NEW JERSEY'S DIRTY SECRET

THE INJUSTICE OF INCINERATORS AND TRASH ENERGY IN NEW JERSEY'S FRONTLINE COMMUNITIES

EARTHJUSTICE
VERMONT LAW SCHOOL
Ironbound COMMUNITY CORPORATION
NJEJA

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This report is presented by Earthjustice and the Vermont Law School Environmental Advocacy Clinic, in partnership with the Ironbound Community Corporation and the New Jersey Environmental Justice Alliance.

The report was written by Earthjustice (Jonathan Smith, Staff Attorney; Jasmine Jennings, Associate Attorney; Victoria Bogdan Tejada, Associate Attorney) and the Vermont Law School Environmental Advocacy Clinic (Rachel Stevens, Staff Attorney; Brittany Forrest, Student Clinician; Justin Wood, Student Clinician) with the assistance of Leslie Herrera, Litigation Assistant, Earthjustice; and Heather Gill-Frerking, Taylor Tavormina, and Veronica Ung-Kono, Student Clinicians, Vermont Law School Environmental Advocacy Clinic.

EXECUTIVE SUMMARY

Burning trash is a harmful and unjust way to manage waste. Incineration does not make waste disappear—instead it converts waste into air pollution and toxic ash that contaminate the surrounding communities, which more often than not are communities of color and low-income. And while incinerator companies label incineration as clean energy, incineration is one of the most polluting and most expensive methods to generate energy.

New Jersey is no stranger to the negative impacts of incinerators, many of which are located in the state's overburdened, environmental justice communities. Residents of these communities are more susceptible to asthma and COVID-19 due to the cumulative impacts from incinerators and other pollution sources. New Jersey's four currently operating incinerators (Covanta Essex, Covanta Camden, Covanta Union, and Wheelabrator Gloucester) and one recently closed incinerator (Covanta Warren) collectively:

- Emitted over 10,000 tons of air pollution and nearly 7 million tons of greenhouse gases from 2015 to 2018;
- Placed among the state's top 5 emitters of a dozen distinct air pollutants;
- Violated their air permits over 1,700 times since 2004; and
- Collected nearly $30 million in "clean" energy subsidies from utilities and ratepayers since 2004, despite these emissions and violations.

But there is a better way to manage waste. By adopting zero-waste principles, we can create a society that uplifts a shared value of ourselves and our resources. To achieve this zero-waste future, New Jersey must:

- Remove incineration from the State's Renewable Portfolio Standard to stop subsidizing polluting incinerators with money intended for renewable, non-polluting sources of energy;
- Ban the construction or expansion of incineration facilities, and plan for the closure and remediation of existing facilities; and
- Prioritize job-creating, energy-saving, and community-affirming zero-waste solutions for waste management.

To stay in the loop about how you can help stop the burn and move New Jersey to a zero waste future, visit www.ironboundjustice.org.

INCINERATORS ARE BIG POLLUTERS

In the United States...

Waste incinerators burn large amounts of trash in giant combustion chambers, converting the waste into air emissions and toxic ash. Some incinerators use the heat from this burning to produce steam that turns turbines to generate electricity—technology similar to how coal plants produce electricity. Though the incineration industry claims that this energy is clean and renewable, incinerators are the most emission-intensive form of generating electricity in the U.S. today, and can emit more air pollutants than coal plants per unit of energy—up to 18 times more lead, 14 times more mercury, 6 times more smog-forming nitrogen oxides, 5 times more carbon monoxide, 4 times more cadmium and hydrogen chloride, and 2.5 times more greenhouse gases.[1]

Incinerators have a high quantity of unpredictable emissions because what they burn varies wildly depending on what trash happens to be collected at any given time.[2] The diesel trucks that transport waste to incinerators also spew harmful pollutants into the surrounding community.[3] And the ash that incinerators produce can concentrate toxic chemicals like lead, cadmium, and dioxins.[4] These chemicals can be found at levels high enough that the ash needs to be disposed of as hazardous waste, even if the waste was non-hazardous before it was burned.[5] Incinerators send this ash to landfills or to be used in products like concrete to build roads, where it can continue to harm communities.[6] Pollution from incinerators can increase the risk of miscarriages, preterm birth, and non-Hodgkin's lymphoma in adults, and wheeze and fatigue in children that live and go to school nearby.[7]

Covanta Essex

In New Jersey...

Over the four years from 2015 to 2018, New Jersey's five municipal solid waste incinerators collectively emitted these harmful pollutants:

6,736,600 tons OF CARBON DIOXIDE	**1,176 tons** OF CARBON MONOXIDE	**524 tons** OF PM10 COARSE PARTICULATE MATTER (AKA SOOT)
8,437 tons OF SMOG-FORMING NITROGEN OXIDES	**764 tons** OF SULFUR DIOXIDE	**485 tons** OF PM2.5 FINE PARTICULATE MATTER

Over those same years, New Jersey's incinerators were some of the top emitters of air pollutants when compared to all 215 New Jersey major facilities with air permits:

Covanta Camden

- #1 EMITTER OF CADMIUM AND HYDROGEN CHLORIDE
- #3 EMITTER OF MERCURY AND LEAD

Covanta Union

- #3 EMITTER OF CHROMIUM, HYDROGEN CHLORIDE, AND PCBS
- #5 EMITTER OF NITROGEN OXIDES

Covanta Essex

- #2 EMITTER OF ARSENIC, HYDROGEN CHLORIDE, MERCURY, AND NITROGEN OXIDES
- #3 EMITTER OF BERYLLIUM
- #4 EMITTER OF CARBON TETRACHLORIDE
- #5 EMITTER OF LEAD AND SULFUR DIOXIDE
- #6 EMITTER OF CARBON MONOXIDE

