Trashing the Chasing Arrows: How New York City Can Solve Its Plastics Problem

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TRASHING THE CHASING ARROWS: HOW NEW YORK CITY CAN SOLVE ITS PLASTICS PROBLEM

Rachel Zhu*

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INTRODUCTION

New York City is home to over eight million residents who produce overwhelming amounts of plastic waste. Specifically, New York City produces 12,000 tons of waste every day — only 17% of which is recycled.\(^1\) Much of this low recycling rate stems from the misinformation surrounding recycling itself. Just because a plastic product is stamped with the ubiquitous triangular recycling symbol (the “Chasing Arrows”),\(^2\) does not ensure that the product will be recycled. The Chasing Arrows serves as a form of greenwashing, developed as a public relations stunt to rehabilitate the oil and plastics industries’ declining reputation.\(^3\) What was, on its face, forward-thinking innovation has only served to perpetuate plastics pollution.

State legislatures are beginning to address how the Chasing Arrows mislead consumers and contribute to plastics pollution. In September of 2021, California passed “Truth in Labeling for Recyclable Materials” (“S.B. 343”), which declared that the Chasing Arrows directly exacerbated California’s longstanding recycling problem.\(^4\) Also in 2021, the New York State Assembly introduced Assembly Bill A7668 (“A7668”),\(^5\) which follows California’s groundbreaking attempt to tackle the Chasing Arrows. However, as this Note will examine, A7668 does not go far enough and New York City should enact legislation that is narrower and more rigorous, using S.B. 343 as a model.

Part I of this Note explores how the oil and plastics industries, via the Chasing Arrows, contributed to New York City’s Plastics Problem, and introduces the language and weaknesses of A7668.\(^6\) Part II examines the federal framework of environmental law as well as the relationship between states and their cities for potential solutions to the Chasing Arrows. Part III advocates for municipal regulation and suggests S.B. 343 as a model for New York City legislation to follow. This Note ultimately argues for a more

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2. For the purposes of this Note, “Chasing Arrows” will be capitalized throughout as a defined term. Because this Note examines the often-unknown creation of the Chasing Arrows and legislation that specifically targets the Chasing Arrows, this stylization is meant to call attention to this particular form of greenwashing and plastics propaganda.

3. See infra Section I.A.


6. For the purposes of this Note, “Plastics Problem” will be capitalized throughout as a defined term. This stylization intends to convey the scale of plastic pollution in New York City and to draw attention as a focal point of this Note. When this Note uses “Plastics Problem,” this refers specifically to New York City’s plastics problem.
narrowly tailored municipal legislation than New York State currently proposes. A more stringent local effort will enable New York City to chip away at its Plastics Problem and ultimately encourage an even stronger bill to replace A7668 at the state level.

I. HOW GREENWASHING AIDED AND ABETTED NEW YORK CITY’S PLASTICS PROBLEM

Part I lays the foundation of New York City’s Plastics Problem by suggesting a causal link between greenwashing through plastics propaganda and plastic pollution. While the phenomena of greenwashing and plastics pollution are nothing new, this Part details the history of plastic pollution in New York City, exacerbated by the Chasing Arrows. Section I.A details the dubious creation of the Chasing Arrows — the pervasive triangular stamp on everyday plastics that has become synonymous with recycling — and how it was created as a marketing tactic by the oil and plastics industries. Section I.A also expands on the difficulty of discerning the truthfulness of plastics propaganda, which misleads well-intentioned modern consumers who, motivated by the desire to be more sustainable, trust the Chasing Arrows as an indicator of a plastic item’s total recyclability.

Section I.B explores New York City’s Plastics Problem to illustrate the breadth of plastic pollution and waste management in the biggest city in the United States. Section I.C, in recognition that this issue is rooted in both environmental and consumer protection law, describes where New York could codify regulation of the Chasing Arrows and highlights the optimistic provisions and drawbacks of New York Assembly Bill A7668.

A. The Chasing Arrows: How the Oil and Plastics Industries Fooled Us

“Greenwashing” describes a company’s misleading, exaggerated, or false claims about its environmental or sustainable practices. A company greenwashes its products, for example, when it claims its products are “green” or “sustainable” but the product does not actually have an environmental impact distinct from that of other comparable products. Greenwashing also encompasses exaggerated claims of climate-related goals without providing clear and effective steps the company will take to reach said goal. There are different forms of greenwashing, but for the purposes

7. See Samuel Brown, Greenwashing, 36 NAT. RES. & ENV’T 64, 64 (2022).
8. See id.
9. See id.
10. The different types of greenwashing include nature-based imagery, in which companies use images such as trees, leaves, or animals on their packaging to imply sustainability; vague environmental buzzwords such as “eco-friendly” that reveal nothing
of this Note, the main focus is plastics propaganda as pushed forward by the oil and plastics industries in the form of the Chasing Arrows.

Following the Great Depression and World War II, American consumers welcomed the possibilities of plastics. World War II kindled the United States’ reliance on plastics due to the material’s adaptability — nylon could be used in parachutes, ropes, body armor; plexiglass could replace glass for aircraft windows. Because of an increase in disposable income following the end of World War II, many consumers replaced traditional materials like paper, glass, and wood with plastics. Plastics promised a bright future of unlimited possibilities.

The public’s unfettered love for plastics began to sputter around the 1960s. Public consciousness became fraught with environmental concern as a result of Rachel Carson’s *Silent Spring*, and after plastic debris was found floating in the oceans. No longer was plastic an untainted symbol of human ingenuity but rather an emblem of something cheap and flimsy. Anxiety over plastics, and waste in general, continued into the 1990s, particularly as it became well-known that plastic could persist in the environment interminably after disposal. The oil and plastics industries, threatened with initiatives to ban or scale back the use of plastic, knew they had to devise a solution in order to survive. The public image of recycling was deteriorating and consumers were demanding greater accountability

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12. See id.

13. See id.

14. See id.

15. In *Silent Spring*, Carson detailed the horrifying effect of DDT, a powerful pesticide developed in 1939. Carson’s research discovered that DDT entered the food chain, accumulated in the fatty tissues of animals and humans, and caused cancer and genetic damage. Carson’s work was vindicated when President John F. Kennedy ordered the President’s Science Advisory Committee to examine the issues raised by Carson and eventually banned the use of DDT. See *The Story of Silent Spring*, NRDC (Aug. 13, 2015), https://www.nrdc.org/stories/story-silent-spring [https://perma.cc/GWT9-VYCT].

16. See *History and Future of Plastics*, supra note 11.

17. See *History and Future of Plastics*, supra note 11.

18. See *History and Future of Plastics*, supra note 11.

from the plastics industry. To get ahead of these looming bans and to rehabilitate its image, the plastics industry discovered how to mollify the public while still selling plastics: recycling.

The plastics industry was well aware that recycling did not keep plastic out of landfills. Recycling was not economically feasible — as early as the 1970s, the plastics industry publicly expressed doubt as to the economic viability of recycling plastic. In April 1973, a report was sent to top plastics industry executives that called recycling plastic “costly” and “difficult.” In an NPR interview, Lew Freeman, former Vice President of Government Affairs for the Society of the Plastics Industry, a plastics industry lobbying group, admitted, “[t]here was never an enthusiastic belief that recycling was ultimately going to work in a significant way.”

Ideally, used plastic can be recycled into a new product, however the process of collecting, sorting, and melting used plastic far outweighs the cost of producing new plastics from oil. Plastic also degrades with each use, limiting the potential for reuse to only once or twice. Even if the process of recycling was not cost-prohibitive, the actual product itself cannot be perpetually reused because of quality degradation.

Beginning in 1989, oil and plastics executives quietly lobbied around 40 states to mandate, at a statewide level, a campaign that remains potent today: the Chasing Arrows. The Chasing Arrows, an image of three arrows in a triangle with a number in the middle, soon appeared on all plastic, regardless of whether it could be recycled. To the average consumer, all plastics appeared recyclable. The plastics industry also funded sorting machines and recycling centers so that individuals could feel good about putting their plastic bag in a bin that, unbeknownst to the individual, may as well have been a trash can.

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20. See id.
21. See id.
22. See id.
23. See id.
24. See id. Another inside document, the type of which is undisclosed, stated that there was “serious doubt” about widespread plastic recycling. See id.
25. Id.
27. See id.
28. See id.
29. See id.
30. See id.
Throughout the 1990s, the plastics industry attempted to rehabilitate its image by promoting recycling through commercials, public relations, and other communications to the public that plastic could be and should be recycled.\(^{31}\) Commercials touted plastic as a treasure that could be used over and over.\(^{32}\) While this appeared to be a radical and innovative message, these commercials were funded by plastics industry giants including Exxon, Chevron, Dow, and DuPont, all motivated to increase their sales.\(^{33}\) One DuPont Recycling commercial stated, “[DuPont Recycling has] pioneered the country’s largest, most comprehensive plastic recycling program to help plastic fill valuable uses and roles.”\(^{34}\) The oil and plastics industries shelled out $50 million a year to paint a potentially misleading image of plastic because, as one industry insider expressed, “selling recycling sold plastic, even if it wasn’t true.”\(^{35}\)

Many environmentalists supported the Chasing Arrows, believing that consumers would be better guided when separating their plastic from trash.\(^{36}\) But in practice, the Chasing Arrows, and the number within it (the Resin Identification Code), is a source of broad confusion.\(^{37}\) Even today, consumers are fooled into believing that they are doing their part in going green.\(^{38}\)

The Chasing Arrows is a universal and highly recognizable symbol.\(^{39}\) As depicted by Figure 1 below, the Resin Identification Code is a single digit ranging from one through seven.\(^{40}\) Each number represents a different type of plastic but only numbers one and two are regularly recycled at recycling facilities\(^{41}\) and only 30% of number one and two plastics end up being recycled, according to the EPA.\(^{42}\)

\(^{31}\) See id.
\(^{32}\) See id.
\(^{33}\) See id.
\(^{34}\) Id.
\(^{35}\) Id.
\(^{36}\) See Steinbauer, supra note 4.
\(^{37}\) See Steinbauer, supra note 4.
\(^{38}\) See Steinbauer, supra note 4.
\(^{40}\) See id.
\(^{41}\) See id.
\(^{42}\) See id.
The breakdown of numbers one through seven are not easy for average consumers to remember. Number one represents polyethylene terephthalate (PET), found in items such as beverage bottles, food bottles and jars, and polyester clothing or rope. Number two refers to high-density polyethylene (HDPE), which makes up milk cartons, detergent bottles, buckets, and cereal box liners. Polyvinyl chloride (PVC or vinyl) falls under number three and represents items like plumbing pipes, toys, teething rings, medical tubing, and oxygen masks. Number four (low-density polyethylene or LDPE) is a more flexible version of number two and covers plastic wrap, sandwich bags, garbage bags, and beverage cups. The most durable plastic is reflected in number five, which is found in straws, bottle caps, prescription bottles, CD and DVD containers and hot food containers. Styrofoam, nearly synonymous with takeout food containers and packaging, is categorized by number six. And finally, number seven is simply “other” — a catch-all for types of plastic that do not fall neatly in the previous six, such as eyeglasses, CDs and DVDs, and clear plastic cutlery.

