

Introduction and Executive Summary

On November 4, 2020, Governor Phil Murphy signed into law P.L. 2020, c117, which prohibits the use of single-use plastic carryout bags in all stores and food service businesses statewide and single-use paper carryout bags in larger grocery stores. The law also prohibits the dispensing of polystyrene foam food service products and single-use straws. All provisions of the law became effective on May 4, 2022.

Section 7 of the statute created a “Plastics Advisory Council” (PAC or Council) to monitor the implementation and evaluate the effectiveness of the law in reducing single-use plastics and plastic waste in New Jersey. Sixteen members were appointed to the Council by the Governor. Regular meetings of the PAC began shortly thereafter in April, 2022. Chapter 117 further provides that the PAC is to prepare a written report within 12 months to evaluate the law’s implementation and effectiveness and to make recommendations for legislative or administrative actions needed to improve implementation and effectiveness. This “first-year report” was prepared to meet the obligations of Chapter 117 and is respectfully submitted to the Governor’s Office and Legislature, more specifically the chairpersons of the Senate Environment and Energy Committee and Assembly Environment and Solid Waste Committee.

Beyond the first-year report, the statute requires the PAC to study:

- the environmental and public health impacts of single-use plastics and micro-plastics;
- healthy and environmentally-friendly alternatives to single-use plastics;
- strategies and policies to increase the recyclability of plastics and reduce the amount of plastic entering the environment;
- the technological feasibility of increasing recycled content of consumer plastics and expanding the types of plastics that may be manufactured from recycled material; and
- ways to enhance the development and expansion of markets of post-consumer recycled plastic, including State and local purchasing and procurement practices.

Following study, the PAC was further directed to submit a “second-year report” to the Governor and Legislature and to make recommendations to reduce the use of plastics and the amount of plastic entering the environment, and to increase the rate of recycling plastics.

Shortly after convening, the PAC elected a Chair and Vice-Chair and formed three committees to carry out the above referenced charge. They are:

- Education, Assessment and Compliance Committee;
- Environment and Public Health Committee;
- Plastic Reduction and Recycling Committee.

Chairpersons were selected for each committee and PAC members chose on which committee they wished to serve. A decision was also made not only to address the first-year report legislative charge to evaluate the effectiveness of the implementation of Chapter 117, but also to summarize efforts during the first year to address environmental and public health impacts of plastics/microplastics, as well as strategies to reduce plastics and increase recycling.

Procedurally, and with minor exception, the PAC met monthly as did each of its committees. Meeting minutes were taken at each meeting, distributed to membership, and approved at the next monthly meeting. First-year workplans were prepared by each committee which served as an outline of objectives, milestone deadlines and deliverables needed to inform the first-year report. Experts were consulted to provide background and perspectives which educated PAC members and helped inform the suite of first-year report recommendations that follow.

The first-year report is presented in four sections:

Section 1 represents the PAC evaluation of the implementation and the effectiveness of Chapter 117 during the first year following the effective date;

Section 2 provides a concise summary of PAC recommendations or “Opportunities for Action” pursuant to the statute;

Section 3 frames the focus areas the PAC plans to address in a workplan for the upcoming year that will inform development of its second-year report;

Section 4 includes various Appendices of background information regarding resources reviewed and subject matter experts consulted:

- Appendix A: Listing of subject matter experts consulted and presentations provided to the full PAC and to individual committees;
- Appendix B: Bibliography of resources consulted by the PAC during the first year;
- Appendix C: Full copy of P.L. 2020, Chapter 117.

To ensure robust and comprehensive evaluation and furtherance of the legislative goals, Chapter 117 called for diverse membership in the PAC. In summary, three members from State agencies (DEP, DOH and NJDA), four members from the environmental community, four representing stores and food services businesses, two from the academic community and one each from the recycling and polystyrene industries and local government. Throughout the past 12 months, PAC members have worked cooperatively through the above referenced committees and in monthly PAC meetings in an attempt to develop consensus recommendations to present to the Governor and Legislature. By and large, this was achieved as the vast majority of the “Opportunities for Action” reflect consensus positions. However, given the mission of some of the organizations participating in the PAC, this was not possible in all cases. As a result, an opportunity to express dissent was afforded to all members. Dissenting views are provided at the end of Section 2.