Covanta Warren

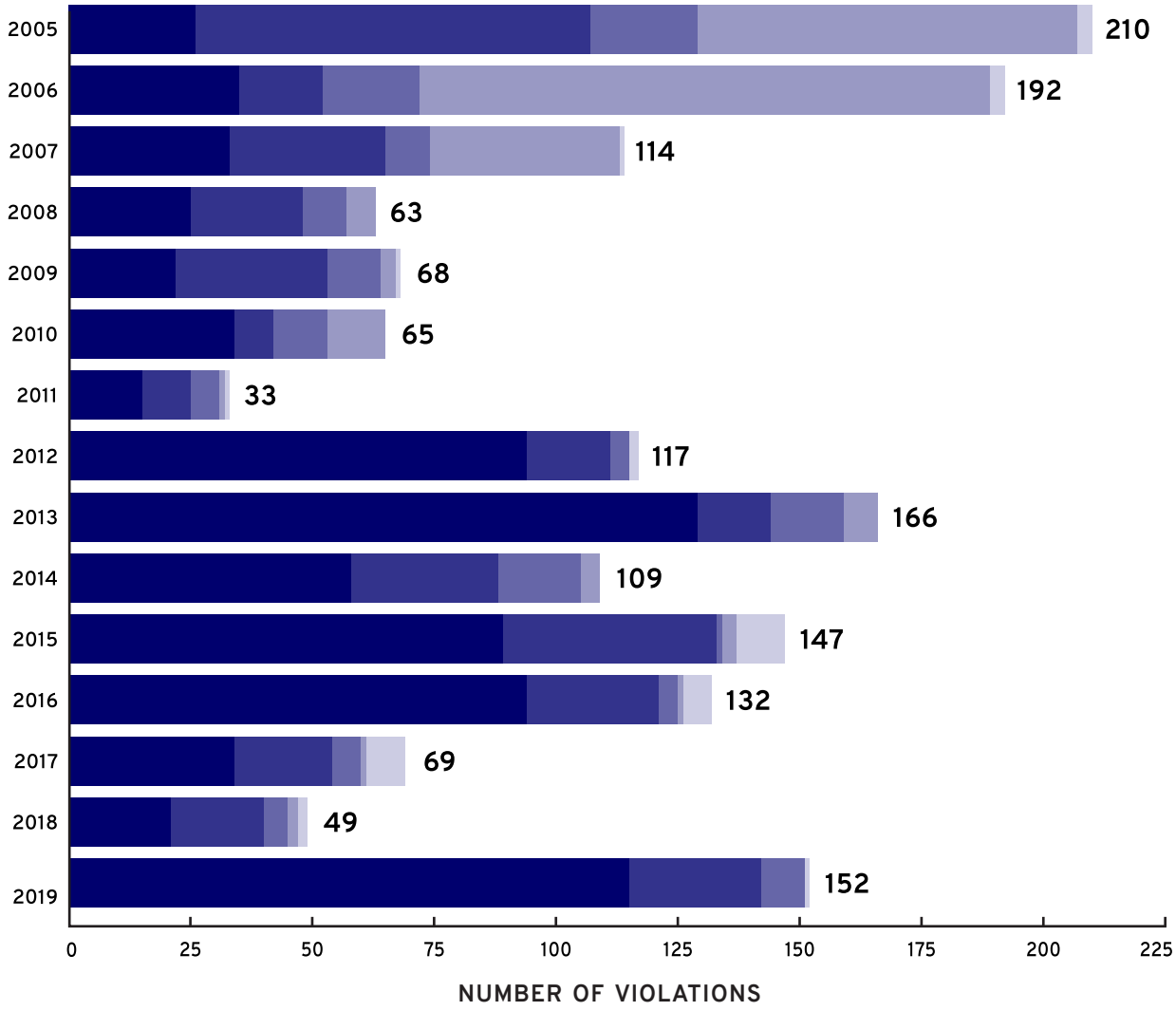
- #5 EMITTER OF NICKEL

Wheelabrator Gloucester

- #2 EMITTER OF POLYCYCLIC ORGANIC MATTER

While some of these emissions were allowed by the incinerators' air permits, many were not. Collectively, these incinerators violated their permits over 1,700 times since June 2004—sometimes with emissions two to eight times above permit limits.[8]

Total Air Permit Violations By Year, 2005–2019*



TOTAL VIOLATIONS BY FACILITY

ESSEX	CAMDEN	UNION	WARREN	GLOUCESTER
824	401	149	274	38

*Violations may be undercounted. Only includes data from New Jersey Department of Environmental Protection Dataminer website.

INCINERATORS HARM OVERBURDENED COMMUNITIES

In the United States...

