

October 30, 2021

Dear Governor Northam, Chair Plum of the House Committee on Agriculture, Chesapeake and Natural Resources, and Chair Petersen of the Senate Committee on Agriculture, Conservation and Natural Resources,

As Chair, I am pleased to submit the annual report on behalf of the Plastic Waste Pollution Advisory Council. It is the honor of the Council to work on these critical environmental issues for the Commonwealth and provide our recommendations. As Chair, there are several points I would like to share.

- 1) I would like to recognize the dedication of supporting DEQ staff, Council members and the public that travel to Richmond for these day long meetings. It has been brought to our attention that the lack of remote access for public comment presents an equity issue as the current meeting format requires individuals to take time off and travel to observe meetings and to make public comment. The Council is committed to transparency and welcomes input from the public and will explore with DEQ additional avenues for participation and public comment.
- 2) Due to Covid-19, the Council was not appointed and able to meet until July 2021. Since that time, the Council has met monthly to prepare the submitted report. To meet the required deadline, the Council remained tightly focused on its specific 2020 charge and did not have time to seriously consider new policy. The Council deferred these discussions to 2022.
- 3) Lastly, the Council focused substantially on actions to support the implementation of the State-Wide Expanded Polystyrene (EPA) Ban (§10.1-1424.3) and the Disposable Plastic Bag Tax (§58.1-1745 - §58.1-1748) and assess their effectiveness. The Council also recommended actions to address deficits in foundational solid waste and recycling data needed to improve understanding of total generation and fate of plastic waste as well as the total generation and typical sources of plastic litter and pollution in the Commonwealth. This data is needed to better direct actions to eliminate and reduce plastic waste and pollution, target education and outreach, and to measure the impact of policy and interventions. This lack of data will not deter the work of the Council, but the Commonwealth lags in this area relative to peer states that are reducing plastic waste and pollution and growing the circular economy. Most of these recommendations require Department of Environmental Quality support. It is not the intention of the Council to recommend unfunded mandates. Funding and staffing resources will be necessary to support many of these recommendations.

It is the pleasure of the Council to do this important work and we look forward to continuing it in 2022.

Respectfully,



Anne Johnson

Chair – Plastic Waste Pollution Advisory Council

Plastic Waste Prevention Advisory Council

Council Report

Submitted November 1, 2021

INTRODUCTION

“The purpose of the Council is to advise the Governor on policy and funding priorities to eliminate plastic waste impacting native species and polluting the Commonwealth's environment and to contribute to achieving plastics packaging circular economy industry standards. The Council shall have a total membership of 10 members that shall consist of two legislative members, four non-legislative citizen members, and four ex officio members.” See end of document for full legislative charge.

The members of the Council are listed below.

- Legislative:
 - Delegate Kenneth Plum – Delegate for the 36th House of Delegates District
 - Kathy Neilson – Designee of Senator Chap Petersen (34th Senate District)
- Non-legislative:
 - Dr. Rob Alexander – James Madison University
 - Jennifer Cole – Clean Fairfax
 - Anne Johnson – Resource Recycling Systems, Inc.
 - Dr. Jennifer Russell – Virginia Polytechnic Institute and State University
- Ex-Officio
 - Sharon Baxter – Designee of Director of Virginia Department of Environmental Quality (DEQ)
 - Joseph Hilbert – Designee of State Health Commissioner/Virginia Department of Health (VDH)
 - Brett Vassey – Virginia Manufacturers Association (Alternates - Keith Christman and Adam Peer)
 - Morgan Guthridge – Designee of Virginia Chamber of Commerce President

COUNCIL'S CHARGE FOR THE NOVEMBER 2020 REPORT

The Plastic Waste Prevention Advisory Council (PWPAC) shall submit a report to the Governor and the Chairs of the House Committee on Agriculture, Chesapeake and Natural Resources and the Senate Committee on Agriculture, Conservation and Natural Resources by November 1, 2020. An enactment clause requires that the initial report provide recommendations on legislation and other activities to accelerate the elimination of plastic bags and polystyrene packaging used or sold in the Commonwealth.