The first-year study by the PAC has identified 20 “Opportunities for Action” outlined in Section 2. For each Opportunity for Action, the PAC has attempted to identify specific recommended actions to be taken. From these recommendations, a number of themes have emerged which can be concisely summarized as follows:

Implementation of Chapter 117 has been highly effective: There is little question that the law has been effective in reducing single-use bags. From survey work conducted by the New Jersey

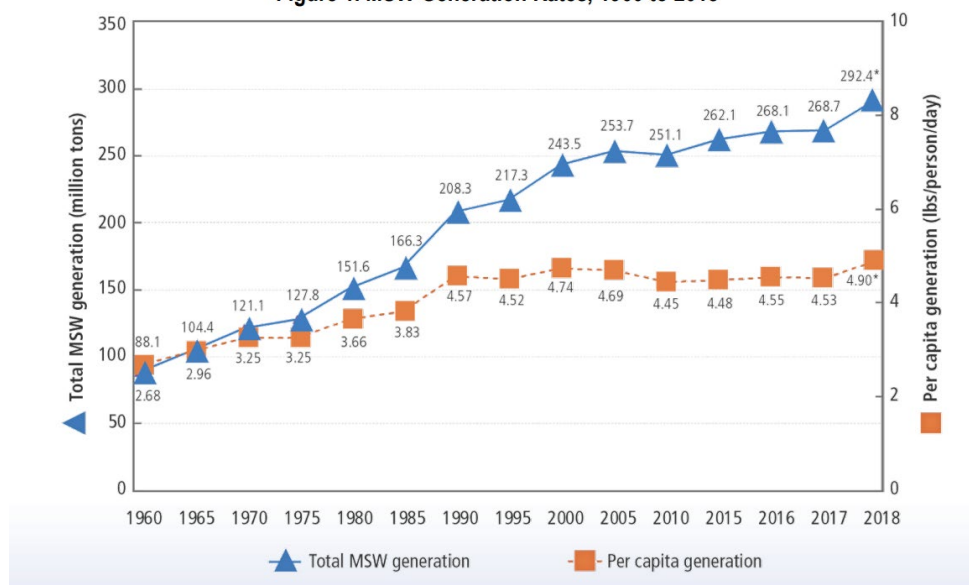
Food Council, it can be extrapolated that approximately 5.5 billion single-use plastic bags and 110 million single-use paper bags were eliminated from entering the waste stream and environment by the supermarket sector alone from the effective date of the law on May 4, 2022 through the end of the year. It is likely that far more single-use plastic bags and paper bags were reduced this past year, which the PAC will attempt to further quantify in its second-year work. Compliance inspections conducted by DEP, County Environmental Health Act agencies and municipalities showed relatively few violations and those cited were quickly addressed (for a full discussion, see Section 1 – DEP Compliance and Enforcement Data). Also, Clean Ocean Action’s 2022 Beach Sweeps report compared data from 2021 to 2022 and showed a significant decrease in litter collected from items targeted by the Get Past Plastic Law, with 37.31% fewer single-use plastic bags, 39.04% fewer plastic straws, and 37.84% less foam waste found along the Jersey Shore. Finally, the education campaigns implemented by DEP, the Clean Communities Program and New Jersey Business Action Center, as well as private sector associations such as the New Jersey Food Council and New Jersey Restaurant and Hospitality Association, clearly reached NJ consumers and businesses. Over 3.2 million hits were recorded on the websites of these three agencies for only portions of the year. Five of the “Opportunities for Action” outlined in Section 2 of this report address ways of increasing the effectiveness of Chapter 117 in subsequent years, as follows:

- Opportunity for Action #1 to address the unanticipated problem of reusable bag build-up at the consumer level as an unintended consequence of the dramatic increase in home grocery delivery services during the pandemic;
- Opportunity for Action #2 to assess the need for clarifications related to some key definitions provided in Chapter 117 through rulemaking from the DEP anticipated in 2023;
- Opportunity for Action #3 which recommends evaluating the need for establishing an analytical testing procedure to determine compliance of reusable bags placed in the marketplace with Chapter 117, as currently exists in the State of California;
- Opportunity for Action #4 to establish uniform enforcement procedures, standards and reporting by State, county and local environmental and public health inspectors;
- Opportunity for Action #5 to clarify for food-service businesses the requirements related to dispensing of straws, including such items as customer signage, specific instructions for food-service employees and the use of alternative products, particularly at self-service stations in restaurants and common public places.

