	Moisturizer	Polyethylene (PE)
Olay	Procter & Gamble	Prof. exfoliating renewal cleanser	Polyethylene (PE)
Olay	Procter & Gamble	Laser-Free Retexturizer Exfoliating Scrub	Polyethylene (PE)
Peter Thomas Roth		Luminous Clean Daily Exfoliating Cleanser	
Pond's		Renewel regenerating micro refining cream	
Rite Aid	Rite Aid	Renewel acne body scrub clear	Polyethylene (PE)
Rite Aid	Rite Aid	Renewel acne wash daily scrub oil free	Polyethylene (PE)
Rite Aid	Rite Aid	Renewel bright skin daily face scrub	Polyethylene (PE)
Rite Aid	Rite Aid	Renewel exfoliating cleanser	Polyethylene (PE)
Rite Aid	Rite Aid	Cleanse	Polyethylene (PE)
Simple		Smoothing Facial Scrub	
Spa touch		Exfoliating Body Wash (with Green Tea Mint, with French Lavender)	
Tree Hut	Naterra Int.	Shea sugar body scrub amazon	Polyethylene (PE)
Tree Hut		Olive & Shea Sugar Body Scrub-coconut lime	
Up & Up		(Target Brand) Exfoliating Body Wash-Pomegranate Seeds	
Up & Up		(Target Brand) Blackhead Facial Scrub with Salicylic Acid	
Up & Up		(Target Brand) Acne Wash Oil Free Pink Grapefruit Foaming Scrub	



INTERNATIONAL  
CAMPAIGN AGAINST  
MICROBEADS  
IN COSMETICS



**These products contain microbeads**  
Random sample

July 2015

For updates check [www.beatthemicrobead.org](http://www.beatthemicrobead.org)

Initiated by Plastic Soup Foundation and North Sea Foundation (the Netherlands)



**Brand/Concern**

Victoria's Secret  
Walgreens

**Producer**

Mur Ad, Inc

**Product name**

2-in-1 Wash and Scrub (all scents)  
Blackhead Clearing Scrub

**Ingredient**

Polyethylene (PE)

**Shower / Bath**

Acne body wash

**Facial Cleanser**

Oil-Free Purifying Cleanser  
Severe Anti-Acne Cleansing Wash  
Active Naturals-Clear Complexion Cream Cleanser  
Biore warming anti-blackhead cleanser complexion clearing  
Fabulous Foaming Facewash  
Daily Pore Cleanser-Oil Free  
Flawless Skin Face Polish  
Skin Polishing Acne Cleanser  
Rite aid renewal daily regenerating cleanser  
(Target Brand) Renewing Cleanser  
Foaming Skin Polish

Polyethylene (PE)

Polyethylene (PE)

Polyethylene (PE)

**Toothpaste**

Complete Multi Benefit  
3d White  
3D White Luxe  
Pro Health  
Pro Health for Me  
Sensitivity

Crest