The technical names of different types of plastic and the complex categorizations can be intimidating to the average consumer. To recycle properly, regular citizens must know that CD boxes can only be recycled at a facility that recycles number five plastic while CDs themselves must be recycled at a facility that can recycle number seven plastics. It is likely that most people merely see the Chasing Arrows, not the small resin identification code, and throw both in the same blue bin. With the

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44. See Tod Hardin, Plastic: It’s Not All the Same, PLASTIC OCEANS (Feb. 23, 2021), https://plasticoceans.org/7-types-of-plastic [https://perma.cc/NCD7-AVP5].
45. See id.
46. See id.
47. See id.
48. See id.
49. See id.
50. See id.
51. See Choi-Schagrin & Tabuchi, Trash or Recycling?, supra note 39. The Chasing Arrows, “just one aspect of a recycling system that is far too confusing to be broadly effective[,]” places the burden of decoding an item’s recyclability on the individual. Choi-Schagrin & Tabuchi, Trash or Recycling?, supra note 39.
aforementioned long list of dos and don’ts, it is unsurprising that people often “wish-cycle” — aspirational recycling where people throw waste into a recycling bin where it does not belong but hope, on the off chance, that it might.52 Wish-cycling demonstrates how misinformation can result in plastic waste: consumers attempt to recycle with good intentions but results in complicating the sorting process, damaging recycling equipment, and decreasing the value of recyclables.53

In 2018, the United Nations Environment Program estimated that only 9% of the nine billion tons of plastic manufactured has been recycled.54 The global recycling problem is a confluence of many complications. For example, although rigid plastic can generally be recycled, if a consumer places the rigid plastic in an opaque bag, which makes it difficult to see inside, the whole bag could be thrown out with regular refuse instead of recycling.55 To make matters more convoluted, recycling is a municipal function and every municipality handles this process differently.56 Some states used to ship plastic waste to countries like China, but China in 2017 refused to accept any more of the world’s plastic trash.57 Since 2017, more plastic has been shipped to countries like Malaysia, Thailand, and Vietnam, instead of China.58 Some local governments simply burn their recycling, throw it out, or choose not to recycle at all because the cost of proper recycling is too high.59 The difficulty of proper recycling has led states to pursue corrective action that takes the onus away from the individual. In 2021, Maine and Oregon passed producer responsibility laws that would require manufacturers, not taxpayers, to cover the costs of recycling.60 California’s new legislation rethinks the use of the Chasing Arrows itself.61

52. See Choi-Schagrin & Tabuchi, Trash or Recycling?, supra note 39, at 6.
55. See Choi-Schagrin & Tabuchi, Trash or Recycling?, supra note 39.
56. See Choi-Schagrin & Tabuchi, Trash or Recycling?, supra note 39.
57. See Choi-Schagrin & Tabuchi, Trash or Recycling?, supra note 39.
58. See Choi-Schagrin & Tabuchi, Trash or Recycling?, supra note 39.
61. See infra Section III.A.
New York State, described infra, is also beginning to shift the burden of plastics on producers who created the problem, albeit with less force than potentially desired.

B. New York City’s Plastics Problem

New York City, like the rest of the world, is grappling with a major Plastics Problem. Given New York City’s vast population — which increases from eight million to 18.3 million after factoring in the New York City metropolitan area — there is little surprise that the New York City area produces a large mass of plastic pollution, which harms plants, animals, biodiversity also bears the consequences of a world and nation dependent on plastic consumption. In a 2020 report, Oceana (an international organization that strives to protect the world’s oceans through science-based policy campaigns) discovered that nearly 1,800 animals from 40 different species have swallowed or become entangled in plastic since 2009. About 88% of those animals were endangered or threatened species within the Endangered Species Act. See About Us, OCEANA, https://usa.oceana.org/about-us/ [https://perma.cc/7Z83-WGVZ] (last visited Nov. 4, 2022); Oceana Finds Plastic Entangling, Choking 1,800 Marine Animals in U.S. Waters, OCEANA (Nov. 19, 2020), https://usa.oceana.org/press-releases/oceana-finds-plastic-entangling-choking-1800-marine-animals-us-waters. [https://perma.cc/H9VW-WTBX]. America recycles only about 8.7% of its plastic waste while the other 90% goes to incinerators, landfills, or the environment. Veena Singla, Recycling Lies: “Chemical Recycling” of Plastic Is Just Greenuashing Incineration, NAT. RES. DEF. COUNS. (Sept. 7, 2022), https://www.nrdc.org/resources/recycling-lies-chemical-recycling-plastic-just-greenwashing-incineration [https://perma.cc/UM2L-VEXL]. In 2010 alone, between 4.8 to 12.7 million tons of plastic waste littered the oceans. Nikki A. Winningham et al., The Global Problem of Plastic Pollution: What Can New York Do?, N.Y. STATE BAR 1, 2 (July 2020) [hereinafter WHAT CAN NEW YORK DO?]. In 2018, the American Chemistry Council calculated that the United States generated 35.7 million tons of plastics, 27 million tons of which ended up in landfills. Plastics: Material-Specific Data, EPA, https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/plastics-material-specific-data [https://perma.cc/S87L-WNF8] (last updated Dec. 3, 2022). Plastic is a global nightmare that must be combatted from different angles in order to produce meaningful change.

62. The global plastics problem has been extensively researched and discussed throughout legal and environmental scholarship. This Note does not intend to ignore the international issue of plastics but rather aims to examine the issue at a municipal level. By focusing on the most populous city in the United States, this Note aims to explore how local legislation targeting greenwashing and plastics will assist the broader problem in the aggregate. The long lifespan of plastics affects the makeup of our planet’s geology. Plastic can travel thousands of miles and will feed “great oceanic garbage patches” that only continue to grow. University of Leicester, Human Impact Has Created a “Plastic Planet,” SCIENCE DAILY (Jan. 27, 2016), https://www.sciencedaily.com/releases/2016/01/160127083854.htm [https://perma.cc/29ML-V4KU]. When these plastic islands sink to the sea floor, they become a fossilized component of the Earth’s sedimentary strata. See, e.g., Frequently Asked Questions about Plastic Recycling and Composting, EPA (Aug. 30, 2022), https://www.epa.gov/trash-free-waters/frequently-asked-questions-about-plastic-recycling-and-composting [https://perma.cc/6XRX-GJB8]. Biodiversity also bears the consequences of a world and nation dependent on plastic consumption. In a 2020 report, Oceana (an international organization that strives to protect the world’s oceans through science-based policy campaigns) discovered that nearly 1,800 animals from 40 different species have swallowed or become entangled in plastic since 2009. About 88% of those animals were endangered or threatened species within the Endangered Species Act. See About Us, OCEANA, https://usa.oceana.org/about-us/ [https://perma.cc/7Z83-WGVZ] (last visited Nov. 4, 2022); Oceana Finds Plastic Entangling, Choking 1,800 Marine Animals in U.S. Waters, OCEANA (Nov. 19, 2020), https://usa.oceana.org/press-releases/oceana-finds-plastic-entangling-choking-1800-marine-animals-us-waters. [https://perma.cc/H9VW-WTBX]. America recycles only about 8.7% of its plastic waste while the other 90% goes to incinerators, landfills, or the environment. Veena Singla, Recycling Lies: “Chemical Recycling” of Plastic Is Just Greenwashing Incineration, NAT. RES. DEF. COUNS. (Sept. 7, 2022), https://www.nrdc.org/resources/recycling-lies-chemical-recycling-plastic-just-greenwashing-incineration [https://perma.cc/UM2L-VEXL]. In 2010 alone, between 4.8 to 12.7 million tons of plastic waste littered the oceans. Nikki A. Winningham et al., The Global Problem of Plastic Pollution: What Can New York Do?, N.Y. STATE BAR 1, 2 (July 2020) [hereinafter WHAT CAN NEW YORK DO?]. In 2018, the American Chemistry Council calculated that the United States generated 35.7 million tons of plastics, 27 million tons of which ended up in landfills. Plastics: Material-Specific Data, EPA, https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/plastics-material-specific-data [https://perma.cc/S87L-WNF8] (last updated Dec. 3, 2022). Plastic is a global nightmare that must be combatted from different angles in order to produce meaningful change.

and its most vulnerable communities. New York City residents alone generate about 36 million pounds of single-use plastic food waste a year. In 2017, households generated about 99.7 pounds per household of non-bottle rigid plastic waste, up from 78.7 pounds in 2013. In 2017, each New York City household improperly discarded as refuse 26 pounds of recyclable non-bottle rigid plastic and 10.6 pounds of single-use plastic plates, cups, and cutlery. Additionally, about 31.6 pounds of bulky and other plastics, and about 23 pounds of plastic bottles were discarded by every New York City residence. These figures only reflect plastic processed by New York City’s waste management system and do not account for the bottles collected by individuals on city streets nor the volume of plastic waste that ends up as street litter, which continue to pollute lakes and oceans. In 2009, New York City determined that plastic constituted 11%, or 295,000 tons, of disposed commercial waste, yet none of the plastic in the commercial waste stream was recycled.

64. In regard to animals, thousands of animals (such as seabirds, sea turtles, seals, and other marine life) are killed each year after ingesting plastic or getting entangled in plastic. See Ocean Plastics Pollution: A Global Tragedy for Our Oceans and Sea Life, Ctr. BIOLICAL DIVERSITY, https://www.biologicaldiversity.org/campaigns/ocean_plastics/ [https://perma.cc/PUH2-WFJC] (last visited Aug. 21, 2023). Plastics adversely impact human health at every stage of the plastics lifecycle. First, plastic is extracted from fossil fuels through hydrofracking, which releases 170 chemicals and toxic substances into the air and water. Plastic waste management also requires technologies that expose workers and nearby communities to toxic substances through inhalation of contaminated air, direct contact with contaminated soil or water, and ingestion of foods grown in polluted conditions. See Plastic and Human Health: A Lifecycle Approach to Plastic Pollution, CTR. INT’L ENV’T L., https://www.ciel.org/project-update/plastic-and-human-health-a-lifecycle-approach-to-plastic-pollution [https://perma.cc/AUT7-A4Y8] (last visited Aug. 21, 2023). Marginalized communities, traditionally communities of color and/or low-income communities, are historically exposed to environmental hazards more than their white and upper-class counterparts (a concept known as environmental justice). Hazards from facilities such as garbage dumps and refineries tend to be in communities of color and low-income communities. The South Bronx, one of the most racially diverse areas in New York City, has been nicknamed “Asthma Alley” because Bronx residents are hospitalized for asthma at five times the national average. The high rates of asthma and other health issues are due to the 15,000 trucks that pass through the South Bronx to the waste management facility. See Angelina Ruiz, What Does Sustainability Mean in the Bronx?, Vox (Sept. 8, 2021), https://www.vox.com/the-goods/22654323/sustainability-bronx-environmental-racism-zero-waste [https://perma.cc/QB7L-VXF4].

66. See WHAT CAN NEW YORK DO?, supra note 62, at 22.
67. See WHAT CAN NEW YORK DO?, supra note 62, at 22.
68. See WHAT CAN NEW YORK DO?, supra note 62, at 22.
69. See WHAT CAN NEW YORK DO?, supra note 62, at 22.
70. See WHAT CAN NEW YORK DO?, supra note 62, at 22. The most recent data regarding plastic consumption from commercial establishments is from 2009.
The New York City government is aware of its Plastics Problem and has made attempts to mitigate this stream of waste. In 2016, the City attempted to enact a law imposing a five-cent fee on plastic bags. The 2016 effort paved the way for the 2019 New York State Bag Waste Reduction Act, which banned the retail distribution of single-use plastic bags. Yet despite New York City’s understanding and willingness to reform plastics pollution, a great deal of the plastic waste created in the City continues to be improperly recycled. This is due, in part, to the fact that plastic seems to come from many different sources, such as microplastics, single-use plastic bottles, plastic bags, cigarette butts, single-use take-out containers, plastic straws, and balloons. It can be difficult to control a commodity used by millions of individuals and to regulate products that are so pervasive.

