



CITY OF CONCORD

REPORT TO MAYOR AND THE CITY COUNCIL

FROM: Earle M. Chesley P.E., General Services Director
DATE: January 19, 2022
SUBJECT: Use of Non-polyethylene Pay-As-You-Throw Bags

Recommendation

- Accept this report relative to inquiries on using biodegradable bags in place of plastic bags in the City's Pay-As-You-Throw program.

Background

- In 2009, the City established a user-fee based Pay-As-You-Throw program in which residents must purchase City-issued PAYT bags for curbside collection of municipal solid waste. Recycling is collected free of charge. The revenue generated from PAYT bag sales helps to pay for solid waste collection and disposal.
- The City currently has a contract with WasteZero, a certified B-Corp, to manufacture, store, deliver, and account for PAYT bags and subsequent PAYT bag outlet sales. Bags are currently made from polyethylene, though they are a byproduct of natural gas extraction, which otherwise would be burned off.

Discussion

- There are a number of considerations around contemplating a switch to non-polyethylene bags which must be looked at when having a discussion on the topic. First of which is availability. WasteZero does in fact make non-polyethene bags, though not in the traditional purple color. Given that WasteZero is the industry leader in PAYT bag production (and importantly program administration), this is important. That being said though, the cost of these non-polyethylene bags is significantly higher.
- Currently the City budgets \$166,740 for PAYT bag production, logistics and administration. That cost would be estimated to double to \$333,480 if non-polyethylene bags were ordered. An estimated nine months would also be required for lab testing and approval of the compostability of purple bags under ASTM D6400 standards.

- Other considerations of non-polyethylene bag use center around environmental considerations. One thing to consider is that plastic bags in the United States are in fact a by-product of natural gas extraction which, if not used for this purpose, may otherwise be burned off. While this may or may not sway opinions on polyethylene use, there is a strong belief within WasteZero that using another raw material may increase greenhouse gas emissions with increased manufacturing of non-polyethylene materials as the currently used material is generated as a byproduct. A switch to non-polyethylene bags would require the production of new raw materials but would not reduce the amount of polyethylene raw materials produced.
- Another consideration is around the matter of decomposition in a landfill. The reality of landfills is such that decomposition is limited due to the lack of oxygen which is required in the process. So, while non-polyethylene may decompose at a faster rate than polyethylene bags, the ultimate disposal of either type of bag will not result in a “compost-like” situation.
- WasteZero has indicated a willingness to manufacture the City’s bags using non-polyethylene materials but has advised the City that the more than \$150,000+ increase in raw materials costs will not create \$150,000+ in environmental benefit or, in its view, any environmental benefit. It does recommend the City use non-polyethylene bags for yard or food waste that will be composted, but not for trash.
- Lastly, and not directly related to the question of which material to use but important to note, is the dramatic decrease in plastic bag use that the PAYT program itself has had. It has been shown that Concord reduced its trash volume by over 40% with the implementation of the program. It is further estimated that the average PAYT community uses 2/3 fewer trash bags when compared to before program implementation.