

BEYOND

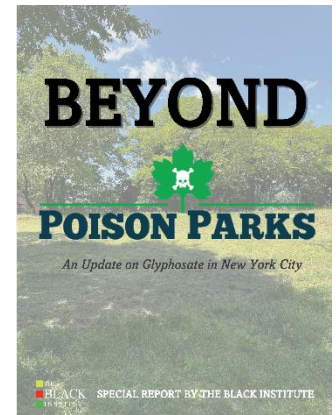


POISON PARKS

An Update on Glyphosate in New York City

Table of Contents

I. Executive Summary	3
II. Introduction	5
III. Recapping Poison Parks and its effects	7
IV. Expanding on Poison Parks	13
Negative Effects of Pesticides	13
Litigation Updates	16
Legal Barriers	18
Legislative Updates	18
V. Enforcement of Int 1524	20
What does Int. 1524 say?	20
How is implementation going?	21
VI. NYC Organic Land Management and Test Sites	24
VII. Healthy Parks, Healthy Communities	37
VIII. What Still Needs to Be Done	40
Alternative Solutions	40
Consistent Financial Support	41
Addressing toxic land management	45
Amending Intro 1524-2019	47
IX. Conclusion	49
X. Demands	50
XI. Bibliography	51



Beyond Poison Parks

An Update on Glyphosate in New York City

June 2023

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I. Executive Summary

- After three years, TBI has returned to discuss the issue of pesticides in NYC parks
- Glyphosate remains a health hazard across America, for humans and ecosystems
- With the passage of Intro 1524-2019, banning glyphosate, NYC became a leader in the fight for healthy parks
- New York is currently testing organic land management strategies across the city as a replacement and the outlook is positive
- There remains a significant amount of advocacy and work to ensure the end of glyphosates as a tool of environmental racism

Beyond Poison Parks is the latest report from The Black Institute (TBI), a nonprofit racial justice “action tank”; a think tank that takes action. This report is a follow-up to TBI’s original report *Poison Parks*, published in 2020, to examine how the fight to make and keep New York City’s public parks glyphosate free.

The report begins by summarizing *Poison Parks* and our conclusions and demands from that report. It reviews TBI’s prior findings, which were that public parks in majority-minority neighborhoods were sprayed disproportionately with higher amounts of glyphosate-based herbicides, which are considered carcinogenic by many international countries and agencies. It then reviews the demands TBI made at the time, which included glyphosate bans at the city and state level. The report next turns to expanding on topics covered in the original report. This includes the devastating health effects for humans and ecosystems, lawsuits against herbicide manufacturers, and the barriers to ridding ourselves of this destructive substance, which are significant. Next, focus is turned to New York City’s ban, a victory in our fight against glyphosate, and an examination of the law itself and the actual implementation efforts by the city. TBI finds that while the Parks Department has made demonstrable efforts to move towards more sustainable and healthy management techniques, some questions remain.

The report then turns to these efforts, which include a pilot program to test organic land management in parks across New York City. TBI examines these sites and the demographics of the area surrounding them, many of which are in predominantly Black and brown communities

and are very important to the communities they exist in. Building on this, the conversation moves to examining the importance of parks as bastions of community and why efforts like the NYC organic land management pilot plan are so important to maintaining the physical and intangible health of communities, especially communities of color. After this, the report moves to discuss areas that still require improvement, which range from supporting and learning from the demonstration projects to action at the state and federal level. At the conclusion of the report, TBI presents an updated list of demands that include increased funding for the Parks Department to complete the transition to organic land management, and reiterating our previous demands for a state and federal ban on glyphosate.

II. Introduction

Much has changed, and much has not, in the years between the publishing of our original report *Poison Parks* about the topic of toxic glyphosate spraying in communities of color. It is important to begin with something of a celebration in that the aims of the original report were in fact largely achieved; on Earth Day of 2021, roughly a year after The Black Institute released its report, the New York City Council voted without dissent to pass Intro 1524-2019. This bill made it illegal for the city to use glyphosate and other toxic chemicals to treat our parks, ensuring that future parkgoers would be spared from exposure. This is especially the case for our communities of color, who have borne the brunt of this exposure for years and have suffered disproportionately from this form of environmental racism.

However, the story and import of *Poison Parks*, glyphosate, and environmental racism does not end at the passage of the ban. At the time, for example, multiple court cases on the subject of the health concerns were still pending, the EPA was still claiming that glyphosate was not a cancer-causing substance, and the NYC Parks Department was supposed to be searching for an alternative management strategy for its parks. Glyphosate and other synthetic pesticides and herbicides have continued to be a grim threat to environmental equity and the health of all people, especially people of color.

In this report, TBI seeks to update and build upon the original *Poison Parks* report to examine what has changed, introduce new information about the topic, and discuss the promising developments in New York City. After reviewing the original report, we will begin by taking a closer look at some of the critical issues with pesticides and herbicides in relation to communities of color. This includes examining some of the health effects more closely and examining the effect on ecosystems and environments, which can have invisible but dramatic effects on our communities. After this, we will review the most important element of this discussion, and the reason why we have optimistically titled this report *Beyond Poison Parks*; the bill that ended the city's use of glyphosate as a pesticide and herbicide in the city's parks. The report will examine the law and discuss the implementation efforts (or lack thereof) by the city and the Parks Department. In particular, this includes an exciting and promising effort to implement organic land management strategies across New York City at a variety of demonstration sites, many of which have sizable BIPOC communities nearby.

Beyond supporting the demonstration sites project, TBI will also discuss further steps to reduce and eliminate the threat that glyphosates present to our communities. Chiefly, this takes the form of demanding not only a reversal, but an increase in the NYC Parks Department's budget by an extensive amount in order to provide the funds for the successful transition and maintenance of all city parks to organic land management practices. TBI also demonstrates and argues for the replication of NYC's glyphosate ban at the state and federal level, as well as strategies to help mitigate the environmental fallout on our nation's most vulnerable populations. Ultimately, in reviewing this momentous issue, TBI is confident that the expectations we have laid out for this issue will ultimately be found true, as is the fact that we as a community are far from finished with the fight for environmental equity.

III. Recapping *Poison Parks* and its effects

Poison Parks was initially conceived by TBI following revelations that the New York City Parks Department was spraying public parks in majority-minority communities with dangerously high concentrations of herbicides, specifically glyphosate-based herbicides such as Roundup.¹ In our report on the subject, TBI discussed the health issues of such herbicides and similar pesticides, examined the city's usage of these products and the effects on professional applicators, and discussed the issue in relation to environmental racism. This section serves as a recap of the information contained within that report.

One of our biggest concerns with herbicides and pesticides in general is that they are highly toxic, and not just for plants and animals. The International Agency for Research on Cancer (IARC), among others, considers glyphosate to be a “probabl[e] carcinogen.”² As of 2022, glyphosate has been banned in 10 countries and restricted in 15 more, but the United States is not one of them.³ In America, glyphosate is the most commonly used herbicide, and on average 280 million pounds of glyphosate are applied to 298 million acres of cropland annually.⁴ In fact, the Environmental Protection Agency (EPA), the agency tasked with “protect[ing] human health and the environment,”⁵ states Like other pesticides, other than contaminating soil, turf, and vegetation, it can be toxic to other organisms, such as bumble bees. A study published in the journal *Environmental Toxicology and Chemistry* found that glyphosate exposure can impair the foraging behavior and cognitive abilities of bees, leading to serious consequences on

¹ Jack Einstein, *Poison Parks*, The Black Institute (New York, NY: The Black Institute, 2020), https://theblackinstitute.org/wp-content/uploads/2020/01/TBI_Poison_Parks_Report._010820_FINAL.pdf.

² “Pesticide Use by New York City Agencies in 2016.” Division of Environmental Health & Bureau of Environmental Surveillance and Policy & New York City Department of Health and Mental Hygiene. July 2016. www1.nyc.gov/assets/doh/downloads/pdf/pesticide/pesticide-use-report2016.pdf

³ Autumn Spanne, “Glyphosate, Explained,” Environmental Health Network, March 30, 2022, <https://www.ehn.org/glyphosate-explained-2656803555.html>.

⁴ Caleb Hawkins and Charmaine Hanson, “Glyphosate: Response to Comments, Usage, and Benefits (PC Codes: 103601 103604, 103605, 103607, 103608, 103613, 417300),” Office of Chemical Safety and Pollution Prevention, April 18, 2019, <https://www.epa.gov/sites/default/files/2020-01/documents/glyphosate-interim-reg-review-decision-case-num-0178.pdf>.

⁵ EPA Staff, “Equity Action Plan Summary: U.S. Environmental Protection Agency,” Environmental Protection Agency, April 2022, <https://www.whitehouse.gov/wp-content/uploads/2022/04/EPA-EO13985-equity-summary.pdf>.

agriculture.⁶ Glyphosate is known to affect the behavior and physiology of aquatic and terrestrial organisms. A study conducted by US Geological Survey (USGS) on US water systems (including rivers, wetlands, soil water, and groundwater) over 9 years and across 38 states found glyphosate in 39.4% of samples.⁷ This is not just shocking; it is terrifying that the US effectively has an acute case of pesticide poisoning.

Poison is what these pesticides and herbicides are, and the health effects of this national poisoning are significant. As previously stated, IARC and multiple nations around the world consider it to be a carcinogen, or cancer-causing substance, and this has sadly been proven in multiple court cases by individuals suffering from cancer and other related illnesses. In the case *Johnson v. Monsanto Co.*, grounds manager Dewayne Johnson alleged that herbicide use caused his non-Hodgkin's lymphoma.⁸ The evidence supported an award per year for future pain and suffering.⁹ The evidence also supported an award of punitive damages under Civ. Code, § 3294.

The pain and suffering experienced varies and the impact can be notable more quickly or develop into severe life lasting effects. Other lawsuits, similar to that of Johnsons' exist. In 2022, the Supreme Court rejected Bayer's appeal to shut down thousands of lawsuits claiming that its Roundup weedkiller causes cancer.¹⁰ The justices left a \$25 million judgment in favor of Edwin



FIGURE 1: LESIONS ON DEWAYNE JOHNSON'S BODY THAT WERE CAUSED BY YEARS OF EXPOSURE TO ROUNDUP, A GLYPHOSATE-BASED HERBICIDE. JOHNSON ALSO DEVELOPED NON-HODGKIN'S LYMPHOMA. SEE FOOTNOTE 9.

⁶ Linzo J. Thompson, Stephen Smith, et al., *Bumblebees can be exposed to the herbicide Glyphosate when foraging*, Environmental Toxicology and Chemistry, (22 July 2022)

<https://setac.onlinelibrary.wiley.com/doi/10.1002/etc.5442?af=R>

⁷ Battaglin WA, Meyer MT, Kuivila KM, and Dietze JE. "Glyphosate and Its Degradation Product AMPA Occur Frequently and Widely in U.S. Soils, Surface Water, Groundwater, and Precipitation." Journal of the American Water Resources Association (JAWRA) 2014: 50, 275- 290, DOI:10.1111/jawr.12159

⁸ Johnson v. Monsanto Co., 52 Cal. App. 5th 434

⁹ Sam Levin, "The Man Who Beat Monsanto: 'They Have to Pay for Not Being Honest,'" The Guardian, September 26, 2018, <https://www.theguardian.com/business/2018/sep/25/monsanto-dewayne-johnson-cancer-verdict>.

¹⁰ Moneywatch, "Supreme Court Rejects Bayer Bid to Block Roundup Lawsuits," CBS News, June 21, 2022, <https://www.cbsnews.com/news/supreme-court-rejects-bayer-bid-to-stop-roundup-lawsuits/>.

Hardeman. In *Hardeman v. Monsanto Co.*, the court found judgment to be properly entered in favor of the consumer in his action alleging that the manufacturer's pesticide caused his non-Hodgkin's lymphoma.¹¹ Despite these two cases and many other similar claims, pesticides are continuously and routinely sprayed in public parks.