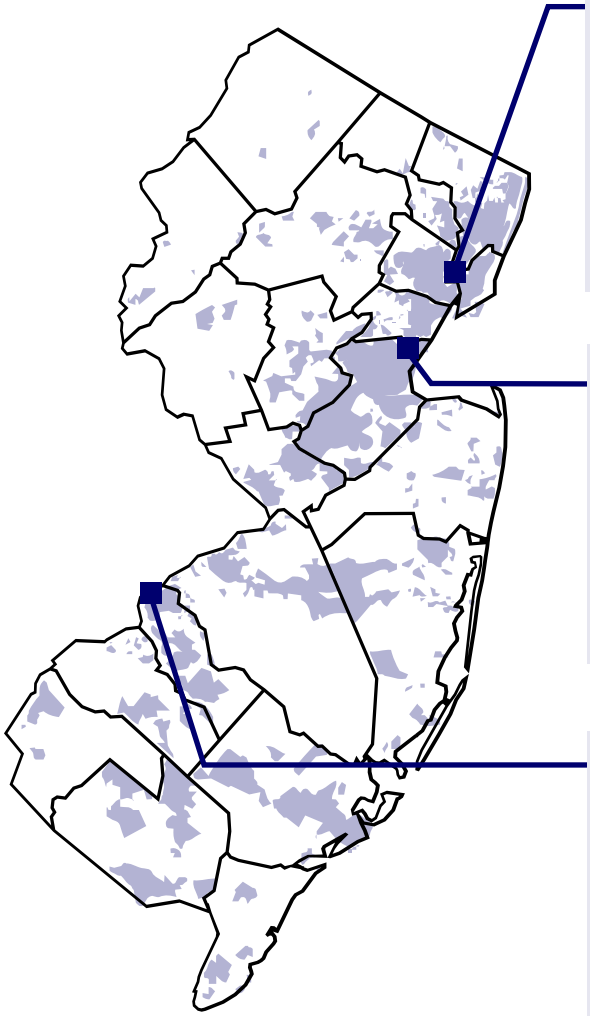
Environmental justice, systemic racism, and pollution collide at the sites of incinerators across the country. According to a recent report by the New School, 79% of all municipal solid waste incinerators in the United States are located in environmental justice communities—communities of color or low-income communities that often bear a disproportionate burden of environmental harms.[9] Between 67% and 83% of the twelve incinerators that emit the most nitrogen oxides, sulfur dioxide, lead, mercury, particulate matter, and carbon monoxide are located in environmental justice communities, depending on the pollutant.[10] Environmental justice communities suffer from many health burdens including elevated blood levels, asthma, preterm births, and increased cardiovascular disease related morbidity and mortality rates.[11]

Race is a significant predictor of living near a toxic facility.[12] This is not coincidental. While municipalities zoned suburban areas for single-family homes and commercial developments, urban or more densely populated areas retained industrial zoning requirements, leading to decreased land values.[13] Redlining policies that historically restricted access to home loans and mortgages segregated cities and caused divestment in communities of color.[14] This created industrial "hot spots" where the placement of one facility invited others. As the pattern persisted, low-income residents and residents of color were pushed to reside in marginal lands that were ultimately selected for industrial development.[15] Many of these neighborhoods became environmental justice communities, which suffer cumulative impacts from environmental hazards, unhealthy land uses and a lack of health, economic, or social benefits.

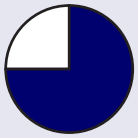
> **"Factories and superfunds polluting and dumping all kinds of things right down the street from low-income communities just shows how much they don't care. You don't see this happening at high-income communities, this shouldn't be happening next to any communities."**
>
> **—NYHEIM CARTER, youth organizer**

In New Jersey...

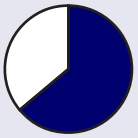
New Jersey's three largest incinerators are located in census blocks that New Jersey's recently enacted environmental justice law identifies as the equivalent of environmental justice communities (shown in blue below).[16] According to the U.S. Environmental Protection Agency, the communities located within one mile of these three incinerators have some of the highest environmental justice indicators in New Jersey.[17]



Covanta Essex (Newark, NJ):



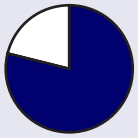
75% people of color



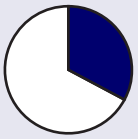
64% low-income

89-99 State EJ Index

Covanta Union (Rahway, NJ):



79% people of color



33% low-income

74-89 State EJ Index

Covanta Camden (Camden, NJ):

