MIND YOUR PLASTIC

FROM THE CLASSROOM TO THE COMMUNITY: WASTE DATA COLLECTED ACROSS CANADA

Insights from the Circular Economy Ambassador Program (CEAP) 2025

EXECUTIVE SUMMARY

Mind Your Plastic is a registered Canadian charity dedicated to tackling plastic pollution and advancing sustainable, circular solutions across the country. Through our largest initiative, the Circular Economy Ambassador Program (CEAP), Mind Your Plastic empowers youth to become environmental advocates by combining education, action, and community engagement. The CEAP equips students with the knowledge and tools to understand the environmental impacts of plastic waste and pollution, and provides the opportunity and guidance to carry out hands-on initiatives such as litter cleanups and waste audits. In doing so, the program aims to nurture a new generation of environmental leaders who are committed to building a future without plastic pollution.

Since its inception, the CEAP has made significant progress in addressing plastic pollution across Canada. To date, more than 5,000 youth participants aged 4 to 18 have led community cleanups that have produced valuable citizen science and waste composition data. This year's findings reveal that Cigarette Butts have once again surpassed Small Plastic Pieces as the most frequently collected litter items. This reflects both the persistent prevalence of tobacco-related waste in our natural environment and the ongoing challenge of microplastic pollution. These trends highlight the need for sustained education, corporate responsibility, and progressive waste reduction strategies.

This year data was once again gathered from diverse environments including school properties, parks, beaches, river banks, and neighbourhoods. The differing cleanup locations highlight unique waste patterns that demand localized responses. For example, food packaging was very prevalent near schools, while parks showed higher concentrations of cigarette butts. The program's findings also point to the recurring presence of branded litter from major corporations such as Tim Hortons, McDonald's, and Coca-Cola, underscoring the importance of corporate accountability and action in waste reduction efforts.

Encouragingly, several provinces including Alberta, British Columbia, Quebec, and Nova Scotia have recently advanced and expanded regulatory waste measures (such as extended producer responsibility). These policies will continue to shape waste management and pollution patterns across Canada. The CEAP's programming and these progressive policy frameworks represent meaningful steps toward a cleaner, more circular future for communities across Canada.

Achieving a future free of plastic pollution requires a global, national, and regional shift towards a circular economy that prioritizes sustainability through the entirety of our economic supply chain and the lifecycle of our products. This includes strategies such as promoting reuse, redesigning products to eliminate harmful plastics, and introducing corporate responsibility programs. Consumer education and behavior change, empowering individuals to minimize reliance on single-use items are also an important piece of this shift. Community engagement initiatives that promote reusable alternatives and shared resources can accelerate this transition.

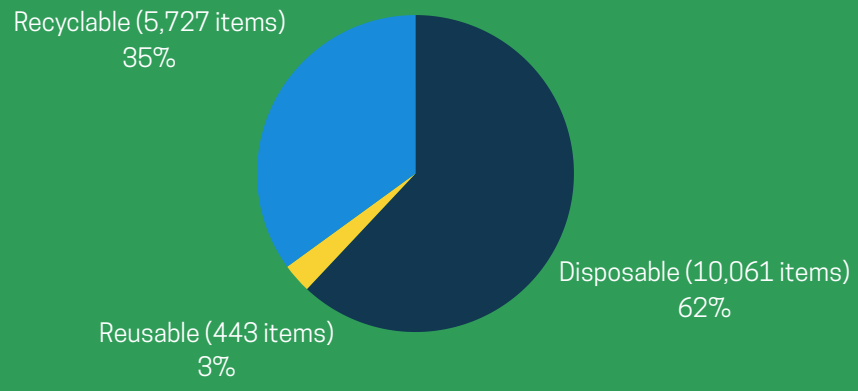
Findings from the CEAP underscore the urgency of addressing plastic pollution in Canada and highlight priority areas for intervention. By combining specific local strategies, public education, strengthened regulations, and corporate collaboration, we can make meaningful progress toward plastic-free land and seas. Addressing plastic pollution requires a full lifecycle and stakeholder approach extending beyond cleanup activities to include upstream reduction that will turn off the tap and prevent plastic pollution altogether.

OUR 2025 CLEANUPS

16,231
total items collected

76%
of items were made of plastic (including cigarettes)

12,413
total count of plastic items (including cigarettes)



371.03 lbs
of litter was collected
(note that this total was self-reported by classrooms and not every classroom had a weight scale)

UNDERSTANDING TODAY'S PLASTIC CRISIS

Plastic pollution has become one of the most pressing environmental challenges of our time, infiltrating oceans, rivers, forests, and even the most remote regions of the planet. Its widespread use is driven by its durability, versatility, and low cost, yet these same qualities make it highly persistent, lingering in ecosystems for hundreds of years. In fact, it's suggested that nearly every piece of plastic ever created still exists in some form today (WWF-Australia, 2025). Current estimates indicate that approximately 2,000 garbage trucks' worth of plastic waste are dumped into the world's oceans, rivers, and lakes every day (UNEP, 2025). This already worrying statistic could double by 2030 if we don't take immediate action to prevent these plastics from entering our environment. The consequences for wildlife are severe: species across every ecosystem are harmed by ingestion, entanglement, chemical exposure, bioaccumulation, and habitat disruption.

IN THE SHORT TIME SINCE THE SINGLE-USE PLASTIC BOOM IN THE 1950S, OUR SOCIETY AND ECONOMY HAVE BECOME INCREASINGLY DEPENDENT ON THE USE OF CHEAP, DISPOSABLE PLASTICS.

Our collective increased use of plastics since the 1950s resulted in 230 times more plastic being produced annually by 2019 (Geyer et al., 2017; OECD, 2022). That number continues to climb every year, and it is anticipated that the use of plastics will increase from 464 million tonnes in 2020 up to 884 million tonnes in 2050 without intervention (Dokl et al., 2024).

The lifecycle of millions of tonnes of plastics is currently impacting not only our environment and wildlife, but also humans and the livelihood of our communities. Studies of marine life samples, from fish to seabirds have confirmed the presence of microplastics in all studied species, and increasingly, studies performed on human organs are detecting similar patterns of plastics found in our blood and cardiac tissue. Most of the work studying how microplastics and plastic chemicals impact humans is emerging, but exposure has been found to be potentially linked to diagnoses related to various cancers, dementia, and cardiovascular diseases (Marfella et al., 2024; Nihart et al., 2025; Baj et al., 2025). In addition to the environment and health implications of plastic use, there are also economic impacts. The cost of clean-ups, environmental degradation, loss of tourism and fisheries, and public health strain is estimated to exceed trillions of dollars annually (Landrigan et al., 2025; Allianz, 2024).

CURRENT EFFORTS

The Canadian government has implemented several policies and initiatives aimed at preventing plastic pollution from entering our environment. These efforts include:

1. **Microbeads in Toiletries Regulations (2017): This regulation bans the use and production of microbeads in cosmetics, reducing plastic pollution.**
2. **Canada-wide Strategy on Zero Plastic Waste: This strategy outlines the government's plan to turn plastic waste into a resource within a circular economy.**
3. **Single-Use Plastics Prohibition Regulations (2023): This regulation bans the production, import, and distribution of six single-use plastic items, including cutlery, straws, and shopping bags. An appeal of the legality of these regulations is still under review by the Supreme Court of Canada.**
4. **Ocean Plastic Charter: Canada led the creation of this charter, which commits G7 countries to goals like collecting all plastics by 2040.**
5. **Greening Government Strategy: A strategy aiming to extend the life of products and divert at least 75% of plastic waste from federal government operations by 2030.**
6. **Federal Plastics Registry: A Canadian government initiative designed to create a national inventory of data on plastic usage to help reduce waste and plastic pollution. Producers of various plastics were required to submit their first report by September 29th, 2025.**

The transboundary nature of plastic pollution also reinforces the need for international collaboration. Governments, scientists, environmental organizations, industries, and communities must work together to reduce plastic waste, including participating in global initiatives such as the Global Plastics Treaty. While progress on the Treaty has stalled, it is integral to establishing a legally binding framework addressing the entire lifecycle of plastics, from design and production to end-of-life.

A major hurdle in addressing plastic pollution is identifying the sources of plastic and holding producers accountable. To support this, brand audits have been organized with volunteers to survey and document brands present in collected plastic litter (Cowger et al., 2024). Similar to the CEAP, these audits engage community members in citizen science data collection to identify common plastic pollution trends. Findings from cleanups across the world often highlight that food and tobacco corporations are top contributors to plastic litter. While there is no one, uniform methodology for collecting and analyzing litter data, Mind Your Plastic aims to work with other organizations to produce standardized data.

