

The True Cost of Single-Use Bags

The Guinness Book of World Records has named the plastic bag the most ubiquitous consumer product of 2009 as it is produced on a worldwide scale by the trillions.ⁱ But what is the real cost of this throw-away consumer item? There is an external cost to provide free bags, not just to the environment, but also to taxpayers and businesses. The best solution is to decrease these external costs by avoiding disposable bags in the first place. Policy approaches, including bans and pollution fees, have proven effective tools to achieve source reduction and positively change consumer behavior.



Plastic Pollution Devalues Our Economy and Threatens Jobs

- Plastic litters our beaches, exacts a toll on our environment, and costs cities money to clean up. In fact, plastic pollution alone is costing developing and industrialized nations up to **\$1.3 billion annually** as it threatens the fishing, shipping and tourism industries.ⁱⁱ
- Plastic pollution threatens California's ocean economy, valued at \$43 billion. An estimated 408,000 jobs mostly in the tourism and recreation sectors are tied to the Ocean economy.ⁱⁱⁱ
- The total cost of litter collection, disposal and enforcement in the U.S. is estimated to be at least \$11.5 billion annually. Businesses bear the burden of this cost, spending \$9.1 billion annually and representing 79.5% of the total cost of litter abatement.^{iv}

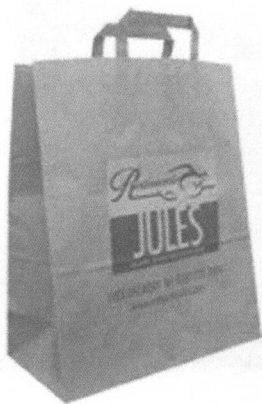
Taxpayers Subsidize Cleanup and Litter Abatement of Single-Use Bags

- Cities have estimated that the taxpayer cost to subsidize the recycling, collection, and disposal of plastic and paper bags amounts to as much as **17 cents per bag**.^v Given that Californians use 19 billion plastic bags annually, this equates to approximately **\$3.23 billion or \$88 per person per year** to subsidize the cleanup and litter abatement of plastic bags alone.^{vi}
- State agencies in California spend **\$25 million every year** to clean up plastic single-use bags that end up in our waste stream.^{vii} This figure does not include the millions of dollars that local governments must spend in street sweeping, litter prevention and outreach programs, and cleaning up trash-impaired waterways. In 1994, the County of Los Angeles spent \$4 million alone to clean up 31 miles of trashed coastline.^{viii}
- States, cities, and counties together spend \$1.3 billion on general litter abatement, which is equivalent to about **\$4.41 per capita, per year**.^{ix} These are taxpayer dollars out of your pocket to subsidize the cost of waste. Much of this money could otherwise be redirected to pay for much needed public services such as parks, libraries, and public safety.

Business and Consumers Pay for 'Free' Plastic Bags

- Retailers spend hundreds of millions of dollars annually to provide single-use bags to customers. For example, supermarkets can **spend up to \$1,500 to \$6,000 a month** just to provide single-use bags to their customers at the check-out.^x Even major retailers such as Target and CVS are realizing this significant cost burden and are offering discount incentives to customers who bring their own bags.^{xi}
- Stores typically pay 2 to 5 cents per plastic bag; these costs are embedded in food prices which are then passed onto consumers. This can add up to as much as **\$18 per person per year**.^{xii}

Paper Bags – Not Much Better for the Environment or Your Wallet



Paper bags are not a good alternative to plastic single-use bags because like disposable plastic bags they come with their own costs to the environment. Although some paper bags contain no old-growth fiber, contain some post-consumer recycled content and are recyclable, the production of most paper bags contributes to deforestation, greenhouse gas emissions, and additional waterborne wastes.^{xiii}

Businesses and Consumers Pay for 'Free' Paper Bags

Stores typically pay more for paper bags than plastic, anywhere from 5 to 23 cents per bag; these costs are then embedded in the food prices which are eventually passed on to consumers. This hidden cost can add up to as much as **\$30 per year on your grocery bill.**^{xiv}

The Solution: Paper or Plastic? NEITHER. Choose to REUSE

The key is getting consumers to avoid using disposable plastic and paper bags in the first place. One reusable bag can replace 600 or more paper and plastic bags over its lifetime.