87% people of color

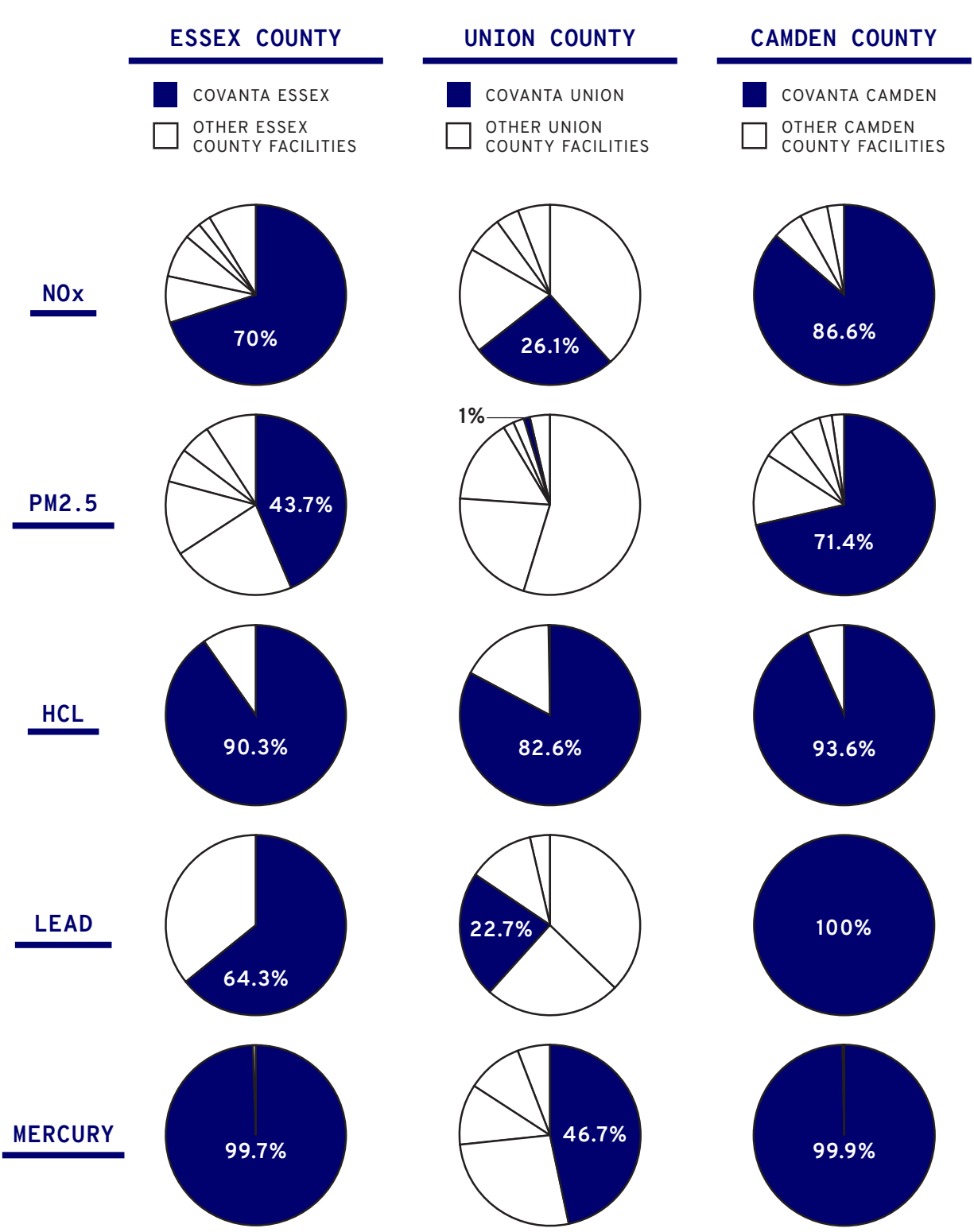
70% low-income

88-96 State EJ Index

All three of these incinerators are also within or adjacent to neighborhoods that the federal government redlined in the 1930's, a practice recognized as segregating cities and leading to divestment in communities of color and low-income communities.[18] Over half a million people live within three miles of one of these three incinerators. Incinerators in these environmental justice communities emitted more air pollutants than other nearby stationary sources in 2015-2018 as shown on the next page:

In New Jersey...

Emissions from Incinerators Compared to Other Stationary Sources in the Same County, 2015–2018



In addition, Covanta Essex and Covanta Camden, the two incinerators with the highest EJ indicators, are also the incinerators with the greatest number of permit violations since June 2004: over 800 for Covanta Essex, and over 400 for Covanta Camden.[19] These include emissions over 8 times higher than the permit limit, emissions associated with the unpermitted burning of iodine, and multiple years in which a single incinerator had over 100 violations.[20]

Waste incinerators are major emitters of pollutants like PM2.5 and NOx that, together with other socio-economic factors, make communities more susceptible to respiratory infections like COVID-19.[21] Black and Latinx residents in the United States have been three times as likely to become infected from COVID-19 as white residents.[22] Moreover, Black and Latinx people have been nearly twice as likely to die from the virus.[23] This pattern persists in New Jersey, where residents face cumulative impacts from multiple polluting sources, including incinerators such as those in Essex, Camden, and Union counties that are significant local contributors to PM2.5 and NOx emissions.[24] The communities that host incinerators in New Jersey have underlying public health vulnerabilities related specifically to COVID-19. A recent study found that COVID-19 was the #1 cause of death for Black, Latinx, and Asian people in New Jersey in 2020.[25] To date, Essex, Camden, and Union counties have reported some of the highest coronavirus death rates in the state.[26] Grounded in a history of exclusion and discrimination, incinerators in environmental justice communities contribute to existing public health risks on residents.

"As residents of the Ironbound for over 60 years, my family has suffered the devastating effects of pollution on the environment. We have endured lung cancer, breast cancer, colon cancer, and asthma—some of the most heinous of malignancies that have affected our loved ones. I stand against the development of any further incinerators or pollution causing chemical or manufacturing plants in the Ironbound. We deserve to breathe clean air!"

—IRIS ALVAREZ, community leader

INCINERATORS DON'T DESERVE CLEAN ENERGY SUBSIDIES

In the United States...

Many incinerators are money-losing businesses that rely on significant government subsidies to stay afloat—often at the expense of the financial stability of their host municipalities.[27] Incinerators are costlier to build and operate per unit of energy produced than almost any other electricity generation technology in the U.S.—more than solar, onshore wind, or distributed generation.[28] To make up for these high costs, incinerators often charge their host municipalities above-market tipping fees for waste disposal, often requiring payment whether or not waste is sent to the incinerator.[29] This has pushed cities like Detroit, Michigan and Harrisburg, Pennsylvania towards, or into, bankruptcy just to prop up their incinerators.[30]

Another way incinerators stay afloat is by syphoning subsidies intended for clean energy—while citizens foot the bill. Waste incinerators often use the heat energy created as a byproduct from burning trash to generate small amounts of electricity. Although the process pollutes and contributes to climate change, incinerators profit from that energy, calling it "renewable" for the purpose of State renewable energy laws like Renewable Portfolio Standard (RPS) programs. These RPS programs set renewable electricity goals and require utilities to source a certain portion of the electricity they sell from "renewable" sources, and can create powerful incentives to shift to truly clean energy.