The environmental justice movement has evolved in recent decades, but reports have shown the disproportionate effect environmental policies have on communities of color. A recent article from 2021, has identified the various ways environmental burdens cause racial inequality.¹² Exposure to high pollution in black and brown communities has been noted over time, including by the American Lung Association.¹³ The article highlights the three broad reasons why scientists speculate disparities:

1. Factors ranging from racism to class bias
2. Lack of access to health care and poorer job opportunities
3. Preexisting health conditions that are worsened through air pollutants

The impact of environmental racism has been shown in community parks as well. One example is Red Hook Park Ball Fields 5-8, which were found to be contaminated with lead from a historic secondary lead smelting facility known as Columbia Smelting.¹⁴ Regarding the delays for cleanup, Congresswoman Nydia Velázquez, noted being dubious about the delays to the fields that served a community both geographically and economically isolated from Brownstone Brooklyn.¹⁵ She further asked “Why can’t they find a way to deal with the issue and get it done? It forces you to ask why this low-income community almost six years later is still dealing with this.”

¹¹ *Hardeman v. Monsanto Co.*, 997 F.3d 941 (May 14, 2021)

¹² Louise Seamster & Danielle Purifoy (2021) What is environmental racism for? Place-based harm and relational development, *Environmental Sociology*, 7:2, 110-121, DOI: [10.1080/23251042.2020.1790331](https://doi.org/10.1080/23251042.2020.1790331)

¹³ American Lung Association, “Disparities in the Impact of Air Pollution,” American Lung Association, April 17, 2023, <https://www.lung.org/clean-air/outdoors/who-is-at-risk/disparities>.

¹⁴ Staff, “Update on Cleanup at Red Hook Park Ball Fields 5-8 Brooklyn, NY,” Environmental Protection Agency, Winter 2020, https://www.epa.gov/sites/default/files/2020-06/documents/columbia_community_update_12_march_3_2020_final.pdf.

¹⁵ Helene Stapinski, “Saga of the Toxic Ball Fields,” *The New York Times*, May 4, 2018, <https://www.nytimes.com/2018/05/04/nyregion/saga-of-the-toxic-ball-fields.html>.

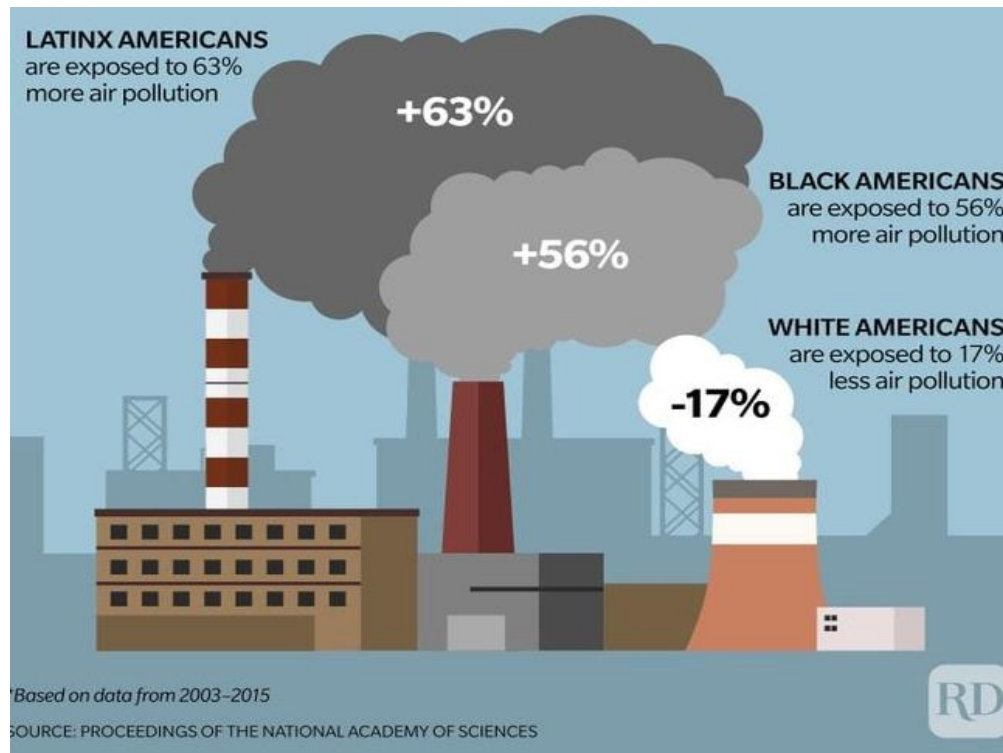


FIGURE 2: COMMUNITY EXPOSURE BY COMMUNITY IN RELATION TO POLLUTION PRODUCED. BLACK AND BROWN COMMUNITIES ARE SUBJECT TO MORE POLLUTION, WHILE WHITE COMMUNITIES ARE NOT EVEN FULLY EXPOSED TO THEIR OWN POLLUTION. IMAGE CREDIT TO READER'S DIGEST¹⁶

The Black Institute noted New York City's policies and practices in regulating toxic pesticides to unequally harm the health in communities where predominantly persons of color reside. They further collected data from the New York City Parks and Recreation Department to determine the percentage of employees that would be in contact with glyphosate, which was an average of 77%.¹⁷ In determining the harm from the pesticide, it was important to include both the communities that are impacted through using the parks in which the pesticides are sprayed but also the persons that are tasked with spraying the toxic pesticides. One of the key findings of the report by The Black Institute is the stark disparities in contaminant levels between parks in affluent, white neighborhoods and parks in low-income communities of color. The report found that playgrounds, picnic areas, and sports fields in predominantly black and brown neighborhoods contained significantly higher levels of hazardous chemicals, including lead,

¹⁶ 1. Sheena Foster, "What Is Environmental Racism, and How Can We Fight It?," Reader's Digest, August 2, 2022, <https://www.rd.com/article/environmental-racism/>.

¹⁷ NYC Government Workforce Profile Report FY 2017. NYDCAS. 2017. www1.nyc.gov/assets/dcas/downloads/pdf/reports/workforce_profile_report_2017.pdf

arsenic, and benzene, than those in predominantly white neighborhoods.¹⁸ The findings presented in *Poison Parks* were alarming and demand immediate attention and action. It is clear that the current system is perpetuating a form of environmental racism that is unjust and unacceptable. In order to address this issue, several measures must be taken. **We must first recognize and acknowledge the existence of environmental racism and its effects on communities of color.**

On May 23, 2021, Intro 1524-2019 was enacted.¹⁹ When introduced the bill would prohibit city agencies from applying any chemically based pesticides to any property owned or leased by the city. The bill included limited exceptions which included, pesticides used to control invasive species listed on the New York state invasive plant list, harmful plant species as defined by the New York state department of environmental conservation, pesticides used when the use of an alternative would be a worker safety hazard related to vehicular traffic, and others. The bill was introduced by City Council Member Ben Kallos, with the mission to safeguard New York City residents. Although Local Law 37, passed in 2005, restricting the use of pesticides identified as carcinogenic or developmental toxicants, there were over 284,000 applications of more than 156,000 pounds of toxic pesticides to NYC properties.²⁰

Currently, New York Senate Bill 3288 is pending at the Senate Environmental Conservation Committee, which would extend some of the elements of Intro 1524-2019 to the state level. This bill would restrict the use of total release fogging pesticides, which is a technical way to describe pesticides/herbicides that are sprayed in a fine mist and in large quantities; think spraying Lysol, except in massive quantities and the chemicals are incredibly cancerous. One can see why the unrestricted use of these chemicals is problematic, which is why these pesticides would be limited to purchasers licensed as a certified commercial or residential pesticide applicator, certified commercial pesticide technician in the state of New York, or the purchaser is licensed in an equivalent manner in a jurisdiction with reciprocity with the state of New York.²¹ The differences between these classes are minor, referring to whether the applicator

¹⁸ Einstein, *Poison Parks*

¹⁹ Staff, "Int 1524-2019," The New York City Council, May 24, 2021, <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4918988&GUID=8077F519-973E-46FD-BC74-AF796EC65E30>.

²⁰ 1 NYC Local Law 37. 2021. Pesticide Use by Agencies Report – 2018. <https://www1.nyc.gov/assets/doh/downloads/pdf/pesticide/pesticide-use-report2018.pdf>.

²¹ Staff, "New York S03288 | 2023-2024 | General Assembly," LegiScan, January 30, 2023, <https://legiscan.com/NY/bill/S03288/2023>.

is doing it on a large commercial farm vs as a private greenhouse enthusiast or as a part of a lawncare company's offerings, but the important bit is that now these chemicals would be restricted to trained professionals. Becoming a licensed applicator in any capacity in New York requires tens of hours of classes and anywhere from a year to three years of experience; in other words, your neighbor would not be able to spray clouds of carcinogens to keep their tiny vegetable garden pest free, which should be common sense. However, the law represents only a fraction of what remains to be done on the state and federal level. In order to address the prevalent issues regarding pesticides in parks, it is important to actively hold corporations and government accountable for the toxic burden they place on these communities, as TBI demanded. Additionally, it is necessary to advocate and support legislation which will directly lessen or stop the use of pesticides in public parks.

IV. Expanding on Poison Parks

Pesticides and herbicides have been widely used in agriculture to increase crop yields and control pests.²² Their extensive use has led to negative environmental effects. The chemicals in these products can create imbalances in the soil and disrupt natural ecosystem processes. The repeated spraying of pesticides and herbicides can lead to an endless cycle of spraying and fertilizing, further damaging soil quality. Additionally, these chemicals can destroy pollinators and natural fertilization, leading to a reduction in biodiversity and a decrease in the health of ecosystems. Further, these substances can also have a devastating impact on human health. The consequences of these environmental and public health effects can be far-reaching and long-lasting. Unfortunately, these adverse impacts are felt more by marginalized communities. Currently, lawsuits and legislative efforts seek to address these concerns.

a. Negative Effects of Pesticides

While many pesticides and herbicides can wreak havoc on surrounding ecosystems, glyphosate, a type of herbicide, in particular has become a universal issue. In fact, it is the most used herbicide in human history, with “18.9 billion pounds (8.6 billion Kilograms) sprayed worldwide since 1974.” **Roundup™, a popular herbicide sold by the Monsanto Company (now owned by Bayer AG), is the brand name for glyphosate, and was the primary focus of our original *Poison Parks* report.** However, in the wider ecosystem, Roundup is far from the only pesticide/herbicide with highly toxic effects and widespread use. Other common toxins in use include:

- Dicamba
- Dicloropropene
- Atrazine
- Flupyradifurone
- Hexachlorobenzene
- Methomyl
- Rotenone

²² Pesticides are any substance that is used to kill or control insects, weeds, or other unwanted organisms. Herbicides are a type of pesticide, used to kill certain types of pests such as weeds. See *Pesticides*, Nat’l Inst. of Env’t Health Sciences, <https://bit.ly/3nTqQyA> (last visited Mar. 31, 2023).

All of these chemicals are considered by the World Health Organization to be extremely hazardous because of their effects on ecosystems, both by poisoning the soil itself (also known as “bioaccumulation”) and life in general. This is especially pronounced in the effect these have on aquatic life and organisms like bees, which are essential for maintaining healthy ecosystems as pollinators.

i. Effects on Ecosystems

Glyphosate has toxic effects on soil by affecting nutrient cycling, altering plant-microbe interactions, and leading to the proliferation of pathogenic bacteria.²³ Glyphosate also adversely affects wildlife because the enzyme it targets in plants is also found in the gut bacteria of animals. For example, one study found that glyphosate exposure led to increased oxidative stress and decreased antioxidant activity in zebrafish larvae, as well as having adverse effects on their immune systems.²⁴ Another study found that glyphosate exposure led to decreased survival rates and slower development of bee larvae.²⁵ These studies thus show how the use of glyphosate-based herbicides can contribute to the reduction of wildlife populations.

ii. Impacts on Human Health

Glyphosate has also been linked to several health risks in humans.²⁶ Research has shown that even low levels of exposure to glyphosate can increase the risk of certain cancers, such as non-Hodgkin lymphoma,²⁷ as well as liver and kidney damage.²⁸ Some studies have also suggested that glyphosate exposure may be linked to developmental and reproductive problems, as well as other diseases in humans.²⁹ Despite these concerns, the Environmental Protection

²³ Ariena H.C. Van Bruggen, et al., *Indirect Effects of the Herbicide Glyphosate on Plant, Animal and Human Health Through its Effects on Microbial Communities*, 9 Front. Environ. Sci. 763917 (2021).