Waste reduction must be our future focus: In popular nomenclature we often speak of the “3-R’s” of Reduce, Reuse, Recycle. Since the Resource Conservation and Recovery Act (RCRA) was passed at the national level in 1976, the societal responsibility for solid waste management and, later recycling, was delegated by the Federal government to the 50 states and localities. Historically, nearly all programmatic focus by states and localities has been on only “1” of the “3-R’s,” recycling. Both nationally and in New Jersey waste reduction efforts have largely been ineffective. The following table from the USEPA’s “Advancing Sustainable Materials Management: 2018 Fact Sheet” (most recent data available) graphically tells the tale in presenting some 58 years of municipal solid waste generation data. The bottom line: we

continue to generate more waste each year, even when population increases are accounted for through per capita waste generation estimates.

Figure 1. MSW Generation Rates, 1960 to 2018*



Toward the future of effectively addressing plastics in our environment, our focus must primarily shift to reducing the amount of plastic manufactured and plastic “waste” produced that goes to disposal (landfills or incinerators) or ends up on the land, in the waterways, and in the ocean. Throughout the past year the PAC has studied this issue and has presented five “Opportunities for Action” to advance plastic and overall waste reduction. Section 2 of this report addresses plastic waste reduction in:

- Opportunity for Action #6, which recommends a statewide waste reduction public education campaign;
- Opportunity for Action #7, which recommends a related and expanded Get Past Plastic promotional campaign;
- Opportunity for Action #13 which recommends executive action to promote plastic waste reduction at all public facilities and identification of ways to extend reduction programs to the county and municipal level;
- Opportunity for Action #14 to expand waste reduction and recycling in New Jersey’s 2,500 public schools through the vehicle of the “Sustainable Jersey” program;
- Opportunity for Action #17 to remove regulatory barriers to foster a true “reuse and refill” green business economy.

Effective plastics recycling must be improved and made easier: According to 2018 USEPA national data, plastics make up approximately 12.2 % of the municipal waste stream. Overall recycling of plastics nationally is very low (4.5%) compared to other recyclable commodities like paper and paperboard (66.5%) and metals (12.6%). This is largely due to the degree of

difficulty in recycling plastics used in product packaging by manufacturers. Some elements of plastic recycling, however, are effective. Although low, the national recycling rate of #1 PET bottles and jars (e.g., soft drinks, cooking oils) was 29.1% in 2018 and #2 HDPE natural bottles (e.g., milk and water bottles) was 29.3%. New Jersey recycling rates for all plastics (11.14%) are considerably higher than national figures (4.5%) but still low compared to other recyclable commodities. Combined plastic container recycling of PET and HDPE in New Jersey is estimated at 50.65% where total container recycling (including glass, steel, aluminum cans and plastic containers) averages closer to 60%.

In addition to historically low recycling percentages, no material within the recycling stream causes more confusion and challenges than plastic. The International Plastic Resin Coding System confuses consumers, as do different requirements for plastic recycling in New Jersey's 21 counties. The Resin Code numbers have come to represent how recyclable a container or package is, with #1 and #2 plastics required for recycling in every New Jersey County Recycling Plan, while some also include #5, and some processing facilities welcome all 1 – 7 to be included for curbside collection. This causes great public confusion as to what plastic containers are or are not recyclable and results in “wishful recycling” creating unprecedented levels of contamination in the plastic recycling stream. Section 2 of this report identifies five “Opportunities for Action” related to improved plastics recycling which, to some extent, mirror the recommendations of the New Jersey Recycling Market Development Council in their final report released in April, 2022:

- Opportunities for Action #6 and #7 noted previously to advance a public education and Get Past Plastic promotional campaign;
- Opportunity for Action #13 which recommends executive action to advance public sector recycling efforts;
- Opportunity for Action #18 which recommends studies to determine the efficacy of standardizing requirements for PET (#1), HDPE (#2) and PP (#5) recycling Statewide as opposed to county-by-county;
- Opportunity for Action #19 to investigate the re-establishment of a low interest loan recycling equipment infrastructure funding program.