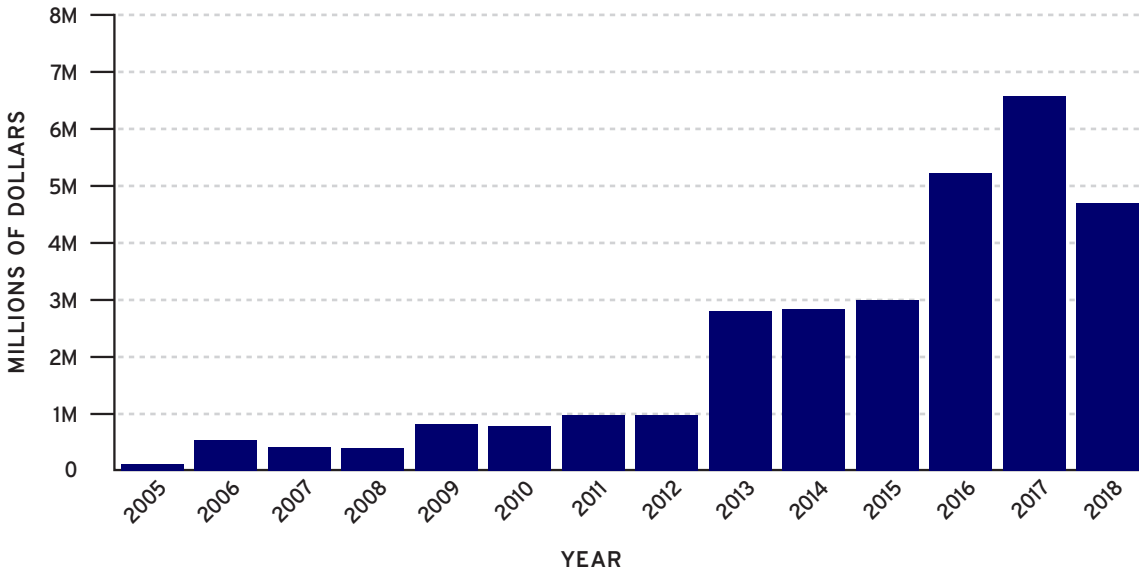
But about twenty-one States include waste incineration in these programs meant for "renewable" energy, even though waste incineration is neither clean nor renewable.[31] Such classification, promoted by the incineration industry, makes burning trash eligible for subsidies that should be going to true renewable energy projects like wind and solar instead. Not only are incinerators slowing our transition to renewables, they contribute to climate change as the most greenhouse gas-intensive source of electricity.[32] In 2018 alone, incinerators in the U.S. emitted 11 million tons of carbon dioxide.[33]

Solar and wind represent the cheapest, cleanest, and most productive forms of renewable energy.[34] Including incineration in legal definitions of renewable energy hampers investments in these cleaner, more equitable sources of local energy.

In New Jersey...

New Jersey is one of the States that allows incinerators to exploit the RPS program and obtain subsidies as "renewable" energy. While New Jersey law requires eligible waste incinerators to meet "the highest environmental standards" and minimize "any impacts to the environment and local communities" in order to get these subsidies, most New Jersey incinerators have never met these requirements and the State has not enforced the law.[35] All five of New Jersey's incinerators have violated their air pollution permits nearly every year since 2004.[36] Despite all of these violations, electric utilities have paid over $30 million in ratepayer money to New Jersey's incinerators under this program.[37]

Annual RPS Subsidies to NJ Incinerators



"What I think about the incinerator is I think it's not good for Newark because it's right in the city where everyone lives and it can affect people that have heart problems. I grew up living next to the incinerator every time I go outside I am smelling burning garbage. I would like to see a homeless shelter instead of the incinerator because there are a lot of homeless people in Newark and I feel bad."

—ANGELINA POZO, garden crew youth

INCINERATORS HAVE NO PART IN THE ZERO-WASTE SOCIETY WE NEED

In the United States...

Incinerators not only poison the air and harm the surrounding environment and community; they also block incentives to reduce waste because their business model depends on a consistent flow of trash to operate. But there is a better solution: zero waste, or the "conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health."[38]

WHAT IS ZERO WASTE?

The goal for zero waste is to replace economic systems that create immense amounts of waste with sustainable and resilient systems without the need for waste or pollution. Zero waste strategies like recycling can save three to five times more energy than burning materials.[39] The zero-waste hierarchy sets forth the following measures to help us accomplish this goal:

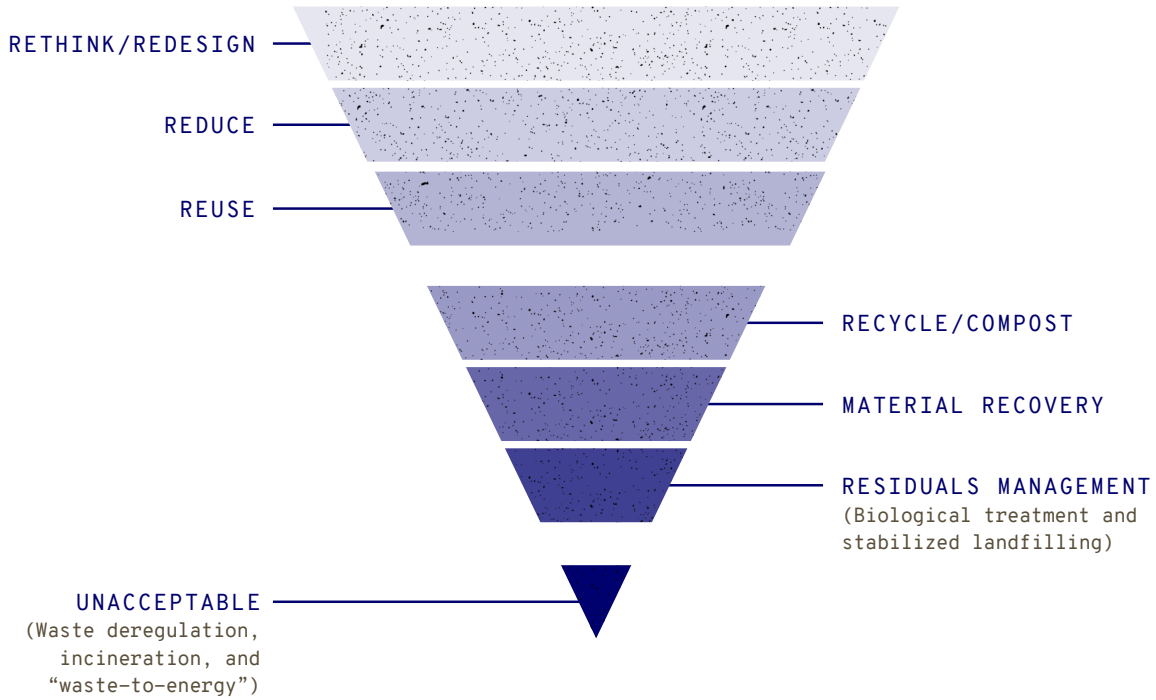
- **Rethink/Redesign** how we develop and design products and services in a way that creates less waste from the beginning. One way to incentivize this is extended producer responsibility, which makes producers responsible for the entire product lifecycle, including disposal;
- **Reduce** consumption of non-biodegradable products, such as plastic, by buying reusable grocery bags or jars for fruits, vegetables, nuts, etc., and reduce food waste by incorporating food recovery and food co-op programs to redistribute "waste" items from businesses to those who need them;
- **Reuse** household products such as clothing, furniture, etc. to reduce waste;[40]
- **Recycle** all recyclable materials through a mandatory municipal recycling program instead of throwing them into the trash. If public dumpsters are available, ensure that public recycling bins are also made available;