To produce this first report of the Plastic Waste Prevention Advisory Council by the required deadline, the work was very compressed. The Council was created by the 2020 General Assembly. The non-legislative citizen members were appointed on April 23, 2021, after the 2020 due date for the initial

report. This report represents the annual report and covers the specific materials requested to be covered in the first report. The Council worked within a tight timeline to review background and make recommendations. The Council had little time to deliberate and as a consequence, several issues were pushed off for further discussion.

WHAT THE COUNCIL HAS DONE AND LEARNED TO DATE

- July 17, 2021 PWPAC Meeting
 - Meeting was online. First meeting of the PWPAC to introduce members, review rules, and elect Chair and Vice Chair. Minutes and a recording are available [here¹](#).
 - Presentations:
 - Executive Order 77: Virginia Leading by Example to Reduce Plastic Pollution and Solid Waste - Chris Bast, DEQ
 - FOIA - Katie Sallee, Office of Secretary of Natural & Historic Resources
- August 24, 2021 PWPAC Meeting
 - Meeting was in person. Agenda was designed to provide the Council with background on plastic waste and pollution in Virginia.
 - Presentations:
 - Plastic pollution in Virginia – Katie Register, Clean Virginia Waterways, Longwood University
 - Plastic waste management in Virginia – Kathryn Perszyk, DEQ
 - Localities and litter enforcement – Amy Gray, City of Newport News
 - Recycling landscape in Virginia – Annie White, Resource Recycling Systems
 - Minutes, including copies of presentations, are available [here²](#).
- September 29, 2021 PWPAC Meeting
 - Meeting was in person. Agenda was designed to provide background on both Expanded Polystyrene (EPS) Ban and Disposable Plastic Bag Tax policies and to develop recommendations for the November report.
 - Presentations
 - Brief Review of Performance and Implications of Existing Plastic Bag and Expanded Polystyrene Container Bans – Dr. Jennifer Russell, Virginia Polytechnic Institute and State University
 - Recent Plastics-related Legislation – Chris Bast, DEQ
 - Disposable Plastic Bag Tax ([§ 58.1-1745](#) - [§ 58.1-1748](#))
 - EPS Ban (§ 10.1-1424.3)
- Minutes, including copies of presentations, are available [here³](#).

KEY FINDINGS TO DATE

- **Plastic Waste Generation** - There is no comprehensive or reliable state-level data on the amount of plastic waste generated in the Commonwealth or detail on the types of plastics responsible for plastic waste. The lack of specificity in the reporting requirements for specific material composition of recycling and waste streams creates this barrier. The lack of consistent

¹ <https://commonwealthcalendar.virginia.gov/Event/Details/52178>

² <https://commonwealthcalendar.virginia.gov/Event/Details/52893>

³ <https://commonwealthcalendar.virginia.gov/Event/Details/53262>

state-wide reporting requirements for waste haulers is a barrier to understanding plastic waste and recycling in the Commonwealth. Some localities and planning districts do not always have the authority in place to require hauler data.