Not every New Yorker knows what plastics New York City consider “recyclable.” The New York City Department of Sanitation (DOS) provides dual stream recycling, meaning that metal, glass, plastic, and cartons belong in one bin; and mixed paper and cardboard go together in another bin. But the DOS does not explicitly lay out what Resin

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73. Microplastics is a complex issue, the exploration of which goes beyond this Note. Microplastics are plastic particles less than five millimeters in length that result from the breakdown of larger plastic items. About 15% to 31% of all plastic in the oceans is estimated to be from microplastics. At present, microplastics cannot be physically removed from the ocean nor do they biodegrade over time. Microplastics come in different forms, such as microbeads, which were often added to personal hygiene and cosmetic products, and microfibers, which are also contained in personal-care products and the air. Only recently have scientists and regulators become aware of the incorporation of microplastics into the food chain and the ensuing health effects. The Office of the New York State Attorney General has made strides in researching microplastics in the Great Lakes and in protecting New Yorkers against microplastic harms. See What Can New York Do?, supra note 62, at 2–4, 11, 18–23.
75. See Choi-Schagrin & Tabuchi, Trash or Recycling?, supra note 39 (“The unhelpful symbol is just one aspect of a recycling system that is far too confusing to be broadly effective.”). Across New York State, each municipality has its own recycling guidelines. The New York State Department of Environmental Conservation (DEC) recognizes this confusion and started an initiative in 2018 that consolidated recycling information for New Yorkers statewide in one easy-to-access platform. It is unknown how many residents are aware of and use this DEC resource. See Recycle Right NY Campaign, DEC, https://www.dec.ny.gov/chemical/116113.html [https://perma.cc/6NU5-743X] (last visited Jan. 29, 2023).
76. See What to Recycle for Residents and Apartment Managers, Dept of Sanitation, https://www1.nyc.gov/assets/dsny/site/services/recycling/what-to-recycle [https://perma.cc/73WT-DFPE] (last visited Dec. 14, 2022). The DOS has not always operated a dual stream system. This change only occurred in 2013, when non-bottle rigid plastics (such as yogurt containers, takeout containers, and bulky rigid plastics) became
Identification Codes the city accepts. The DOS website describes rigid plastics as including “plastic bottles,” “rigid plastic non-food containers,” and “rigid plastic housewares,” with a note stating that “[r]igid plastic is any item that is mostly plastic resin — it is relatively inflexible and maintains its shape or form when bent.” Moreover, if one does not scroll to the bottom of the list, it is easy to miss that the DOS does not accept plastic items such as foam plastics, flexible plastics, film plastics (such as plastic shopping bags, which must be taken to certain participating stores for proper recycling), and CDs and DVDs.

Requiring individuals to examine and retain this wealth of information is not only impractical, but it also puts the onus on the individual rather than the municipality. The level of knowledge and investigation required of individuals makes proper recycling a tremendously difficult process. While the sheer volume of plastics pollution could be misconstrued as environmental ennui, New York City residents are likely just misinformed by the Chasing Arrows. In 2021, the Global Sustainability Study surveyed 10,000 people across 17 countries and found that 85% of people have shifted their purchase behavior in the name of sustainability in the past five years. Looking at the United States alone, 55% of those surveyed indicated making at least modest changes in spending habits out of environmental concern. Yet even if consumers are properly informed, New York City will still fall behind its counterparts of Seattle, Los Angeles, and San Francisco, if it does not implement more stringent municipal trash requirements.

New York City’s issue with plastics is intertwined with its issue with overall waste and waste management. If New Yorkers recycled properly, the DOS predicts that “more than two-thirds of household garbage would be recyclable. See NYC DEP’T OF SANITATION, NYC RESIDENTIAL, SCHOOL & NYCHA WASTE CHARACTERIZATION STUDY 7 (2017).

77. See What to Recycle, supra note 76.
78. What to Recycle, supra note 76.
79. See What to Recycle, supra note 76.
80. See supra Section I.A.
82. See id.
84. See id.
diverted from landfills and incinerators.\textsuperscript{85} This goal would require a citywide program to collect food and yard waste, which was initially launched in 2013 by former Mayor Bloomberg, but has faced repeated budget cuts ever since.\textsuperscript{86} Former Mayor de Blasio further reduced the program at the outset of COVID-19 and current Mayor Adams mandated budget cuts for most city agencies.\textsuperscript{87} The City Council has urged Mayor Adams to spend $27 million on recycling initiatives to realize Mayor de Blasio’s “zero waste” by 2030 goal — a target that councilmembers have treated with skepticism.\textsuperscript{88} Environmental advocates believe that budget cuts to city agencies undergirds low participation by New Yorkers to effectively reduce waste.\textsuperscript{89} Due to the exorbitant costs of proper recycling, states, as previously mentioned, have turned to extended producer responsibility laws that place the burden of paying for disposal on the manufacturers of such products.\textsuperscript{90} New York City can turn to similar creative solutions to effectively reduce and recycle plastic waste in its path to “zero waste.”

New York City residents are familiar with environmental and climate change harms. Because of its population density and coastal geography, New York City is vulnerable to a panoply of environmental and climate change consequences, such as Hurricane Sandy.\textsuperscript{91} Cities and municipalities also hold great potential in effectuating change.\textsuperscript{92} New York City’s political leaders are aware of the city’s environmental vulnerability and are eager to make the City a leader in climate change action.\textsuperscript{93} If New York City tackles greenwashing through regulation of the Chasing Arrows, it could lead the charge in plastics pollution reform at the state and national level.\textsuperscript{94}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{85} See id.
\item \textsuperscript{86} See id.
\item \textsuperscript{87} See id.
\item \textsuperscript{88} See id. In March 2023, Mayor Adams proposed a composting mandate for yard waste (leaves, flowers, twigs, grass, and clippings), and a voluntary curbside composting program across the entire city. Many see this proposal as a substantial step forward in tackling New York City waste. See Emma G. Fitzsimmons, \textit{Mayor Proposes First Composting Mandate in New York City}, N.Y. \textsc{Times} (Mar. 27, 2023), https://www.nytimes.com/2023/03/27/nyregion/composting-mandate.html [https://perma.cc/L5MY-RMG4].
\item \textsuperscript{89} See Goldenberg & Dunn, supra note 83.
\item \textsuperscript{91} See Bratspies, supra note 63, at 10.
\item \textsuperscript{93} See Bratspies, supra note 63, at 10.
\item \textsuperscript{94} See infra Part III.
\end{itemize}
\end{footnotesize}
C. On the Horizon: New York State Assembly Bill A7668

New York State is currently considering an extended producer responsibility bill that will transfer the responsibility of recycling from consumers to product manufacturers and will give the Chasing Arrows greater meaning. Assembly Bill A7668 (“A7668”) would amend the New York State Environmental Conservation Law (“ECL”) in relation to false claims about recyclability and plastic container labeling. A7668 would address deceptive or misleading claims about product or packaging recyclability. A7668 would also establish a new regulatory process by requiring the New York State Department of Environmental Conservation (DEC) on or before January 1, 2024, “to develop” regulations that would include the types and forms of plastic products and packaging that would support recyclability claims, including using the Chasing Arrows, and would require the DEC “to develop” a list of material types and forms that are recyclable.

Among its propositions, A7668 would require environmental marketing claims to be “substantiated by competent and reliable evidence” so that consumers may “have accurate and useful information about the environmental impact of plastic products.” A new section 27-0511 to ECL titled “Recycling Truth in Labeling” would deem it deceptive, but without any penalty, for any person to misrepresent, directly or by implication, that a package is recyclable “unless it can be collected, separated, or otherwise recovered from the waste stream through an established mechanical or manual recycling program.” Section 27-0513 (Plastic container labeling) would require all rigid plastic bottles and containers sold in New York to “be labeled with a code that indicates the resin used to produce the [bottle or container],” thus requiring explicit indication of the resin identification codes. Additionally, the Resin Identification Code “shall” not be placed inside the Chasing Arrows unless the product is recyclable.

95. ECL established the DEC and authorizes DEC’s programs. The New York State legislature passed ECL and passed ECL amendments. The purpose of ECL is to protect public health and safety but the provisions of ECL are broad. DEC defines ECL’s broad provisions by drafting, promulgating, and enforcing environmental regulations. See Regulations and Enforcement, N.Y. STATE DEP’T ENV’T PROT., https://www.dec.ny.gov/65.html (last visited Oct. 29, 2023).
98. See id.
100. See id.
101. See id.
pursuant to section 27-0511. A7668 attempts to cut through some of the current uncertainty surrounding proper recycling by including provisions that expressly highlight the Resin Identification Codes and places the onus of transparent marketing on producers of plastic goods.

Environmental advocates applaud A7668. However, its success is not guaranteed as the bill has had little movement over the past two years. A7668 was part of the 2021–2022 Legislative Session. The bill is currently still in committee (the second step in the process after introduction), and the most recent action was on January 5, 2022, when the bill was referred to the Ways and Means Committee. If the Committee does not approve the bill, then A7668 will not reach the floor for a vote. This prolonged review of A7668 hints that the bill may never become reality.

New York City should enact a stricter analogue like S.B. 343, a recent California bill. A7668 does not fully address the issues that arise from plastics propaganda; nor does it mandate consequences for greenwashing. As mentioned above, A7668 requires environmental marketing claims to be "substantiated by competent and reliable evidence," but it is unclear what "competent and reliable" requires from manufacturers. While A7668 requires placing the Resin Identification Code within the Chasing Arrows, S.B. 343 prohibits the use of the Chasing Arrows entirely if the plastic product cannot be recycled by large recycling plants that service at least 60% of California’s population. A7668 could be just as stringent by focusing on New York City’s waste stream and where a product can be recycled. A7668 also lacks the regulatory layers of S.B. 343. A7668 relies on the DEC for regulation and implementation, but S.B. 343 not only requires manufacturers to follow local laws but also requires conformity with terms defined by the Federal Trade Commission (FTC), such as “biodegradable”

102. See id.
103. See Bill Memo: Recycling Truth in Labeling, supra note 97 and accompanying text.
105. See id.
106. See id.
107. See id.
111. See infra Section III.B.
or “recycled.” Layers of regulation, described *infra*, allow for greater protection should there be regulatory failure or preemption at one level. Furthermore, even if this New York City legislation is preempted by A7668, New York State could be inspired to refine A7668, as the State has done with the congestion pricing plan and plastic bag reduction regulation, detailed *infra*.\(^a\)

This Note advocates for New York City to enact legislation that is stronger than A7668 in order to inspire the state to take a tougher stance against plastics propaganda and, in turn, New York City’s Plastics Problem. The introduction of A7668 shows that many in New York State leadership comprehend and appreciate the connection between greenwashing and the plastics problem. New York City’s own legislation could trigger the state to take more emphatic efforts to tackle plastics and encourage other municipalities and states to follow suit.

**II. FEDERAL, STATE, AND LOCAL RELATIONSHIPS: THE COMPLEXITY OF ENVIRONMENTAL & PLASTICS PROPAGANDA REGULATION**

Environmental law, even in situations of overlapping legal issues, is regulated at the federal, state, and city levels. The history of environmental law “has long been one of gap-filling, or of one level of government stepping in to correct for the failures of another.”\(^b\) The Chasing Arrows presents an example of such gap-filling, where states have stepped in to regulate an issue that they determined was insufficiently controlled at the federal level.\(^c\) The merits of each level of regulation and the relationship between states and their cities is crucial to understanding a proposed citywide solution to govern the Chasing Arrows.

Section II.A.1 expands upon the concept of gap-filling by providing a general overview of the history of environmental law as it shifted from municipal to federal regulation to fill a regulatory hole. Section II.A.2 turns specifically to greenwashing regulation at the federal level by the FTC, which has the authority to regulate the Chasing Arrows at a higher level. Section II.B zooms in on the relationship between states and cities under the doctrine of preemption and presents two New York case studies: the congestion pricing plan and the plastic bag ban.

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\(^b\) See *infra* Section II.B.2.


\(^d\) See *infra* Part III.
A. Environmental Regulation at the Federal Level

Untangling the intricate web of environmental law that rests at the heart of Chasing Arrows regulation begins with understanding the federal government’s role in environmental progress. Traditionally, environmental law has often been controlled at the federal level, with little attention paid to state actions.116 The federal government has the ability to make and enter into treaties, such as the Paris Agreement on climate change.117 In 1992, the United States signed, and the Senate unanimously ratified, the United Nations Framework Convention on Climate Change (UNFCCC), which “included a commitment to formulate and implement ‘measures to mitigate climate change by addressing anthropogenic emissions . . . of all greenhouse gases . . . and measures to facilitate adequate adaptation to climate change.’”118 The UNFCCC regulates the rules for the United Nations Climate Change Conferences, also known as the Conference of the Parties (COP), a global forum held by the United Nations for parties, including the United States,119 to discuss climate change solutions through the implementation of the Paris Agreement and the Kyoto Protocol.120

In addition to global climate measures, the federal government is the main regulatory body for most of the country’s environmental measures. This is largely due to the expansion of congressional involvement in the 1960s and 1970s and federalization of environmental law.121

116. See Katrina Wyman & Danielle Spiegel-Feld, The Urban Environmental Renaissance, 109 CALIF. L. REV. 305, 306–07 (2022) [hereinafter Wyman & Spiegel-Feld, Urban Environmental Renaissance]. Any attention given to states tends to mainly focus on California. Scholars hardly focus on cities when turning to nonfederal sources of environmental law. See id.

