The Davis plastic bag ban

The City of Davis has drafted an ordinance to ban single use carryout bags starting January 1, 2014, with the CEQA review period open until February 25th of this year. The UC Davis chapter of the Society for Conservation Biology supports the ban for the benefits it provides for the health and conservation of wildlife and habitat in Yolo county, the San Francisco Bay, and the resulting overall reductions in pollution and fossil fuel use. However, this ban should not be taken as a replacement for overall resource conservation and reduced plastic consumption.

Problems with single use plastic carryout bags

Reusable bags use 50% less energy, and have 40% less impact on greenhouse gas emissions and solid waste resources than plastic bags[1]. Plastic bags create both environmental and economic costs. An estimated 100,000 tons of plastic bags fill landfills in California yearly, but the actual volume may be higher[2]. While plastic bag recycling is available, less than 5% of bags are recycled annually[3]. Storm runoff and winds easily transport bags out of landfill facilities, causing them to be the most collected trash item on shorelines and coasts. Funding for the cleanup and prevention of litter and marine debris diverts funds away from other conservation activities[3]. Once plastic bags reach natural environments (such as the ocean), they can take more than 40 weeks to start breaking down, and even "biodegradable" or "compostable" bags can still take more than 20 weeks. But plastics do not completely breakdown, and the resulting small pieces can remain in the environment for decades.

Wildlife impacts

Plastic bags are a significant threat to wildlife, both locally and beyond. The Yolo Bypass Wildlife area is home to many waterfowl, shorebirds, and migratory birds, including over 40 species designated with a special status of concern[5]. This critical watershed can be affected by plastic bags both through windblown pollution from local landfills as well as litter through stormwater runoff[3]. Broader impacts to marine environments include well-known floating plastic garbage patches, and many harmful or fatal impacts on animals that unintentionally ingest plastic or get caught in plastic (i.e. turtles, fish, seabirds, small mammals)[6]. Plastics are manufactured with many toxic additives which can leach into the natural environment. They can also accumulate pollutants (many persistent organic pollutants, such as PCBs) and transport these to watersheds and the marine environment[7]. Once in a watershed, these toxins can have impacts on both wildlife and humans, including endocrine disruption, developmental issues, and other impairments[8].

Proposed ban

The current draft ordinance proposed by the Davis city council would ban plastic bags from retail establishments (with retail space greater than 10,000 square feet), including supermarkets and convenience stores, but not including restaurants and food vendors. It excludes any plastic bags that are integral to product packaging, or those used for produce, bulk, or meat transport. Recycled paper bags will be available at a cost of 10 cents each, and reusable bags may be available for purchase. Violations will be subject to a fine[9].

Throughout California, there are already 33 active California ordinances that cover 53

jurisdictions, including nearby San Francisco (city and county)[10]. Furthermore, economic impact statements in other regions have demonstrated no overall economic impact to consumers or retailers[11].

Resource conservation

The City of Davis can take an important step towards waste reduction and resource conservation with this proposed plastic bag ban. The ban will provide long term benefits through reduced energy use and pollution, improving both local environments and global greenhouse gas emissions. However, the ordinance should be implemented with continuing emphasis on reusable bags--whether cloth, plastic, or post-consumer recycled material--reusable bags are the most sustainable option when compared to single use plastic or paper bags. Awareness and lifestyle changes should be encouraged for Davis residents to keep reusable bags clean and readily available for shopping. Consumers and retailers will have a positive impact on resource use and environmental conservation through this ordinance.

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