THE CIRCULAR ECONOMY AMBASSADOR PROGRAM

Mind Your Plastic (MYP), a registered Canadian charity, is dedicated to preventing plastic pollution through municipal policy advocacy, business partnerships, and hands-on educational programs. As part of MYP's educational program, the organization launched the Circular Economy Ambassador Program (CEAP) in 2021 to educate youth about circularity in resource use, with a particular focus on the plastics lifecycle and how we can advocate for more circular solutions.

Since the CEAP's first program year in 2021, over 5,000 students have participated across Canada, collecting more than 45,000 litter items during cleanups. Youth are essential advocates in the fight against plastic pollution because they represent both the present and future stewards of our environment. The CEAP empower students to actively collect and analyze litter data, participate in cleanups, and advocate for local policy changes, giving them a tangible role in addressing plastic pollution. The program has had a meaningful impact on schools, teachers, students, and communities.

MYP ensures the CEAP is accessible by providing free cleanup resources, detailed instructions, and age-appropriate educational materials in both English and French. Guided by teachers, students participate in in-class learning activities related to plastic waste and the circular economy, as well as the hands-on, outdoor learning of conducting their own cleanups both on school property and in their communities. Through this process, CEAP students are able to utilize the knowledge and tools they've acquired to generate and advocate for innovative plastic pollution solutions.

METHODS

In 2025, the CEAP continued to grow, with 43 classes from 38 different schools across 9 provinces and territories completing the program. More classrooms had enrolled and aspired to participate, but due to a variety of unforeseen circumstances with teacher participation and last minute weather events (e.g. wildfires, wildfire smoke, heat waves, etc.), were unable to do so during the given timeframe. As a result, a total of 1,578 students successfully completed the CEAP in 2025. MYP designed the program to be accessible to students of all ages in order to maximize student engagement and participation. The program was advertised to schools and teachers within Canada primarily using email campaigns, school board outreach, and social media. Teachers were invited to sign up their classes and schools to participate in the program. When teachers signed up, they received the initial program instructions and expectations. Teachers were expected to complete their classroom cleanups between April and June 2025. Reusable cleanup supplies were mailed to classrooms (reusable bags and gloves) and learning resources (Powerpoint presentation, digital activity worksheets, personalized information on local waste management services, etc) to help enhance student knowledge on the issue of plastic pollution were sent through a series of emails.

To analyze the impact of the program on both teacher and student behaviours and attitudes, both parties were asked to complete pre-program and post-program surveys. The results of these surveys will be reviewed in a different report.

DATA ANALYSIS

To support data collection and ensure consistent reporting, the CEAP participants were asked to complete three datasheets: a Data Tally Sheet, a Location Datasheet, and a Sorting and Diverting Sheet. Each was designed to capture a specific aspect of the cleanup (e.g. the type of litter collected, characteristics of the cleanup location, and the waste diversion process), providing a detailed record of the waste collected and its context. After cleanups, teachers submitted the completed forms to Mind Your Plastic, where the data was compiled, organized, and analyzed using Google Sheets through pivot tables, charts, and interactive dashboards to identify trends and insights.

SORTING AND DIVERTING DATASHEET

Out of the 43 classes that submitted cleanup data in 2025, 30 successfully completed and submitted the Sorting and Diverting Datasheet. This may have resulted in an underestimation of the total amount of waste collected, diverted, or recycled. Nevertheless, the collected data provided valuable insight into the make up of waste collected across the program. The datasheet asked classes to record the weight (in pounds) of waste categories including Total Waste Collected, Non-Recyclable Waste, Recyclable Waste, Plastic, Paper, Fabric, Glass, and Cigarette Butts. As most teachers did not have weight scales in their class and some omitted weight estimates entirely, it is likely that the actual weight of all litter items collected in 2025 is greater than the reported figures.

DATA TALLY SHEET

The Data Tally Sheet serves as the most detailed record of cleanup datasheets, and is structured into predefined categories featuring specific waste items commonly encountered in cleanups. Items not listed on the sheet were recorded under a Miscellaneous category. Students were also able to add sections to record new miscellaneous items. The tally sheet documented the quantity of each item collected by participating classes. During data entry into the MYP database, item names were standardized to maintain consistency and eliminate redundancy. In some cases, teachers and students also included additional descriptive details such as brand names or sizes, which enhanced the depth of the dataset.

LOCATION DATASHEET

The Location Datasheet captured detailed contextual information about each cleanup, including the school name, city or town, cleanup date, number of participating students, nearby businesses or activities, and the cleanup site type. Cleanup sites were categorized into five location types: Beach (areas near open water), School Property (school grounds), Neighborhood (residential or urban areas), Park (public greenspaces), and Other (sites that did not fit the previous categories). Cleanups conducted on both school grounds and adjacent parks were classified as School Property.

When information was missing from the datasheet, Google Maps was used to supplement the data and identify requested details such as nearby restaurants, parks, and other relevant infrastructure. This allowed the MYP team to fill in gaps that contribute to the analysis of the litter data collected. Additionally, if the number of student participants was not provided on this datasheet, participant counts from the sign-up form were used, resulting in a total of 1,558 participants in 2025.

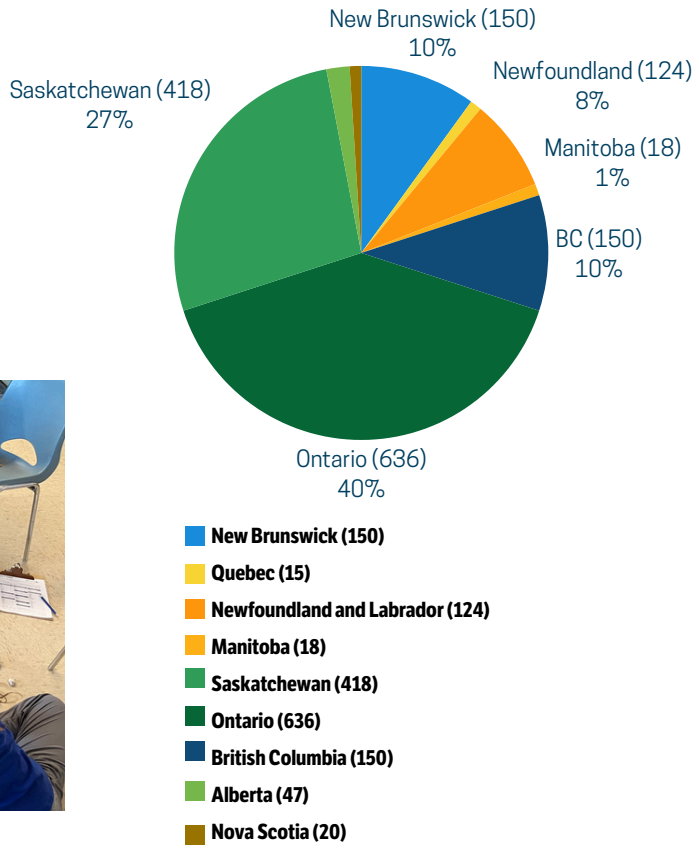
RESULTS

After completing cleanups with their students, teachers sent the datasheets to Mind Your Plastic. The 2025 CEAP program saw engagement from 57 schools across Canada. However, only 43 schools (1,578 participants) across nine provinces were able to provide data due to various challenges faced by teachers during the school year. Participants recorded the number of items collected in each category listed on the Data Tally Sheet. These numbers were then converted into total counts and percentages to analyze different aspects of the collected waste, and location characteristics.

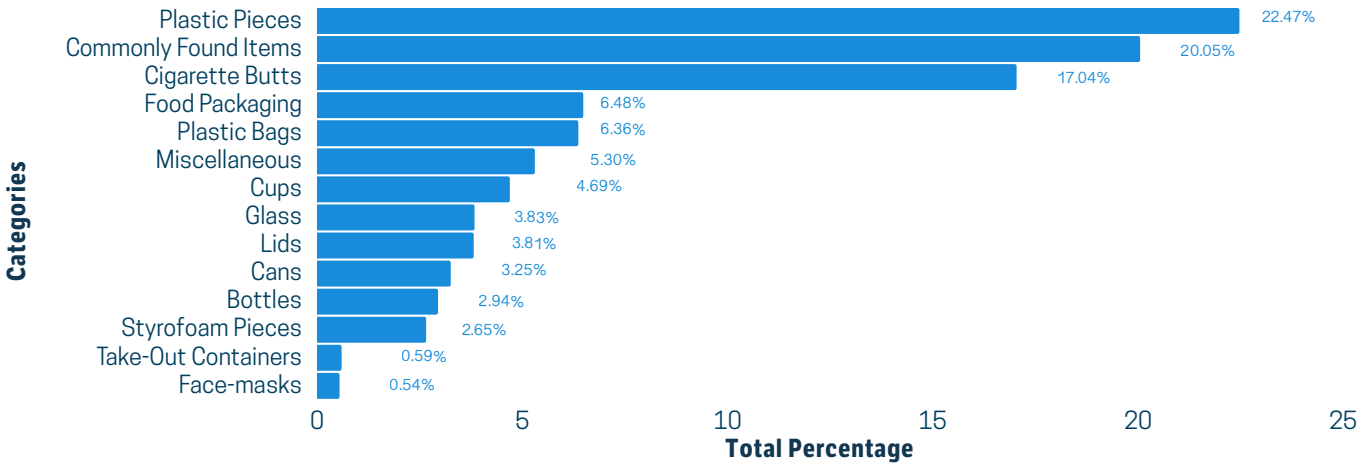
SCHOOLS AND PARTICIPANTS

Total number and percentage of participants in the 2025 CEAP program from each participating province and territory.

