Californians Against Waste

Conserving Resources. Preventing Pollution. Protecting the Environment.

Setting the Record Straight About Plastic Bags and Their Alternatives:

Common myths and misperceptions from bag ban opponents

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Myth: Plastic bags have a lower environmental impact than paper or reusable bags.

First, consider that 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 (estimates of up to hundreds of years). Then consider that many of the studies comparing plastic and paper bags are written in geographical locations rendering them inapplicable to California. Assumptions made in those reports have led to incorrect assessments on factors such as greenhouse gas emission impact and recycled content in paper bags.

Furthermore, according to a life cycle assessment (LCA) conducted by California State University (CSU) Chico, reusable bags made from recycled polyethylene have a lower environmental footprint than plastic bags after as few as 8 uses. They use 50% less energy, have 40% less impact on greenhouse gas emissions and solid waste resources, and use 30% less water. Of course, increased reuse of these bags will provide even greater environmental benefit with up to 90% reduced impacts.[i]

Myth: Plastic bags are not a problem because they are a small part of the litter stream.

Plastic bags are lightweight and compact, qualities that can reduce the bulk they add to the waste stream and environment. However, they are made from materials that don't break down. Every year the International Coastal Cleanup picks up trash along waterways in a worldwide collaborative effort to clean up litter. For the last few years, ICC volunteers have reported that plastic bags are the second most commonly found item during these cleanups.[ii]

Myth: Reusable bags aren't safe. 2 billion of the reusable bags used in the United States come from China and have high levels of metal and lead in them and often are not washed [between uses], creating levels of bacteria.

Public health and safety is an important issue, and this concern raises the point that the types of reusable bags being sold to consumers need to be regulated. As concluded by a reusable bag study in 2010, the levels of bacteria found in reusable bags are commonly found on other surfaces that come in contact with meat products, and consumers should be aware of the need to regularly clean these types of items. However, there was no evidence that reusable bags contain anything close to dangerous levels of bacteria, or that the e.coli strains found were in fact dangerous.[iii]

Local ordinances, such as the LA County ordinance, contain language in their definition of reusable bags to ensure that the bags do not contain lead, cadmium or other heavy metal in toxic amounts, and are made from a material that can be cleaned or washed.[iv] Furthermore, there are many domestically manufactured reusable bags that are certified to be safe and lead free. The CSU Chico LCA tested reusable bags and found that all tested bags created from recycled polyethylene tested negative for lead and cadmium levels.[v]

Myth: Plastic bag recycling is an underestimated, viable solution to plastic bag litter.

According to a 2011 CalRecycle report on plastic bag and film recycling collected in California stores, plastic carryout bags were recycled at a 3% rate in 2009.[vi] Despite establishing a statewide infrastructure for plastic bag recycling, recycling efforts have failed. Furthermore, the majority of comingled plastic collected for recycling was film and shrink wrap, at 63.2%. Only 5.9% of the plastic collected was actually plastic carryout bags.[vii]

Myth: Plastic bag recycling is on the rise. Hilex Poly will recycle 25 million tons in 2011, and recycled 20 million tons in 2010.

A 2009 ACC report on recovery weight of plastic bags reveals that from 2005 to 2009, plastic bag recycling increased by only 5.4%.[viii] For the same years, EPA reports show that paper bag recycling increased by 28.5%.[ix] According to the US EPA, the overall recycling rate of all plastic bags, sacks and wraps was 9.4% in 2009, and had a minimal increase to 11.5% in 2010.[x]

In addition, the market for recycled plastic bags is small. There appears to be few major companies with a demand for used plastic bags. In fact, the 2009 ACC report indicated that 57% of the recovered plastic bags and film in the U.S. are exported.[xi]

Myth: Grocery stores are being greedy by asking for minimum price requirements on paper bags. In addition to negotiating for these requirements, they are going to get money from reusable bag purchases.

It costs stores pennies to purchase plastic bags, while paper bags cost roughly 4-9 cents each. Reusable bags cost at least two to three times that amount. By banning plastic bags and placing a price requirement on paper bags, bag laws eliminate a problem product and allow stores to recover some of the costs of purchasing and providing other bags. Consumers can choose to bring in their own bags and avoid having to purchase paper or reusable bags at the register.

Myth: Plastic bag laws cost money. If plastic carryout bags are banned, consumers will lose money and have to spend more on trash bags.