Several countries and cities worldwide have committed to addressing the single-use bag pollution problem. For example, Bangladesh, Belgium, China, Denmark, Germany, Hong Kong, Ireland, Kenya, Mexico City, Netherlands, New Delhi, India, South Africa, and Taiwan all have imposed fees, taxes, bans, or a combination to encourage consumers to switch to reusable bags, a more sustainable alternative. Collectively, these countries represent an estimated 25% of the world's population that has committed to reducing single-use plastic bags.^{xv}

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- ⁱⁱⁱ Kidlow, J. et al. (July 2005). "California's Ocean Economy," report to the California Resources Agency, prepared by the National Ocean Economics Program.
- ^{iv} National Visible Litter Survey and Litter Cost Study (2009). Prepared for Keep America Beautiful, Inc. by Mid-Atlantic Solid Waste Consultants. New Market, MD, Sept. 18, 2009.
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- ^{vii} CIWMB. Available at: www.zerowaste.ca.gov/PlasticBags/default.htm (Accessed on 12/31/08).
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- ^{ix} National Visible Litter Survey and Litter Cost Study (2009). Prepared for Keep America Beautiful, Inc. by Mid-Atlantic Solid Waste Consultants. New Market, MD, Sept. 18, 2009.
- ^x Downing, J. "Free Grocery Bags Targeted for Extinction in California," *Sacramento Bee*, Aug. 25, 2008. Estimates from bag manufacturers and the Food Marketing Institute.
- ^{xi} Horovitz, B. "Target, CVS Put Plastic Bags in the Bull's-Eye, Pay for Reusables," *USA Today*, Oct. 19, 2009.
- ^{xii} Los Angeles County (Aug. 2007). "An Overview of Carryout Bags in Los Angeles County: Staff Report to the Board of Supervisors," Table 9. Based on assumption that average person uses about 600 plastic bags per year.
- ^{xiii} Australian Department of the Environment and Heritage Plastic Shopping Bags – Analysis of Levies and Environmental Impacts Final Report, prepared by Nolan-ITU, December 2002, Page 33; U.S. Energy Information Administration, U.S. Department of Energy, "Energy-Related Carbon Emissions in the Paper Industry, 1994," (Retrieved 12/31/08); U.S. EPA Toxic Release Inventory 2006 data for Paper Industry-NAICS code 322. (Retrieved 12/31/08).
- ^{xiv} Los Angeles County (Aug. 2007). "An Overview of Carryout Bags in Los Angeles County: Staff Report to the Board of Supervisors," Table 9. Based on assumption that average person uses about 600 plastic bags per year.
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AB 1998 (Brownley): Sack the Bag

The Problem

Californians use approximately 19 billion single use plastic bags each year.¹ However, only less than 5% of all single use plastic bags are actually recycled.² Instead, many of these plastic bags become litter and eventually end up in our oceans as marine debris.

Marine debris is ubiquitous and can be found from remote arctic regions to highly populated urban beaches.³ It is estimated that 60–80% of all marine debris, and 90% of floating debris is plastic. Plastic is so durable that it can take hundreds of years to break down at sea, and some types never truly biodegrade at sea.⁴

Plastic bags are commonly mistaken for food or prey by seabirds, marine mammals, fish, and sea turtles.⁵

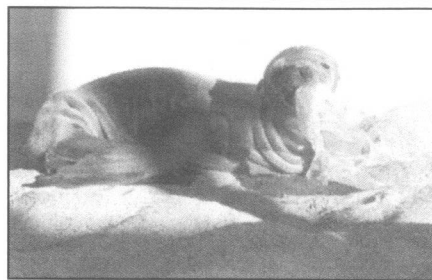


Trash piled up in Ballona Creek after a storm. Photo courtesy of the CA Coastal Commission.