- **Compost** by putting organic materials back into the soil to provide nutrients, reduce waste and greenhouse gas emissions, and increase infiltration of rainwater;
- **Recover** materials through processes that separate used materials, such as metals, to be reintegrated into new products; and
- **Manage** residuals to place them back into the natural environment in a sustainable and non-polluting way, taking environmental and health factors into account.

Many cities have been successful in reducing waste through these zero-waste strategies. San Francisco, for example, diverts 80% of its waste from the landfill through a municipal law that requires the separate disposal of recyclables, organic waste for composting, and landfill items—the city collects 650 tons of organic waste per day for composting.[41] Baltimore has adopted a comprehensive zero-waste plan that aims to divert 90% of its waste from landfills and incineration.[42] And in New Jersey, in just two years, Jersey City's program of compost drop-off locations and food-scrap buckets has collected over 50,000 pounds of organic waste to fertilize home gardens, parks, and community gardens across the city.[43]

New York City is demonstrating how composting should be done at a local scale, e.g., within 1-5 miles of where disposed. Community composters in NYC,

The Zero Waste Hierarchy



such as Big Reuse and Lower East Side Ecology Center, as well as micro-haulers that employ people of marginalized identities, such as BK Rot and Common Ground Compost, are providing New Yorkers with the knowledge and skills to produce and use compost locally.[44]

Studies show that zero-waste solutions are job creators: on a per-ton basis, composting creates 4 times more jobs, recycling creates 10–25 times more jobs, and material reuse can create up to 296 times more jobs than landfilling or incineration.[45] A recent study estimates that deployment of these zero-waste principles could create over 11,000 jobs in New York City by 2030.[46]

We must shift the paradigm from unjustly exporting waste to environmentally overburdened communities to instead implement local-scale zero-waste strategies that reduce the adverse effects of waste incineration. By rethinking, reducing, and reusing the products we create, we can minimize waste and successfully reintegrate resources that would otherwise be disposed of back into the environment in a healthy and managed way. We can also mitigate the significant adverse impacts on human health, equity, and the environment that arise from sending trash to incinerators.

> "We are spiritual beings having a human experience. The land that we are on is on borrowed time. We need to be reminded we are stewards of the earth and we are here to protect and nourish the land and not pollute it."
>
> —TANISHA GARNER, community leader

Down Bottom Farms community garden in Newark.

POLICY RECOMMENDATIONS FOR NEW JERSEY

Newark children demand clean air instead of pollution from local incinerators.

- End subsidies for waste incineration, such as by removing incineration from Renewable Portfolio Standards or other programs intended to benefit clean, renewable energy instead of polluting incinerators;
- Do not permit the construction of any new incinerators or any expansion of existing incinerators;
- Require the best available continuous monitoring and control technologies for all pollutants at existing incinerators, and fully enforce all environmental laws and permit conditions that apply to incinerators;
- Ban the incineration or landfilling of organic materials and unprocessed construction and demolition (C&D) materials;
- Close and decommission all existing incineration facilities by 2030, and require incinerator companies to provide sufficient financial assurances for remediation programs;
- In accordance with community input and consent, mandate and incentivize waste reduction, composting, organics collection, and recycling programs, prioritizing incentives for overburdened communities and historically disadvantaged peoples; and
- Ensure social safety nets, health care, wage and benefits guarantees, retraining, and priority job placement for workers in transition; create new union jobs for cleanup and restoration of polluted sites; and build infrastructure for cities to transition from incineration to zero waste.

To stay in the loop about how you can help stop the burn and move New Jersey to a zero waste future, visit www.ironboundjustice.org.

ENDNOTES

1 Comments of N.Y. State Dep't of Env't Conservation, *In the Matter of the Application of Covanta Energy Corporation for Inclusion of Energy from Waste Facilities as an Eligible Technology in the Main Tier of the Renewable Portfolio Standard Program* at 3–7, App. A fig. 3, 6 ("NYSDEC Comments"), Case No. 03- E- 0188, (Aug. 19, 2011), https://waterfrontonline.files.wordpress.com/2017/12/deccommentsoncovantaaugust2011.pdf; Comments of Attorney General Eric T. Schneiderman, *In the Matter of the Application of Covanta Energy Corporation for Modification of the List of Eligible Resources Included in the New York Main Tier of New York's Renewable Portfolio Standard Program to Include Energy From Waste (ETW) Technology* at 10– 16, Case No. 03- E- 0188SP29 (Aug. 19, 2011), http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BC16488AD-4FB5-477B-95A9-6C7797FC7EFD%7D; Environmental Integrity Project, *Waste-To-Energy: Dirtying Maryland's Air by Seeking a Quick Fix on Renewable Energy?* at 3– 9 (Oct. 2011), https://web.archive.org/web/20131217055632/http://www.environmentalintegrity.org/documents/FINALWTEINCINERATORREPORT-101111.pdf; Neil Tangri, *Waste Incinerators Undermine Clean Energy Goals*, Global Alliance for Incinerator Alternatives, 5 (2021), https://doi.org/10.31223/X5VK5X.