LA County, which banned bags in 2010, conducted a socioeconomic impact study that determined the average household would spend an additional $5.72 to purchase plastic bags as a result of the bag ordinance.[xii]

There's also the potential savings in taxpayer dollars spent to cleanup litter and repair machinery damage caused by plastic bags. The City of San Jose, which passed a bag ordinance in January 2011, started moving towards a ban after plastic bags jammed their recycling machines and cost them $1 million each year.[xiii] It's estimated that local agencies together spend $25 million each year to deal with plastic bag litter alone, not including any costly TMDL compliance requirements.

Myth: Plastic bags are commonly reused. A United Kingdom study found that 76% of lightweight plastic grocery bags have a secondary use, and a U.S. study that found that 90% of plastic bags are reused by consumers.

CAW has been unable to find an official study or survey showing over 90% bag reuse, although there are several references to this number by the ACC[xiv] and others.[xv] According to the ACC, 65% of the bags are reused to hold trash. Closer examination of the 76% reuse reported by the United Kingdom indicates that the three most common reuses of plastic bags also result in a scenario where the bag is ultimately thrown away: use as a bin liner in the kitchen (53%), use as a bin liner in other rooms (26%), and put rubbish in it and throw it away (43%).[xvi] These "reused" bags are only used once more and still end up as waste in our landfills, whereas a reusable bag can be used multiple times in its lifetime.

Myth: Plastic bag laws will increase trash bag purchases. Ireland's bag levy increased trash bag purchases by 400%.

In 2009 Ireland's Environmental Protection Agency submitted a letter to the City of San Jose confirming that plastic bag use decreased by approximately 90 percent one year after their Plastic Bag Levy. Plastic bag litter and consumption had decreased and these reduced levels were being maintained. They further noted that the statistics on increased trash bag purchases were meaningless because there appeared to be no baseline information available to compare purchases before and after the implementation of the levy.[xvii]

And according to a study conducted by LA County, trash bag purchases post-ban would increase minimally compared to the current demand in trash bags. It takes seven single-use plastic bags to replace one plastic trash bag. The study also examined two analyses on reusing single-use bags and determined that there was a 28% reuse rate for single-use bags as trash bags. Based on these numbers, it was estimated that the LA County bag ordinance would increase trash bag purchases by 17 new bags per capita per year, added on top of the 126 trash bags per capita per year already being purchased. And if a more generous reuse rate is calculated with the ACC numbers on reuse, resulting in a 59% reuse rate, the demand is still relatively low at 36 new bags per capita per year.[xviii]

Moreover, many local ordinances in California provide exemptions for produce-type bags that can be used as trash bag liners and pet waste bags.

Myth: The charges per paper bag will create a financial burden for the economically disadvantaged.

The charge for single-use bags is optional; consumers can avoid paying this cost by bringing in their own bag or refusing a bag. Furthermore, recent state[xix] and local movements towards single-use bag reduction have included language with exemptions or subsidies for low-income program participants. Reusable bags or recyclable paper bags are provided at no charge to those who qualify.

Myth: Plastic bags aren't made from petroleum. 85% of the plastic grocery bags produced in the U.S. come from a derivative of natural gas.

Plastic bags are made from polyethylene, which is derived from natural gas that has been extracted along with petroleum. In short, the production of polyethylene plastic bags still involves the extraction and use of petroleum. Furthermore, the extraction of natural gas involves the highly polluting practice of

hydraulic fracturing, or fracking, in which chemicals are injected into a well to ease the extraction process.

Myth: Plastic bag laws kill jobs.

According to the Brookings Institution[xx], California is a national leader in green jobs. The state has a large number of reusable bag companies, possibly the most in the nation. Plastic bag laws will only help increase the number of green jobs and companies in this sector.

Furthermore, plastic carryout bags are often just a small portion of the product line for plastic manufacturers. Some of these companies also make reusable bags that can still be sold under the new bag laws.

Myth: The size and contents of the Great Pacific Garbage Patch has been overestimated and does not exist.

CAW agrees that there have been some misunderstandings about the Garbage Patch. Likely, the varying estimates on the size of the Patch could all be accurate—depending on how the quantification measurement was taken. One generous measurement may have examined the surface area of the ocean containing plastic particles, while another more conservative measurement may have looked at how large the surface area would be if all the plastic particles were consolidated into one solid area.

To clear things up, the Garbage Patch is more likely a thin "soup" of plastic particles, including photodegraded plastic bags, rather than a recognizable floating island of trash in the middle of the Pacific Ocean[xxi]. Though it may be hard to quantify, scientists who have been out to the gyre all agree that plastic pollutants are in the ocean and, while hard to clean, the pollutants need to be addressed because of the environmental impacts they have, both known and unknown.

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[iv] LA County Single Use Bag Ordinance. Adopted November 16, 2010 http://ladpw.org/epd/PlasticBags/pdf/BagOrdinance_Final.pdf

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