Our mission is to reduce waste today through innovative resource management and to reach a waste-free tomorrow by demonstrating that waste is preventable, not inevitable.

Kick the Bag Habit

Why Should Communities be Allowed to Place a Ban or Fee on Disposable Bags?

A bill introduced this session (S.F. 1195 and H.F. 1504) aims to prohibit local governments in MN from banning or taxing plastic bags, removing their ability to make decisions about the health of their community. This bill looks likely to pass, so Governor Dayton needs to be made aware of it and the impacts it will have so he will see the importance of vetoing.

Eureka Recycling, a Minnesota nonprofit, zero-waste, social enterprise headquartered in the Twin Cities strongly supports the elimination of disposable bags (both plastic and paper) in favor of reusable bags made of renewable, safe materials. Because of plastics' additional deleterious effects on the environment and our health, Eureka Recycling supports a plastic bag ban with an associated fee for any other disposable bags.

Single-use bags pose significant problems to the environment, wildlife, and human health through their production, use, and disposal. Made from crude oil, natural gas and other petrochemical derivatives, an estimated 12 million barrels of non-renewable oil are needed to make the 100 billion plastic bags Americans use annually—more than 330 bags per person per year.[1]

The amount of time a plastic bag is used by a consumer (roughly 12 minutes or less) is long outlasted by the amount of time it exists after being disposed of or littered in the environment. For all intents and purposes, plastic never biodegrades; instead it slowly photo degrades. As it photo degrades, plastic film breaks into smaller and smaller pieces which attract surrounding toxins. [2] When mistaken as a food source, these plastic particles form a progressively greater health risk of food chain contamination.

I. Reusable Bags

A. The plastics industry has started an attack on reusable bags, likely because of the growing success of plastic bag bans that are spreading across our country and the globe. The plastics industry has claimed that reusable bags aren't safe due to bacteria and metals. These claims have been successfully repudiated by health officials in the cities targeted. The plastics industry's own study concluded that 97 % of the bags they studied were never washed and stored in the trunk of a car – and even those bags did not have bacteria that would normally make people sick! Several studies have concluded that there is no evidence that reusable bags harbor dangerous levels of bacteria. Of course reusable bags should be washed regularly, ideally not stored in extremely hot and/or dirty areas and we should take care to buy products free of any toxic metals. [3]

Reusable bags are only the solution if we use them. A well designed plastic bag ban that combines the strategies of a fee for non-reusable bags and an education program letting residents know the benefits of bringing their own bags is the best solution.

II. Problems with plastic bags

A. Non Renewable

1. Plastic bags are made from polyethylene, which is derived from natural gas that has been extracted, along with petroleum from crude oil. The extraction of natural gas requires the highly polluting practice of fracking or hydraulic fracturing in which chemicals are injected into a well during extraction.

   There are great scientific breakthroughs and medical advances in plastics that are alleviating suffering, and there is no ban called on the use of plastic for such purposes. The ban is focused only on products that are rarely used more than once and then tossed. It is expected that unless we take protective measures, plastics like these will increase in production over the next few years in an amount that will eclipse the ENTIRE production to date.[5]

   Research by Austin, Texas city staff in 2011 determined that between disposal costs, litter costs, and damage to recycling infrastructure, single-use plastic bags cost local governments about $1 dollar per resident per year. [6]

B. Endangers Wildlife in Minnesota

1. While the dangers to wildlife have been better documented on the East and West Coast, the same problems with bags persist in Minnesota. Entanglement and ingestion of these bags results in slow starvation and eventual death for many wildlife animals including turtles, fish and shorebirds that we find in Minnesota. The plastic pollution problem may be even worse in the Great Lakes than in the oceans. A team of scientists found that the number of microparticles — which are more harmful to marine life because of their small size — was 24 percent higher in the Great Lakes than in samples they collected in the Southern Atlantic Ocean.

2. The microscopic bits of plastic that were once bags can get through our water treatment plants, or plastic bags that enter the water from storm sewers or through littering all breakdown into what looks like food to fish. In addition, scientists have found that these bits of plastic can attract up to one million times more toxins than is measured in the ambient water that surround them. These toxins enter the food chain where it is expected that it has deleterious effects of both wildlife and human health.

C. Adverse Health Impacts

1. Plastic bags are made from polyethylene which is a suspected human carcinogen. Plastics often have additional additives that can cause other serious health threats. In the case of plastic bags this has been linked to antioxidants that are added like BHT. No one knows exactly what impact this is having on animal and human health but it is one of the great experiments of our generation that is being staged and our children and grandchildren will have more details about the results.

D. Recyclability

2. The American Chemistry Council's (ACC) recent report concluded that plastic bags and wraps recycling rate decreased 7% from 2011. EPA reported that 1.4 billion pounds of plastic bags were generated while the ACC report estimated that only 65 million pounds were collected for

recycling – resulting in a 5% recycling rate. The EPA reports that paper sacks are recycled at a 49% rate.

3. Recycling processors (MRF Material recovery facility) operators and owners conclude that removing plastic bags from their processing lines increases the cost of processing all of the other recyclables by up to 10% because it requires them to shut down the processing lines and cut the bags off the equipment. Eureka Recycling's MRF shuts down the lines for up to two hours a day for people to climb in and cut plastic bags lose from the equipment.

III. Plastic bag bans with fees for all disposable bags really work!

There is evidence that bag bans and fees are effective: Ireland's 2002 tax cut bag usage between 75 and 90 percent. An analysis of bag use in Australia found that 72 percent of customers accepted single-use bags that were offered for free. When a nominal fee was charged, usage dropped to 27 percent (33 percent switched to reusable bags and 40 percent made do without). In an analysis of three major California municipalities with bag bans, 39 percent of customers left the store without a bag (opposed to 17 percent pre-ban). [5] Here are a few other notable results. [6]

1. LA County: 100% reduction of single-use plastic bags (includes capping of paper bag use)
2. San Jose: 89% reduction of plastic bags in storm drain systems, 60% reduction in creeks and rivers, and 59% reduction in streets and neighborhoods
3. Alameda County: 85% fewer bag purchases overall as stores reported buying 50-90% fewer bags, more than double the amount of customers are now bringing in their own bags or leaving without any
4. San Francisco 18% fewer plastic bags in street litter from 2007 to 2009
5. Mountain View: From July 2009 to July 2014, observed that shoppers using single-use bags decreased from 66% to 11%, while shoppers that used reusable bags or no bags increased from 34% to 89%
6. San Mateo County: 162% more people bringing their own bags, 130% more people carrying out items without a bag

IV. Conclusion

- Single-use high-density polyethylene (HDPE) bags pose significant problems to the environment, wildlife, and human health through their production, use, and disposal.
- Plastic bag bans and fees for disposable bags are effective at reducing the numbers of bags in our environment.
- Reusable bags are safe and effective when they are used.
- Besides the harmful impact on our wildlife and the ugly marring of our beautiful environment in Minnesota, we are experimenting with our children's future when it comes to health impacts from these unintended plastics in our environment.

To be a part of this campaign and be notified of opportunities to act, contact Megan Kuhl-Stennes at Eureka Recycling, megank@eurekarecycling.org, 612-202-8760

SOURCES

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