2 Ana Isabel Baptista & Adrienne Perovich, *U.S. Municipal Solid Waste Incinerators: An Industry in Decline* at 37– 38, Tishman Env't and Design Ctr. (May 2019), https://static1.squarespace.com/static/5d14dab43967cc000179f3d2/t/5d5c4bea0d59ad00012d220e/1566329840732/CR_GaiaReportFinal_05.21.pdf.

3 Global Alliance for Incinerator Alternatives, *Pollution and Health Impacts of Waste-to-Energy Incineration*, https://www.no-burn.org/wp-content/uploads/Pollution-Health_final-Nov-14-2019.pdf.

4 National Research Council, Waste Incineration and Public Health at 53–55, 64–65, Nat'l Academies Press (2000), https://www.nap.edu/catalog/5803/waste-incineration-and-public-health.

5 *Id.*

6 Xiaofei Sun et al., A review on the Management of Municipal Solid Waste Fly Ash in American, Procedia Environmental Sciences 31, 535 (2016), https://core.ac.uk/download/pdf/82422979.pdf.

7 Jean-François Viel et al., *Soft-tissue Sarcoma and Non-Hodgkin's Lymphoma Clusters Around a Municipal Solid Waste Incinerator with High Dioxin Emission Levels*, 152 Am. J. Epidemiology 13–19 (2000), https://pubmed.ncbi.nlm.nih.gov/10901325/; Silvia Candela et al., *Air Pollution from Incinerators and Reproductive Outcomes: A Multisite Study*, 24 Epidemiology 863–70 (2013), https://pubmed.ncbi.nlm.nih.gov/24076993/; Silvia Candela et al., *Exposure to Emissions from Municipal Solid Waste Incinerators and Miscarriages: A Multisite Study of the MONITER Project*, 78 Environ. Int. 51–60 (2015), https://pubmed.ncbi.nlm.nih.gov/25765761/; Yoshihiro Miyake et al., *Relationship Between Distance of Schools from the Nearest Municipal Waste Incineration Plant and Child Health in Japan*, 20 European J. Epidemiology 1023–29 (2005), https://pubmed.ncbi.nlm.nih.gov/16331434/; Baptista & Perovich *supra* note 2 at 37.

8 *See* Letter from Ironbound Community Corporation et al. to New Jersey Dep't of Env'tl. Prot.ection et al. (Apr. 30, 2020), Attachment 3 (updated Sept. 28, 2020), https://earthjustice.org/sites/default/files/files/2020-04-30_icc_njeja_letter_bpu_dep.pdf.

9 Baptista & Perovich *supra* note 2 at 15.

10 *Id.* at App. E.

11 *Id.* at 34.

12 *Toxic Wastes and Race in the United States*, United Church of Christ Comm'n for Racial Just. (1987).

13 Baptista & Perovich *supra* note 2 at 13.

14 *Id.* at 14.

15 *Id.*

16 N.J. Stat. Ann. § 13:1D-158 (defining "overburdened community" as "any census block group, as determined in accordance with the most recent United States Census, in which: (1) at least 35 percent of the households qualify as low-income households; (2) at least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or (3) at least 40 percent of the households have limited English proficiency." Since no pollution indicator is included in this definition, environmental justice advocates would most likely identify these as environmental justice communities, rather than overburdened communities.

17 *See* https://www.epa.gov/ejscreen.

18 *See* https://dsl.richmond.edu/socialvulnerability/map/#loc=13/40.745/-74.158&city=essex-co.-nj&tract=34013007300 (Covanta Essex); https://dsl.richmond.edu/socialvulnerability/map/#loc=13/39.91/-75.117&city=camden-nj&tract=34007611000 (Covanta Camden); https://dsl.richmond.edu/socialvulnerability/map/#loc=14/40.612/-74.268&city=union-co.-nj&tract=34039036000 (Covanta Union).

19 *See supra* note 8 at Attachment 3.

20 *Id.*

21 *See* Xiao Wu et al., *Air Pollution and COVID-19 Mortality in the United States: Strengths and Limitations of an Ecological Regression Analysis*, 6 Sci. Advances eabd4049 (2020), https://advances.sciencemag.org/content/6/45/eabd4049 ("an increase of 1 μg/m3 in the long-term average PM2.5 is associated with a statistically significant 11% (95% CI, 6 to 17%) increase in the county's COVID-19 mortality rate."); *see also* Yaron Ogen, *Assessing Nitrogen Dioxide (NO2) Levels as a Contributing Factor to Coronavirus (COVID-19) Fatality*, 726 Sci. Total Env't Article No. 138605 (2020), https://www.sciencedirect.com/science/article/pii/S0048969720321215.

22 Richard A. Oppel Jr. et al., *The Fullest Look Yet at the Racial Inequity of Coronavirus*, N.Y. Times (July 5, 2020), https://www.nytimes.com/interactive/2020/07/05/us/coronavirus-latinos-african-americans-cdc-data.html.