117. See Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 488.


121. See Fox, Localizing Environmental Federalism, supra note 114, at 139.
1. The Federalization of Environmental Law

Before the birth of landmark federal environmental legislation, municipalities were mostly responsible for environmental protection. In the 19th and 20th centuries, local governments assumed the role of environmental protectors mostly out of necessity, attempting to provide healthy urban environments for their growing populations. Municipalities used zoning and nuisance doctrines to address certain environmental harms, invested in infrastructure, and planned green spaces. For instance, municipalities used nuisance law to resolve conflicts over issues of odors from livestock and pollution from industrial facilities. But local resources were ultimately insufficient for environmental progress. Because many environmental issues do not abide by jurisdictional lines, attempts to protect natural resources through common nuisance law were inadequate to curb the issue of spillover effects or pollution from a neighboring jurisdiction.

A municipality’s attempt to solve one environmental problem often gave rise to another, which it lacked sufficient resources to solve. Municipal attempts to regulate and provide safe drinking water and sewage systems demonstrate this difficulty. As populations grew, local water became increasingly polluted. Cities led the response to build healthier water supply systems, starting with Philadelphia in 1801. New York City established its own water supply system to replace polluted wells in Manhattan. In 1842, the Croton Aqueduct opened, providing New York City with its own city-owned water supply system that was paid for by city-issued bonds. But with increased water supply came increased water consumption and creation of water closets that could not be sustained by

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122. See Wyman & Spiegel-Feld, Urban Environmental Renaissance, supra note 116, at 312.
123. Fox, Localizing Environmental Federalism, supra note 114, at 137–38.
124. See Fox, Localizing Environmental Federalism, supra note 114, at 138.
125. See Fox, Localizing Environmental Federalism, supra note 114, at 137–39, 137 n.17.
126. See Fox, Localizing Environmental Federalism, supra note 114, at 138–39.
128. See Wyman & Spiegel-Feld, Urban Environmental Renaissance, supra note 116, at 312.
129. See Wyman & Spiegel-Feld, Urban Environmental Renaissance, supra note 116, at 313.
130. See Wyman & Spiegel-Feld, Urban Environmental Renaissance, supra note 116, at 313.
the old systems of dumping waste into cesspools, which gave rise to the issue of properly filtering or treating sewage to then be used as drinking water.\footnote{132}{See Wyman & Spiegel-Feld, \textit{Urban Environmental Renaissance}, supra note 116, at 313–14.}

Air pollution paints a similar story. Starting in the 1800s, municipalities regulated air pollution that came from the burning of coal to provide power.\footnote{133}{See Wyman & Spiegel-Feld, \textit{Urban Environmental Renaissance}, supra note 116, at 315.} They often turned to the courts, which regulated air pollution under common law doctrines of nuisance and trespass and municipalities passed ordinances in attempts to control the hazard.\footnote{134}{See Wyman & Spiegel-Feld, \textit{Urban Environmental Renaissance}, supra note 116, at 315–16.} Even as smoke abated, cities were faced with unforeseen health hazards, such as fine particulate matter, that they could not tackle with existing measures.\footnote{135}{See Wyman & Spiegel-Feld, \textit{Urban Environmental Renaissance}, supra note 116, at 315–16.}

Similarly, as water pollution became a more daunting and complex problem by the end of World War II, state efforts to control air pollution were also ineffective.\footnote{136}{See Wyman & Spiegel-Feld, \textit{Urban Environmental Renaissance}, supra note 116, at 314–15; Fox, \textit{Localizing Environmental Federalism}, supra note 114, at 139.}

Many motivations encouraged the federal government to assume greater authority over environmental issues. Cities and states lacked the incentive to address water and air pollution because cities favored relaxed environmental standards to attract high-polluting industries to, in turn, boost their municipal economies.\footnote{137}{See Wyman & Spiegel-Feld, \textit{Urban Environmental Renaissance}, supra note 116, at 315–16.} Many cities also lacked the resources and expertise to address complicated problems of air and water pollution, whereas the federal government was better positioned to conduct the requisite research and analysis for the country as a whole.\footnote{138}{See Wyman & Spiegel-Feld, \textit{Urban Environmental Renaissance}, supra note 116, at 320–21.}

Moreover, the breadth of environmental problems municipalities faced engulfed the authority and capacity of state and local governments to manage sources of pollution, particularly when pollution migrated from one jurisdiction into another.\footnote{139}{See Wyman & Spiegel-Feld, \textit{Urban Environmental Renaissance}, supra note 116, at 320–21.}

Because jurisdictional boundaries of state and local governments complicated environmental protection, the federal government assumed a
larger role in environmental protection during the 1960s and 1970s. After World War II, many environmentalists favored federalization as a bipartisan solution for setting minimum environmental protection standards across all state lines. Regulated entities also pushed for a more centralized system, rather than disjointed measures across cities and states. During this time, Congress churned out an impressive stream of environmental statutes that pertained to previously unregulated areas of law and natural resources. These statutes included the Clean Water Act, Clean Air Act, and Endangered Species Act. These central environmental acts formed the basis of the environmental law movement and continue to define the field today.

Federal regulation of environmental law subjects states and cities to federal environmental standards. Federal environmental provisions often expressly delegate authority to states to implement federal regulations within their borders, but such federal provisions do not delegate this authority to cities. Cities are still implicitly subject to federal standards administered by states, however, because cities operate infrastructure targeted by federal laws. For example, New York City, to meet the mandates of the federal Safe Drinking Water Act, constructed a $3.2 billion water filtration plant for the Croton Aqueduct.

Despite the generally positive perspective of federalization of environmental law during the 1960s and 1970s, Congress has failed to pass any new environmental statutes for over 30 years. Increased political

142. See Fox, *Localizing Environmental Federalism*, supra note 114, at 139.
143. See Fox, *Localizing Environmental Federalism*, supra note 114, at 139.
144. See Fox, *Localizing Environmental Federalism*, supra note 114, at 139.
145. See Fox, *Localizing Environmental Federalism*, supra note 114, at 139.
146. See Wyman & Spiegel-Feld, *Urban Environmental Renaissance*, supra note 116, at 324 (“The federalization of environmental law in the 1970s subjected states and cities to federal environmental standards[.]”).
150. See Fox, *Localizing Environmental Federalism*, supra note 114, at 144. Congress has passed occasional amendments to existing environmental statutes. Congress passed the Inflation Reduction Act (IRA) in 2022, which is the most significant climate legislation in American history. The IRA provides financial incentives to invest in renewable energy. Due to the scope of this article and the timing of the IRA, this Note does not focus on the IRA, but for a summary of the bill, see *Summary of Inflation Reduction Act Provisions Related to*
polarization and competing financial incentives at the federal level have obstructed attempts to pass environmental legislation in recent years.\textsuperscript{151} Even during the Obama Administration, the Democrat-controlled Congress failed to pass legislation to curb carbon emission, which was blocked by several Congresspeople who were captured by the interests of coal and oil industries.\textsuperscript{152} Thus, congressional inaction has created a legislative leadership void.\textsuperscript{153}

The Executive branch has failed to fill the void left by Congress because of increased political polarization and back-and-forth actions from one administration to the next.\textsuperscript{154} Measures that the Obama Administration successfully introduced were later rolled back by the Trump Administration.\textsuperscript{155} Among numerous examples of environmental hostility, the Trump Administration withdrew from the Paris Agreement, promoted the use of fossil fuels, disbanded the Environmental Protection Agency’s Environmental Justice Office, attempted to eliminate national parks and monuments, and reversed the Obama Administration’s rejection of the Keystone XL pipeline permit.\textsuperscript{156}

The Trump Administration’s lack of federal leadership ultimately created a regulatory hole of “de-federalized” environmental law, leaving many cities and states to take environmental matters into their own hands.\textsuperscript{157} The Trump Administration’s rollback of environmental efforts demonstrates how the Executive Branch has created a second federal leadership vacuum, after a stymied Congress, where one Administration reverses or nullifies a previous Administration’s progress.\textsuperscript{158}


151. See Fox, \textit{Localizing Environmental Federalism}, supra note 114, at 141–44. The Trump Administration rolled back various efforts by the Obama Administration, including the Clean Power Plan and reversing the rejection of the Keystone XL pipeline permit.

152. See Fox, \textit{Localizing Environmental Federalism}, supra note 114, at 141–44. Lee Wasserman, \textit{Four Ways to Kill a Climate Bill}, \textit{N.Y. Times} (July 25, 2010), https://www.nytimes.com/2010/07/26/opinion/26wasserman.html [https://perma.cc/5PWM-HLK6]. Senators and representatives were captured by oil and coal industries that donated to their campaigns. During bill negotiations, Congress also avoided explicitly discussing climate change, instead focusing on green jobs and drafting provisions specifically to benefit corporations instead of focusing on public welfare. \textit{See id.}

153. See Fox, \textit{Localizing Environmental Federalism}, supra note 114, at 144.

154. See Fox, \textit{Localizing Environmental Federalism}, supra note 114, at 140–44.

155. See Fox, \textit{Localizing Environmental Federalism}, supra note 114, at 140–41.

156. See Bratspies, \textit{supra} note 63, at 5–6; Fox, \textit{Localizing Environmental Federalism}, \textit{supra} note 114, at 143.

157. See Bratspies, \textit{supra} note 63, at 9.

158. See Fox, \textit{Localizing Environmental Federalism}, \textit{supra} note 114, at 140–44.
After the Trump Administration, and in anticipation of an uncertain 2020 Presidential Election, states and cities turned inward to manage their own environmental footprints. This trend of decentralization of environmental law at the federal level presented an opportunity for states and municipalities to gap-fill environmental regulation.

2. Federal Regulation of Plastics Propaganda Through the FTC

While this Note ultimately endorses local action as the most practical way to address plastics propaganda, it is worth exploring one of the more promising federal solutions to the issue of the Chasing Arrows: regulation from the Federal Trade Commission (FTC). Part of the strength in S.B. 343, the basis for this Note’s proposal, lies in its relationship to FTC regulations. Therefore it is crucial to understand the current role the FTC plays in regulating greenwashing and potential plastics propaganda.

In 1914, Congress created the FTC, an independent agency, to regulate unfair trade practices and “[p]rotect America’s [c]onsumers” under the Federal Trade Commission Act of 1914 (FTCA). Initially, the FTC was meant to bust the trusts and prevent unfair commercial competition, but the FTC’s role has since expanded to protect the public from “deceptive or unfair business practices.”