Reduction of microplastics released to the environment: The PAC is also charged with studying public health and environmental impacts associated with the manufacture and use of plastics including microplastics. The Camden County Municipal Utilities Authority performed an “optimization study” to review how system enhancements can increase the efficiencies of plastics removal during the wastewater treatment process. Based on this experience, the PAC recommends that the DEP bring together the 10 largest wastewater treatment plants in New Jersey to seek the performance of voluntary optimization studies without changing prescriptive standards applicable in DEP permits. If successful, such optimization studies could be performed at smaller wastewater treatment plants located across the State as well. Similarly, microplastic and microfiber release to the environment could be decreased through better filtration built into the manufacturing of new washing machines. It is estimated that as much as

30% of microplastics released to the environment come from the washing of clothing in the home and commercial laundries. Five “Opportunities for Action” have been identified by the PAC to address the reduction of microplastics and microfibers to the environment:

- Opportunity for Action #8 which specifically calls for the DEP to lead an effort with the 10 major wastewater treatment plant operators in the State to perform voluntary optimization studies;
- Opportunity for Action #9 that provides PAC support for legislative action to further study and develop incentive programs to limit microplastics in drinking water, while reserving judgment on the details of such legislation;
- Opportunity for Action #10 which recommends a subcommittee of the PAC to review legislation passed in France and proposed in Canada, California and Oregon to require manufacturers to install advanced microfiber filtration systems in new washing machines;
- Opportunity for Action #11 to establish New Jersey academic institution collaboration regarding integrated microplastic and nano-plastic research;
- Opportunity for Action #12 to investigate and capitalize on microplastics research and regulatory models developed in other states and countries.

Additional legislation, now pending, will guide the future of waste reduction, recycling and sustainable materials management in New Jersey. On January 19, 2022, Governor Murphy signed into law the “Recycled Content Act.” This law will require manufacturers to utilize certain percentages of post-consumer recycled content when manufacturing new products, which increase over time based on different material schedules established in the statute. The law is primarily focused on plastic beverage containers, rigid plastics, plastic garbage bags and glass, along with an outright ban on the use of polystyrene packaging peanuts. While not yet fully implemented, the Recycled Content Act will be extremely important to further develop markets and increase demand for post-consumer materials, including plastics. The next “frontier” in materials management public policy is “Extended Producer Responsibility” (EPR), where “producers” (manufacturers) take responsibility for their products and packaging once those materials are in the waste stream. EPR shifts the economic burden of the cost of materials management from the public to the producer of the product. In 2022, the Legislature introduced the “Product Packaging Stewardship Act” (S426/A1444) which would establish an EPR framework for New Jersey. The States of Maine, Oregon, California, and Colorado have adopted EPR laws, none of which have yet reached the full implementation phase. The PAC supports the adoption of strong EPR legislation in New Jersey. Related to public education about plastics recycling is the issue of claims made by manufacturers regarding the recyclability or biodegradation potential of products or packaging. In March of 2022, “Truth in Labeling” legislation was introduced in the New Jersey Senate as S2145. Three “Opportunities for Action” were identified by the PAC in Section 2 of this first-year report related to the referenced legislation and the legislative process itself:

- Opportunity for Action #15 supporting the need for a “Product Packaging Stewardship Act” proposed in the New Jersey Senate, and for which the PAC has identified guiding

principles that should be addressed toward implementation of a balanced and effective EPR platform for the State;

- Opportunity for Action #16 supporting the concept of “Truth in Labeling” legislation which the PAC will study further as part of its second year workplan;
- Opportunity for Action #20, which recommends improved dialogue between legislative leaders and State agencies like the DEP/DOH prior to the introduction of major bills related to plastics (and other sectors related to materials sustainability). The recommendation also proposes the provision of general appropriation funding to meet staffing and resource needs within legislation, as opposed to the authorization to assess fees through rulemaking, a time-consuming process that may not produce the funds or staff needed to successfully implement new laws in a timely fashion.

Section 3 of this first-year report, “Second-Year Plastics Advisory Council Workplan,” outlines the work proposed to be undertaken by the PAC to further evaluate the implementation and effectiveness of Chapter 117. It frames what is needed for effective plastics waste reduction, measures to improve plastics recycling, and study needed to evaluate the environmental and public health implications of plastics in our environment, as well as the issues concerning biodegradable and compostable plastic. This section of the first-year report presents two lists of the 20 Opportunities for Action bullets outlined in Section 2. The first are actions which the PAC plans to undertake itself. The second are those actions suggested by the PAC for the DEP and DOH to undertake for discussion in the second-year report.

Disclaimer: This report reflects the viewpoint of the Plastics Advisory Council and does not represent the administration's commitments to legislation or funding.