- **Plastic Litter and Pollution** - There is no comprehensive or reliable state-level or other data to inform an understanding of how much plastic litter and pollution is released to the environment in the Commonwealth, where it is being generated, and the underlying causes of plastic litter and pollution. The lack of a state-wide litter study is a barrier to better understanding plastic litter and pollution in the Commonwealth.
- **Plastic Sortation** - There is a lack of data for how much plastic waste is sorted for recycling in Virginia and a lack of clarity on who is required to be permitted and report under current definitions of recycling facilities, recycling centers and MRFs. While MRFs are required to have a solid waste permit, recycling facilities are not. Under a revised definition recycling centers may report in some instances. To develop a circular economy for plastics, which is part of the charge for the PWPAC, data from communities and recycling facilities on collected and processed tons by commodity class and landfilled tons is needed to understand the flow and disposition of waste plastic in the Commonwealth as well as provide better transparency for Virginians.
- **Bag Ban Policy** - Regarding the effectiveness of disposable plastic bag bans and bag tax legislation enacted globally an academic review of peer-reviewed publications. The peer-reviewed publications revealed some common insights from jurisdictions around the world that have implemented these tools:
 - Interventions to reduce disposable plastic bag use, i.e., through taxes/fees or bans, are effective to varying degrees^{4,5}
 - This form of policy tool is most successful when bag use reduction programs target long-term behavior change of users using combined incentive, disincentive, and transition support, i.e., assessment of a per-bag tax/fee (disincentive), combined with broader community-wide education and programming (incentive), and accessible alternatives (transition support)⁵;
 - The assessed bag tax/fee must be sufficiently high that it is perceived and acts as a disincentive to plastic bag consumption; and
 - If taxes/fees are set too low, they do not affect significant reduction in use⁵.
- **Litter and Illegal Dumping** - There is room for improved coordination and communication about programs and best practices between communities. Many localities in Virginia develop solutions and practices individually, complicating whether and how residents are able to participate in available diversion programs.
- **System Impacts** - Plastic waste, litter, and pollution is a complex problem that requires systems-based thinking to address. Policy and administrative interventions can have consequences across social, economic, and environmental dimensions which must be considered fully.

⁴ Muposhi, Asphat, Mercy Mpinganjira, and Marius Wait. "Considerations, benefits and unintended consequences of banning plastic shopping bags for environmental sustainability: A systematic literature review." *Waste Management & Research* (2021): 0734242X211003965.

⁵ Adeyanju, Gbadebo Collins, Teslin Maria Augustine, Stefan Volkmann, Usman Adetunji Oyebamiji, Sonia Ran, Oluyomi A. Osobajo, and Afolabi Otitoju. "Effectiveness of intervention on behaviour change against use of non-biodegradable plastic bags: a systematic review." *Discover sustainability* 2, no. 1 (2021): 1-15.

DECISION MAKING PROCESS

- The Council did establish a decision-making rule to guide Council decision making for recommendations to the Governor and General Assembly. The Council decision rule requires a quorum present to vote which is a governance requirement. In the case of the PWPAC, this means having at least 6 members present. Presuming that a quorum is present for a vote, decisions are based on the support of a simple majority of the members present (i.e., 4 out of 6 or 6 out of 10). Upon request, the minority opinion is recorded and made part of the meeting record. Council members can only vote if present per state requirement. The decision-rule will be used for legislative and administrative recommendations for the reports.

RECOMMENDATIONS

State-Wide Expanded Polystyrene (EPS) Ban

- **Policy** - The Council does not recommend any modifications or additions to the EPS food preparation formats currently covered under the current EPS Ban (§ 10.1-1424.3). Although the Council voted (6-2) to recommend no changes, the following minority opinions were noted⁶:
 - Dr. Jennifer Russell requested unprepared food packaging be included.
 - Jennifer Cole noted that the current legislation does not go far enough.
- **Allocation of Fines** - The Council does recommend the General Assembly consider adding language or authorize a pathway to allow the fines received from non-compliant entities with the EPS Ban to go into a fund that can be used to offset the cost of alternative packaging for entities impacted by the ban.
- **Tools and Resources** - The Council does recommend that DEQ develops and disseminates tools and resources to impacted food retail entities to support identifying and sourcing alternatives to EPS based on learnings from EO 77.
- **Procurement Alternatives** - The Council does recommend identifying opportunities to facilitate or incentivize volume purchasing for alternatives to EPS for small volume purchasers.
- **Education and Outreach** - The Council does recommend improving the effectiveness of the EPS Ban by supporting implementation through education and outreach.
 - Develop educational and outreach materials to support local implementation.
 - Offer education and information on alternatives for impacted entities.
- **Monitoring and Reporting** - The Council does recommend that DEQ be tasked with designing and implementing a system to monitor and report compliance with the EPS Ban and report out to the public on metrics that include, but are not limited to:
 - Level of compliance of impacted entities (and non-compliance).
 - Revenues from non-compliance and use and allocation of collected fines.
 - Environmental impact.
- **Continuous Improvement** - The Council does recommend the General Assembly set clear expectations for continuous improvement through the monitoring and implementation of the EPS Ban and identify opportunities for continued improvement, specifically in response to any learnings from EO 77 implementation.
- **Resources** - The Council acknowledges that DEQ needs to have adequate resources and appropriate authorization to implement the recommendations outlined above.