²⁴ Germano Lanzarin, et al., *Inflammatory, Oxidative Stress, and Apoptosis Effects in Zebrafish Larvae after Rapid Exposure to a Commercial Glyphosate Formulation*, 9 Biomedicines 1784 (2021), doi: 10.3390/biomedicines9121784.

²⁵ Vanessa Eler Seide, et al., *Glyphosate is lethal and Cry toxins alter the development of the stingless bee *Melipona quadrifasciata**, 243 Environ Pollut. 1854-1860 (2018), doi: 10.1016/j.envpol.2018.10.020.

²⁶ Celine Gasnier, et al. *Glyphosate-based herbicides are toxic and endocrine disruptors in human cell lines*, 262 Toxicology 184-191 (2009), <https://doi.org/10.1016/j.tox.2009.06.006>.

²⁷ Luoping Zhang, et al., *Exposure to glyphosate-based herbicides and risk for non-Hodgkin lymphoma: A meta-analysis and supporting evidence*, 781 Mutation Research/Reviews in Mutation Research, 186-206 (2019), doi: 10.1016/j.mrrev.2019.02.001.

²⁸ Robin Mesnage, et al., *Transcriptome profile analysis reflects rat liver and kidney damage following chronic ultra-low dose Roundup exposure*, 14 Env't Health 70 (2015), <https://doi.org/10.1186/s12940-015-0056-1>.

²⁹ Monika Krüger, et al., *Detection of Glyphosate Residues in Animals and Humans*, 4 J. Env't & Analytical Toxicology 2 (2014), doi: 10.4172/2161-0525.1000210. See also Kate Raphael, *Care for some glyphosate with your cereal?*, Voices of Monterey Bay, (Apr. 6, 2023), <https://voicesofmontereybay.org/2023/04/06/care-for-some-glyphosate-with-your-cereal/>.

Agency (EPA) has stated that glyphosate is not likely to be carcinogenic to humans, a decision that was later overturned by a court.³⁰ By contrast, the World Health Organization (WHO) has classified glyphosate as a possible carcinogen.³¹

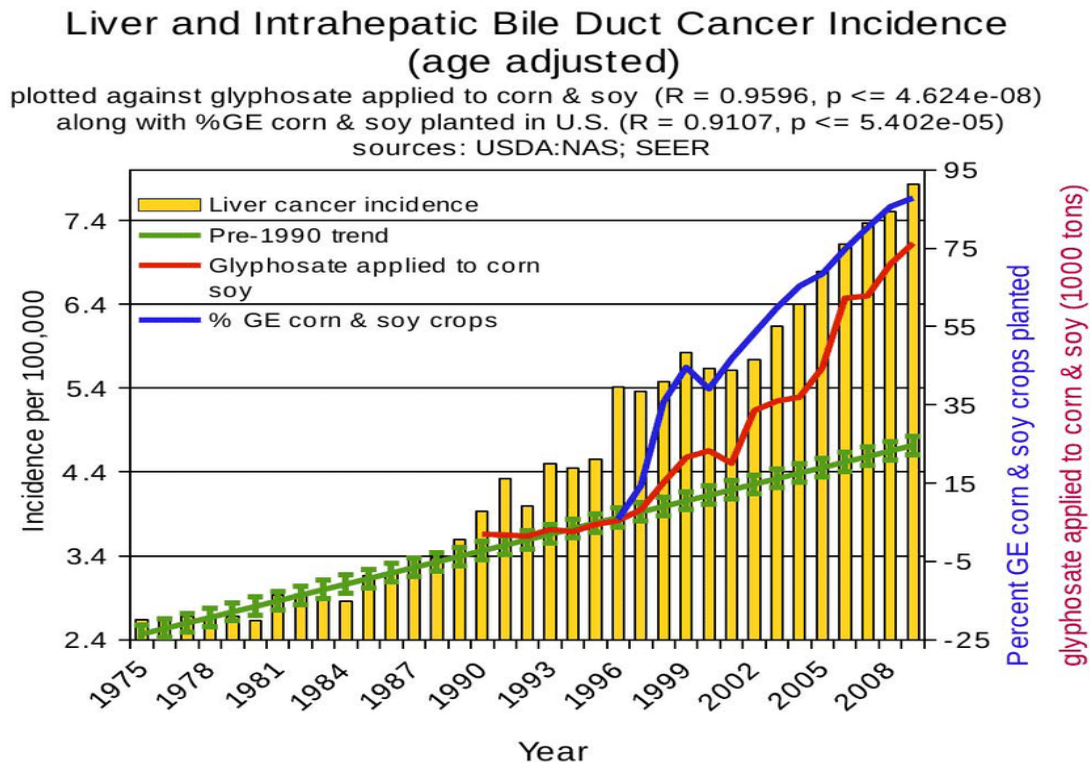


FIGURE 3: A CHART PLOTTING LIVER CANCER INCIDENCES AGAINST GLYPHOSATE APPLICATIONS ON CORN AND SOY CROPS. AS APPLICATIONS HAVE INCREASED, CANCER INCIDENCES HAVE INCREASED, FAR OUTSTRIPPING THE TRENDS ESTABLISHED PRIOR TO 1990.³²

The chart above demonstrates this carcinogenic status to a horrifying extent, tracking liver cancer rates in relation to the percent of crops treated with glyphosate and the total amount of glyphosate applied. When the application amounts began being tracked in 1990, already liver and bile duct cancer rates had increased in relation to the expected trend with around 10,000 tons of glyphosate used. In 2010, the last year on the chart, over 75,000 tons of glyphosate were applied,

³⁰ *Federal Court Rejects Glyphosate Registration Decision Because EPA Ignored Cancer Risks, Endangered Species Risks*, Center for Food Safety (Jun. 17, 2022), <https://www.centerforfoodsafety.org/press-releases/6659/federal-court-rejects-glyphosate-registration-decision-because-epa-ignored-cancer-risks-endangered-species-risks>.

³¹ International Agency for Research on Cancer, *IARC Monographs Volume 112: evaluation of five organophosphate insecticides and herbicides*, WHO, (Mar. 20, 2015), <https://www.iarc.who.int/wp-content/uploads/2018/07/MonographVolume112-1.pdf>.

³² 1. Nancy L Swanson et al., "Genetically Engineered Crops, Glyphosate and the Deterioration of Health in the United States of America," *Journal of Organic Systems* 9, no. 2 (2014), https://www.researchgate.net/publication/283462716_Genetically_engineered_crops_glyphosate_and_the_deterioration_of_health_in_the_United_States_of_America.

and cancer rates were up nearly 100%, at over 7.5 incidents per 100,000 people as opposed to a theoretical rate of just about 4.5 incidents per 100,000 people.

This chart illustrates one of the scariest aspects of the conversation surrounding pesticides and herbicides – *the poison is in our food!* In the pursuit of profits, corporations that we are sadly reliant on for so much of our food have effectively corrupted not only the ecosystems we rely on to produce it, but our very bodies as well. Heaven forbid that these companies pay more for a healthier land management strategy or, even worse, create jobs to specifically handle “weeds” in a non-chemical matter. It is far easier to sell the industry plants at the EPA a false narrative that this industrial poisoning scheme is a necessary evil, while lying to the public at every opportunity about the nature of the spraying and the effects it has on our bodies.

iii. Environmental Racism

Despite concerns over the potential health impacts of glyphosate exposure, many cities continue to use the herbicide in their parks and public spaces. In 2014, for example, the New York City (NYC) government reported the application of glyphosate 2,748 times.³³ While and marginalized communities are disproportionately subjected to glyphosate residue.³⁴ This is particularly concerning given that these communities often have limited access to green spaces, and when they do have access, they are more likely to be exposed to harmful chemicals such as glyphosate. The continued use of glyphosate in public spaces raises serious questions about the health risks associated with its use, particularly in vulnerable communities.

b. Litigation Updates

Due to regulatory gaps concerning dangerous pesticides, many of these issues end up being litigated in court. Below are a few recent legal developments that can impact future regulation of these chemicals, along with an explanation of the legal barriers in these types of cases.

i. *West Virginia v. EPA*, 142 S. Ct. 2587 (2022)

The case of *West Virginia v. EPA* centers around the EPA's Clean Power Plan, which aimed to regulate greenhouse gas emissions from power plants. The state of West Virginia, along

³³ NYC Health, *Pesticide Use by New York City Agencies in 2014*, NYC Dep't of Health and Mental Hygiene, (May 2015), <https://www.nyc.gov/assets/doh/downloads/pdf/pesticide/pesticide-use-report2014.pdf>.

³⁴ Shant Shahrigan, '*Environmental racism*': New Yorkers of color subjected to more Roundup pesticide than others - Black Institute, N.Y. Dailey News, (Jan 28, 2020), <https://www.nydailynews.com/news/politics/ny-roundup-parks-communities-of-color-black-institute-20200128-mwbnuku4efd3rpmndwpwzcmcq-story.html>

with several other states and industry groups, challenged the plan in court, arguing that the EPA exceeded its authority under the Clean Air Act. The case was eventually heard by the Supreme Court, which issued a 5-4 decision in June 2022 that invalidated the Clean Power Plan. The ruling effectively limits the EPA's ability to regulate emissions from power plants and other sources of pollution, reducing the agency's authority to address the pressing issue of climate change. While this particular case was not about pesticide regulation, this decision can reduce the potential for the EPA to use its powers to limit the application of dangerous pesticides, such as glyphosate.

ii. *In Re: Paraquat Products Liability Litigation*, 3:21-md-3004-NJR (S.D. Ill.)

The Syngenta Paraquat lawsuit is a case in which plaintiffs alleged that exposure to the herbicide paraquat, manufactured by Syngenta, caused Parkinson's disease. The lawsuit was filed in 2020, and several cases have been consolidated into multi-district litigation. The first bellwether trial is scheduled for the summer of 2023. This case is significant as it could set a precedent for other lawsuits against Syngenta and other pesticide manufacturers regarding the potential health risks of their products.

There are also similar lawsuits against Monsanto alleging that Roundup™ causes cancer. The verdicts in these cases have been mixed, with some decisions favoring Monsanto and others the plaintiffs.³⁵

iii. *Bader Farms, Inc. v. Monsanto Co., et al.*, No. 1:16-cv-00299-SNLJ (E.D. Mo.)

Dicamba is a broad-spectrum herbicide that is commonly used to control broadleaf weeds in agricultural crops such as soybeans, cotton, and corn. It works by mimicking the plant hormone auxin, which causes uncontrolled growth and ultimately kills the target plant. Dicamba, though, has been the subject of controversy in recent years due to concerns over its potential to drift off target and damage non-resistant crops and vegetation.³⁶

³⁵ Amanda Bronstad, *Bayer Wins Again: Sixth Jury Sides With Monsanto in Roundup Trial*, Law.com, (Nov. 9, 2022), <https://bit.ly/3zH8DqE>.

³⁶ *Dicamba*, National Pesticide Information Center, http://npic.orst.edu/factsheets/dicamba_gen.html#env (last visited Apr. 3, 2023).