Percentages are based on a total of 1,578 participants from 43 schools.



PERCENTAGE OF ITEMS FOUND IN EACH CATEGORY (N=16,231)



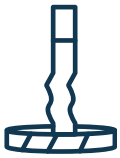
Calculated percentages of items collected in each waste category based on the submitted Data Tally Sheets, with a total of 16,231 collected items.

WASTE ITEMS COLLECTED

In 2025, the Circular Economy Ambassador Program students categorized and counted waste items collected from different environments and locations in their communities. Percentage values were calculated based on the total amount of items collected (N=16,231)

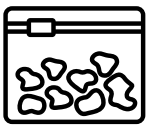
Plastic Pieces
22.47%
- LARGE PLASTIC PIECES (>30CM) - 2.3%
- MEDIUM PLASTIC PIECES (10-30CM) - 6.25%
- SMALL PLASTIC PIECES (<10CM) - 13.92%

Commonly Found Items
20.05%
- PAPER - 12.14%
- OTHER - 3.8%
- BOTTLE CAPS - 2.07%
- STRAWS - 2.05%



Cigarette Butts
17.04%

Food Packaging
6.48%



Plastic Bags
6.36%
- GARBAGE BAGS -0.79%
- PLASTIC BAGS - 2.68%
- SHOPPING BAGS - 0.65%
- ZIPLOCK BAGS - 2.24%

Miscellaneous
5.3%
- ALUMINUM - 1.74%
- RUBBER PIECES - 1.09%
- ROPE - 0.62%
- OTHER - 1.84%

Cups
4.69%
- HOT CUPS - 1.26%
- COLD CUPS - 3.43%

Glass
3.83%
- GLASS BOTTLE - 0.44%
- GLASS PIECES - 3.39%

Plastic Lids
3.81%
- COLD DRIVE LIDS - 2.21%
- HOT DRINK LIDS - 1.57%

Cans
3.25%

Plastic Bottles
2.94%

Styrofoam Pieces
2.65%

Takeout Containers
0.59%

Face Masks
0.54%
- DISPOSABLE- 0.42%
- REUSABLE -0.12%

TOP 10 ITEMS

62.2% of all items collected (N=4,049)

1. **Cigarette Butts**
   COUNT: 2,765 | PCT: 17.04%
2. **Small Plastic Pieces**
   COUNT: 2,259 | PCT: 13.92%
3. **Paper**
   COUNT: 1,971 | PCT: 12.14%
4. **Food Packaging**
   COUNT: 1,052 | PCT: 6.48%
5. **Plastic Bags**
   COUNT: 1,032 | PCT: 6.36%
6. **Medium Plastic Pieces**
   COUNT: 1,014 | PCT: 6.25%
7. **Cold Cups**
   COUNT: 556 | PCT: 3.43%
8. **Glass Pieces**
   COUNT: 550 | PCT: 3.39%
9. **Cans**
   COUNT: 528| PCT: 3.25%
10. **Plastic Bottles**
    COUNT: 477| PCT: 2.94%

LOCATIONS

LOCATION TYPES

The 2025 CEAP had students participate from nine provinces: Alberta, British Columbia, Saskatchewan, Manitoba, Newfoundland and Labrador, New Brunswick, Nova Scotia, Quebec, and Ontario. The participating classes had the ability to organize their cleanup based on their own capacity and community. Some took a field trip to nearby locations, while others cleaned up their schoolgrounds. All of the selected cleanup locations were categorized into five main site types: School Property, Park, Beach, Neighbourhood, and Other. Any cleanups conducted in areas that did not fall under the label of School, Park, Beach, or Neighbourhood were categorized as Other.

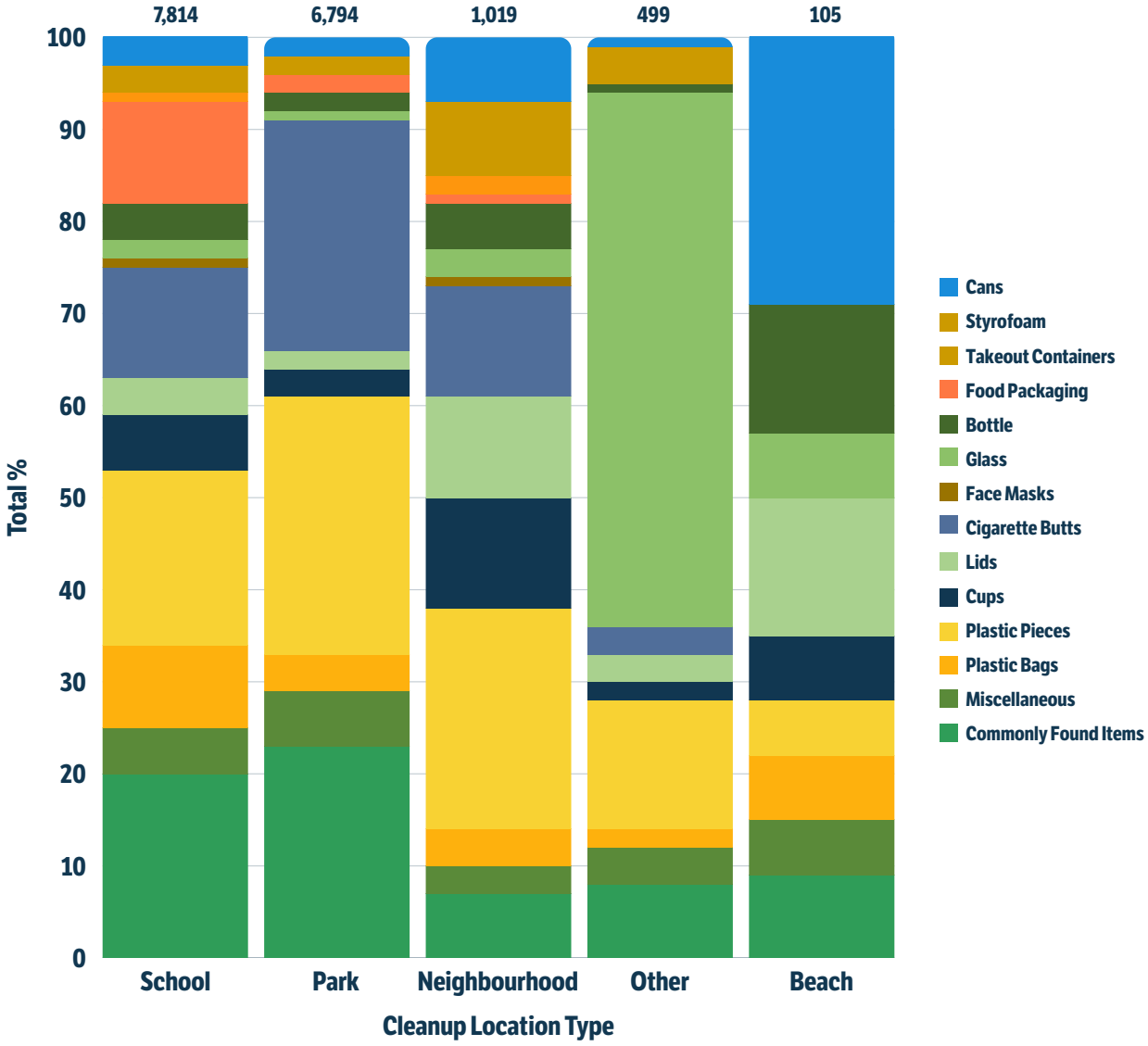
Nearly half of all items collected by the students this year were collected on School Property (48.14%, n = 7,814), followed very closely by Parks (41.86%, n = 6,794). Neighbourhood cleanups contributed the next largest number of litter items at 6.28% (n = 1,019), with Other cleanup locations producing 3.07% (n = 499) of the total waste collected. The fewest number of litter items were collected in Beach cleanups (0.65%, n = 105).

This year's findings follow the trends we've seen in previous program years with Cigarette Butts, Plastic Pieces, and Commonly Found Items as the most commonly recorded items all location types. The majority of cleanups were carried out on School Property and at Parks, which resulted in these locations having the highest overall number of items within most waste categories. Plastic Pieces of all sizes, Commonly Found Items, Cigarette Butts, and Plastic Bags were mostly collected during School Property and Park cleanups. School Property cleanups by far had the highest percentage of Food Packaging (82.6% of all Food Packaging), while Park locations held the highest percentage of Cigarette Butts (51.2% of all Cigarette Butts).