In 1992, the FTC issued its first set of Guides for the Use of Environmental Marketing Claims (the “Green Guides”). The Green Guides informally interpret Section 5 of the FTCA, which addresses deceptive or unfair advertising claims with specific attention to environmental marketing claims. The Green Guides are “designed to help marketers avoid making environmental claims that mislead consumers,” though they have been described as a “play book for how to stay out of...
trouble when making environmental claims.”¹⁶⁶ In general, recommendations and oversight under the current Green Guides are sorted into three main categories: (1) general principles for all environmental marketing claims; (2) how consumers are likely to interpret particular claims and how marketers can substantiate those claims; and (3) how marketers can qualify their claims to avoid deceiving consumers.¹⁶⁷ For example, the Green Guides caution against inaccurate terms like “biodegradable” and “recyclable,” and provide suggested examples for proper use.¹⁶⁸

The Green Guides are advisory and are only enforceable by the FTC, which has sweeping latitude to pursue improper or false environmental marketing claims to carry out the aims of the FTCA.¹⁶⁹ Even compliance with the Green Guides “will not necessarily preclude [FTC] law enforcement action.”¹⁷⁰ Because the Green Guides are advisory, they are not binding and “do not preempt federal, state or local laws,” thus allowing local governments flexibility to pass legislation that would significantly narrow the reach of the Green Guides.¹⁷¹

As an example, in 2013, the FTC filed an administrative complaint against ECM BioFilms (“ECM”), a company that sold an additive to plastics manufacturers.¹⁷² ECM claimed that their additive would “fully biodegrade” in a “landfill” within nine months to five years.¹⁷³ ECM also provided plastic manufacturers with materials to market their products as biodegradable, such as a logo marked “ECM Biodegradable” against the backdrop of a tree design.¹⁷⁴ The FTC claimed that ECM made false and misleading representations of the biodegradability of their product and was therefore in violation of the FTCA.¹⁷⁵ The 2012 revisions to the Green Guides advise that it is deceptive to make an unqualified degradable claim for items entering the solid waste stream if the items do not decompose within one year after customary disposal.¹⁷⁶ Because of the 2012 revisions, ECM edited its marketing materials and logos by placing an asterisk next to “biodegradable” to clarify that products made with ECM’s additive will

¹⁶⁷. See Green Guides, supra note 165.
¹⁶⁸. Green Guides, supra note 165.
¹⁶⁹. Pearson, supra note 162, at 24.
¹⁷⁰. 16 C.F.R. § 260.1(b) (2012).
¹⁷¹. Id.; see Pearson, supra note 162, at 26.
¹⁷³. Id.
¹⁷⁴. Id.
¹⁷⁵. See id.
biodegrade “in any biologically-active environment... in some period
greater than a year.”177 But ECM still continued to tout the nine months to
five years claim on its website until late 2013.178 The FTC argued that
ECM’s claims were unqualified and that they conveyed to consumers that
the plastic would completely degrade within five years, which was
scientifically false.179 The Sixth Circuit held that the FTC’s finding of a
violation was supported by substantial evidence from two consumer surveys,
including one that showed that adding “biodegradable” to a label caused an
additional 31% to 36% of consumers to believe that a water bottle would
fully decompose within five years.180

Most recently, in April 2022, the FTC targeted Kohl’s and other similar
companies for violations of the FTCA.181 The FTC alleged that Kohl’s
falsely marketed rayon textile products as bamboo.182 The FTC had
previously warned Kohl’s that “bamboo” can only be used “in labeling or
advertising a textile product made from fibers taken directly from the
bamboo plant,” whereas rayon is the resulting fiber from chemical treatment
of certain plant cellulose, but not considered bamboo.183 The FTC sued
Kohl’s alleging that the improper labeling of the company’s textiles
constituted “unfair or deceptive acts or practices in or affecting commerce,”
as prohibited by the FTCA.184 Kohl’s was permanently restrained and
enjoined, inter alia, from expressly or impliedly stating that their product is
made of bamboo or bamboo fiber unless the representation is non-misleading
and relies upon reliable scientific evidence.185

The FTC has revised the Green Guides three times, in 1996, 1998,186 and
2012.187 The 2012 revisions considered a wide range of public input,
including consumer and industry comments on the proposed revisions like

177. ECM BioFilms, 851 F.3d at 605.
178. See id. at 605–06.
179. See id. at 610.
180. Id. at 611–12.
181. See generally Complaint, United States v. Walmart, Inc., No. 1:22-CV-00965
(D.D.C., Apr. 8, 2022); Stipulated Order and Judgment for Civil Penalties, Permanent
Injunction, and Other Relief, United States v. Kohl’s Inc., No. 1:22-CV-00964 (D.D.C. May
4, 2022).
182. See generally Kohl’s Inc., No. 1:22-CV-00964-JDB.
184. Id. at 22. Deceptive acts or practices include misrepresentations or deceptive
omissions of material fact, such as Kohl’s claims of bamboo products that were actually made
of rayon.
185. Stipulated Order and Judgment at 1–2, Kohl’s, No. 1:22-CV-00964.
186. See Pearson, supra note 162, at 24.
187. See Shaheen & Mudge, supra note 112, at 1–2.
sections on the use of carbon offsets and renewable energy claims.\textsuperscript{188} The 2012 revisions provided many clarifications aimed to “help marketers avoid making environmental marketing claims that are unfair or deceptive under [the Green Guides].”\textsuperscript{189} Previous iterations of the Green Guides allowed sellers to make unqualified “recyclable” claims when all elements of a product could be recycled in facilities available to a “substantial majority” of consumers or communities, but the 2012 revisions clarified “substantial” to mean at least 60% of consumers.\textsuperscript{190}

While the Green Guides provide an avenue to target greenwashing, it is not the most reliable or promising option. Although the FTC’s mission is to “[protect] the public from deceptive or unfair business practices,” the FTC does not extend protection to advancing environmental goals.\textsuperscript{191} The Green Guides prioritize how marketers and manufacturers can predictably circumvent liability, rather than centering the consequences of greenwashing.\textsuperscript{192}

The FTC also fails to provide much clarity. For instance, for claims of “renewable materials,” the Green Guides call for disclosure of the type of renewable material and why the seller or marketer characterized it as “renewable.”\textsuperscript{193} But, the FTC did not test consumer perceptions of the recommended disclosures and merely assumed that consumer confusion would not be an issue.\textsuperscript{194} The current Green Guides also do not provide guidance on the usage of “sustainable” and “natural.”\textsuperscript{195} According to the FTC, “sustainable” can mean many different things to consumers, but the FTC could simply offer guidance for usage of “sustainable” instead of refusing to define the term altogether.\textsuperscript{196} The FTC also justified its lack of direction for “natural” because “natural” has many different meanings.

\begin{enumerate}
\item \textsuperscript{189} 16 C.F.R. § 260.1(a) (2012); see also Green Guides, supra note 165.
\item \textsuperscript{190} See Shaheen & Mudge, supra note 112, at 3.
\item \textsuperscript{191} About the FTC, supra note 162. The FTC, when it published its 2012 revisions to the Green Guides, noted that it is not possible to harmonize the Guides, which are focused on consumer deception, with international standards that advance environmental goals and policies.
\item \textsuperscript{192} See Pearson, supra note 162, at 24 (“Knowledge of the Green Guides is important for legal practitioners who market their own green initiatives, as well as for those practitioners who counsel clients that operate green businesses or clients who might be inclined to pretend to do so.”).
\item \textsuperscript{193} Shaheen & Mudge, supra note 112, at 7.
\item \textsuperscript{194} Shaheen & Mudge, supra note 112, at 7.
\item \textsuperscript{195} Shaheen & Mudge, supra note 112, at 8.
\item \textsuperscript{196} Shaheen & Mudge, supra note 112, at 8.
\end{enumerate}
depending on the context. It remains unclear why the Green Guides do not seek to balance consumer protection and environmental goals in tandem, despite the FTC’s purported goal to safeguard consumers. The Green Guides do not focus on the Chasing Arrows or the dangers of plastics propaganda, and it is uncertain whether they may do so in the future.

The federal government is an insufficient and unreliable tool to curb the Chasing Arrows. Recent decentralization and congressional inaction, along with unclear Green Guides, make it unlikely that the federal government will be able to live up to the challenge posed by plastics propaganda. Cities, which are often incubators for innovation and enforcement in environmental policy, could hold the key to greenwashing regulation — especially New York City, which has stood its ground in the face of federal rollbacks of environmental law. As former EPA Administrator Gina McCarthy stated, “[c]ities are where the action is. They’re still in.”

B. The Regulatory Interplay Between New York State and New York City

State and municipal efforts could lead the charge in tackling the Chasing Arrows. New York State, through A7668, and California, through S.B. 343, are spearheading the movement to counter plastics propaganda. Because this Note ultimately proposes municipal legislation targeting the Chasing Arrows, this section explores the regulatory dynamics between New York State and New York City. Section II.B.1 describes the doctrine of preemption generally, wherein states strip away authority from their cities to act on local matters that would otherwise be within municipal purview. Section II.B.2 then turns to the relationship between New York City and New York State in terms of preemption as well as the doctrine of substantial state concern — both of which dilute New York City’s power to act. Section II.B.2 turns specifically to the congestion pricing plan and plastic bag ban to highlight what New York City can anticipate should it adopt anti-Chasing Arrows legislation.

197. The FDA has also previously declined to define “natural.” See Shaheen & Mudge, supra note 112, at 8.
198. See Shaheen & Mudge, supra note 112, at 8.
199. See infra Section III.B; see generally Bratspies, supra note 63.
200. See Bratspies, supra note 63, at 2.
201. See infra Section II.B.1.
202. See infra Section II.B.2.
1. State Preemption of Municipal Legislation Generally

To understand the dynamics between New York State and New York City, and thus which entity may be better suited for Chasing Arrows regulation, one must first acknowledge the potential for state preemption of local policies. As stated infra, local and state actions are vulnerable to federal preemption. The threat of state authority consistently looms over local progress.203 In general, preemption “describes the ability of one level of government to override the decisions of another,”204 but in the context of state preemption of local policy, “states do not develop a comprehensive statewide scheme; they simply remove the local authority to act.”205 Thus, preemption often creates barriers against development of otherwise innovative and progressive local policy.206

Municipal governments are particularly vulnerable to state preemption because cities are mere “creatures of state law.”207 The United States Constitution makes no mention of cities or municipalities,208 but over time, the Tenth Amendment209 has been interpreted to hold that local governments derive their authority through delegation from state governments.210 Throughout the 19th century, states sought control over local governance because of the Constitution’s silence on local authority.211 Thus, during much of the 19th century, the legal structure of local autonomy was predominantly governed by an understanding of local governments as legally subordinate to the states.212 The Supreme Court affirmed this concept in 1997, writing that cities are political subdivisions from which the state “at its pleasure, may modify or withdraw all such powers,” and take cities’ property without just compensation, reduce or eliminate their territory, or

203. See Alexandra B. Klass & Rebecca Wilton, Local Power, 75 VAND. L. REV. 93, 98 (2022) (noting that, when local governments enact environmental policies, states frequently preempt local legislation in favor of a statewide ban on local government initiatives).
204. Fox, Localizing Environmental Federalism, supra note 114, at 152.
205. Fox, Localizing Environmental Federalism, supra note 114, at 135.
206. See Klass & Wilton, supra note 203, at 98.
208. See Fox, Localizing Environmental Federalism, supra note 114, at 163.
209. “The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.” U.S. CONST. amend. X.
211. See National League of Cities, supra note 207, at 1332.
212. See National League of Cities, supra note 207, at 1332.
destroy them entirely “with or without the consent of the citizens, or even against their protest.”  

Local subordination to state authority in “its strongest form” is often referred to as Dillon’s Rule. Dillon’s Rule, named after Judge John Dillon, is a standard of delegation that reflects the view that local governments have no inherent lawmaking authority and only possess powers expressly delegated to them by the state, or powers that can be fairly implied from powers the state has expressly granted. Dillon’s Rule was eventually adopted nationwide but local governments pushed back. This pushback became known as “home rule” authority for local governments. Around 1875, states began amending their own constitutions to provide local governments with the power to regulate certain policy areas even without express state authority. Much of the impetus to enshrine home rule came from cities’ rapid urbanization and growing populations, which required states to empower growing cities to have control over municipal or local affairs.