Cases against two dicamba providers, Bayer and BASF SE (BASF), involve allegations that the companies' dicamba herbicides drifted onto neighboring farms and damaged crops. In 2020, BASF and Monsanto were ordered to pay \$265 million in damages to a Missouri peach farmer for crop damage caused by their dicamba herbicides.³⁷ However, in June 2021, the judge granted BASF a new trial on the damages issue, stating that the jury's award was not based on substantial evidence.³⁸

c. Legal Barriers

Pesticide litigation faces numerous obstacles, including the length of time it takes to resolve cases and limited options for litigants due to state laws such as "right to farm" laws and courts' interpretations of trespass laws.³⁹ In pesticide product liability tort claims, plaintiffs often have difficulty proving that exposure to pesticides caused their medical impairments, such as cancer, due to exposure to multiple pesticides and other carcinogens.⁴⁰ Preemption by federal law and various defenses available to defendants, such as assumption of risk, statutes of limitation, or comparative negligence, can also prevent liability from being imposed on pesticide companies.⁴¹ Additionally, pesticide litigation can be expensive for plaintiffs, involving expert consultation and testimony to prove causation, with the costs potentially unrecoverable if the defendant prevails.⁴²

d. Legislative Updates

As discussed in *supra* § V.A, glyphosate has faced significant controversy in recent years due to concerns over its potential health and environmental impacts. As a result, various efforts

³⁷ *U.S. Peach Grower Awarded \$265 Million from Bayer, BASF in Weedkiller Lawsuit*, Reuters, (Feb. 16, 2020), <https://www.reuters.com/article/us-bayer-dicamba-lawsuit/u-s-peach-grower-awarded-265-million-from-bayer-basf-in-weedkiller-lawsuit-idUSKBN20A0JJ>.

³⁸ Maya Earls, *BASF Scores New Trial Over \$60 Million Dicamba Damages Award (1)*, Bloomberg, (July 7, 2022), <https://news.bloomberglaw.com/environment-and-energy/basf-scores-new-trial-over-60-million-dicamba-damages-award>.

³⁹ See Nicholas Brown, et al, *Tort tradeoffs in cases of pesticide drift: A legal and economic analysis*, 17 PLOS One, <https://doi.org/10.1371/journal.pone.0276418> (2022).

⁴⁰ See, e.g., Albert C. Lin, *Beyond Tort: Compensating Victims of Environmental Toxic Injury*, 78 Southern Cal. L.R. 1439, 1446 (2005); compare *Hardeman v. Monsanto Co.*, 997 F.3d 941 (9th Cir. 2021) and *Najera v. General Pest Control, LLC*, 61 Kan. App. 2d 363 (Kan. App. Ct. Dec. 10, 2021) (remanding for new trial because plaintiff provided sufficient evidence of causation) with *Clark v. Monsanto Co.*, 2021 Cal. Super. LEXIS 73589 (Cal. Sup. Ct. Nov. 3, 2021) (jury verdict finding exposure to Monsanto pesticide was not a substantial factor in causing plaintiff's lymphoma).

⁴¹ See Jordan Hartman, et al., *Preemption Under the Federal Insecticide, Fungicide, and Rodenticide Act*, The National Agricultural Law Center (2021), <https://nationalaglawcenter.org/wp-content/uploads/assets/articles/FIFRA-Fact-Sheet-w.pdf>.

⁴² See Lin, *supra* note 19.

have emerged to ban or limit its use across different regions. In the United States, many cities, including metropolises like New York and Los Angeles, have taken steps to ban or restrict the use of glyphosate on public property.⁴³ In 2021, a law in New York State banning glyphosate on all state property came into effect.⁴⁴ On a larger scale, the European Union has controversially renewed the license for glyphosate to the end of 2023.⁴⁵ Meanwhile, many countries have already banned or limited its use.⁴⁶ These efforts reflect a growing concern over the impact of glyphosate on human and environmental health, and highlight the need for greater scrutiny and regulation of potentially harmful chemicals.

⁴³ See, e.g. Ari Ephraim Feldman, *City Council Bans Use of Chemical Pesticides in Public Areas*, NY1, (Apr. 23, 2021), <https://www.ny1.com/nyc/all-boroughs/news/2021/04/22/city-council-bans-use-of-chemical-pesticides-in-public-areas>, Cecelia Smith-Schoenwalder, *Los Angeles County Bans Use of Roundup Weed Killer*, U.S. News, (Mar. 22, 2019), <https://www.usnews.com/news/health-news/articles/2019-03-22/los-angeles-county-bans-use-of-roundup-weed-killer>.

⁴⁴ S6502A,019-2020 Regular Sessions, New York State Senate, April 22, 2021. Available at: <https://www.nysenate.gov/legislation/bills/2019/s6502/amendment/a>.

⁴⁵ Bartosz Brzezinski, *Glyphosate license extended to end of 2023*, Politico, (Dec. 2, 2022), <https://politi.co/416BobS>.

⁴⁶ Autumn Spanne, *Glyphosate, explained*, Environmental Health News, (Mar. 2, 2022), <https://www.ehn.org/glyphosate-explained-2656803555.html>.

V. Enforcement of Int 1524

a. What does Int. 1524 say?

Before moving to discussions about enforcement and further improvements, it is worth reviewing the legislation that was inspired by TBI's original report to establish how much progress was made through the law. Intro 1524-2019, titled as "Use of Pesticides by City Agencies," was introduced by Council Member Ben Kallos to "prohibit city agencies from applying to any property owned or leased by the city any chemically based pesticides," with some exceptions including combatting invasive species and spraying highways.⁴⁷



FIGURE 4: MEMBERS OF THE COALITION, INCLUDING TBI, PROTESTING IN SUPPORT OF INTRO 1524-2019.⁴⁸

The law amends § Section 17-1201 in chapter 12 of title 17 in the city's administrative code, which pertains to pest control activities by the city, on city property, whether owned or leased. § Section 17-1202 is then amended, chiefly by including definitions for "synthetic substance" and "non-synthetic substance", which serves to distinguish between synthetic herbicides like Roundup and organic herbicides and pesticides for the purpose of the law.

⁴⁷ Staff, "Use of Pesticides by City Agencies (Int. 1524-2019)," The New York City Council - file #: INT 1524-2019, March 24, 2021, <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4918988&GUID=8077F519-973E-46FD-BC74-AF796EC65E30>.

⁴⁸ Anne Barnard, "N.Y.C. Bans Pesticides in Parks with Push from Unlikely Force: Children," The New York Times, April 24, 2021, <https://www.nytimes.com/2021/04/24/nyregion/pesticide-ban-nyc.html>.

However, amendments to § Section 17-1203 are where the main portion of Intro 1524-2019 come into effect. This section of the administrative code had previously laid out mechanisms for banning pesticides and herbicides that were considered toxic by the EPA and California, as well as providing for an annual report to the city council of changes to the toxic pesticide/herbicide list to add or remove substances. However, Int. 1524 amends this section to forbid the application of any pesticide/herbicide that was not considered biological within six months of passing. The inclusion of this ban effectively prohibits city agencies from using any substance that is considered synthetic or is not organic, and the following subsection (e), which related to the annual report, was updated to include chemicals considered by the Insecticide Resistance Action Committee (IRAC) and the World Health Organization to be carcinogens.

Further amendments to § 17-1205 and § 17-1206 deal with exceptions and waivers, which allow for the usage of new and previously prohibited pesticides and herbicides for specific use cases such as dealing with invasive species, water and HVAC systems, and pools. It also lists some specifically allowable synthetic and non-synthetic substances for use relative to federal requirements and reduces the waiver period from a year to just 14 days.

b. How is implementation going?

TBI and the rest of the coalition had previously faced extensive pushback and obstruction from the Parks Department on the issue of herbicides and in relation to Intro 1524-2019. In a hearing of the Committee on Health held on January 29th, 2020, then Assistant Commissioner of the Bureau of Environmental Surveillance and Policy Carolyn Olson and First Deputy Commissioner for the New York City Parks Department Liam Kavanaugh asserted that the Parks Department was already focused on minimizing public exposure to glyphosate, claiming reductions of 80% over the past 10 years and 17% in the prior year to just 200 gallons over approximately 850 applications in 2018.⁴⁹

In this testimony, Deputy Commissioner Kavanaugh also contradicted TBI's investigation which found that of the 50 parks in Manhattan treated with Roundup in 2018, 44 were in Harlem, claiming that Parks Department records showed only 33 parks of which only 10 were in Harlem. Throughout the testimony both Olson and Kavanaugh repeatedly asserted that the Department was committed to reducing glyphosate usage and that it was not used as a catch-

⁴⁹ "Transcript of the Minutes of the Committee on Health January 29, 2020," 2020.

all solution, noting that the Parks Department used multiple organic and synthetic solutions as well as a mechanical solution. However, during the hearing they repeatedly emphasized that glyphosate and other synthetic solutions were valuable tools in the Department's kit that the law could potentially and "unreasonably" limit. While not a direct quote, the testimony given during that hearing sounded eerily similar to the narrative that large agricultural corporations use to defend the usage of pesticides – a necessary evil that they are most certainly working to phase out.

This opposition proved ineffective, as the bill was passed with 49 yes votes⁵⁰ on April 22nd, 2021. The bill was sent to then-Mayor Bill de Blasio, who returned it unsigned on May 24th of the same year, making it law. Following this, the Parks Department seemed committed to the implementation of the law. However, in response to Council Member Darlene Mealy during a preliminary budget hearing on March 22nd, 2022, then-Deputy Commissioner Susan Donoghue and Assistant Deputy Commissioner Jennifer Greenfield reported that 28% of maintenance still used herbicides⁵¹ and that phasing these out within the legal timeframe was "not feasible". This deadline was October 28th, 2022. Following this revelation and subsequent organizing by TBI and other members of the Eco-Friendly Parks for All Coalition, the Parks Department became noticeably more proactive in efforts to implement the law and move towards later hearing by finding an effective replacement, chiefly in the form of organic land management through demonstration sites throughout the city, the details of which will be discussed later. During site visits, Parks personnel were excited by the possibilities that organic methods could bring to their parks and in combatting issues related to overreliance on herbicides and fertilizer, enthusiasm which has to an extent been mirrored by Parks Department officials at higher levels.

One issue that remains is the status of remaining herbicide stocks and their location. TBI remains concerned that there may have been a bias towards storing glyphosate and similar herbicides in warehouses within communities of color, which in turn could expose these communities to leakage, seepage, or other contamination. In a meeting with the Department on October 27th, 2022 the Department strongly asserted that in addition to coming into compliance with the law on the 21st of that month, the Parks had no outstanding contracts with suppliers and

⁵⁰ Action details for the council meeting show a total of 50 records, with 49 yes votes and one abstention due to absence

⁵¹ Specifically, it was reported that 72% of maintenance did not use pesticides.

had performed a “sweep” of facilities to remove glyphosate and other non-compliant products in July 2022. It was claimed that the warehouses served primarily as temporary storage for the herbicides before they were distributed and that they were general-use warehouses, not specifically located nor assigned to herbicide storage. Locations, however, were not provided.

VI. NYC Organic Land Management and Test Sites

Following the passage of Int. 1524-2019, TBI and the rest of the coalition continued to push for the introduction of organic land management practices that the Parks Department could use to substitute the now-banned glyphosate and other similar herbicides and pesticides. This took the form of a turf management company specialized in organic land management techniques, Osborne Organics, visiting multiple test sites for organic land management practices across the city. After visiting the sites, the company produced reports discussing various aspects of the sites, general procedures that could be used to ensure the continued maintenance of the sites, and specifics to each individual site.

Before continuing to specifics, it is worth covering some of the basics of what comprises these plans as well as why this project is so important.

At the core of maintenance is the necessity of a “systems approach”, or a general approach to implementation and maintenance. Osborne Organics stresses that, compared to the liberal application of herbicides, organic land management requires *work* to maintain. Much of this work is routine, such as monitoring the soil quality and the presence of biomass (organic material), introducing native and sustainable plant and grass species to the turf, and the usage of manual weeding and care practices to remove invasive or unwanted plants. Organic fertilizers and herbicides can and should be used, the planning documents stress, but the keyword is *organic*. These are products that do not stress the soil and the ecosystem, pushing nature beyond its capabilities and introducing vulnerabilities, but are instead used in concert with natural processes and to supplement or correct deficiencies, i.e., when invasive species or pests encroach on the field in question.



FIGURE 5: A SOIL SAMPLE TAKEN AT ONE OF THE DEMONSTRATION SITES.