School Property also had the highest percentage of Plastic Bags (66.57%), Cups (58.48%), Cans (56.82%) and Lids (55.18%) among all of the location types. Park cleanups led in the collection of Cigarette Butts (61.45%) and Plastic Pieces (51.25%). Cleanups in Other locations had the highest percentage of Glass Pieces collected (46.3% of total). Neighbourhood, and Beach cleanups did not lead the count of any one litter item, but this is logical considering there were fewer cleanups that took place in these locations than at Schools and Parks. The most prominent litter items in these cleanup locations were Plastic Pieces in Neighbourhoods (6.8% of total Plastic Pieces), Can in Beach locations (6.06% of total Cans). Interestingly, several popular litter items weren't collected at Other and Beach cleanups including Face-masks and Food Packaging.

CLEANUP SITE TYPE	NUMBER OF CLEANUPS	NUMBER OF ITEMS COLLECTED
School	23	7,814
Park	15	6,794
Neighbourhood	3	1,019
Other	1	499
Beach	1	105

CLEANUP LOCATIONS VS. CATEGORIES OF ITEMS



Distribution of waste categories across the different Location types. Each bar in this figure represents 100% of the total value of items found within each Location type: School, Park, Neighbourhood, Other, or Beach. Percentages were derived from the total count of items found in each category per Location type, which can be found above each bar.

PROVINCES

The results demonstrate that Ontario classrooms collected 46.31% (n = 7,516) of the 16,231 items collected across all nine provinces. Notably, approximately 80% of the items collected in Ontario were plastic (n = 5,945). Saskatchewan and Alberta followed as having the second and third largest amounts of litter collected at 24.6% (n = 3,986) and 15.57% (n = 2.527) of the total waste items collected, respectively. Additionally, between 70%-72% of items collected in both Saskatchewan and British Columbia were also composed of plastic (n = 2,871; n = 1,760 respectively). Overall, across all provinces, 76% (n = 12,413) of the total waste collected was composed of plastic, including cigarette butts.

Below is a province-based comparison of total number of items collected, total number of plastic items, total weight of waste, and items and plastic items collected per participant.

PROVINCE	NUMBER OF PARTICIPANTS	NUMBER OF ITEMS COLLECTED	NUMBER OF PLASTIC ITEMS	TOTAL WASTE WEIGHT (LBS)	TOTAL DIVERTED WEIGHT WASTE (LBS)	ITEMS PER PARTICIPANT	PLASTIC ITEMS PER PARTICIPANT
New Brunswick	150	563	517	5	0	3.75	3.45
British Columbia	150	2,527	1,760	27.6	8.4	16.85	11.73
Ontario	636	7,516	5,945	140.16	50.36	11.82	9.35
Manitoba	18	487	412	75	15	27.06	22.89
Alberta	47	286	216	0	2	6.08	4.6
Saskatchewan	418	3.986	2,871	77.47	1.77	9.54	6.87
Quebec	15	105	60	0	10	7	4
Newfoundland	124	627	527	35.6	6.36	5.06	4.25
Nova Scotia	20	124	105	10.2	1.66	6.2	5.25
Grand Total	1,578	16,231	12,413	371.03	83.55	10.29	7.86

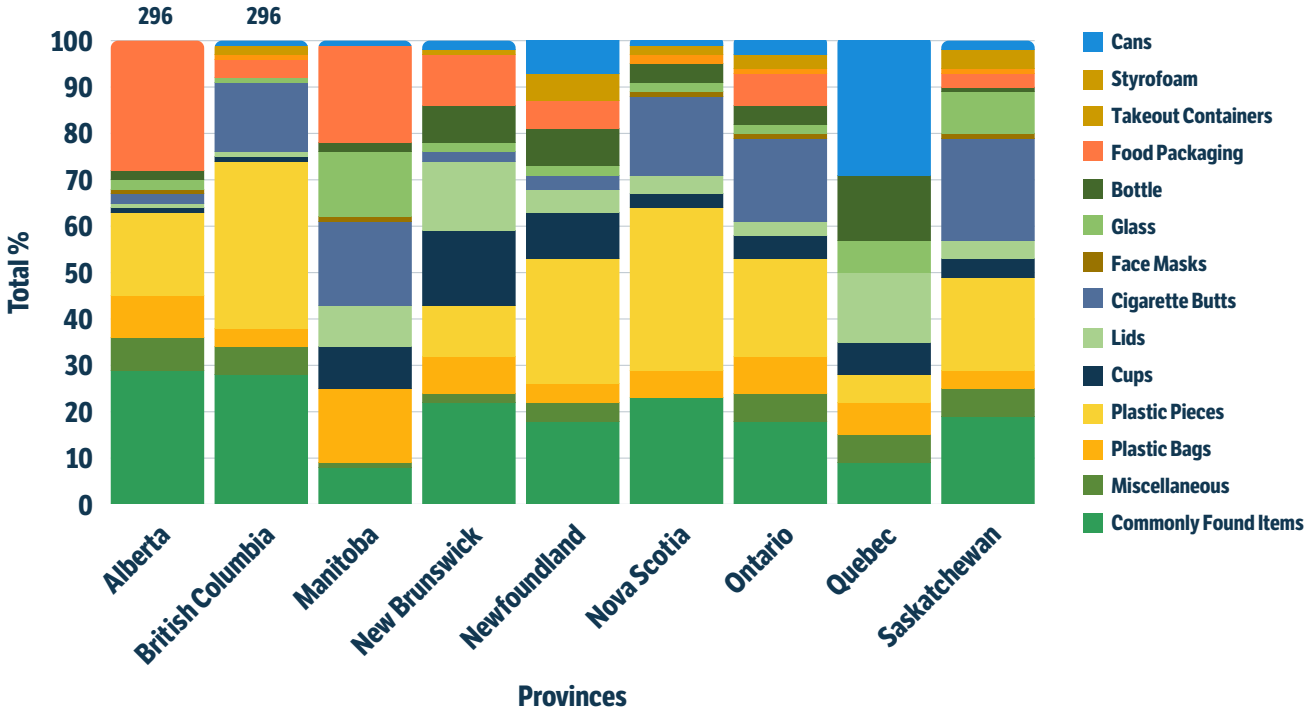
The participants were asked to weigh, sort and divert the waste collected during cleanups where possible. However, not all participating classrooms provided this data or the data in full. Overall, 83.55 lbs (22.52%) of the total waste collected was diverted by participating classrooms. Based on the available data, Ontario diverted the largest amount 50.36 lbs (13.57%) of the total weight of collected waste of 371.03 lbs.

As Ontario classrooms conducted the largest number of cleanups, they led the count in the majority of litter item types collected. This includes Ontario classes collecting the highest percentage of items such as Cigarette Butts, Small Plastic Pieces, and Food Packaging. Saskatchewan participants also collected a high number of litter items, and had the highest collection rate of Glass Pieces/Fragments.

The most frequently collected litter items in other participating provinces include:

- Alberta: Food Packaging, Paper, and Small Plastic Pieces
- British Columbia: Small Plastic Pieces, Paper, and Cigarette Butts
- Manitoba: Food Packaging, Cigarette Butts, and Ziplock Bags
- New Brunswick: Cold Drink Cups, Straws, and Cold Drink Lids
- Newfoundland and Labrador: Small Plastic Pieces, Cans, and Plastic Bottles
- Nova Scotia: Small Plastic Pieces, Cigarette Butts, and Paper
- Quebec: Cans, Plastic Bottles, and Hot Drink Lids

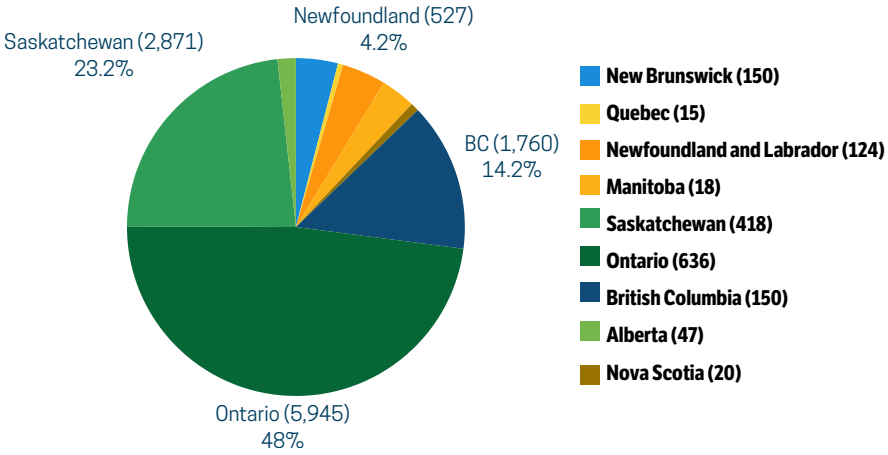
PROVINCE VS. CATEGORIES OF ITEMS



Distribution of item Categories by Province. Each bar represents 100% of the total value of Categories collected within each Province. Percentages were derived from the total count of items found within each Category for each Province, which can be found above each bar.