At its most basic level, home rule “seeks to align the legal status of local governments with the foundational role they play in our system of governance” to allow cities to act on their own initiative without specific grants of state permission. While there is no explicit enumerated list of what may be considered a municipal function under home rule authority, the powers given to cities are described as matters of “local” concern. Colorado’s state constitution, for example, provides that each city has the power to enact laws that extend “to all its local and municipal matters[.]” When a court examines an issue regulated by both state and local law, it must first determine whether the matter is one of local, state, or mixed local and state concern. If the matter is solely local, the court will uphold the local

214. See National League of Cities, supra note 207, at 1332–33.
215. See, e.g., National League of Cities, supra note 207, at 1333; Fox, Home Rule, supra note 210, at 587–89; Klass & Wilton, supra note 203, at 105; Fox, Localizing Environmental Federalism, supra note 114, at 169 (noting that the Supreme Court confirmed Judge Dillon’s view that local governments are mere creatures of the state in Hunter v. City of Pittsburgh).
216. See Fox, Home Rule, supra note 210, at 588; Klass & Wilton, supra note 203, at 105.
217. See Klass & Wilton, supra note 203, at 105.
218. See Klass & Wilton, supra note 203, at 105.
221. See Fox, Home Rule, supra note 210, at 588.
222. See Klass & Wilton, supra note 203, at 105.
224. See Klass & Wilton, supra note 203, at 106.
law.\textsuperscript{225} If the matter is either of mixed local and state concern or of solely state concern, the court must determine whether state law expressly preempts local law by statute, impliedly preempts local law by occupying the field of regulation statewide, or whether there is an operational conflict between local and state law.\textsuperscript{226} Put another way, express preemption occurs when a state statute is explicitly intended to preempt local law; implied preemption occurs when a local law either conflicts with a state statute, intrudes on an area where the state has assumed full regulatory responsibility, or has demonstrated a need for statewide uniformity.\textsuperscript{227}

Home rule gives cities some measure of power but it did not grant cities total independence from state control.\textsuperscript{228} While home rule provides cities functional power (such as revenue generation and land use controls), home rule lacks explicit structural protection from alteration or preemption by the state government.\textsuperscript{229} In particular, states often impose barriers to local, often more progressive, policies.\textsuperscript{230} With increased political polarization comes increased tension between states and their cities.\textsuperscript{231} Cities tend to be populated with residents who are more liberal, diverse, and well-educated than the states they fall within.\textsuperscript{232} “Red states” often favor countervailing policies that reduce regulations, lower taxes, and respond to more rural and often conservative constituencies that conflict with city constituencies.\textsuperscript{233} When local governments enact environmental, social, and economic policies, states often preempt those policies in favor of a statewide ban on local government regulation.\textsuperscript{234} Moreover, “the scope and intensity of preemption has increased in recent years in parallel with the rise of political polarization across the country between urban and rural areas, educated and less educated voters, and white and minority citizens.”\textsuperscript{235} Thus, despite the

\begin{itemize}
  \item \textsuperscript{225} See Klass & Wilton, supra note 203, at 105–06.
  \item \textsuperscript{226} See Klass & Wilton, supra note 203, at 106.
  \item \textsuperscript{228} See Fox, Home Rule, supra note 210, at 590.
  \item \textsuperscript{229} See Klass & Wilton, supra note 203, at 107.
  \item \textsuperscript{230} See Klass & Wilton, supra note 203, at 98.
  \item \textsuperscript{231} See Klass & Wilton, supra note 203, at 97. While this Note focuses on preemption generally, examples of conservative states preempting progressive local actions include preemption of policies surrounding the LGBTQ community in housing and employment, living wage ordinances, and restrictions on the use of natural gas in building constructions.
  \item \textsuperscript{232} See Klass & Wilton, supra note 203, at 98.
  \item \textsuperscript{233} See Klass & Wilton, supra note 203, at 98.
  \item \textsuperscript{234} See Klass & Wilton, supra note 203, at 98.
  \item \textsuperscript{235} Klass & Wilton, supra note 203, at 98. This movement of political polarization and increased preemption has also been described as “new” preemption. Within “new” preemption, there is “punitive preemption,” where states impose penalties on local governments for passing policies not favored by state legislatures; “nuclear preemption,”
promise of home rule, the implementation and longevity of local progressive policies are not necessarily guaranteed.

2. Obstruction of New York City Efforts: The Congestion Pricing Plan and the Plastic Bag Ban

Understanding the relationships between local and state power in environmental protections is crucial to New York City’s success should it attempt to implement legislation that regulates the Chasing Arrows. For New York, home rule is codified in article IX, section 2 of the State Constitution (also known as the “Home Rule” provision). Section 2(c) specifically provides that every local government is entitled to adopt or amend local laws relating to its “property, affairs or government” that are not inconsistent with the provisions of the New York Constitution or any general law; and to adopt and amend local laws not inconsistent with the New York Constitution, or any general law relating to ten enumerated subjects, subject, however, to the power of the State Legislature to restrict the adoption of such local law not relating to property, affairs, or government. Therefore, under section 2(b)(2), the New York State Legislature is specifically prohibited from acting with respect to “property, affairs or government of any local government” except by general law (laws that apply to all localities in the state) or by special law (laws that apply to one or more, but not all, localities) enacted by the local legislative body.

where states eliminate the local government’s power to regulate without express state permission; and “anticipatory preemption,” where states warn local governments from following other progressive cities by preempting local governments from taking action before cities have even considered adopting a certain policy. Professor Nestor Davidson described this wave of preemption as reflecting “a mix of deregulatory libertarianism[.]” Klass & Wilton, supra note 203, at 98–99.

236. See Cardozo & Klinger, supra note 227, at 91.
237. Cardozo & Klinger, supra note 227, at 91–92 & n.8. The ten enumerated subjects are listed under § 2(c)(ii) as follows: “(1) The powers, duties, qualifications, number, mode of selection and removal, terms of office, compensation, hours of work, protection, welfare and safety of [local] officers and employees. . . . (2) In the case of a city, town or village, the membership and composition of [the local] legislative body. (3) The transaction of its business. (4) The incurring of its obligations . . . . (5) The presentation, ascertainment and discharge of claims against it. (6) The acquisition, care, management and use of its highways, roads, streets, avenues and property. (7) The acquisition of its transit facilities and the ownership and operation thereof. (8) The levy, collection and administration of [its] taxes . . . . (9) The wages or salaries, the hours of work or labor, and the protection, welfare and safety of persons employed by any contractor or sub-contractor performing work, labor or services for it. (10) The government, protection, order, conduct, safety, health and well-being of its people and property therein.” N.Y. CONST. art. IX, §§ 2(c)(ii)(1)–(10).
238. See Cardozo & Klinger, supra note 227, at 91–92; N.Y. CONST. art. IX, § 2(c).
Although the privileges given to local governments were intended to be liberally construed, New York State still retains considerable power over its municipalities.\footnote{240} This is due in part to the doctrine of substantial state concern.\footnote{241} Under the substantial state concern doctrine, when New York State has a substantial interest in the subject matter, and proposed legislation bears a reasonable relationship to the accompanying substantial state concern, the State may legislate on what would otherwise be a local matter.\footnote{242} In assessing whether a substantial state interest exists, courts look to the stated purpose and legislative history of the act.\footnote{243} Then courts turn to whether the act bears a reasonable relationship to the substantial state concern by assessing whether the act advances the asserted state interest.\footnote{244} The substantial state concern doctrine, along with preemption, significantly reduces the force of New York City’s home rule authority.\footnote{245} While the substantial state concern doctrine is not the same as preemption, both doctrines work in concert to weaken the ability of New York City to legislate on matters of local concern.\footnote{246}

As such, local legislation that would target the Chasing Arrows\footnote{247} faces both doctrines. If New York City hopes to pass progressive plastic regulation, it may face removal under preemption and pushback under the substantial state concern doctrine. A7668’s status in limbo at the New York State Assembly makes these threats even more likely because the legislation is not currently enacted. Threats of abduction of power become even more present when one considers the political makeup of New York City compared to the state. Politically “blue” New York City is composed of progressive and diverse communities, but New York State is much more politically moderate.\footnote{248} The regulatory dynamics between New York City and New York State over environmental and plastic-reduction initiatives\footnote{249} are illustrated in the following two case studies: the congestion pricing plan and the plastic bag ban.

\footnote{240}{See Cardozo & Klinger, supra note 227, at 92–93.}
\footnote{241}{See Cardozo & Klinger, supra note 227, at 93. The substantial state concern doctrine specifically pertains to special laws.}
\footnote{242}{See Cardozo & Klinger, supra note 227, at 93.}
\footnote{243}{See Cardozo & Klinger, supra note 227, at 94.}
\footnote{244}{See Cardozo & Klinger, supra note 227, at 94.}
\footnote{246}{See Cardozo & Klinger, supra note 227, at 94.}
\footnote{247}{See supra Section I.A.}
\footnote{248}{See Klass & Wilton, supra note 203, at 98–100.}
\footnote{249}{See Bratspies, supra note 63, at 31.}
In 2008, New York City residents voted, and the New York City Council approved, a measure in favor of former Mayor Bloomberg’s congestion pricing plan that would target mass transit and air pollution.\footnote{See Sewell Chan, Council Votes 30-20 for Traffic Fees, N.Y. TIMES (Mar. 31, 2008), https://archive.nytimes.com/cityroom.blogs.nytimes.com/2008/03/31/council-panel-approves-congestion-pricing-measure [https://perma.cc/CHG3-3DLW]; Bratspies, supra note 63, at 31.} Congestion pricing places an added fee on driving in a designated zone within a city, usually in overcrowded and car-filled areas.\footnote{See Who Killed Congestion Pricing?, PBS (May 19, 2009), https://www.pbs.org/wnet/blueprintamerica/reports/by-geography/international/road-to-the-future-analysis-congestion-pricing-in-new-york-city/603 [https://perma.cc/5U5J-WKRY].} Mayor Bloomberg’s plan proposed an $8 fee to passenger vehicles that entered Manhattan below 60th Street between 6:00 AM and 6:00 PM on weekdays, and $4 for trips within this zone.\footnote{See id. Originally, the plan would start at 86th Street downward, but this was amended to 60th Street. The congestion pricing program could start as early as spring 2024. See also Ana Ley, Congestion Pricing Plan in New York City Clears Final Federal Hurdle, N.Y. TIMES (June 26, 2023), nytimes.com/2023/06/26/nyregion/nyc-congestion-pricing.html [https://perma.cc/T7Q7W-ZSKF].} This was, in effect, a tax to both disincentivize driving and raise revenue for transportation alternatives.\footnote{See Who Killed Congestion Pricing?, supra note 251.} This proposal was purely city-wide; such a measure did not exist at the federal or state level.\footnote{See Fox, Localizing Environmental Federalism, supra note 114, at 190.} New York City hoped that the revenues earned from congestion pricing would finance billions of dollars to expand the subway system and make other improvements to the Metropolitan Transportation Authority (MTA).\footnote{See Nicholas Confessore, $8 Traffic Fee for Manhattan Gets Nowhere, N.Y. TIMES (Apr. 8, 2008), https://www.nytimes.com/2008/04/08/nyregion/08congest.html [https://perma.cc/6HV4-ER5N].} The plan also predicted a decrease by 6.3\% in traffic.\footnote{See Who Killed Congestion Pricing?, supra note 251.} But Mayor Bloomberg needed federal funds which required approval from the New York State Assembly.\footnote{See Confessore, supra note 255.}

Opponents of the congestion pricing plan viewed it as a project that would benefit affluent Manhattanites.\footnote{See Confessore, supra note 255.} Democratic members of the New York State Assembly overwhelmingly refused to consider Mayor Bloomberg’s plan, and the bill died before it even reached the State Assembly floor.\footnote{See Confessore, supra note 255.} Thus, the New York State government swiftly dashed any potential for the congestion pricing plan to continue and did not immediately establish a
similar statewide scheme. Only in 2019 did the state return to this issue, and passed its own legislation for congestion pricing. While laudable, the state’s actions on congestion pricing left the city without this program for 11 years. This example of a state stripping away local authority without providing an immediate alternative regulatory structure deprives local governments of their power to address issues of environmental harm. Despite city residents’ vote to affirm a congestion pricing program, they were forced to wait years for the state to implement the program.

New York State’s plastic bag regulation presents another example of state preemption that deterred environmental protection. In 2016, New York City sought to limit the use of single-use plastic bags. At the time, New York City estimated that about ten billion plastic bags improperly entered the waste stream and that collection and disposal of plastic bags cost New York City $12.5 million per year. When New York City first attempted to enact Local Law 63 in 2016, which would have imposed a five-cent charge on single-use plastic bags, the New York City Council stated that Local Law 63 was meant to reduce the usage of single-use plastic bags to decrease waste and litter in streets and waterways. The only initial opposition to Local Law 63 came from producers and marketers of plastic bags.