Because the NYC Parks Department had relied heavily on synthetic herbicides like Roundup and synthetic fertilizers, the sites need to be “transitioned” to a state suitable for organic land management practices. This is because synthetic herbicides and fertilizers essentially act in defiance of the natural state of order; in the case of the former, this means killing everything that *is not* what you want, while the latter grows *everything* regardless of the plant or what the soil is capable of sustaining. It should be clear what this implies; synthetic herbicides and pesticides create a feedback loop that drains the soil of nutrients and leads to the growth of “undesirable” plants, or weeds, which then need to be controlled. The transition process aims to break the cycle by gradually shifting the turf out of this dependency cycle and restoring the balance of material in the soil to support the ideal turf, a process that the recommendation reports stress “should never be thought to be accomplished in one year. It really is a process that evolves over time.”⁵² The report follows this up by stating that they expect the transition to take no less than three years, given the size and complexity of the sites in question.

The need to transition parks from the toxic pesticide cycle is one of the critical elements of why these demonstration projects are so important, but the other is less obvious - manpower. As has been discussed, glyphosate and other chemical solutions are a simple and cost-effective land management strategy; one employee armed with a tank of glyphosate and an applicator wand can cover an extensive area, which will be effectively treated for several weeks. Organic land management, by contrast, requires more regular and in-depth treatment strategies, including hand weeding and other labor-intensive tasks.

But while many might see this as a negative, it is in fact a massive positive for the parks and the city as a whole. Pesticides have not only killed plants and people but have also killed off many garden jobs that could be providing employment to City residents, and the transition to organic land management is an opportunity to restore these jobs. The demonstration site projects present a unique chance to demonstrate that organic land management is not a drag on the city’s finances, but a way to provide hundreds, potentially thousands, of jobs for New Yorkers who need them. And, because the city would no longer be using toxic chemicals on a constant basis, the job would not be putting our city’s denizens at existential levels of risk. When viewing the

⁵² See Bronx report

demonstration projects from this perspective, the costs associated with the transition appear far less like a taxpayer burden and more like an economic stimulant for the city.

Beginning on the next page are the sites chosen by the coalition and the Parks Department for testing, along with some information about the area and specifics of the site in question.

a. Lyons Park (Bronx)⁵³

Lyons Park is located in the Bronx, in the Longwood-Hunt's Point Neighborhood. The park contains basketball courts, a playground, restroom facilities, and spray showers.⁵⁴ As of 2020, the racial demographics of the area show that Latino populations comprise over two-thirds of the area's population, followed by Black populations comprising a further 25% of the total population, making the area over 90% comprised of people of color. Distributed median income levels are overwhelmingly below \$60,000 annually.⁵⁵ At the time, Lyons Park was undergoing construction and thus no samples could be obtained. This, however, presents a unique opportunity to begin organic land management practices from the start.

b. Claremont Park (Bronx)



FIGURE 6: A PORTION OF THE PROPOSED DEMONSTRATION AREA AT CLAREMONT

Claremont Park is located in the Bronx, near the Claremont, Mt. Hope, and Mt. Eden neighborhoods. The facilities of the park are extensive, including: outdoor pools, basketball

⁵³ Ibid.

⁵⁴ Staff, "Lyons Square Playground : NYC Parks," NYC Parks, 2023, <https://www.nycgovparks.org/parks/lyons-square-playground>.

⁵⁵ Staff, "Hunt's Point Neighborhood in Bronx, New York (NY), 10459, 10474 Detailed Profile," Hunt's Point neighborhood in Bronx, New York (NY), 10459, 10474 subdivision profile - real estate, apartments, condos, homes, community, population, jobs, income, streets, 2020, <https://www.city-data.com/neighborhood/Hunt-s-Point-Bronx-NY.html>.

courts, areas for barbecuing, baseball fields, playgrounds, and dog friendly areas.⁵⁶ As of 2020, over half of the population is Latino and 37% is Black, making the area over 90% people of color. The distributed median income of the area is below \$60,000 annually.⁵⁷

According to soil analysis, biological activity in the field discussed was noted as being exceptionally low, alongside low nitrogen levels which would in turn impact the biological activity.⁵⁸ This, the report notes, could easily be fixed by using a humate, which is simply organic matter that can be used to stimulate natural nitrogen production, as opposed to fertilizer which acts more like a “sugar rush” of nitrogen for the soil. The other component is introducing the missing fungal and bacterial organisms that will be able to make use of this humate, in the form of inoculations. The report notes that the most important part of starting the process at Claremont is ridding the site of crabgrass and thus introducing the desired grass, a kind known as Perennial Rye, is the proposed solution. Without relying on pesticides, this process is projected to take at least two years as they continually re-seed the area while waiting for the microbial and nitrogen levels to rise to the required levels, at which point the strategy will shift towards encouraging the growth of the now-dominant grass. This was projected to cost roughly \$2,400.

⁵⁶ Staff, “Claremont Park : NYC Parks,” NYC Parks, 2023, <https://www.nycgovparks.org/parks/claremont-park/>.

⁵⁷ Staff, “Claremont Neighborhood in Bronx, New York (NY), 10456, 10457 Detailed Profile,” City-Data.com, 2020, <https://www.city-data.com/neighborhood/Claremont-Bronx-NY.html>.

⁵⁸ Chip Osborne and Jay Feldman, rep., An Organic Transition Pilot Project: The Bronx (Osborne Organics, 2023).

c. Mapes Park/Jacobo Field (Bronx)



FIGURE 7: SOIL FROM THE BASEBALL FIELD AT MAPES. IT WAS REMARKED DURING EXAMINATION THAT THE SOIL COMPOSITION REFLECTS CONTRACTOR IGNORANCE ABOUT SETTING UP SUSTAINABLE SOIL ECOLOGY.

Mapes Park is located in the Bronx, within Crotona and near the West Farms and Belmont neighborhoods. While predominantly a baseball field, the park also contains a playground and several seating areas.⁵⁹ As of 2020, 70% of the population is Latino with an additional 21% being Black, making the area over 90% people of color. The distributed median income of the area is largely below \$50,000 annually.⁶⁰

According to soil analysis, biological activity in the field discussed was subpar, alongside low nitrogen levels which would in turn impact the biological activity. This is especially critical with regards to fungal levels, which act as a defense against disease within the field.⁶¹ The report notes with some element of surprise that, atypical for many contractor-built sites, the soil used for the field was in fact of fairly good quality. As stated, the largest concern is the lack of microbial and fungal activity, which would be solved with inoculations but also by introducing limestone, which would help to raise the acidity of the soil, noted as being lower than necessary.

⁵⁹ Staff, "Mapes Park : NYC Parks," NYC Parks, 2023, <https://www.nycgovparks.org/parks/mapes-ballfield>.

⁶⁰ Staff, "West Farms Neighborhood in Bronx, New York (NY), 10460 Detailed Profile," City-Data.com, 2020, <https://www.city-data.com/neighborhood/West-Farms-Bronx-NY.html>.

⁶¹ Osborne and Feldman, *An Organic Transition Pilot Project: The Bronx*

Additionally, the soil was noted as being exceptionally compacted, which is not ideal as soil needs to be able to “breathe”, and aeration would be critically important in order to prepare and maintain the soil following the program, which is especially important for a highly-used area. This was projected to cost \$2,100.

d. Canarsie Park (Brooklyn)



FIGURE 8: CANARSIE CRICKET PITCH, THE PROPOSED SITE FOR CANARSIE'S DEMONSTRATION PROJECT.

Canarsie Park is located in Brooklyn within the Canarsie neighborhood. The cricket pitch the park features will be the site of the demonstration project, but the park also has basketball, baseball, and soccer fields as well as hiking trails.⁶² As of 2020, 78% of the population is Black, with Asian and Hispanic households making up 6.7% and 6.6% of the population respectively, making the area over 90% of color. The distributed median income of the area is largely above \$100,000 annually.⁶³

According to soil analysis, the soil’s organic composition was actually quite good for the soil that the field is comprised of. However, biological activity in the form of fungi and bacteria in the field was subpar, alongside low nitrogen levels which would in turn impact the biological

⁶² Staff, “Canarsie Park : NYC Parks,” NYC Parks, 2023, <https://www.nycgovparks.org/parks/canarsie-park>.

⁶³ Staff, “Canarsie Neighborhood in Brooklyn, New York (NY), 11234, 11236 Detailed Profile,” City-Data.com, 2023, <https://www.city-data.com/neighborhood/Canarsie-Brooklyn-NY.html>.

activity. Additionally, further actions would be required in order to boost the biological activity and disease resilience of the field.⁶⁴ However, the report stressed that two elements would be essential to meet the proposed goal, which would be to stabilize the density of the pitch in order to support strong turf; aeration and fertility. Aeration would help to ensure that the grass seed that would be applied over the next two years could “breathe”, while fertility treatments largely in the form of supporting the biological activity in the soil would help to maintain soil density and the strength of the grass more sustainably. The project was projected to cost \$3, 460.

e. Lincoln Terrace (Brooklyn)



FIGURE 9: A SECTION OF THE SITE AT LINCOLN TERRACE.

Lincoln Terrace, also known as Arthur S. Somers Park, is located in Brooklyn between the Crown Heights and Brownsville neighborhoods. The park features a number of activities including basketball and handball courts, as well as baseball and football fields.⁶⁵ As of 2020, Brownsville has a majority-minority population, comprising of over 60% Black households and 22% Latino households,⁶⁶ while Crown Heights is comprised 57% by Black households followed

⁶⁴ Chip Osborne and Jay Feldman, rep., An Organic Transition Pilot Project: Brooklyn (Osborne Organics, 2023).

⁶⁵ Staff, “Lincoln Terrace / Arthur S. Somers Park : NYC Parks,” NYC Parks, 2023, <https://www.nycgovparks.org/parks/lincoln-terrace-arthur-s-somers-park>.

⁶⁶ Staff, “Brownsville Neighborhood in Brooklyn, New York (NY), 11212 Detailed Profile,” City-Data.com, 2023, <https://www.city-data.com/neighborhood/Brownsville-Brooklyn-NY.html>.

by 18% white households.⁶⁷ The distributed median income of the area is largely below \$70,000 annually.

According to soil analysis, the soil is overall decent. Biological activity in the form of fungi and bacteria in the field was subpar, alongside low nitrogen levels which would in turn impact the biological activity. Additionally, further actions would be required in order to boost the biological activity and disease resilience of the field, and the soil was more acidic than desirable for the turf grass proposed.⁶⁸ The report outlines similar methods and practices necessary to transition and maintain the park into the future, including the introduction of fungi inoculations to help boost the soil health, overseeding the area in order to choke out undesired growth like dandelions and crabgrass, and trying to raise the nitrogen levels by encouraging the growth of organisms that would produce it themselves. There would need to be some limited fertilizer treatment in the first year, but by the second year these would not be necessary. The project was projected to cost \$3,600.

f. Morningside Park (Manhattan)



FIGURE 10: THE MULTIPURPOSE ATHLETIC FIELD THAT WOULD SERVE AS THE SITE FOR THE MANHATTAN DEMONSTRATION PARK

Morningside Park is located in Manhattan near Harlem. The park is intensely multipurpose, featuring both athletic installations like the field itself as well as areas for

⁶⁷ Staff, "Crown Heights Neighborhood in Brooklyn, New York (NY), 11238, 11213, 11216, 11233 Detailed Profile," City-Data.com, 2023, <https://www.city-data.com/neighborhood/Crown-Heights-Brooklyn-NY.html>.

⁶⁸ Osborne and Feldman, An Organic Transition Pilot Project: Brooklyn

barbecuing, picnicking, and so forth. As of 2020, Harlem is a racially mixed area with 41% of the population being Black, 31% being Latino, and 16% being white, making it still a majority-minority area.⁶⁹ The distributed median income of the area is largely below \$100,000 annually, with a high number of households making under \$20,000 annually.