Taxpayer Costs

Each year, the State of California spends approximately \$25 million to landfill discarded plastic bags.⁶

The annual cost to clean Los Angeles County's 31 miles of coastline is over \$4 million.⁷



Sea Lion ingesting a plastic bag. Photo courtesy of the Whale Rescue Team.

Past and Current Solutions

Despite past efforts under AB 2449 (Levine, 2006) to require grocery stores to accept plastic bags for recycling, these programs have demonstrated little success in increasing the recycling rate.⁸ Further, current law limits the tools available for local governments to more effectively control the pollution from plastic bags, such as imposing fees.⁹ With no other options available, cities have decided to outright ban plastic bags.

San Francisco was the first U.S. city to ban single-use plastic bags in pharmacies and grocery stores. Since then, the cities of Fairfax¹², Malibu,¹³ Manhattan Beach,¹⁴ and Palo Alto¹⁵ passed ordinances banning plastic carryout bags. Some of these cities are considering the possible placement of a fee on paper carryout bags to drive the use of reusable bags.

Bangladesh, Belgium, China, Denmark, Germany, Hong Kong, Ireland, Kenya, Mexico City, Netherlands, New Delhi, India, South Africa, and Taiwan all have imposed a single use plastic bag fee, tax, ban, or a combination. Collectively, these countries represent an estimated 25% of the world's population that has committed to reducing single-use plastic bags.¹⁰

Ireland implemented a plastic bag fee to discourage the excessive use of plastic bags (the fee was increased to 33¢ in 2007). Since 2002, plastic bag use has decreased by an estimated 90%.¹¹

A Call for Urgent Action

Nine in 10 Californians say the quality of the beach and ocean is just as important to them personally as well as for the overall quality of life and economy in the state.¹⁷ California's "ocean economy" is valued at \$43 billion.¹⁸

As part of a statewide strategy to reduce marine debris and protect or valuable ocean economy, the California Ocean Protection Council in November 2008 adopted legislative recommendations to prohibit single-use products, including plastic bags, that pose significant ocean litter impacts.¹⁹

If Passed, AB 1998 Would:

- ◆ Prohibit all supermarkets, retail pharmacies and convenience stores from distributing single-use plastic carryout bags to their customers at point of sale.
- ◆ Regulate the distribution of paper bags to encourage consumers to use reusable bags.
- ◆ Does not apply to bags that are used to carry bulk items, produce or raw meat to the checkout.
- ◆ Require stores to make reusable bags available for purchase instead of distributing using single-use carryout bags.

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15. Effective September 2009. Only applies to large grocery stores.
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Frequently Asked Questions on AB 1998

Why ban plastic bags?

Plastic Bags Harm Our Environment

Californians use more than 19 billion plastic grocery bags and merchandise bags each year.¹ Plastic bags, designed only to be used for minutes, never degrade and last hundreds of years in the ocean. Plastic pollution can kill wildlife that mistake it for food or become entangled in it. For example, floating plastic bags in the ocean often resemble jellyfish, a common food source for sea turtles and have been found in their digestive tracts.² Plastic bags also cause blight in our communities.

Plastic Bags Cost Our Economy

California taxpayers spend \$25 million to collect and landfill plastic bag waste each year.³ That figure does not include external costs, e.g., resource extraction and depletion, quality of life issues, economic loss due to plastic bag litter and human health expenses. The City of San Francisco estimated that to clean up, recycle, and landfill plastic bags costs the city 17 cents per bag.⁴

The State Needs a Uniform Policy

City-by-city action has resulted in a piecemeal approach to the problem. California needs to create a uniform policy to help businesses and local governments phase out plastic bags in a coordinated manner.

Businesses Are Already Doing It

Since 2008, IKEA has ceased using plastic and paper bags at their stores and now offer reusable bags for sale.⁵ Target and CVS Pharmacy have started offering incentive programs to their customers to encourage greater use of reusable bags.⁶ Wal-Mart has stopped handing out free plastic and paper bags at select pilot locations in California as part of its commitment to cutting its global waste by a third by 2013.⁷

Cities Are Already Doing It

Five California cities have adopted ordinances banning plastic single-use bags and at least 20 more are considering banning plastic bags in the near future.⁸ China, Mexico City and at least 40 countries and municipalities around the world have banned plastic bags. (representing at least 25% of the world's population⁹).