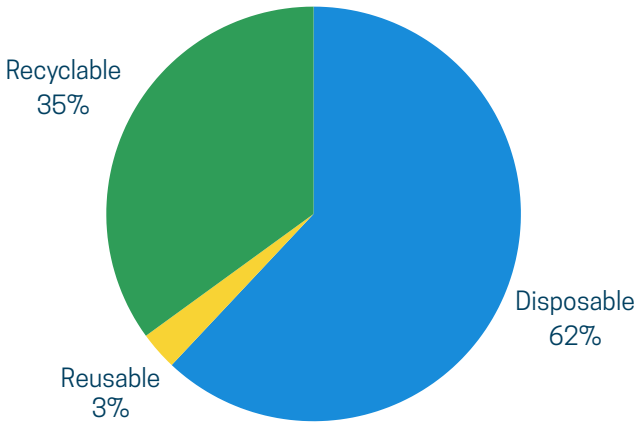
PLASTIC ITEMS VS. PROVINCES

All participating provinces reported high percentages of plastic items collected during cleanups. The top three provinces with the highest percentage of overall plastic items were: Ontario (48%, n = 5,945), Saskatchewan (23%, n = 2,871), and British Columbia (14%, n = 1,760). It is important to note that collectively, these three provinces accounted for more than 85% of the total amount of items collected (n = 12,413). This could be a result of these provinces also having the highest number of participants. The provinces with the fewest plastic items collected were: Quebec (0.4%, n = 60), Nova Scotia (0.8%, n = 105), and Alberta (1.74%, n = 216).



Total Count and Percentage of Plastic Items collected across Provinces. The percentage was calculated using the total number of plastic items collected (n = 12,413).

SINGLE-USE AND REUSABLE ITEMS



Total Percentage and Count of Disposable, Reusable, and Recyclable items collected by CEAP participants. Cigarette Butts, Plastic Pieces, Styrofoam Pieces are considered as Single-Use Items for this calculation. Percentage was calculated from the total number of items collected (n = 16,231).

All items were categorized into three major groups: Disposable, Reusable and Recyclable. When considering Cigarette Butts, Plastic Pieces and Styrofoam Pieces as Disposable Items, 62% (n = 10,061) of all the items collected fell into the Disposable category. Disposable items are primarily single-use items such as Straws, Plastic Cutlery, and Plastic Bags, but also includes a small number of items collected that have no other waste management pathway (e.g. gum). In contrast, only 3% (n = 433) of the items collected across all participating provinces were classified as Reusable. However, it is important to note that 35% (n = 5,727) of the waste collected from the environment during the cleanups were Recyclable and could have been disposed of accordingly. Recyclable items include Plastic Bottles, Cans, Cold Drink Cups, and Glass Bottles.

SUSPECTED LITTER ORIGINS

The data indicates that plastic, disposable waste continues to be the leading type of litter in different environments. Since the CEAP launched, students across Canada have consistently found Cigarette Butts and Plastic Pieces to be in the top three most common items in their cleanups. During this fourth year of the program, these two items made up 39.50% of all the waste collected, with plastic waste resulting in 76% of the overall total of waste collected. This aligns with last program's findings, where plastic waste accounted for 77% of all waste collected.

Students across nine Canadian provinces collected a total of 16,231 items. When examining these results, it is essential to consider how various factors may affect the results. Impactful factors include the number of participants from each province as well as the number of cleanups, the location type of the areas selected, the presence and absence of litter, and the nearby infrastructure. Additionally, we must note that the litter collected during the 2025 CEAP is just a small portion and sample of the total litter present in environments across Canada.

LOCATION TYPE	SCHOOL COUNT	ITEMS COLLECTED	RESTAURANT COUNT	SUPERMARKETS/STORES ON SITE	STORM DRAINAGE FACILITY	RECYCLING FACILITY	NEARBY ACTIVITIES
School property	23	7,814	6	4	5	12	Healthcare Facilities & Medical Services Dental clinics Sports facilities Worshiping facilities Gas Stations Community Centres & Playgrounds Animal Clinic Public Library Daycare and Childcare facilities Cemetery Auto-repair Shops Shopping Malls Fire Stations & services
Park	15	6,794	9	8	11	14	Healthcare Facilities & Medical Services Dental clinics Worshiping facilities Petrol Pumps & Gas Stations Playgrounds Animal Clinic Daycare and Childcare facilities Cemetery Shopping Malls Public Washrooms Fire Stations & services
Beach	1	105	1	1	1	1	Worshiping facilities Public Library Community Centres Fire Stations & services
Other	1	499	0	0	0	1	Smoking Snacking Church Hospital Gas Station
Neighborhood	3	1,019	1	1	0	0	Worshiping facilities Animal Clinic Golf Club Healthcare Facilities & Medical Services
Grand Total	43	16,231	17	14	15	28	

Cleanup location details. Details from the cleanup location types were provided by participants and obtained by viewing a map within an area of ~1km^2. Please note that this table is not exhaustive per cleanup location.

EXPLORING THE MOST COLLECTED ITEMS

CIGARETTE BUTTS AND PLASTIC ITEMS

In the initial years of CEAP, Cigarette Butts led the count and were the top item collected in cleanups. Last year, Small Plastic pieces overtook Cigarette Butts in as most collected. However, this year, Cigarette Butts have returned as the most collected item in the CEAP, which is a common trend in global cleanup efforts. Cigarette Butts are considered as plastic pollution, as the contain an internal plastic filter that remains in the environment as litter.

In 2024 Ocean Wise's Shoreline Cleanup found that Cigarette Butts made up about 33% of all collected litter, with 133,767 cigarette butts retrieved from Canada's shorelines. Cigarette Butts have consistently made the top of the list of Ocean Wise's cleanup "Dirty Dozen" list of annual top litter items collected by citizen scientists. While plastic pollution is widespread, Cigarette Butts appear to surpass the amount of plastic pieces in cleanups around the world (OceanCare, 2023; Keep America Beautiful, 2021). The size of cigarette butts upon disposal and lack of disposal infrastructure may make them particularly pervasive in natural environments, as they slip through traditional waste management options.

In addition to Cigarette Butts, Plastic Pieces are also found at an alarming rate across Canada,. An estimated 170 trillion microplastic particles are currently present in our oceans (Eriksen et al., 2023). Microplastics, often invisible to the naked eye, are typically not able to be collected through traditional cleanups. Plastic pieces and microplastics pose an equal threat to the health of humans and ecosystems. The persistence of both Cigarette Butts and Plastic Pieces found by students year after year illustrates why we must address plastics that are visibly prevalent, as well as those that pose a more hidden challenge.

Cigarette Butts have returned as the top litter item collected by the CEAP this year, surpassing Small Plastic Pieces by only 3%.

Cigarette Butts do not biodegrade; instead, they break down into smaller pieces of plastic, contributing to the growing problem of microplastics in soils, rivers, and oceans.

Beyond their physical persistence, Cigarette Butts are a major source of chemical pollution. The filters are composed of synthetic plastic fibres that absorb and retain thousands of toxic compounds from cigarette smoke, including nicotine, arsenic, lead, and others. The filter can contain between 12,000 and 15,000 microplastic fibres that degrade into the environment (Abbasi et al., 2025). When discarded into the environment, these chemicals leach into soil and water, posing acute and chronic risks to wildlife. Studies have shown that even one or two cigarette butts soaked in a liter of water can release enough toxins to seriously harm various organisms in a short time period (Nitschke et al., 2023; Green et al., 2022; Slaughter et al., 2011).

Saskatchewan recorded the highest percentage of Cigarette Butts, at 22% of the overall litter collected across the province. The prevalence of Cigarette Butts could be due to a combination of social and environmental factors. Smokers tend to have designated smoking areas, which often means if they are smoking outside of those areas there are limited opportunities for efficient butt disposal. This results in the disposal of butts in places where they cannot be seen, which worsens the littering problem. Saskatchewan has no specific municipal or provincial policy to address cigarette butt litter, but other jurisdictions have introduced reduction initiatives such as cigarette disposal canisters such as those supplied by Terracycle for their cigarette butt recycling program. Based on the pervasiveness of Cigarette Butts as litter in the province, there are opportunities to adopt new initiatives and policies to prevent further pollution and reduce the amount of butts currently in our environment.