According to soil analysis, the soil was not in the best of shape. Biological activity in the form of fungi and bacteria in the field was subpar, alongside low nitrogen and phosphorus levels which would in turn impact the biological activity.⁷⁰ Combatting the dominant presence of knotweed and other unwanted growth is stated as the main initial obstacle, which would require raking to dislodge the established growths and expose the soil for extensive overseeding. This would need to be coupled with some aeration to help prepare the field. However, because the biological activity and other mineral concentrations were low, much of the treatment plan would be focused on trying to rebuild the concentrations of these within the soil in order to stimulate and support the effects of constant overseeding. Humate applications would be a part of this, but the soil was so weak that it effectively could not support the required fungal and microbial populations, hence treatment would initially need to focus on creating the environment where these could actually thrive. The same goes for raising the soil pH and other factors. No cost estimate was provided.

⁶⁹ Staff, "Harlem Neighborhood in New York, New York (NY), 10030, 10039, 10027, 10026, 10029, 10035, 10037 Detailed Profile," City-Data.com, 2023, <https://www.city-data.com/neighborhood/Harlem-New-York-NY.html>.

⁷⁰ Chip Osborne and Jay Feldman, rep., An Organic Transition Pilot Project: Manhattan (Osborne Organics, 2023).

g. Rufus King Park (Queens)



FIGURE 11: A SECTION OF THE FIELD WITHIN THE RUFUS KING PARK.

Rufus King Park is located in Queens near Jamaica. While the park does have some recreational facilities, the chief attraction is the historical building which housed one of the early leaders of anti-slavery in America.⁷¹ As of 2020, Jamaica is a racially mixed area with 33% of the population being Black, 27% being Latino, and 22% being Asian, making it a majority-minority area. The distributed median income of the area is largely below \$100,000 annually, with a significant number of households making under \$50,000 annually.⁷²

According to soil analysis, the soil is fine. Biological activity in the form of fungi and bacteria in the field was subpar, as seems to be the norm in these parks, but happily phosphorus and calcium levels were high, meaning that less compensation for missing minerals is required in preparing the sites.⁷³ Like Morningside, the biggest challenge facing Rufus King is that it is a highly trafficked site and thus suffers from both the problems associated with that, as well as the problems of attempting to rectify it. Aeration is of course critical in order to allow the soil to breathe; the report suggests aerating twice in the first year to combat the high soil compaction.

⁷¹ Staff, "Rufus King Park : NYC Parks," NYC Parks, 2023, <https://www.nycgovparks.org/parks/rufus-king-park>.

⁷² Staff, "Jamaica Neighborhood in Jamaica, New York (NY), 11433, 11423, 11432, 11435 Detailed Profile," City-Data.com, 2023, <https://www.city-data.com/neighborhood/Jamaica-Jamaica-NY.html>.

⁷³ Chip Osborne and Jay Feldman, rep., An Organic Transition Pilot Project: Queens (Osborne Organics, 2023).

Likewise, restoring the microbial and fungal levels of the soil is critical in order to naturally provide the amount of nitrogen required to sustain further improvements. The report notes that the area's high traffic renders overseeding a top priority in order to compensate for the extensive wear that the grounds from high traffic. No cost estimate was provided.

h. Rev. Dr. Maggie Howard Playground (Staten Island)



FIGURE 12: A MULTIPURPOSE FIELD WITHIN THE PARK COMPLEX, THIS SITE IS IMPORTANT DUE TO ITS HIGH TRAFFIC.

Rev. Dr. Maggie Howard Playground is located in Staten Island in Stapleton, and just outside of Clifton. Right next to a school, the park includes baseball fields, a general field, as well as courts for basketball and handball.⁷⁴ As of 2020, Stapleton's population is 36% Latino, 31% Black, and 19% white,⁷⁵ while Clifton has an over 90% Black and brown population, making the area a majority-minority area. The distributed median income of the area is largely below \$60,000 annually.

According to soil analysis, the soil is fairly decent, with the only major issue being low biological activity. It is noted as having quite good drainage and nutrient retention qualities,

⁷⁴ Staff, "Rev. Dr. Maggie Howard Playground : NYC Parks," NYC Parks, 2023, <https://www.nycgovparks.org/parks/rev-dr-maggie-howard-playground>.

⁷⁵ Staff, "Stapleton Neighborhood in Staten Island, New York (NY), 10304, 10301, 10310 Detailed Profile," City-Data.com, 2023, <https://www.city-data.com/neighborhood/Stapleton-Staten-Island-NY.html>.

which would be quite necessary to ensure the successful treatment of the park. Indeed, this is the primary limiting factor, with the primary solutions aimed at encouraging the growth of fungi and bacteria in the field.⁷⁶ The biggest issue, the report notes, is that the density of the field is both low and continuing to decline due to the exceptionally high use of the field. Overseeding would not have the same effect due to this factor, as the park would need to be closed for long stretches of time. Thus, the report suggests many of the same treatments (such as building up microbial presence, aeration, etc.) but without an overall goal, focusing on incremental gains. It notes that other strategies could be of help, but the biggest overall obstacle is the funding constraints, as far more inputs would be required. The projected baseline cost is \$3,500 for two acres.

i. Mahoney Park (Staten Island)



FIGURE 13: A SECTION OF MAHONEY PLAYGROUND

Mahoney Park is located in Staten Island in Stapleton. The park features a large artificial field as well as basketball and handball courts, as well as a small playground. The statistics relevant to this area of Staten Island remain the same as they were for the previous site, given their location. No soil analysis was conducted at the time.⁷⁷

⁷⁶ Chip Osborne and Jay Feldman, rep., *An Organic Transition Pilot Project: Staten Island* (Osborne Organics, 2023).

⁷⁷ Osborne and Feldman, *An Organic Transition Pilot Project: Staten Island*

VII. Healthy Parks, Healthy Communities

Parks play a vital role in enhancing the well-being and quality of life in communities, particularly for communities of color. Research has repeatedly demonstrated the importance of parks for communities in physical health, but also in mental and social health.⁷⁸ As urban centers continue to grow, the importance of accessible green spaces becomes even more critical as oases in the sprawl of the concrete jungles. Parks offer a range of benefits to communities, including physical activity, exercise, and recreation opportunities in the open air, easily accessible and in the open. Parks contribute to temperature regulation by providing shade and mitigating the urban heat island effect, which refers to the tendency for city buildings and roads to absorb and bank heat and leading to higher temperatures than a less dense area in a similar environment. This phenomena is especially present in densely populated cities like New York with massive health repercussions, especially for communities of color, and parks provide a mitigating factor. Parks also play a crucial role in improving air quality by absorbing pollutants, reducing greenhouse gas emissions, and enhancing overall environmental health. Communities of color, who often bear the burden of environmental inequities and disproportionately experience higher temperatures and pollution, benefit greatly from the cooling and purifying effects of nearby parks.

Regular access to green spaces promotes active lifestyles, reduces the risk of chronic diseases by virtue of providing a healthy place for trees to filter pollutants as well as for people to exercise, and generally supports well-being. In urban areas like New York, where resources for physical activity may be limited, parks provide a safe and convenient space for exercise, sports, and leisure activities.⁷⁹

In addition to physical health, parks have positive effects on mental well-being and stress reduction. Green spaces act as a respite from the noise, congestion, and stress of urban

⁷⁸ Lincoln R. Larson, Viniece Jennings, and Scott A. Cloutier, "Public Parks and Wellbeing in Urban Areas of the United States," PLOS ONE 11, no. 4 (April 7, 2016), <https://doi.org/10.1371/journal.pone.0153211>.

⁷⁹ Greg Brown, Morgan Faith Schebella, and Delene Weber, "Using Participatory GIS to Measure Physical Activity and Urban Park Benefits," Landscape and Urban Planning 121 (January 2014): 34–44, <https://doi.org/10.1016/j.landurbplan.2013.09.006>.

environments.⁸⁰ Spending time in nature, even within the confines of a city, can improve mood, reduce anxiety, and enhance cognitive function. This is critical for our communities of color, who frequently face higher levels of environmental stressors and systemic challenges as a result of their skin color and often lack the economic means to take vacations to the Hamptons, Ibezia, and other such locations. As a result, parks provide a much-needed refuge for mental rejuvenation and relaxation.

Parks also serve as gathering spaces that foster social connections and community building.⁸¹ As a common, accessible, and open area, they offer opportunities for individuals and families from diverse backgrounds to come together despite those backgrounds. Picnics, clubs, cultural activities, and community events can and frequently are hosted in parks, open to everyone and whether explicit or not, create opportunities for communities to interact and develop a sense of common identity that is frequently lacking in the age of microcultures. Parks act as catalysts for fostering relationships, bridging cultural divides, and promoting social cohesion among all communities, but especially for communities of color. As a result, the venue and space that parks provide ultimately strengthen the sociocultural fabric of the neighborhoods they occupy.

This last benefit leads to a critical service of parks for communities of color not explicitly covered elsewhere; the value they can have in reinforcing

Why Are Parks So Important?

- **Physical Health**

Parks not only clean air in and around them, but by existing help to encourage healthier lifestyles in the communities around them.

- **Mental Health**

Parks provide green spaces and fresh air, which have positive mental benefits that city communities would otherwise miss out on.

- **Community Health**

Parks are an open and accessible common area for people and families around them to not only be together but also meet neighbors and other community members.

- **Political Growth**

Parks are focal points in their communities, and starting from this common ground communities can organically develop a common political consciousness.

⁸⁰ Ian Alcock et al., "Longitudinal Effects on Mental Health of Moving to Greener and Less Green Urban Areas," *Environmental Science & Technology* 48, no. 2 (December 9, 2013): 1247–55, <https://doi.org/10.1021/es403688w>.

⁸¹ Larson et. al., "Public Parks and Wellbeing in Urban Areas of the United States"

and expanding Black and brown political identity. Community is essential to advocacy, whether for the express benefit of the people or for issues that impact said community. By providing a place to reinforce communal ties, parks are critical to nurturing Black political consciousness and solidarity within our communities on critical issues. This is something that TBI and our sister organization the Black Leadership Action Coalition (BLAC), a political advocacy group, consider to be unconditionally positive and reinforces the value and importance of parks to communities of color. This is foundational to our efforts to ensure the parks are healthy, because without healthy parks we cannot have healthy communities, and thus cannot have a healthy political presence.

Hence why the issues with glyphosate were and remain so concerning for us, and why other problems facing the parks are so important. It has demonstrated that white neighborhoods have recently experienced increases in community greenness and indeed, parks have historically served as a way to isolate white communities from communities of color. Conversely, communities of color have seen a decrease in green spaces, leading to an increase in crowding by a factor of five compared to parks in predominantly white areas.⁸² In the context of *Poison Parks*' revelations about the increased spraying of these spaces, this is already intensely troubling; in the context of the "park boom" during the height of the COVID-19 pandemic,⁸³ which was transmissible in close proximity, these factors clearly point to parks being not a healthy refugee, but a risk for our vulnerable communities.

⁸² Emma Urofsky and Robbie M Parks, "Public Green Spaces: Racism, Heat, and Barriers to Access," WE ACT for Environmental Justice, August 25, 2020, <https://www.weact.org/2020/08/public-green-spaces-racism-heat-and-barriers-to-access/>.

⁸³ Charlie Ban, "County Parks See Big Pandemic Visitor Boom, Stresses - Naco.Org," National Association of Counties, August 10, 2022, <https://www.naco.org/articles/county-parks-see-big-pandemic-visitor-boom-stresses>.

VIII. What needs to be done

Great progress has been made in New York to make the city's public parks healthier and more sustainable. However, the battle against carcinogenic pesticides and herbicides remains ongoing, and to cement and expand on existing victories there is still more that must be done to ensure that our communities remain safe and free from poison. This extends beyond New York City into the rest of the Black and brown Diaspora, especially in the United States but throughout the world.

a. Alternative Solutions

Although pesticide use is the most common way for weed management, as it is cheaper and quicker, there are alternatives available. Some alternatives include sanitation and exclusion, mulch, and hand weeding. Each of these alternatives are comparatively time consuming and require adequate human capital in the context of park management, but these techniques are still effective and more sustainable.