Both houses of the New York State Legislature passed bills to block Local Law 63 and former Governor Cuomo effectively killed the bill just days before it would have gone into effect. Through express preemption, New York State instituted a moratorium on implementation of any local law “by a city with a population of one million or more, related to charging a fee for carryout bags.” Although New York operates under home rule authority, Governor Cuomo stated that environmental problems caused by single-use bags were not of local concern because they were a statewide problem that required a statewide solution. The Governor subsequently created a task force to “investigate the issue” of plastic bags. This task force led to the

260. See Bratspies, supra note 63, at 31; Fox, Localizing Environmental Federalism, supra note 114, at 190.
261. See Fox, Localizing Environmental Federalism, supra note 114, at 190.
262. See id. at 184.
263. See O’Connor, supra note 245.
264. See Bratspies, supra note 63, at 32.
265. See O’Connor, supra note 245. In turn, this would curtail contamination of residential recycling streams and sewer overflows caused by plastic blockage. See O’Connor, supra note 245.
266. See Bratspies, supra note 63, at 33.
267. See Bratspies, supra note 63, at 33.
269. See O’Connor, supra note 245.
270. See Bratspies, supra note 63, at 33.
New York State Bag Waste Reduction Act, which was signed into law in 2019 — three years after the New York City measure was enacted. The Bag Waste Reduction Act parallels the congestion pricing legislation story, where New York City attempted to solve a particular environmental issue, the state stripped the city of its power without implementing any similar alternative as a replacement, and then the state enacted its own similar legislation after considerable time had passed.

This Part recognizes the complexity that New York City will face should it choose to adopt legislation that targets the Chasing Arrows. Because the federal government has proven to be a potentially unreliable entity, particularly in times of political polarization, the biggest obstacles that New York City will likely face are the doctrines of preemption and substantial state concern. Preemption is highly probable, given that the State has already introduced A7668. But, as Part III will highlight, New York City need not be entirely deterred by the prospect of state preemption; the City could use preemption to its advantage to push the state legislature into enacting an anti-plastics propaganda bill stronger than A7668.

III. THE CALL FOR MUNICIPAL REGULATION

To regulate the Chasing Arrows, New York City should step in to take charge of authoritative gaps. As this Note discussed in Part I, consumers should not bear the onus of improper recycling and mountainous plastic waste when New York’s Plastics Problem is a byproduct of the oil and plastics industries’ attempt to counter a public relations nightmare. As the public environmental consciousness continues to grow, consumers will demand more sustainable products. The Chasing Arrows must be aggressively targeted to help consumers actualize their choices — we want to recycle, but we do not know how. New York City should adopt its own measures to counter the Chasing Arrows for several strategic reasons: first, A7668 might not even reach the New York State Assembly floor for a vote; second, A7668 is not as strong of a statute as it could be, and if New York City passes more rigorous legislation, it could reinvigorate state action. This Part argues for strategic preemption by urging New York City to adopt a local law similar to Senate Bill 343 with the expectation of triggering New York State to preempt the local law and enact a stronger version of A7668.

Section III.A will look at the strengths in California S.B. 343 that New York City should emulate when drafting its municipal bill. Section III.B will articulate the benefits of municipal regulation and will advocate for local regulation of plastics propaganda. Whether or not preemption may occur,

271. See Bratspies, supra note 63, at 32; WHAT CAN NEW YORK DO?, supra note 62, at 24.
New York City’s efforts to lead the charge against plastics propaganda will push the city, state, and possibly country forward.

A. A Model for New York City: California Senate Bill 343

This Note suggests that New York City should look to California S.B. 343 when adopting municipal legislation that targets the Chasing Arrows. Section C will examine the strengths in S.B. 343 that A7668 lacks, so that New York City can structure anti-Chasing Arrows legislation that is much stronger than A7668.

Before 2017, the United States shipped 4,000 shipping containers of waste to China each day, two-thirds of which included California’s potentially recyclable materials.272 In 2018, China closed its doors to imports of foreign recyclables, which led to colossal piles of poor-quality recyclables at ports and warehouses.273 As a result, California’s local waste collection became strained.274 California recognized that the significant burdens on its local recycling and waste systems stemmed from consumer confusion surrounding the Chasing Arrows and the Resin Identification Codes.275

In October 2021, California Governor Gavin Newsom passed a cluster of bills known as the Circular Economy Package.276 The Package sought to reduce the amount of single-use plastics by, in part, making it easier for consumers to identify what is and is not recyclable.277 S.B. 343, “Truth in Labeling for Recycled Materials,” is one of the most prominent bills in the Package.278 The bill’s author, Senator Ben Allen, discovered that advertising played a key part of why at least 85% of single-use plastics in California ended up in landfills.279 Senator Allen recognized the crucial link between the Chasing Arrows and the current plastics crisis, stating, “[w]e have a lot of people who are dutifully putting materials into the recycling bins that have the recycling symbols on them, thinking that they’re going to be recycled, but actually, they’re heading straight to the landfill.”280

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273. See id.; Steinbauer, supra note 4.
274. See Truth in Recycling, supra note 272.
275. See id.; see also supra Part I.
276. See Steinbauer, supra note 4.
277. See Steinbauer, supra note 4.
278. See Steinbauer, supra note 4.
279. See Steinbauer, supra note 4.
280. Hiroko Tabuchi & Winston Choi-Schagrin, California Aims to Ban Recycling Symbols on Things That Aren’t Recyclable, N.Y. TIMES (Sept. 8, 2021) [hereinafter Tabuchi & Choi-Schagrin, California Aims to Ban Recycling Symbols],
S.B. 343 is meant to end consumer confusion about what types of material can be placed in the iconic blue recycling bins, thereby reducing contamination of truly recyclable materials, decreasing waste volume, and improving legitimate recycling rates.\textsuperscript{281} Perhaps the most dramatic provision of S.B. 343 is the clampdown on the Chasing Arrows themselves.\textsuperscript{282} Through S.B. 343, the California Department of Resources, Recycling, and Recovery (CalRecycle) must compile a list of plastic products and packaging that are allowed to use the Chasing Arrows if the products meet two criteria: (1) it must be collected by recycling programs that collectively serve at least 60\% of California’s population, and (2) it must then be sortable by large recycling plants that serve at least 60\% of California recycling programs.\textsuperscript{283} A product or packaging is also considered recyclable if it has a demonstrated recycling rate in California of 75\%.\textsuperscript{284}

S.B. 343 is significantly narrower and stricter than the FTC’s Green Guides. California narrows the categories and types of items that may be labeled as recyclable and requires strict record-keeping by manufacturers.\textsuperscript{285} Under S.B. 343, the use of the Chasing Arrows themselves is a misleading environmental marketing claim unless the above two requirements are met.\textsuperscript{286} S.B. 343 further states that a manufacturer claiming to be ‘‘earth friendly,’’ ‘environmentally friendly,’’ . . . ‘green product,’’ or any other like term, or through the use of [the Chasing Arrows]” must maintain detailed written records and documentation that support the validity of its claims, including:

1. The reasons the person believes the representation to be true.
2. Any significant adverse environmental impacts directly associated with the production, distribution, use, and disposal of the consumer good.
3. Any measures that are taken by the person to reduce the environmental impacts directly associated with the production, distribution, and disposal of the consumer good.
4. Violations of any federal, state, or local permits directly associated with the production or distribution of the consumer good.
5. Whether, if applicable, the consumer good conforms with the uniform standards contained in the Federal Trade Commission Guidelines for Environmental Marketing Claims for use of the terms, “recycled,” “recyclable,” “biodegradable,” “photodegradable,” or “ozone friendly.”

[https://perma.cc/CSM7-792U].

281. See Truth in Recycling, supra note 272.
282. See supra Part I.
285. See Moore & van Laack, supra note 110.
286. See Moore & van Laack, supra note 110.
6. If the person uses the term “recyclable,” uses a chasing arrows symbol, or otherwise directs a consumer to recycle the consumer good, whether the consumer good meets all of the criteria for statewide recyclability . . . .287

S.B. 343 makes it unlawful for a person or company “to make an untruthful, deceptive, or misleading environmental marketing claim,” whether explicit or implicit, where “environmental marketing claim” is defined by the Green Guides.288 Therefore, companies that sell products in California must abide by not only the Green Guides to avoid federal liability, but also S.B. 343 if such companies wish to do business within California.289

Environmental groups, local Californian governments, and even waste haulers and recyclers praised S.B. 343.290 Recycling companies state that this legislation will assist them in reducing the non-recyclable trash thrown in recycling bins that must be sorted and transported to landfills.291 Predictably, the plastics industry fought back and circulated an industry memo among California lawmakers that argued S.B. 343 would “create a new definition of recyclability[.]”292 This line of logic, however, is difficult to sustain as the bill is not so much developing a new definition so much as ensuring that the plastics industry complies with the existing definition that they themselves created.293 S.B. 343 further provides for an 18-month grace period, so the results of S.B. 343’s efficacy are highly anticipated.294 If New York City follows suit, the added pressure from both California and New York City295 could cause massive ripple effects in the world of plastics regulation.

If A7668 fails to hit the floor for a vote, New York City will be prepared with aggressive local legislation that can help ameliorate the City’s Plastics Problem. Municipal legislation based on S.B. 343 could trigger state

289. See Moore & van Laack, supra note 110.
290. See Tabuchi & Choi-Schagrin, California Aims to Ban Recycling Symbols, supra note 280.
291. See Tabuchi & Choi-Schagrin, California Aims to Ban Recycling Symbols, supra note 280.
292. See Tabuchi & Choi-Schagrin, California Aims to Ban Recycling Symbols, supra note 280.
293. See supra Section I.A.
preemption and push the State to enact A7668 or implement a similar program.\(^{296}\) A plethora of possibilities could follow from New York City’s own version of S.B. 343, which New York City can deliberately wield to ensure greater protection of its residents and the planet.

**B. New York City Trashing the Chasing Arrows**

New York City should fill the gaps left by state inaction and enact its own municipal legislation that more directly attacks the Chasing Arrows. The weaknesses of A7668 represent a classic opportunity for gap-filling similar to the plastic bag ban and the congestion pricing program where New York City stepped up to protect its citizens from environmental harms when the state did not do enough.\(^{297}\) New York City is well-suited to push forward legislation that expressly confronts plastics propaganda to both mitigate its own Plastics Problem and cause ripple effects across the country.

New York City is the most economically powerful city in the world.\(^{298}\) Thus, Chasing Arrows legislation would empower New Yorkers to purchase with full and accurate knowledge and would shift the brunt of the Plastics Problem to the manufacturers. Because the New York City metro area is the most populous urban area,\(^{299}\) the choices that New York City makes “have the potential to shape the environmental behaviors of roughly 17% of the United States population.”\(^{300}\) New York City’s considerable population is also sensitive to climate change because of factors such as the city’s coastal geography, rising sea levels, and rising heat.\(^{301}\) New York City is “on the front lines of climate change,” and New Yorkers hold power in numbers to affect groundbreaking legislative progress.\(^{302}\)

New York City’s political leaders are, historically, cognizant of the city’s vulnerability and of the city’s potential to drive national and global action.\(^{303}\) At times when the federal government created a regulatory and governance void in the environmental and climate movement, New York City stood firm, taking leadership on issues from environmental justice, air pollution, food waste, water quality, and public transportation.\(^{304}\) The willingness of New York City’s political leaders to drive national and global action sets the city

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\(^{296}\) See supra Section II.B.
\(^{297}\) See supra Section I.C; supra Section II.B.
\(^{298}\) See Bratspies, supra note 63, at 10.
\(^{299}\) The New York City metro area extends beyond the city. In total, the metro area has over 18.3 million inhabitants. See Bratspies, supra note 63, at 10.
\(^{300}\) See Bratspies, supra note 63, at 10.
\(^{301}\) See Bratspies, supra note 63, at 10.
\(^{302}\) See Bratspies, supra note 63, at 10.
\(^{303}\) See Bratspies, supra note 63, at 10.
\(^{304}\) See Bratspies, supra note 63, at 10.
apart from the political tensions that occur at the state and federal level. 305
Restricting the use of the Chasing Arrows is an action that New York City’s
leaders are primed to take.