Reducing cigarette litter in Saskatchewan can be accomplished through several strategies. For example, if the provincial government put forward regulations to ban plastic filters or begin research to understand how an Extended Producer Responsibility program could be developed to manage cigarette butt waste. One important approach to collect existing waste is the availability of disposal units in public spaces. Research shows that more disposal receptacles can reduce littering behavior (DivertNS, 2024). Public education campaigns about how and where to properly discard their cigarette waste can also be very helpful in changing the disposal behaviours of the public.

Enforcing stronger litter regulations and imposing higher fines can serve as an effective deterrent to improper disposal, as studies have shown that increased penalties can result in lower littering rates (Policy Exchange, 2023). Additionally, partnerships with local businesses to install designated disposal units and encourage responsible smoking behaviors can improve waste management practices and prevent butts from entering the environment in the first place (A Greener Future, 2021).

Cigarette Butts were not recorded in the cleanups conducted in Quebec, which may reflect the reality of the lack of butts at the location, but students may have also been instructed not to touch or collect potentially hazardous waste. Elsewhere, Cigarette Butts accounted for only 2% of the collected items in both Alberta and New Brunswick which was the lowest percentage across the program. The lack of Cigarette Butt litter could be due to a smaller population of smokers in participating communities, differences in available disposal, and differences in cleanup locations. For example, Cigarette Butts are found less frequently on School property cleanups, and more frequently at locations such as Parks.

New Brunswick has also introduced a Smoke-Free Places Act, which mandates that all elementary, middle and high schools must have smoke-free grounds. Similarly, Alberta introduced new rules to prevent tobacco products on hospital, school and childcare properties, playgrounds, sports and playing fields, skateboard and bicycle parks, and public outdoor pools. Updated smoke-free regulations help reduce cigarette litter by discouraging or banning smoking in public areas and wherever proper disposal options are limited (Pederson et al., 2016).

PLASTIC ITEMS

Top ten Items collected in the cleanups conducted by CEAP students in 2025. Percentages were calculated using the total number of waste items collected (n = 16,231).

ITEM	TOTAL PERCENTAGE	TOTAL COUNT
Cigarette Butts	17.04%	2,765
Plastic Pieces Small (0-10 cm)	13.92%	2,259
Paper	12.14%	1,971
Food Packaging	6.48%	1,052
Plastic Pieces Medium (10-30cm)	6.25%	1,014
Cold Drink Cup	3.43%	556
Glass Pieces/Fragments	3.39%	550
Plastic Bottle	2.94%	477
Cans	2.70%	438
Other Plastic Bags	2.68%	435
Grand Total	71.97%	11,517

TOP THREE ITEMS COLLECTED IN EACH PROVINCE

PROVINCE	CATEGORY	TOTAL % OF ALL ITEMS	TOTAL COUNT
Alberta	Commonly Found Items	0.54%	87
	Food Packaging	0.52%	85
	Plastic Pieces (All)	0.32%	52
British Columbia	Plastic Pieces (All)	5.65%	917
	Commonly Found Items	4.36%	708
	Cigarette Butts	2.40%	390
New Brunswick	Commonly Found Items	0.76%	124
	Cups	0.56%	91
	Lids	0.52%	84
Ontario	Plastic Pieces (All)	9.87%	1,602
	Commonly Found Items	8.48%	1,377
	Cigarette Butts	8.32%	1,351

Nova Scotia	Plastic Pieces (All)	0.27%	44
	Commonly Found Items	0.18%	29
	Cigarette Butts	0.13%	21

Manitoba	Food Packaging	0.62%	100
	Cigarette Butts	0.53%	86
	Plastic Bags	0.49%	80

British Columbia, Ontario, Nova Scotia, and Newfoundland had high levels of all Plastic Pieces. Plastic pieces may be more prevalent in these provinces for a number of reasons. All four provinces have extensive coast and shorelines, which can make them more exposed to litter accumulation. Ocean and lake currents, tides, and wind patterns have the ability to leave plastic debris on shorelines and nearby areas. In a study of ocean plastics in Atlantic Canada, it was found that most plastics (68%) were microplastics and that plastic pieces were the most common plastic type (Smith et. al, 2022).

Population density may also play a role, as Ontario and British Columbia are home to Canada's largest and most dense populations in Toronto and Vancouver. Many microplastics and plastic pieces derive from urban sources and runoff including littering, industrial activities, tire abrasion, and storm and waste water. Researchers have found that microplastics entering northwestern Lake Ontario are linked to urban sources, with storm water and urban runoff contributing to the significantly higher concentrations of debris and plastic pieces (Grbić et al., 2020). Nova Scotia and Newfoundland may also experience the concentration effects of plastic pieces because litter from multiple coastal communities can accumulate from shared marine environments.

Quebec	Cans	0.20%	32
	Lids	0.10%	16
	Bottle	0.09%	15

Newfoundland	Plastic Pieces (All)	1.03%	167
	Commonly Found Items	0.68%	111
	Cups	0.38%	62

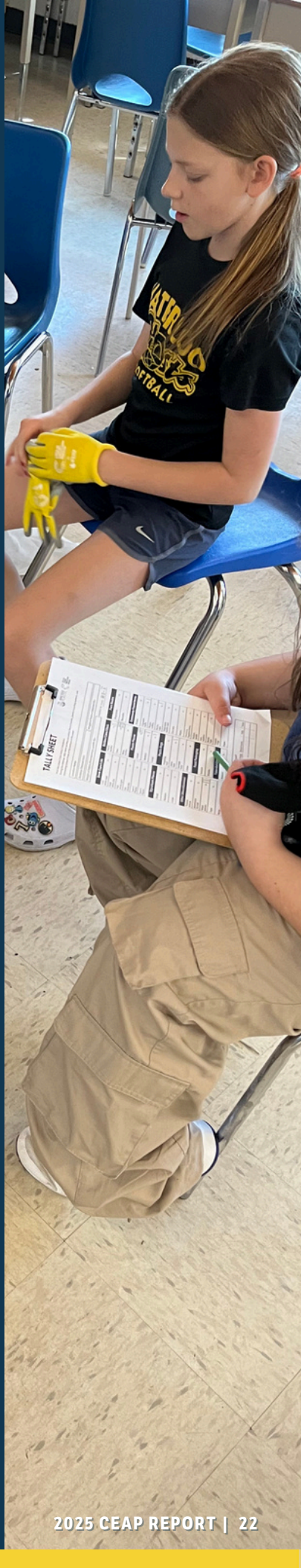
Saskatchewan	Cigarette Butts	5.43%	882
	Plastic Pieces (All)	4.90%	795
	Commonly Found Items	4.76%	773

Classrooms in Alberta and New Brunswick recorded a higher instance of a group of items MYP considers Commonly Found Items. These items include plastic straws, cutlery, bottle caps, wipes, bread tags, 6-pack rings, paper, aluminum bottle caps, can tabs, feminine hygiene products, rubber bands, and hair elastics. Research conducted in Canada indicates that these convenience items commonly found as litter are prominent in regions with rapid consumption, outdoor recreation, and inadequate disposal infrastructure. For example, in a 2023 study of Canadian litter, item types like plastic straws were categorized and quantified as part of product-specific debris profiles (Sherlock et al., 2023). In provinces like Alberta and New Brunswick, with smaller urban centres, significant recreational traffic, and less dense public waste collection infrastructure, these convenience litter items may be found more frequently in the local environment.

Only one classroom in Manitoba completed a CEAP cleanup, where students found a high rate of Food Packaging litter. The cleanup took place on a schoolyard in a non-urban community. The presence of food packaging litter in the cleanup may be linked to behaviour patterns, even in small communities, where students and visitors often consume pre-packaged snacks and foods at school or during outdoor activities (Heiges et al., 2022). Single-use food packaging items such as wrappers and films can also be easily discarded improperly or displaced by the wind, especially when disposal options like outdoor garbage bins or recycling stations are limited, resulting in more food packaging waste as litter.

As previously discussed, Cigarette Butts were very commonly collected across cleanups in Saskatchewan. A majority of cleanups in Saskatchewan took place in Parks and Neighbourhoods, which may contribute to the amount of Cigarette Butt litter collected. Research shows that cigarette litter often concentrates in outdoor recreational and transitional public spaces such as parking lots, sidewalks, park benches, transit stops, particularly when disposal infrastructure is limited. In a cigarette butt litter study performed on a Canadian university campus, researchers found 25.11% of butts collected were in sidewalks, 21.56% in parking lots, and 65.77% on natural surfaces (grass, soil) rather than indoor or building interior spaces (Maynard et al., 2025). Similar spaces are present in Park and Neighbourhood cleanups, which may help to explain the increased presence of Cigarette Butts recorded by participants in Saskatchewan.

Finally, the top item collected in Quebec was Cans. Although Quebec operates a deposit-return system for beverage containers, research suggests that improper disposal of recyclables can still occur, especially in public and outdoor spaces where waste management options are limited (Schuyler et al., 2018).