In reducing weed infestations is to follow sanitation measures during propagation and liner production. During the process it is important to monitor weed emergence and to remove the weeds before they reproduce and spread. Additionally, the containers and fertilizers used in production should not contain weed seeds or propagules.⁸⁴ Exclusion, which involves weed reduction, can be achieved through the elimination of seed-bearing weeds within or adjacent to the production areas.

Mulching is another alternative available, which is when mulch is applied to the substrate surface to create a physical barrier that suppresses weed growth.⁸⁵ In other words, it covers the soil to retain the moisture. The downside of this method is the potential blocking of sunlight, which could prevent some seeds from germinating. The advantage though is that less labor is required compared to other methods, such as hand weeding. Depending on the mulch used, it may need to be replaced every one to four years, however, which can cause funding issues for the NYC Department of Parks & Recreation ("Parks Department").

⁸⁴ Case, L.T., H.M. Mathers, and A.F. Senesac. 2005. A review of weed control practices in container nurseries.

⁸⁵ Ferguson, J., B. Rathinasabapathi and C. Warren. 2008. Southern red cedar and southern magnolia wood chip mulches for weed suppression in containerized woody ornamentals. *HortTechnology* 18(2): 266-270.

Hand weeding is an extremely labor intensive and expensive option. According to the Parks Department's Fiscal's 2023 Executive Budget Snapshot, \$52 million is baselined for parks maintenance services.⁸⁶ The funding is intended to support 715 full time workers in Maintenance and Operations. Although that may appear to be beneficial, it is not nearly enough when the Parks Department is the steward of more than 30,000 acres of land, approximately 14 percent of New York City. The maintenance of over 5,000 individual properties through hand weeding and additional maintenance would require more funding and employees. Simply put, sustainability efforts require proper investment and obtaining the necessary funds for these alternatives is an omnipresent hurdle.

The discontinuation of glyphosate in New York City parks is possible and can be replaced with effective and safer alternatives. While various methods exist, they each have their advantages and disadvantages. Careful consideration should be taken when selecting the best method to apply in specific situations. By implementing appropriate solutions, we can reduce the risk of glyphosate exposure to park visitors while enhancing the health of New York City parks.

b. Consistent Financial Support

In recent years, there has been an increase in advocacy within the Parks Department about the budget. In June of 2022, Mayor Eric Adams approved the highest funding for tree planting, which would allow the Parks Department to plant 20,000 trees a year for the next four years.⁸⁷ During Mayor Adams' campaign, he continued to pledge that he would allocate 1% of the city's budget to the Parks Department.⁸⁸ The Fiscal 2022 Preliminary Budget Fact sheet had looked promising, with an increase of \$29.6 million since the 2021 adopted budget of \$503.1 million.⁸⁹ The budget for the Parks Department also looked promising, when Mayor Adams and the City Council agreed on a \$101 billion budget that would increase funding for parks and childcare,

⁸⁶ Chima Obichere, "Report to the Committee on Finance and the Committee on Parks and Recreation on the Fiscal 2023 Executive Plan and the Fiscal 2023 Executive Capital Commitment Plan," NEW YORK CITY COUNCIL FINANCE DIVISION, May 13, 2022, <https://council.nyc.gov/budget/wp-content/uploads/sites/54/2022/05/DPR.pdf>.

⁸⁷ Mariana Simoes, "Mayor Adams Promised 20,000 Trees a Year. but Budget Cuts Threaten Progress," City Limits, February 9, 2023, <https://citylimits.org/2023/02/01/mayor-adams-promised-20000-trees-a-year-but-budget-cuts-threaten-progress/>.

⁸⁸ Joseph Ostapiuk, "NYC Mayor Adams again falls short of 1% for Parks promise. Here's what advocates have to say about it", Silive, May 2, 2022, <https://www.silive.com/news/2022/05/nyc-mayor-eric-adams-again-falls-short-of-1-for-parks-promise-heres-what-advocates-have-to-say-about-it.html>

⁸⁹ Fiscal 2022 Preliminary Budget Fact Sheet, Department of Parks and Recreation, <https://council.nyc.gov/budget/wp-content/uploads/sites/54/2021/03/DPR-Fact-Sheet.pdf>

while boosting trash pickup.⁹⁰ Council Speaker Adrienne Adams noted that the budget was larger than the \$98.7 billion executive proposal. However, when the budget was cut, so were these promises.

The Parks Department has always been on a bumpy road when it comes to its budget: in the fiscal year 2019, the agency received \$534 million,⁹¹ which was followed by \$526 million in 2020 _until the pandemic prompted a dramatic \$47 million cut for the 2021 fiscal year. As a result, 1,700 people from the Parks Department’s seasonal workforce were not hired back, and severe maintenance issues were observed by residents, including safety hazards and falling trees.⁹² During a press conference, Mayor Adams stated that while he remains committed to reaching the one percent goal in the future, the end of the COVID-19 federal stimulus forced budget cuts in every agency – except for the New York City Police Department.⁹³

In February 2022, Mayor Adams announced the appointment of two officials intended to carry out his vision of a more equitable parks system.⁹⁴ Susan Donoghue was appointed as the commissioner of the Parks Department and Iris Rodriguez-Rosa was appointed to serve as the deputy commissioner. On November 8, 2022, New Yorkers overwhelmingly approved a ballot proposition to make \$4.2 billion available for environmental and community projects, advancing environmental justice.⁹⁵ As of April 2023, Governor Kathy Hochul has launched a listening tour to receive input from the public on this Act. This Act could be useful in combating climate change, advancing towards environmental justice, eliminating harmful toxins from public spaces, and combating environmental racism.

⁹⁰ Katie Honan and Greg David, “Adams & Adams Shake on City Budget with Small Gains for Parks, Trash”, The City, June 10, 2022, <https://www.thecity.nyc/2022/6/10/23163313/mayor-speaker-adams-nyc-budget-deal>

⁹¹ Staff, “THE COUNCIL OF THE CITY OF NEW YORK Hon. Corey Johnson Speaker of the Council Hon. Daniel Dromm Chair, Finance Committee Hon. Barry Grodenchik Chair, Committee on Parks and Recreation Report to the Committee on Finance and the Committee on Parks and Recreation on the Fiscal 2019 Executive Budget for Department of Parks and Recreation,” The City Budget, 2018, <https://council.nyc.gov/budget/wp-content/uploads/sites/54/2020/05/846-DPR.pdf>.

⁹² Juliette Gaudemer, “NYC Department of Parks and Recreation Budget Spurs Debates about Green Spaces and Their Role in the City,” NY City Lens, April 7, 2022, <https://nycitylens.com/parksbudget/>.

⁹³ NYC Mayor’s Office, Mayor Adams Appoints NYC Parks Leadership (NYC Mayor’s Office, 2022), <https://www.youtube.com/watch?v=3W2fAyYrHU>.

⁹⁴ 1. Staff, “Mayor Adams Appoints NYC Parks Leadership,” Office of the Mayor, February 4, 2022, <https://www.nyc.gov/office-of-the-mayor/news/061-22/mayor-adams-appoints-nyc-parks-leadership#/0>.

⁹⁵ Staff, “Clean Water, Clean Air and Green Jobs Environmental Bond Act.” The State of New York, 2023. <https://www.ny.gov/programs/clean-water-clean-air-and-green-jobs-environmental-bond-act>.

The Mayor's Management Report, which is released twice a month, noted the Mayor's commitment to providing safe and engaging recreational, cultural programming, and working on long-term equitable park development and sustainable service improvements.⁹⁶ There are discrepancies though between the promises from Mayor Adams and the FY22 budget, which would remove 3,500 essential park positions and cut \$60 million. Although the mission of the Parks Department remains the same, if the proposed budget cuts are fulfilled, roughly \$1 billion would be allocated to the Parks Department for existing park maintenance and development. In comparison, other major cities have consistently committed between 2-5% of the budget for these purposes.⁹⁷

The 2023 budget saw a decrease of \$29.3 million dollars, down to \$601.4 million for FY 2023, while staff also decreased over 7% to just over 8,000 personnel in the Parks Department for that year. By this point, nearly 75% of the department's budget went towards staffing, a total of \$450.4 million for FY 2023.⁹⁸ This sounds bad enough – only leaving \$150 million for everything else related to parks and maintenance really begins to put into perspective why the Parks Department used glyphosate to such an extent. However, the horrific reality is that the full Parks budget was 0.006% (rounding up) of the total city budget of \$104 *billion*. In the overview for the FY 2023 budget, the Parks Department occupies a category known as “Infrastructure, Libraries, and Cultural,” which additionally includes the Department of Transportation, the city's libraries, the Taxi and Limousine Commission, and the Department of Environmental Protection; this category received a combined budget of \$3.7 billion for 2023. By comparison, “Uniformed Services”, which includes the NYPD, NYFD, Department of Correction, and Department of Sanitation, received nearly *three times* that value at \$10.2 billion, with the NYPD alone receiving over \$5 billion.⁹⁹ **The NYPD received over 8 times the amount of money the Parks Department did, and to add insult to injury, these agencies were supposed to meet**

⁹⁶ Preliminary Mayor's Management Report 2023, https://www.nyc.gov/assets/operations/downloads/pdf/pmmr2023/2023_pmmr.pdf

⁹⁷ Sabrina Pangione, 1% for Parks, And Why NYC Needs It Now, February 11, 2011, <https://nylcv.org/news/1-for-parks-and-why-nyc-needs-it-now/>

⁹⁸ Obichere, “Report to the Committee on Finance and the Committee on Parks and Recreation on the Fiscal 2023 Executive Plan and the Fiscal 2023 Executive Capital Commitment Plan”

⁹⁹ NEW YORK CITY COUNCIL FINANCE DIVISION, “Report to the Committee on Finance on the Fiscal 2023 November Plan,” New York City Council, December 8, 2022, <https://council.nyc.gov/budget/wp-content/uploads/sites/54/2022/12/FY23-November-Plan-Committee-Report-Final-update.pdf>.

cuts to lower the budget gap by 1.3% and 3% respectively; the Parks Department saved the money it was supposed to, but the NYPD did not come even close.

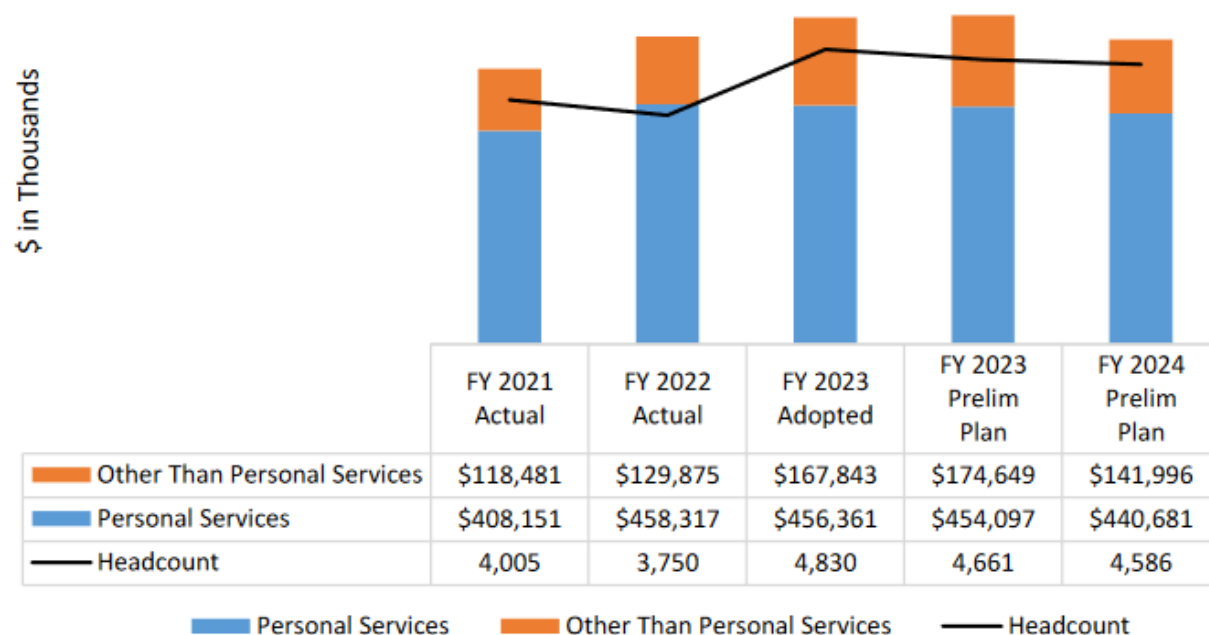


FIGURE 14: PARKS DEPARTMENT SPENDING BY PERSONNEL AND NON-PERSONNEL BUDGET CATEGORIES WITH HEADCOUNT. TAKEN FROM THE PARKS’ PRELIMINARY 2024 BUDGET.