Professor Katrina Wyman’s tripartite framework for incorporating cities
into international environmental negotiations further provides a lens through
which to examine New York City’s plastics reform. 306 Wyman identifies
three functional arguments for allowing local governments to assist with
environmental implementation: (1) democratic legitimacy and the struggle
of nation states in forcing local governments to implement international
agreements (slippage argument); (2) cities control physical and regulatory
apparatuses that are useful in addressing certain problems (infrastructure
argument); and (3) cities construct norms that create momentum for
addressing environmental problems (constructivist argument). 307

Turning to Wyman’s first prong and her focus on the vital role of
municipal governance, citizens often have greater opportunity for political
engagement through voting at the local level due to cities’ “stronger claim to
‘democratic legitimacy’ than other non-state actors.” 308 As described supra,
nations are critical in the realm of international agreements, where the
national government must speak for the country as a whole to facilitate
“paralysis that might result if multiple governments covering the same
territory . . . had to bargain with each other[.].” 309 The focus on national
governance has its place in international negotiations but it wrongfully
assumes that the country speaks for all states and all cities. Similarly, New
York State does not necessarily represent the interests of New York City. 310
In cities, residents have the opportunity to vote for city officials, and, due in
large part to the smaller size of cities, the public can more directly engage in
governance than they would otherwise experience at the state and federal
levels. 311 Local officials presumably know their constituents the best and
have “their finger on the pulse of the needs and concerns of the communities

305. See Bratspies, supra note 63, at 10.
306. See generally Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92.
307. See Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 496.
308. See Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 498.
309. Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 494; see also supra Section II.A.1.
they govern." Furthermore, because the population of New York City is so large, larger than some states, New York City has the potential to effect great change beyond its own boundaries. Because municipalities may amplify participation in the political and decision-making process, residents may feel as though their local elected representatives are “close[r] to the people” than representatives such as the Governor or President. Municipalities also provide more localized policy perspectives, allowing them to be more responsive to the will of their constituents than the state or federal government. This advantage in localized response is particularly helpful in environmental law because such issues, from climate change to greenwashing and plastics, require individually tailored responses. Thus, a municipal bill championed by New York City could reflect the needs of its citizens and allow for more individually-tailored policies better than A7668 might be able to provide.

The benefits of local action are further amplified in times of political division, particularly when states may align more with the federal government but local governments seek to pursue different policies. In times of an environmentally antagonistic Executive Office, local governments are able to move beyond the state and federal models to address environmental issues through individualized policies. The Trump Administration was notably resistant to environmental and climate change initiatives. When the Trump Administration withdrew the United States from the Paris Agreement in 2017, former New York City Mayor de Blasio announced that New York City would be “taking matters into our own hands.” Mayor de Blasio promptly signed Executive Order 26, the Climate Action Executive Order, which adopted the Paris Agreement’s goal of keeping anthropogenic (man-made) climate change under 1.5 degrees Celsius and directed city agencies to create a citywide plan to advance that goal. Like Executive Order 26, city legislation that specifically targets the

312. Cardozo & Klinger, supra note 227, at 115.
314. Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 499; see also Fox, Localizing Environmental Federalism, supra note 114, at 179–80.
315. See Fox, Localizing Environmental Federalism, supra note 114, at 179–80.
316. See Fox, Localizing Environmental Federalism, supra note 114, at 179–80.
317. See Fox, Localizing Environmental Federalism, supra note 114, at 180.
318. See Fox, Localizing Environmental Federalism, supra note 114, at 180.
319. See Bratspies, supra note 63, at 5–14.
321. See Bratspies, supra note 63, at 13–14.
Chasing Arrows will allow for more stringent regulation of recycling deception when the federal government fails to act.

Wyman’s second prong, the infrastructure prong, posits that cities often have the infrastructure needed to tackle certain localized environmental problems like waste management.322 Cities serve vital local functions, such as providing drinking water, regulating siting of buildings, operating mass transit systems and roads, and management of plastic waste.323 New York City is well-situated to regulate the Chasing Arrows because plastic pollution falls under waste management, which has long been a responsibility of municipalities that are “vested with the responsibility of protecting the health, safety, and welfare of its citizens.”324 Because local governments are charged with directly responding to local concerns from safe drinking water to transportation, local governments, municipalities are already primed to implement narrow and experimental environmental legislation.325

Constructivism, Wyman’s third and final prong also lends support to focusing on New York City rather than New York State or federal regulation. Constructivism argues that cities can help create norms to address the environmental problem because international legal practices aim to socialize actors and change individual behavior.326 Because cities are the governments “closest to the people,” local government action can “help to diffuse emerging norms upward to the national and international levels.”327 Movements within environmental law, such as the congestion pricing plan and plastic bag ban, illuminate this phenomenon where movements originate from local governments and are then adopted at the state level.328 The tendency for cities to be more progressive than the state or the country further allows for facilitation of robust local environmental policies.329

Lastly, as Sarah Fox has advocated, the push for local regulation aligns with notions of localized environmental federalism and cities as

322. See Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 495.
323. See Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 495.
324. United Haulers Ass’n v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 342 (2007).
325. See Fox, Localizing Environmental Federalism, supra note 114, at 180.
326. See Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 496.
327. Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 496.
328. See Spiegel-Feld & Wyman, Cities as International Environmental Actors, supra note 92, at 496.
329. See Wyman & Spiegel-Feld, Urban Environmental Renaissance, supra note 116, at 333.
innovators.330 The concept of localized federalism does not favor local action above other levels of government but instead acknowledges and accounts for local actors and for the vulnerabilities of local government.331 Although municipalities are often conflated with states in conversations about federalism, local governments can move beyond state and federal actors to “address environmental issues in a much more individualized way[].”332 One of the strongest arguments for local control is innovation, as municipalities are able to experiment and respond to the changing conditions and needs of its residents in ways that the federal and state government cannot.333 Cities have long been at the forefront of environmental activism, serving as laboratories for environmental solutions.334 As cities grow in population, local governments increasingly take the lead on policymaking from climate mitigation and adaptation to toxics reform.335 The growth of cities also leads to overlapping ecological and urban problems and cities must develop revolutionary programs to ensure urban sustainability.336 Jurisdictions are able to learn from the local innovation of other jurisdictions, a vital feature of localized environmental federalism in the face of new and changing environmental problems that confront all jurisdictions, including the plastics crisis.337

Although not all cities are well-suited to pursue their own environmental initiatives, New York City stands in a strong position to do so when addressing the Chasing Arrows directly. The likelihood of a local initiative’s success and a municipality’s vulnerability to preemption depends on the nature and politics of state and local relationships.338 For New York City, the threat of state preemption and the doctrine of substantial state concern loom overhead, as displayed during the fight for the plastic bag ban and the congestion pricing plan.339 In many ways, the Chasing Arrows bears striking resemblance to the plastic bag ban, which was removed by New York State through the doctrines of preemption and substantial state concern. It is likely that New York State, as Governor Cuomo did in the case of the plastic bag ban, will view the Chasing Arrows as a subject of statewide, not local, concern. But the potential for local removal may not be an altogether

330. See Fox, Localizing Environmental Federalism, supra note 114, at 178.
331. See Fox, Localizing Environmental Federalism, supra note 114, at 178–79.
333. See Fox, Localizing Environmental Federalism, supra note 114, at 184–85.
334. See Fox, Home Rule, supra note 210, at 580–81.
335. See Fox, Home Rule, supra note 210, at 581.
336. See Fox, Home Rule, supra note 210, at 581.
337. See Fox, Localizing Environmental Federalism, supra note 114, at 185.
338. See Fox, Localizing Environmental Federalism, supra note 114, at 189–90.
339. See supra Section II.B.2.
negative outcome. In fact, the examples of state preemption examined in Section II.B.3 do not suggest a failure on the part of New York City, but rather show the regulatory ebb and flow between the city and the state.

For some cities, however, preemption is the end of the road for innovate legislation. Phoenix, Arizona, represents a local entity whose preemption was the end of a regulatory attempt without any state response. Phoenix sought to implement a benchmarking requirement that would have required commercial properties to disclose overall energy consumption so that consumers could make informed decisions. The benchmarking requirement passed at the city level, but Arizona removed local authority without enacting any state scheme that would pursue a similar benchmarking requirement, effectively undermining local authority.

The plastic bag ban and congestion pricing plan, however, offer a different narrative. While New York State preempted New York City initiatives, instead of entirely ending the opportunity for such legislation to continue, New York State “undid the damage” by implementing a statewide scheme. While preemption and the doctrine of substantial state concern do not make New York City’s home rule authority absolute, New York City, unlike Phoenix, can more reliably anticipate New York State to preempt and then implement a statewide program akin to the plastic bag ban and congestion pricing plan.

In reference to the city’s congestion pricing plan, although the state preempted the city’s actions and did not immediately install a similar statewide scheme, preemption did not end the program. New York State passed its own plan for congestion pricing, thus “[undoing] the damage” from blocking the city’s activity. Although preemption still resulted in environmental damage that could have otherwise been halted or lessened in the gap between preemption and installment of a state scheme, this outcome is still favored over no state action after preemption. Although preemption is generally seen as a negative and metaphorically violent invalidation of municipal power, New York City can attempt to anticipate preemption from a strategic lens.

340. See Fox, Localizing Environmental Federalism, supra note 114, at 190–91.
341. See Fox, Localizing Environmental Federalism, supra note 114, at 190–91.
342. See Fox, Localizing Environmental Federalism, supra note 114, at 190–91.
343. See supra Section II.B.2.
344. See supra Section II.B.2; see also Fox, Localizing Environmental Federalism, supra note 114, at 189–91.
345. Fox, Localizing Environmental Federalism, supra note 114, at 189–91.
346. See Cardozo & Klinger, supra note 227, at 115–16 (advocating for reforms to New York’s Home Rule provision, particularly noting that the threat of preemption creates uncertainty for local governments and that preemption, while nuanced, is often used “to strike down local laws and has consequently undermined the efficacy of Home Rule.”).
If New York City, using California S.B. 343 as a model, drafts and votes on legislation that targets the Chasing Arrows directly, then it may urge the State Assembly to make a decision on A7668, or preempt the local legislation and implement statewide Chasing Arrows legislation that could take pieces from the municipal legislation and lead to a stronger version of A7668. Additionally, it is possible that A7668 never reaches the floor of the Assembly and that local Chasing Arrows legislation is not preempted at all. For this potential outcome, if New York City adopts local regulations that would curb plastics propaganda, and in turn plastics pollution, the potential for preemption should not hinder the city from at least attempting to combat the Chasing Arrows itself.

Local action is not always the panacea for all environmental problems. As demonstrated by the history of environmental federalization in the 1960s and 1970s, federal regulation may be more appropriate under certain circumstances, such as when an issue requires heavy scientific research, or a problem transgresses state lines in a way that requires national standards. But as noted in Section II.A, the federal government, since the Trump Administration’s massacre on environmental advancement, has become more decentralized, leaving a federal leadership void to be filled by the states and municipalities. Congress has also been relatively silent since the 1970s in developing cutting-edge and aggressive environmental policies, even with the FTC’s Green Guides. New York City is in a prime position to innovate approaches to the Chasing Arrows because of its general political stability, as exhibited by its leaders in the face of federal environmental repeal, and because of its municipal infrastructure vital to recycling and waste management. A New York City bill modeled after S.B. 343 could serve as the first municipal experiment with more refined and potent results to be ultimately implemented at the state level.

CONCLUSION

New York City is eager to become a paragon of environmental change in the greenwashing and plastics fields. Although A7668 is an exciting prospect, if New York City passes its own legislation targeting the Chasing Arrows with S.B. 343 as a model, the city could incite the state to enact A7668 or even adopt a more stringent version of A7668. By focusing on the Chasing Arrows, New York City will hold manufacturers and the oil and plastics industries accountable for their revisionist history of recycling while empowering eco-minded consumers to fulfill their intended recycling aspirations. By trashing the Chasing Arrows, New York City, a densely

347. See supra Section II.A.
348. See supra Section II.A.
populated economic powerhouse, can help pave the way for recycling and climate change innovation.