⁶ While not a minority opinion Adam Peer noted that the Virginia Manufacturers Association did not support the original legislation.

Disposable Plastic Bag Tax

- **Policy** - The Council does not recommend a policy shift from a Disposable Plastic Bag Tax to a state-wide bag ban. Although the Council voted (7-1) to recommend no changes, the following minority opinions were noted:
 - Jennifer Cole supported a state-wide bag ban.
- **Monitor and Report** - The Council does recommend that DEQ be tasked with designing and implementing a system to monitor and report the annual environmental, economic, and performance of the Disposable Plastic Bag Tax, and report to the public on metrics that include, but are not limited to:
 - Revenues (bag tax) and allocation
 - Volumes and units
 - Participation
 - Environmental impact
- **Education and Outreach** - The Council does recommend asking DEQ to develop an education and information campaign reflective of best practices to support local implementation of the Disposable Plastic Bag Tax and reduce local cost of implementation.
- **Education and Outreach** - The Council does recommend asking DEQ to develop guidance for the use of Disposable Plastic Bag Tax revenues to include support of bag collection infrastructure and consumer education programming that explains the purpose of the Disposable Plastic Bag Tax.
- **Education and Outreach** - The Council does recommend asking DEQ to develop model Disposable Plastic Bag Tax ordinance language that meets state requirements in order to facilitate local implementation of the Disposable Plastic Bag Tax and reduce the cost of implementation to localities.

General Recommendation

- **Waste Characterization Study** - The Council does recommend that the General Assembly authorize a statewide waste characterization study to define the volume and composition of both solid waste and recyclable material streams for the Commonwealth with specific details on the amount and types of plastic waste by resin type. This data is needed to establish and to understand the amount and character of plastic waste in Virginia and develop necessary baselines. To measure the performance of any interventions, comparable data will be needed on a regular basis to determine if recommended interventions are resulting in eliminating plastic waste and growing the circular economy.

ITEMS DEFERRED FOR ADDITIONAL DISCUSSION

- The Council will consider an amendment to the Disposable Plastic Bag Tax legislation to offer a range in tax rates.
- The Council will consider the impact of adding farmers markets as part of the Disposable Plastic Bag Tax legislation.
- The Council would like to further its understanding of the use and extent of EPS in non-food preparation applications.

Attachment

Virginia Acts of Assembly – 2020 Session

***Act to amend the Code of Virginia relating to the
Plastic Waste Prevention Advisory Council***

VIRGINIA ACTS OF ASSEMBLY -- 2020 SESSION

CHAPTER 798

An Act to amend the Code of Virginia by adding in Chapter 26 of Title 2.2 an article numbered 36, consisting of sections numbered 2.2-2699.8, 2.2-2699.9, and 2.2-2699.10, relating to Plastic Waste Prevention Advisory Council.

[H 1354]

Approved April 7, 2020

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Chapter 26 of Title 2.2 an article numbered 36, consisting of sections numbered 2.2-2699.8, 2.2-2699.9, and 2.2-2699.10, as follows:

Article 36.

Plastic Waste Prevention Advisory Council.

§ 2.2-2699.8. Plastic Waste Prevention Advisory Council; purpose; membership; compensation; chairman.