At the time of writing, the FY 2024 budget has yet to be decided, but we already have a fair idea of how bad the damage looks to be. The current Parks Department’s budget proposal would see a reduction of over \$46 million for the entire year, with a further 244 staff positions being cut or not filled.¹⁰⁰ But staff is far from the only part of the department to feel the axe; everything from capital improvements to recreation services to, most importantly, maintenance, is seeing slashes to the tune of millions. Initially the Parks Department would have seen even more extensive cuts if Adams would have had his way, but following public backlash these cuts were walked back to a certain extent.¹⁰¹ Yet the Department still faces a significant reduction in its spending capacity that, while far from fatal, illustrates that our leaders appear far more concerned with maintaining one of the most militarized police forces in the world than promoting the health and wellbeing of actual people. This backwards notion that the Parks Department, as well as

¹⁰⁰ Michael Sherman, “Report on the Fiscal 2024 Preliminary Plan and the Fiscal 2023 Preliminary Mayor’s Management Report for the Department of Parks and Recreation,” New York City Council, March 22, 2023, <https://council.nyc.gov/budget/wp-content/uploads/sites/54/2022/03/846-DPR.pdf>.

¹⁰¹ Ethan Stark-Miller, “Mayor Adams’ \$107 Billion Executive Budget Reverses Some Recent Cuts, Still Trims across-the-Board,” amNewYork, April 28, 2023, <https://www.amny.com/politics/mayor-adams-107-billion-executive-budget-reverses-some-cuts/>.

other similar services, can be sacrificed to try and balance the budget remains a sword of Damocles over the Parks Department. The past, present, and future cuts facing the Department are of especial concern when we consider that organic land management, which is far healthier for the people of New York City, is also more costly. In other words, the exact kind of promising pilot program to be axed in favor of ensuring that the NYPD has enough money to replace the \$70 taser cartridges that will likely be fired at protesters in a park, as well as settle the resulting brutality suit.

Although New York City's parks are some of the most iconic and beloved public spaces in the world, the recent budget cuts have created some serious problems. The effects of these cuts are far-reaching, impacting everything from maintenance and operations to programming and community outreach. Parks are struggling to keep up basic upkeep, such as cleaning and landscaping, and many popular programs have been scaled back or eliminated altogether. As previously mentioned, if NYC parks want to transition to pesticide alternatives, there needs to be an investment in sustainability. In addition to hurting the city's residents, these budget cuts to parks are impacting the city's economy. Due to lack of staff for maintenance and operations, the parks will continue to worsen and will eventually need interference, which can cost the city even more. One example is the \$67 million New York City spent on a public pool in Flushing Meadows Corona Park, which ended up being closed for 3 years.¹⁰² In 2022, the \$500,000 construction work was set to begin. Further renovation is set to begin in summer 2024, which will cost an additional \$11 million.

c. Addressing toxic land management

While no longer a New York City issue per se, the specter of glyphosate and similar harmful substances continues to loom over the rest of the state and much of the country, and not only in our parks. Herbicides and pesticides continue to have their most important use in the agricultural industry and as a result have far-ranging effects on our populations even when it is not immediately obvious. As discussed previously, these substances wreak havoc on local ecosystems due to their largely indiscriminate killing intent, with the result being the destruction or corruption of native plants, insects, animals and soil. Important pollinators like bees are dying

¹⁰² Mary K. Jacob, NYC spent \$67M on a public pool that has been closed for 3 years and is falling apart, New York Post, Nov. 23, 2022 <https://nypost.com/2022/11/23/the-city-spent-67m-on-a-pool-thats-closed-and-falling-apart/>

at critical rates and make the reliance on synthetic fertilizers and modified crops ever more important, which as demonstrated in this report's discussion on organic land management, creates a perpetual cycle of fertilizing and spraying.

Additionally, this reliance on the cycle of spraying and spreading means that pests and unwanted plants have begun to evolve to adapt to the cycle, with no clear solution beyond more spraying. All of this exhausts the dirt that we rely on to produce crops which, while it may seem silly to point out, *are necessary to keep us alive*. Exhausted soil leads to famines and other disasters that would lead to millions of deaths, and it is far from a stretch to assume that our economically vulnerable communities of color would be the ones dying, not the rich white executives of General Mills and similar agribusinesses who have engineered this crisis.

This is not just some crazed apocalyptic prediction. We are already seeing the effects of this endless cycle of toxic land management in the world around us. Bees, which are critical for the natural function of the ecosystem as pollinators, have been dying by the millions because of toxic chemicals, poisoned for performing their natural function. Without pollinators like bees, the yearly growing cycle is at greater and greater jeopardy as we become increasingly reliant on alternative pollination methods, far more unstable than simply letting nature do its work. Likewise, while far removed from the average consumer's mind, soil exhaustion (the concept of soil being unable to grow anything due to a lack of minerals and elements), is a real and pressing threat that has brought down entire empires in the past. As seen during our discussion of the demonstration sites, poor management makes the soil unable to sustain healthy plants, forcing us to rely on the toxic combination of pesticides and fertilizers to keep the soil productive. This, like the genocide of pollinators, makes our food supply that much more unstable; at this point, we are only a fertilizer supply freeze away from having a national, possibly even worldwide, famine.

However, one must also recall that even if the food is still around, it has been so saturated by herbicides and pesticides that contamination is not just a possibility, but a reality. These chemicals are designed to stick to and "protect" the crops for weeks, even months, come rain or shine, until they are ready to harvest. It would be impossibly naive to imagine that they simply wash off when the time comes to process them. In that way, pesticides are not unlike the current microplastics epidemic; like tiny pieces of plastic, these chemicals remain in our food

and as a result we are continually exposed to *known carcinogens* on a thrice daily, possibly even more frequent, occurrence. **And just like microplastics, these doses are small, but the chemicals are not simply inert and flushed out each day; they remain and build, with consequences that are still not fully understood but should terrify all.**

TBI is not suggesting a form of agricultural Ludditism, wholesale abandoning our current model in an instant and returning to the days of praying that swarms of locusts do not descend on our fields. What we are demanding is that proven alternatives be introduced by inducing demand for them in the form of overarching bans on the usage of known carcinogens in agricultural and horticultural industries. As demonstrated throughout this report, there exists legislation banning toxic chemicals not just in New York City, but in entire countries, who have somehow managed not to starve to death in spite of them. There are proven alternatives, modern agricultural techniques, that can and should be phased in by banning the easy and toxic solutions. We demand that legislation to ban the usage of chemicals WHO and other international health organizations have labeled as carcinogenic in agriculture and horticultural maintenance in both New York State and the United States as a whole.

d. Amending Intro 1524-2019

It may seem somewhat pointless to demand that an already impressive ban on glyphosates in New York City be expanded, but it is important to remember what the law does *not* ban. Glyphosates and other similar chemicals remain acceptable for combatting invasive species and other plants considered too difficult, time consuming, or dangerous for Parks personnel to deal with. Chiefly, however, they remain acceptable for use in treating highway medians and other similar areas which, according to the law, are too dangerous for Parks employees to treat for extended periods or frequent intervals.

In demanding that the law be amended to cover highway spraying, TBI is not callously suggesting that Parks personnel should be placed in harms way for the sake of healthier solutions. Rather, we want the law to be amended to be subject to the same waivers and renewals that other exceptions are currently permitted under, under the understanding that alternative solutions should be tested and prioritized before resorting to these toxic solutions. We have spoken extensively about the dangers to ecosystems and humans from the runoff of pesticides, and even though people are hardly playing on highway medians the same way they do

in parks, runoff remains a problem. This is especially the case for highways that are next to or above residential areas, where rain will wash the pesticides onto the same sidewalks and lots that people will pass through. While we recognize that an equivalent or better solution to the power of glyphosates, amending the law to make this exception renewable rather than universally applicable will ensure that when such alternatives come to be, bureaucratic inertia will be less of a limiting factor in the same way that it was for the original glyphosate ban.

IX. Conclusion

In revisiting *Poison Parks*, The Black Institute is happy to report that many of the things we identified in that report have been changed for the better in New York City. At the time, we had called for laws to ban glyphosate from our parks and to search for alternative, healthier solutions for managing our city's parks. The passage of Intro 1524-2019 in April of 2021 marked a truly significant milestone in the fight for healthier parks, making it so that our communities and children are no longer widely exposed to the dangers of glyphosate. Efforts to transition to organic land management solutions have also proceeded as quickly as can be reasonably hoped; at the time of writing, efforts to begin transitioning the demonstration sites covered have begun and there is an encouraging level of support for it among Parks Department staff. There have also been some minor victories in the form of litigation against the corporate monoliths who have sold our city and nation poisons with a smirk on their faces.

But as TBI has repeatedly asserted throughout this report, the passage of New York City's pesticide ban is not the end of the fight for environmental equality, only a battle on the path towards healthier communities. The EPA continues to claim the glyphosate is not a poison, and it continues to be used on the food that our communities depend on, a toxic and unwanted additive. New York State likewise has failed to pass legislation that would have outlawed glyphosate at the state level, something that we now look to them to do as the logical next step in making New York a healthier place for everyone. And on the city level, the positive progress made towards implementing organic land management is at stake as budget cuts threaten an already barebones Parks Department with the prospect of either letting the parks go to ruin, or return to spraying, neither of which is a viable option. TBI and the rest of the coalition that fought and continues to fight for healthier parks are happy with what we have accomplished, but we are far from satisfied. To keep our communities and parks healthy, there is still much more to do.

X. Demands

The Black Institute has seen the most critical of its demands in the original *Poison Parks* report met; the passage of legislation banning the usage of glyphosate and similar chemicals in New York City parks. However, as has been repeatedly stated and demonstrated, this is not enough. We therefore demand that:

- **At the city level**
 - That the City Council votes to kill Mayor Adams' 2024 budget unless Parks Department's budget is restored to its 2020 level
 - That the City Council introduce and pass legislation that would appropriate additional money to the Parks Department commensurate with the amount required to transition and maintain all city parks organically
 - That the Parks Department produce an estimate to that effect
 - That the City Council introduce and pass legislation that would amend Intro 1524-2019 to ban the unconditional use of glyphosates on highway medians
- **At the state level**
 - That the New York State Senate pass Senate Bill 3288, which would restrict the usage of pesticides and herbicides and the personnel using them
 - That the State Assembly pass, and Governor Hochul sign, an equivalent bill as above
 - That the New York State Department of Environmental Conservation undertake a yearly "pesticide/herbicide audit" to determine the extent of usage in New York State
 - That the State Legislature pass, and the governor sign, legislation that would further restrict the usage of glyphosate and other substances and provide incentives for agriculture to swap to organic methods
- **At the national level**
 - That the EPA classify glyphosate as a toxic chemical and restrict its usage in agriculture and conservation tasks
 - That a federal criminal investigation of Bayer-Monsanto and other pesticide manufacturers be undertaken to determine whether they have misled the public about the dangers of their pesticide and herbicide products
 - That Congress pass, and President Biden sign, a bill that would commit the United States to eliminate the standard and dangerous use of chemical herbicides and fertilizers within the next decade

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