SINGLE-USE ITEMS

When Cigarette Butts, Plastic Pieces and Styrofoam Pieces are included, the Single-Use Items or Disposable category accounts for 62% (n = 10,061) of the litter items collected. When not considering Cigarette Butts, Plastic Pieces and Styrofoam Pieces, CEAP participants collected 3,219 Single-Use or Disposable Items, with over 34%. Approximately 56% of all items collected can be labelled as Single-Use or Disposable Plastic (n = 9,048).

Not including Cigarette Butts, Plastic Pieces, and Styrofoam Pieces, Food Packaging items made up the majority of this single-use plastic waste at 6.48% (n = 1,032). Food Packaging plastics are often complex, multilayered, and easily contaminated with food residues, which makes these items non-recyclable (Lau et al., 2020). Other Single-Use Plastics collected include a variety of plastic bags such as Ziplock bags, Dog Poop Bags, Shopping Bags, and others (n = 1,032).

The prominence of Single-Use and Disposable Plastics in cleanups across Canada reflects our growing dependence on single-use plastic products and packaging. Based on our increased use of single-use plastics, the production of these plastics is expected to double by 2040 (Lau et al., 2020).

Many of the polymers and additives used in single-use plastics will slowly degrade as microplastics in the environment, lasting hundreds of years and impacting waterways, soils, and life in the area. Wildlife and humans are then exposed to these damaging microplastics through water, air, and ingestion. Beyond the physical implications of microplastics, they are also known carriers of toxic chemicals, heavy metals, and pathogens from their surroundings and transfer these contaminants up the food chain (Rochman et al., 2023). To prevent microplastic and chemical pollution, we have to address our reliance on wasteful single-use plastics.

PAPER

It is regularly reported that paper products land among the top 10 litter items collected in coastal and inland cleanups. Percentages of paper items in some cleanups have ranged from 20–30% of total items collected (Ocean Conservancy, 2023). In 2025, CEAP participants recorded 1,971 paper pieces from their cleanups. As a percentage of total items collected, paper made up 12% of all litter. Ontario cleanups contributed 40% of all paper pieces collected (n = 801). Once again, it is important to note that Ontario had the most CEAP participants, and which may have unintentionally increased its share of the total paper litter reported.

Ontario has an Extended Producer Responsibility (EPR) program for paper and packaging, which requires manufacturers to take responsibility for managing the recycling of their products, which ideally leads to a decrease in these materials as litter in the environment. The transition to have producers take responsibility for these materials began in 2023 and was anticipated to be completed by 2026. However, there have been several delays and suggested amendments to the regulations, which have impacted the setting of targets and the transfer of responsibility. This may contribute to the continued presence of paper in the environment in Ontario.

Paper was also a prominent litter item in both British Columbia and Saskatchewan, which accounted for 29% and 24% of paper litter respectively (n = 582, n = 472). British Columbia operates a full EPR program for paper and packaging, however collection for institutional buildings like schools is not included. Saskatchewan is rolling out their EPR initiative from December 1, 2024 through to end of 2027, so the impacts may not yet be felt. Industrial collection is also not included.

ALUMINUM/TIN FOIL AND CANS

Aluminum, tin foil, and cans are found every year in our environment by students in the CEAP. According to Natural Resources Canada, aluminum foil and packaging accounts for approximately 16 % of Canada's total aluminum usage (Natural Resources Canada, 2023). Additionally, a 2016 report found that over 7 billion beverage cans were sold in Canada that year (CM Consulting, 2018). It is estimated that Canadians wasted approximately 20.6 billion metal cans between 2015 and 2024 (Reloop Platform, 2025). While Canadian deposit return and beverage container programs are typically effective, capturing approximately 70–76% of aluminum cans, that still leaves about 24–30% of cans unreturned and therefore entering waste streams or the natural environment (Reloop Platform, 2025; CCME, 2014).

Ontario had the highest instance of both Aluminum/Tin Foil and Can Items (n = 109 and n= 236, respectively). Saskatchewan closely followed with 82 pieces of Aluminum/Tin Foil and 75 Cans collected by students. Despite both of these provinces having a deposit return system, there are several reasons why items such as Cans can still end up in the environment as litter. For example, not all types of containers are included in the system (e.g., some juice, energy drinks, or specialty cans), Cans consumed outside the home may not be returned, especially if return depots are inconvenient, and even with our best efforts lightweight cans can still be blown away.

Similar to last year's program, Newfoundland and Labrador classrooms also collected a higher rate of Cans than other provinces (n = 49). Newfoundland and Labrador does have a deposit return system, however, access to return depots can be limited in remote or rural areas (Ile, A.L.; Caizer, A.D.; Dragan, A., 2025).

To address this litter, provincial governments can make several adjustments to their deposit return systems. British Columbia, which had a return rate of 80-90% for cans in 2023, combines a system of depot collection with retail return points, which may improve accessibility for consumers (Waste Recycling Mag, 2025). This report further indicates that the number of depot locations impacts returns and suggests that ease of access (including express and unstaffed drop-off points) correlates with higher return rates. The value of the deposit can also play a role, particularly if the deposit is not increased with inflation, creating a perception of lower material value over time.

BRANDS

The 2025 CEAP cleanups conducted by Canadian students uncovered a wide variety of litter, with several major brands appearing frequently. Tim Hortons topped the list of recorded brands with 105 pieces of Tim Horton's branded litter collected. This year McDonald's once again was the second most popular brand collected. However, there were significantly fewer McDonald's items collected at 25 pieces. Other brands that were frequently recorded include Fruit by the Foot/Fruit Roll Up (20), Kleenex (20), Welch's (19), Starbucks (18), Hi-Chew (18), Lays (16), Dairy Queen (12), Kirkland (11), and Coca-Cola (11).

The large amount of litter from brands like Tim Hortons, as well as an increased presence of "snack" brands can be attributed to several intertwined factors.

These brands are among the most frequented fast-food and coffee chains in Canada, drawing large crowds daily. For instance, Tim Hortons has an extensive presence with thousands of locations, resulting in a substantial volume of disposable items that can be littered or mismanaged. Another critical factor is the reliance on single-use packaging. These brands primarily use disposable items, such as coffee cups, food wrappers, and straws, for convenience, which increases the chances of these items becoming litter (Ellen MacArthur Foundation, 2016). Furthermore, the fast-paced nature of the food and beverage industry encourages on-the-go consumption. Customers often consume their food and drinks while walking or traveling, leading to items being easily dropped or left behind (Brennan et al., 2015). Many consumers may not fully understand how their actions contribute to plastic pollution. Additionally, some areas may lack sufficient waste management infrastructure, making it easier for litter from these popular brands to accumulate (Parker, 2019). These factors highlight the urgent need for brands to implement more sustainable practices, such as promoting reusable containers and improving waste management strategies, to help mitigate litter and its detrimental effects on the environment.

RECOMMENDATIONS FOR THE REDUCTION OF PLASTIC AND SINGLE-USE ITEM LITTER

Implementing circular economy principles across Canada's provinces and territories offers a powerful pathway to substantially reduce our reliance on single-use items and plastics by promoting deliberate and mindful design, production, and consumption practices. Instead of the traditional linear "take-make-waste" model, a circular system emphasizes resource retention, reuse, repair, and overall waste prevention by keeping our resources and products in the economy for as long as possible.

A key circular strategy to use in preventing single-use waste is product redesign and innovation. Circular economy principles encourage the creation of goods with longevity and reuse built in at the very beginning of the supply chain, replacing single-use items with durable materials. Companies can introduce reusable and refillable packaging systems and create community ecosystems of reusability, thereby reducing dependency on single-use plastics. The introduction of reuse systems has the potential to cut plastic leakage into the ocean by 20% by 2040 (Ellen MacArthur Foundation, 2025). There are additional strategies such as refill and repair that can also contribute to the reduction of plastic waste by reducing packaging and eliminating our need to purchase new items.

Extended Producer Responsibility (EPR) offers another effective mechanism to prevent waste from entering our environment as litter. Under EPR policies, producers take responsibility for the end-of-life management of their products, providing a strong incentive to minimize disposable packaging and adopt more circular practices. Across Canada, provinces are in various phases or introducing and implementing EPR frameworks, spurring producers to design more circular products, support deposit return systems, increase recyclability and reduce hard-to-recycle items including single-use plastics across their packaging portfolios. There is also an untapped potential to incorporate reuse into EPR mechanisms to help bring about change on a greater scale.

In terms of policy and regulatory measures, provincial and territorial governments can introduce and amend policies that restrict or ban specific single-use and plastic items, such as plastic straws, cutlery, and bags. Investments in scaling alternative solutions such as reuse, and public education are also important to demonstrate the importance of transitioning away from single-use. These regulations can be supplemented by further actions to incentivize industry, businesses, and consumers contributing to a reduction in single-use products overall.

