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California State Assembly
**SELECT COMMITTEE ON WASTE REDUCTION
AND RECYCLING AND NATURAL RESOURCES**



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**ASSEMBLY MEMBERS MCCARTY AND
FRIEDMAN
CHAIRS**

INFORMATIONAL HEARING

Wednesday, November 18, 2020
10 a.m. -- State Capitol, Room 4202

SUBJECT: COVID-19 Impacts to California's Recycling Markets

OVERVIEW

From where we eat to where we work, the COVID-19 pandemic has affected numerous parts of daily life; and the ripple effects of these changes have impacted recycling collection, management and markets. Social distancing measures have led to business and school closures, shifting waste generation to households. Working from home has also increased use of office paper, but nowhere near compensating for the use of paper produced by the commercial sector. Protective measures in response to COVID-19 have further encouraged people to buy items online and via food delivery, which increased both plastic packaging and old corrugated container use. These behavioral shifts paired with major disruptions to supply chains require investigation regarding their long-term impacts on the future of recycling and the state's environmental health.

IMPACTS TO COLLECTION AND MANAGEMENT

Throughout the United States, local recycling programs report greater residential recycling generation versus commercial generation. These collection shifts can have financial ramifications, as residential recycling costs are frequently subsidized by commercial recycling customers. Whereas commercial customers pay based on the amount of recycling they deliver, cost of residential pickup is determined by contracts oftentimes with a fixed priced, regardless of how much haulers are picking up.

For organics and food waste, COVID-19 impacts have fluctuated throughout the year. Initially, consumers hoarded food causing pressures to meet demand. However, many of the nation's largest farms have since struggled with surpluses of perishable food due to restaurant, school and hotel closures. For example, the nation's largest dairy cooperative, Dairy Farmers of America, estimates that farmers are dumping as many as 3.7 million gallons of milk each day.

IMPACTS TO MARKETS

Virgin versus Recycled Plastic

Price wars between new and recycled plastic have created a unique strain on plastic recycling markets during the pandemic. Plastics are made of fossil fuels, and as lockdowns took effect to slow the spread of COVID-19, the global demand for petroleum collapsed. As a result, oil prices plummeted, making the manufacturing of virgin plastics from fossil fuels less expensive than utilizing recycled plastic.

According to S&P Global Platt, virgin prices for the commonly used plastic polyethylene terephthalate, PET, plummeted to \$857/metric ton, (around 39 cents/lb) on April 29, the lowest level seen since they started assessing the product in February 2006 and nearly 42% below year-ago levels. With such low virgin PET prices and concerns over supply availability of recycled PET, many large food and beverage packaging manufacturers entered into six to 12-month contractual agreements with virgin resin producers. Overall, the global plastic packaging market size is projected to grow from \$909.2 billion in 2019 to \$1012.6 billion by 2021, at a compound annual growth rate of 5.5%, mainly due to pandemic response. The cost incentive to purchase virgin plastics, along with lifestyle changes that increase plastic use, moves us away from our state's overall diversion goals along with our most recent mandate to use 50% recycled plastic in beverage containers by 2030 [AB 793 (Ting), Chapter 155, Statutes of 2020].

Global Recycling Market Impacts Prior to COVID-19

China National Sword

In January 2018, China instituted Operation National Sword which banned 24 types of scrap from being imported, and implemented much stricter and more rigorous contamination standards for shipments of recyclables they accept. For decades, China had been the world's largest importer of waste importing paper, plastic and scrap metal.

For California, the state had previously exported about a third of the recyclable material it collected each year according to 2018 data. Historically, most of that material—particularly unsorted mixed paper and mixed plastics—went to China for processing and manufacturing into new products. With the implementation of National Sword, major reductions in materials that are allowed to be imported have created significant logjams in the international recycling system. The effects of these global market adjustments can be seen throughout the state with the closure of recycling redemption centers and the fluctuation in prices of traditional recycled commodities.

Basel Convention

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal is a global pact which regulates how certain types of hazardous waste are shipped between developed and developing nations. Although the United States is not currently a party to the Basel Convention, the treaty still affects U.S. importers and exporters. Parties to the Basel Convention cannot trade Basel-covered waste with nonparties in the absence of a pre-determined agreement between countries.

In May 2019, Basel parties expanded what materials fall under stricter shipping requirements, including mixed-plastic bales. Specifically, countries will be subject to new notification and consent rules when sending and receiving specified materials. Implementation of these new requirements begins in January 2021, and while the implications of these new regulations remains to be seen, major global adjustments to trading practices will affect the recycling markets in the state.