State and World Leaders Are Calling for It

In 2008, the Ocean Protection Council called upon the California Legislature to ban or place consumer fees commonly littered items, including plastic single-use bags.¹⁰ The United Nations Environmental Programme Secretariat has called for a world-wide ban of plastic bags.¹¹

¹ California Department of Resources Recycling and Recovery. "At-Store Recycling Program: Plastic Carryout Bags" <http://www.calrecycle.ca.gov/LGCentral/Basics/PlasticBag.htm> (Accessed 3/11/10).

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http://www.ci.sf.ca.us/site/s/environment_page.asp?id=28374 (Retrieved 1/5/09).

⁵ "The Results Are In: Over 92% of IKEA Customers Bagged the Plastic Bag." Press Release. IKEA (April 2, 2008). Available at: <http://www.ikea-usa.com>

⁶ Horovitz, B. "Target, CVS Put Plastic Bags in the Bull's-Eye, Pay for Reusables," *USA Today*, Oct. 19, 2009.

⁷ "No More Free Shopping Bags At 3 Walmart Stores." *Sacramento Bee*, January 2, 2010.

⁸ Cities that have adopted ordinances banning plastic bags are San Francisco, Malibu, Palo Alto, Fairfax, and Manhattan Beach. Major cities considering action in 2010 are Los Angeles, San Jose, Santa Monica, and Berkeley.

⁹ Population estimates obtained from census offices, United Nations, and World Development Indicators 2008 population estimates. Available at: <http://data.worldbank.org/country>.

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¹¹ UNEP (2009) "UNEP Head Calls for World-Wide Ban on Pointless Thin Film Plastic Bags." UNEP, Press Release, June 8, 2009.



Why regulate paper bags?

Paper Bags Are NOT Sustainable

The production of paper bags depletes our forests and natural resources, emits greenhouse gasses, and pollutes our water with toxic chemicals used in the pulp and paper making process.^{12,13}

Plastic and Paper both Need to be Addressed

AB 1998 addresses both paper and plastic to drive greater use of reusable bags and prevent consumers from switching from one environmentally harmful product to another.

Why not just increase recycling of plastic and paper bags?

We Cannot Recycle Our Way Out of This Problem

Less than 5% of plastic bags are currently being recycled in California.¹⁴ Efforts to increase recycling of plastic bags by creating take-back programs at grocery stores under AB 2449 (Levine, 2007) have shown minimal success.^{15,16} Despite these efforts, plastic bags are still making their way into the waste stream and storm drain systems, and often end up in the ocean.

Plastic Bags Are Very Costly and Difficult to Recycle

Plastic bags easily damage recycling equipment and jam screens used to separate materials. The City of San Jose reports that it costs them \$1 million per year to repair their recycling equipment from jammed plastic bags.¹⁷ Plastic bags cost much more to recycle, while give back little return and can cost waste haulers approximately \$1,240 per ton to recycle.¹⁸

Paper Is Recyclable But It Is Still a Waste

Most people are aware that paper bags are recyclable but only about 21% of them are actually recycled in California.¹⁹ Although some paper bags are made from postconsumer recycled materials that contain no virgin tree fiber, these bags are more expensive for stores to purchase relative to other paper bags, and are still designed for single-use.

Will low income individuals be forced to pay for reusable bags?

There's a Hidden Cost to Disposable Bags

Grocery stores currently embed 2-5 cent per plastic bag price and embed 5-23 cents per paper bag in the cost of food. If a ban is enacted it would save approximately \$18 to \$30 per person²⁰ which could be put to better use.

These Communities Will Actually Benefit from a Ban on Plastic Bags

Lower income communities, some of the most blighted by plastic bag litter, are already paying millions of dollars in taxes for cleanup costs; money that could otherwise go toward vital public services.