23 *Id.*

24 Ana Baptista, *Op-Ed: Coronavirus Crisis Demands Environmental-Justice Response*, NJ Spotlight (May 19, 2020), https://www.njspotlight.com/2020/05/op-ed-coronavirus-crisis-demands-environmental-justice-response/.

25 Colleen O'Dea, "New figures show how deadly COVID-19 is for Blacks, Hispanics, Asians in NJ," N.J. Spotlight (Feb. 1, 2021), https://www.njspotlight.com/2021/02/covid-19-death-rates-minorities-communities-of-color-black-hispanic-asian.

26 *New Jersey Covid Map and Case Count*, N.Y. Times (Feb. 10, 2021), https://www.nytimes.com/interactive/2020/us/new-jersey-coronavirus-cases.html#county (reporting that as of February 10, 2021, Essex County had 322 deaths per 100,000, Union had 306, and Camden County had 210).

27 *See supra* note 2 at 19-22.

28 U.S. Energy Info. Admin., *Cost & Performance Characteristics of New Generating Technologies, Annual Energy Outlook 2020*, at tbl.8.2 (2020), http://www.eia.gov/forecasts/aeo/assumptions/pdf/table_8.2.pdf (estimating capital costs per kW generated from burning biomass to be double that of solar, onshore wind, or distributed generation, while fixed operations and maintenance costs are up to six times greater than these other energy sources)); *see also Waste Incinerators Undermine Clean Energy Goals*, *supra* note 1.

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30 *Id.* at 13, 28–29.

31 Food & Water Watch, *Cleanwashing: How States Count Polluting Energy Sources as Renewable*, 13, tbl. 2 (2018), https://www.foodandwaterwatch.org/sites/default/files/rpt_1807_rpsnationalscores-web4.pdf.

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35 N.J. Stat. Ann § 48:3-51 (2013) (definition of "Class II renewable energy").

36 *See supra* note 8.

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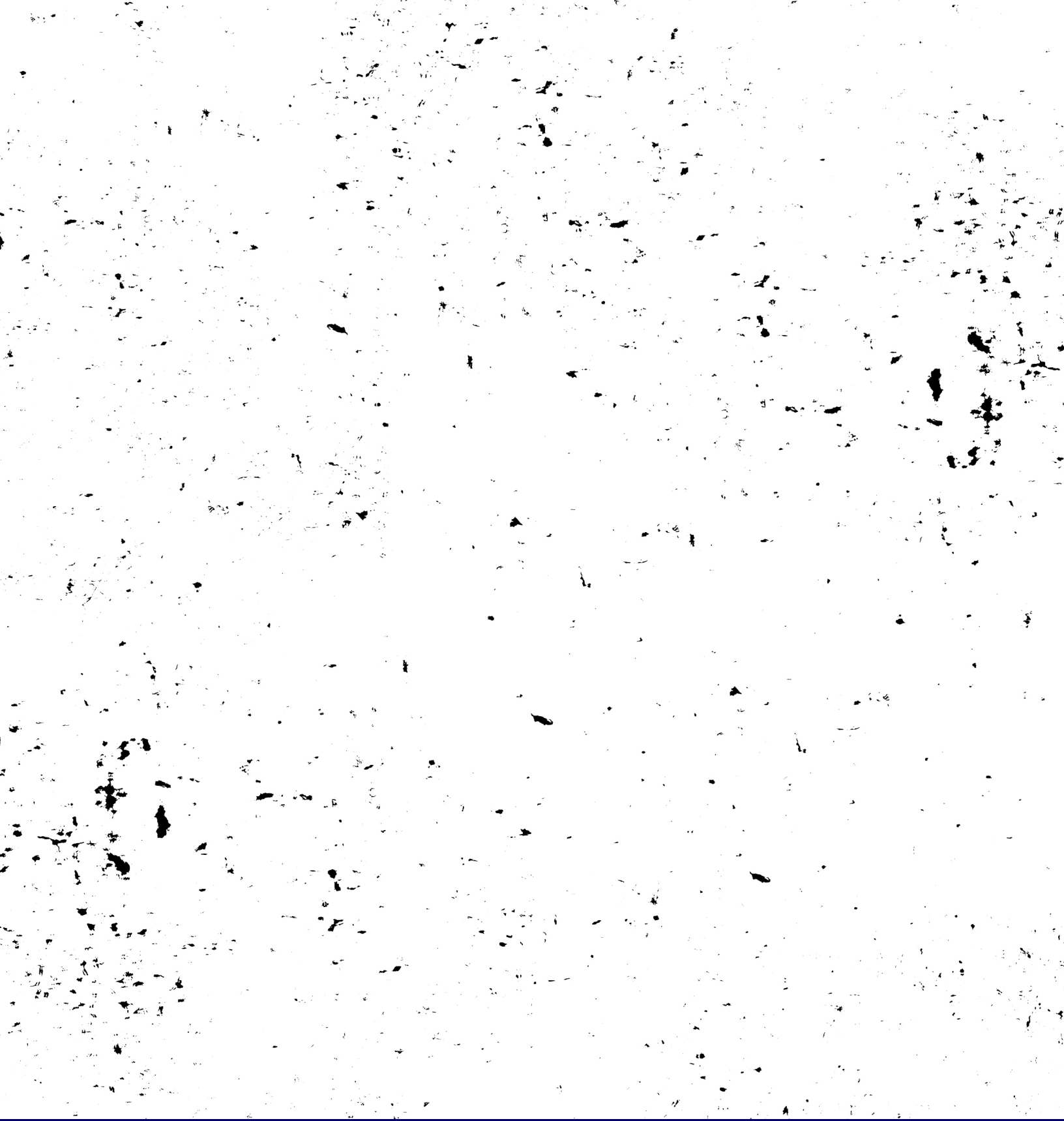

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