Lastly, education and behavioural habits play a critical role in reducing our reliance on single-use items. A circular economy encourages communities to embrace reusable and refillable options, share resources, and ensure solutions are accessible to all community members. Educational campaigns that highlight the environmental, social, health, and economic impact of single-use products can inspire consumers to commit to more circular alternatives.

THE CANADIAN PLASTIC POLICY LANDSCAPE

All levels of Canadian government are introducing and expanding on policy to advance the reduction of single-use plastics and a more circular economy. At the federal level, Canada has introduced the Federal Plastics Registry, requiring producers, importers, and service providers to report annually on plastic resins, products placed on the market, and end-of-life management such as reuse, recycling, and landfill. The Registry is a cornerstone of Canada's zero-plastic-waste agenda and establishes an evidence base for enhancing Extended Producer Responsibility (EPR), harmonizing data across provinces, and tracking plastics through their full lifecycle.

The federal government's Single-Use Plastics Prohibition Regulations, which came into effect in December 2022, prohibits the manufacture and import of six categories of problematic single-use plastic items including checkout bags, plastic cutlery, straws (with accessibility exceptions), stir-sticks, ring carriers and certain food serviceware (Government of Canada, 2022a). The regulations are still currently waiting on a Supreme Court appeal to determine their legality, but in the meantime, there is a stay in place to ensure progress continues during this waiting period. Despite the uncertainty about the regulations, businesses and consumers alike continue to practice the elimination of the outlined six problematic items, building reduction habits across Canada. The government projects these measures alone could eliminate over 1.3 million tonnes of hard-to-recycle plastic waste and prevent more than 22 000 tonnes of plastic pollution over the next decade (Government of Canada, 2022b).

In British Columbia, the province's Single-Use and Plastic Waste Prevention Regulation adds onto the CleanBC Plastics Action Plan and phases out items like plastic bags, oxo-degradable packaging, and disposable food-service accessories. The province states that more than 340,000 tonnes of plastic waste and packaging were disposed in 2019, which equates to roughly 65 kg per person (Government of British Columbia, 2024). This regulation, effective July 15, 2024, takes important steps to reduce plastic waste and litter. Additionally, with robust EPR programs in place, British Columbia continues to report measurable decreases in single-use packaging flowing into the environment, positioning the province as a national leader in plastic waste reduction. The province estimates that more than 315,000 tonnes of plastics, including beverage containers and packaging, are captured annually in EPR programs (Government of British Columbia, 2020).

At the local level, municipalities and businesses are seeing meaningful results after adopting new policies and bylaws to eliminate unnecessary and problematic plastics while shifting toward reusable alternatives. For example, the City of Montréal reported a 92 % compliance rate among food service establishments just one year after its 2023 bylaw restricting single-use plastics (Project Montreal, 2024). Similarly, the Single-Use & Takeaway Items Bylaw adopted by the City of Toronto (effective March 1, 2024) moved businesses to an "ask-first" model for items like bags and disposable utensils and promotes reusable alternatives. It is estimated that the bylaw has decreased single-use waste by a third in the City, and they have plans to expand the bylaw even further to encourage reuse at large event venues (National Observer, 2025). While provincial and federal policy are essential to ensuring a streamlined and consistent approach to plastic pollution, the progress of local initiatives reinforce the important role of cities in advancing plastic waste solutions.

GLOBAL ACTION ON PLASTIC POLLUTION

Despite multiple sessions, including INC-5 in Busan and a resumed session in Geneva, negotiations for the Global Plastics Treaty remain stalled due to disagreements over production caps, chemical regulations, binding enforcement, and funding for implementation. Major producing countries favor waste management–only approaches, while high-ambition states push for a full lifecycle approach. (Reuters, 2025).

Meanwhile, European countries have made significant progress in addressing plastic pollution in the last few year. The EU Single-Use Plastics Directive (2019/904) banned items such as cutlery, straws, and plates, while new packaging and reuse regulations (2024) strengthen recycling targets, limit single-use food packaging, and encourage circular economy approaches. (European Union, 2024). These measures demonstrate that coordinated, multi-level policy that combines bans, producer responsibility, reuse systems, and consumer education is effective at reducing plastic pollution.

While Europe leads with these integrated strategies, the global treaty stalemate highlights the urgent need for international collaboration. Without it, plastic production may continue to grow unchecked, underscoring the importance of national and regional policy to complement global efforts.

LIMITATIONS OF THE CEAP

Environmental cleanups are a powerful tool for reducing waste and raising awareness, but they also have inherent limitations. For safety reasons, participants in the 2025 CEAP were instructed to avoid debris that appeared hazardous, meaning that only larger, visible items were typically collected. As a result, smaller fragments of litter, including microplastics or buried debris, were likely underrepresented. The program also did not consistently capture detailed information on plastic types, colors, or brand names, leading to probable underestimation of the total volume and composition of waste. Understanding these characteristics is important for identifying sources and designing effective interventions. Students may also misidentify or mislabel items on their data tracking sheets.

Additionally, measurements of collected waste weights and cleanup area sizes were often imprecise. Many schools lacked portable scales, and some did not provide area dimensions or weight estimates, limiting the ability to assess the true scope and impact of the cleanups. To strengthen future data collection, CEAP plans to update its forms to capture more detailed information, including accurate weight, area, and item-specific attributes. Collecting richer, more comprehensive data will enhance the program's ability to analyze trends, identify key sources of waste, and inform strategies to reduce plastic pollution effectively.

CONCLUSION

The findings of the 2025 CEAP cleanups provide valuable insights into the trends and patterns of plastic pollution across Canada. This year's data continues to demonstrate the lasting and escalating challenge of addressing plastic pollution in Canadian communities. Plastic litter items continue to dominate our waste streams, ending up as pollution in the environment when not properly managed at end-of-life. In 2025, plastics accounted for 76% of all waste collected by students, which is very similar to last year's findings, and an increase of 24% since the first program year in 2021. Cigarette Butts and Plastic Pieces remain the most frequently recorded once again this year, which is a pattern that has repeated each year since 2021. Citizen-led cleanups around the world have seen similar results, with cigarette butts and plastic pieces topping the list as the most collected litter item.

The data also showed that different cleanup environments face distinct litter challenges. Schoolyards were particularly impacted by Plastic Bags, Plastic Bottles, Food Packaging, and Takeout Containers from nearby businesses, which likely reflects the consumption habits of many students across Canada who prioritize conveniently packaged lunches while at school. Parks and Neighbourhoods accumulated higher rates of litter items such as Cigarette Butts and Plastic Pieces which may be a result of the activities of a more general population, as well as the visitor traffic these locations experience. Smaller types of plastic litter can easily bypass many of the waste management collection opportunities in these areas, such as garbage bins in parks and even residential curbside waste, by being transported by wind, disposed of improperly, or littered without second thought. There were fewer Beach and Other area cleanups in this program year, but students still found that in these locations, items such as Glass, and Cans were commonly collected as litter. The trends across cleanup locations demonstrate that different items are littered in different environments, frequently based on our human activities, but what underscores all of these findings is that plastic waste is found everywhere.

The provincial breakdown of litter data highlights how regional conditions and behaviors distinctly shape litter composition across Canada. While Plastic Pieces dominated in many of the cleanup tallies nationwide, particularly in coastal provinces like British Columbia, Ontario, Nova Scotia, and Newfoundland, the underlying drivers vary by geography, population density, and infrastructure. Coastal regions face heightened exposure to marine debris accumulation due to currents, tides, and wind transport, while urbanized provinces contend with various microplastic sources.

Inland regions like Alberta, Saskatchewan, and Manitoba display distinct patterns tied to community behaviors and infrastructure gaps. Commonly Found Items such as paper bottle caps, and straws were particularly prevalent in areas with frequent outdoor recreation and limited waste collection systems, echoing findings from other Canadian litter studies (Sherlock et al., 2023; Maynard et al., 2025). These results highlight how everyday convenience, rather than necessity, continues to drive single-use litter.

Ultimately, the CEAP data reinforces that plastic pollution is a shared, but locally influenced challenge. By integrating community education, corporate accountability, and policy design, Canada can move closer to a truly circular economy system by being a collection of communities that prevents waste before it starts and ensures cleaner environments for future generations.

Tackling plastic pollution calls for the reduction of waste at the source, which requires collaboration across our supply chain. Using the data we collect during CEAP cleanups, we can target our efforts to address the most common items found in our environment, so we can create a Canada with plastic-free land and seas.

ACKNOWLEDGEMENTS

We extend our heartfelt appreciation to the schools, teachers, and students who participated in the 2025 CEAP and organized community cleanups. We also want to thank our recycling partners, as well as our partners and foundations that supported this year's program. Your dedication and support have made a significant impact on our initiatives.

Many thanks to the Mind Your Plastic team as well for their invaluable contributions to the success and growth of the CEAP.

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