A. The Plastic Waste Prevention Advisory Council (the Council) is established as an advisory council, within the meaning of § 2.2-2100, in the executive branch of state government. The purpose of the Council is to advise the Governor on policy and funding priorities to eliminate plastic waste impacting native species and polluting the Commonwealth's environment and to contribute to achieving plastics packaging circular economy industry standards.

B. The Council shall have a total membership of 10 members that shall consist of two legislative members, four nonlegislative citizen members, and four ex officio members. Members shall be appointed as follows: the Chairmen of the House Committee on Agriculture, Chesapeake and Natural Resources and the Senate Committee on Agriculture, Conservation and Natural Resources, or their designees, and four nonlegislative citizen members to be appointed by the Governor, subject to confirmation by the General Assembly. The Director of the Department of Environmental Quality or his designee, the State Health Commissioner or his designee, and the presidents of the Virginia Chamber of Commerce and the Virginia Manufacturers Association or their designees shall serve ex officio with voting privileges. Nonlegislative citizen members of the Council shall be citizens of the Commonwealth.

Legislative members and ex officio members of the Council shall serve terms coincident with their terms of office. Gubernatorial appointees shall serve for terms of four years. Appointments to fill vacancies, other than by expiration of a term, shall be for the unexpired terms. Vacancies shall be filled in the same manner as the original appointments. All members may be reappointed.

No nonlegislative citizen member shall serve more than two consecutive four-year terms. The remainder of any term to which a member is appointed to fill a vacancy shall not constitute a term in determining the member's eligibility for reappointment.

C. Legislative members of the Council shall receive such compensation as provided in § 30-19.12. Nonlegislative citizen members shall serve without compensation. All members shall be reimbursed for all reasonable and necessary expenses incurred in the performance of their duties as provided in §§ 2.2-2813 and 2.2-2825. Funding for the costs of compensation and expenses of legislative members shall be provided by the operating budgets of the Clerk of the House of Delegates and the Clerk of the Senate upon approval of the Joint Rules Committee. Funding for the costs of expenses of the nonlegislative citizen members and all other expenses of the Council shall be provided by the Office of the Secretary of Natural Resources.

D. The Council shall elect a chairman and a vice-chairman annually from among its membership. A majority of the members shall constitute a quorum. The meetings of the Council shall be held at the call of the chairman or whenever the majority of the members so request.

E. The Department of Environmental Quality shall provide staff support to the Council. All agencies of the Commonwealth shall provide assistance to the Council, upon request.

§ 2.2-2699.9. Powers and duties of the Council.

The Council shall have the power and duty to:

1. Study all aspects of plastic pollution problems in the Commonwealth with the mission of (i) eliminating plastic waste that impacts native species and pollutes the Commonwealth's environment and (ii) contributing to the achievement of plastics packaging circular economy industry standards;

2. Obtain from other federal, state, or local agencies any relevant data on plastic pollution and any associated costs of cleanup as it relates to eliminating plastic waste;

3. Perform any relevant analysis and develop a plan or recommendations as appropriate for the legislature, localities, or any other stakeholder;

4. Coordinate the legislative recommendations of all other state entities having responsibilities with respect to plastic pollution issues; and

5. *Submit to the Governor and the General Assembly an annual report for publication as a report document as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports. The chairman shall submit to the Governor and the General Assembly an annual executive summary of the interim activity and work of the Council no later than the first day of each regular session of the General Assembly. The executive summary shall be submitted for publication as a report document as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.*

§ 2.2-2699.10. Sunset.

This article shall expire on June 30, 2023.

2. That the Plastic Waste Prevention Advisory Council shall submit to the Governor and the Chairs of the House Committee on Agriculture, Chesapeake and Natural Resources and the Senate Committee on Agriculture, Conservation and Natural Resources an initial report that provides recommendations on legislation to accelerate the elimination of plastic bags and polystyrene packaging used or sold in the Commonwealth no later than November 1, 2020.