¹² Australian Department of the Environment and Heritage Plastic Shopping Bags: Analysis of Levies and Environmental Impacts Final Report, prepared by Nolan-ITU, December 2002, Page 33; U.S. EPA Toxic Release Inventory 2006 data for Paper Industry-NAICS code 322. (Retrieved 12/31/08).

¹³ The United States is the largest paper product consumer per capita. Despite advances in recycling of paper, over 40% of the industrial wood harvest goes into making paper products. Between 2005 and 2021 the global demand for paper is expected to increase by over 60%. In the United States, the paper industry is the largest industrial user of water, the third largest industrial consumer of energy, ranks fourth among industrial sectors in the release of toxic chemicals in water, and ranks third in toxic air emissions. Source: Environmental Paper Network (2007). "The State of the Paper Industry: Monitoring Indicators of Environmental Performance." Available at: <http://www.environmentalpaper.org/stateofthepaperindustry> (Retrieved 3/10/2010).

¹⁴ U.S. Environmental Protection Agency, 2005 Characterization of Municipal Solid Waste, Table 7; California Department of Resources Recovery and Recycling. (Available at: <http://www.calrecycle.ca.gov/LGCentral/Basics/PlasticBag.htm>).

¹⁵ Personal communication with California Integrated Waste Management Board staff (8 Dec 2008); R. Davis Paper or Plastic? "Voice of San Diego," 2 Dec 2008.

¹⁶ "Plastic Carryout Bag Program Status Update." Presentation by the California Department of Resources Recycling and Recovery, Jenneen Hartshorn, March 8, 2010. Report noted that many grocery store chains did not respond to the audit requests and results were dependent on completion of a co-mingled recycling rate study by Cal State Sacramento due out in May 2010.

¹⁷ City of San Jose Environmental Services Division (Available at: <http://www.sjrecycles.org/bags>)

¹⁸ Ibid.

¹⁹ California recycling rate U.S. Environmental Protection Agency *Municipal Waste Study 2005*.

²⁰ Ibid.



Heal the Bay

Efforts Are Underway to Make Reusable Bags Available

There are already many nonprofits, food banks, and local agencies that provide reusable bags at no cost to the public. For example, for the past three years Heal the Bay has annually partnered with businesses and local governments for "A Day Without A Bag," an educational event that raises awareness about the need to reduce waste from single-use bags. In 2009, nearly 20,000 reusable bags were distributed at more than 50 giveaway locations throughout LA County, and many of those locations were in underserved communities.

What's so bad about "biodegradable" or "compostable" plastic bags?

These Bags Don't Degrade Well in the Ocean

Plastics that are compostable or claim to be "biodegradable" have not proven to degrade in the marine environment and may pose serious threats to marine life.²¹ Instead, these bags require heat and bacteria, such as those present in industrial composting facilities, to completely break down into constituents that assimilate back into the environment.

Does AB 1998 ban all plastic bags?

All bags not used at point of sale, such as bags used to transport produce, bulk items, raw meat, or other items to the checkout would still be available.

What can I use for dog poop?

You can use newspaper, or newspaper cover bags, fruit and vegetable bags from the market or purchase dog waste bags.

What can I use for bin liners?

Remember, that there is already a "hidden cost" of using free disposable grocery bags of almost \$30 per year embedded in the cost of goods, far outweighing the cost of purchasing a box of bin liners that will last you the whole year. Trash bags are also not commonly found as litter on beaches or in waterways.

What happens if I forget to bring my own bag to the store?

Under AB 1998, stores would still be required to provide reusable bags for purchase at the checkout. All major grocery store chains and big-box stores sell reusable totes at low costs. One reusable bag will replace 600 disposable shopping bags over its lifetime. Also stores are required to provide green paper bags at a cost of 5 cents or more.

How can I remember to bring bags to the store?

- (1) Always start your grocery list with "Bring Bags"
- (2) Keep a collapsible bag in your purse or briefcase for those emergency runs to the stores
- (3) Keep your bags in your car trunk.

²¹ California Integrated Waste Management Board (June 2007), "Performance Evaluation of Environmentally Degradable Plastic Packaging and Disposable Food Service Ware: Final Report," pp. 38-39.