"An Environmental Sleight of Hand:" Trash, Activism, and Urban Finance in Detroit, 1970-1990

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LOYOLA UNIVERSITY

“AN ENVIRONMENTAL SLEIGHT OF HAND:”
TRASH, ACTIVISM, AND URBAN FINANCE IN DETROIT, 1970-1990

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN HISTORY

BY
CHELSEA DENAULT
CHICAGO, IL
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As with any dissertation, there were many people who were essential in helping to turn this project from a metaphorical trash fire to an engaging narrative about a very large trash fire.

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For my Grandmother, Nancy, who once told me, if she had had the chance, she would have been a historian too.
Take a walk to Cass and Ferry. Sit on the grass, lean against a tree. Know that the grass and tree give off oxygen. Now look east. You won’t have to look hard. It is the massive structure looming at the corner of Ferry and Russell, just a few blocks away. That’s the incinerator, the beast, the dragon. Look at the tree; effortlessly, it gives….look at the incinerator; deliberately, it takes.

– “The dragon,” *North Cass Community Union Newsletter*
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INTRODUCTION

This project began where most good ideas do, at the breakfast table.

Over the weekend standard of scrambled eggs, potatoes, toast, coffee, and a Detroit Free Press, I came across an article about business owners and residents in Detroit's Midtown neighborhood who complained of a bad smell. It came, the paper said, from the city's incinerator just across the expressway from the rapidly-gentrifying neighborhood. The putrid scent it sent downwind into Midtown made shoppers' stomach turn as they browsed new boutiques in the neighborhood. Condo owners in the recently renovated Willy’s Overland Lofts complained that they couldn't even open their windows in the summertime.

As a historian, I was troubled by the way these complaints were decontextualized from the area's deeper history: Midtown, which for decades had been known as the Cass Corridor, had a long and celebrated history as the center of Detroit's cultural scene. As a result, I wondered, why is this news now? What changed?

What drove my continued curiosity in this story was my interest in issues of urban inequality. I grew up in a suburb north of Detroit during the 1990s and 2000s when headlines about the city seemed only interested in emphasizing Detroit’s problems. One of my first memories of the city was news coverage about Devil's Night, the eve of Halloween ritual in which Detroiters burned down abandoned homes in their neighborhoods. Although considered by Detroiters as a way to act out their continued frustration with a city government who had apparently abandoned them and an economic system that did not value black and brown people,
the events of Devil's Night were framed by suburbanites as lawless destruction, even "Look what those people are doing to the city."¹ Yet as time went on, I was increasingly confused with the divide between city and suburb. I had no good explanation for the unspoken trauma that lay at the center of that spatial and mental relationship. As I grew up, I visited the city often with my father and was struck with the beauty of the city, its architecture, and public spaces. As an undergraduate, I learned more about Detroit and its struggles, both from my coursework and from residents themselves. Yet the 2008 financial crisis brought sweeping change to Detroit. In the wake of economic fallout, middle-class and predominantly white entrepreneurs began to buy cheap property in the city. Artists, restaurants, and new boutiques moved into storefronts in Midtown, Eastern Market, and Corktown. Yet beyond the downtown core and its nearest neighborhoods, average Detroiters weren’t seeing any of the revitalization and renaissance that characterized media coverage about Detroit in the 2010s. Detroit’s growing economic disparity in the twenty-first century ultimately motivated and sustained my work to tell this story of corporate power and environmental injustice.

This project examines the planning and construction of the Greater Detroit Resource Recovery Authority trash incinerator in the heart of downtown Detroit in the 1970s and 1980s, and the opposition that grew against the facility after it became public knowledge. In setting out to answer questions about urban inequality as they played out in the saga of the Detroit incinerator, I found a story that was equal parts inspiring and tragic, one where at multiple points government actors and activists both could have pursued alternative choices that would have been better for city finances, for the environment, and for public health. There are few actual

¹ Ze’ev Chafets, Devil’s Night and Other True Tales of Detroit, (New York City: Knopf, 1990), 1-3.
villains in this story and more the critique of a system of corporate power that infiltrated and influenced urban governance from many sides. Yet there are also many lessons to be drawn from this story, especially in how citizens can hold their local governments accountable in the face of growing economic disparity and an ever-worsening climate crisis.

In this dissertation, I contend that the political and economic realities of the urban crisis combined with the rise of new environmental issues – largely the result of increased postwar consumerism and capital production – to convince Detroit officials that pursuing an expensive, yet unproven technology promoted by the federal government and private corporations in order to solve its garbage crisis at the expense of their responsibility to city residents. Detroit’s economic stresses created a situation in which municipal officials pursued fiscal policies that ultimately prioritized "responsible" financial choices over residents and their needs. The limited options available to Detroit to raise revenue beyond the bond market meant that the city’s survival became totally sublimated within its financial status and credit rating, so that officials in city government were more concerned with the economic frameworks that allowed the city to keep functioning, however just, than residents’ well-being. Yet these financial relationships and their binding legal implications had the effect of restricting city officials’ ability to broker compromise with residents. Whereas citizen activists previously wielded notable power to hold their local officials accountable through protest, litigation, and public hearings, the new financial arrangements that cities like Detroit needed to participate in in order to survive in the wake of federal disinvestment in cities and federally-subsidized suburbanization ultimately obliged cities to banks, ratings agencies, and bond investors first.
The environmental implications of this story only deepen the tragedy. The economic impact of the urban crisis on Detroit forced the city to rely on the limited resources that it had and to pursue creative strategies to use those resources. In this context, the logic of turning household waste into a valuable and scarce commodity – energy – was extremely powerful. Rather than spend money to collect, transport, and dispose of it in a landfill forty miles away where it would ultimately sit and rot for years, Detroit could collect its trash, transport it one-tenth of the distance to a resource recovery plant where it would be burned to create steam and electric power the city could use in its downtown buildings and even sell back to the local electric utility, Detroit Edison. In this way, resource recovery seemed to present Detroit a way to use its own plentiful resources to generate a valuable product within its own boundaries, saving money in multiple ways. Yet city officials pursued the project with little technological expertise themselves, forcing them to rely on contractors and consultants who, for the most part, lacked good data about incineration's real effects on public health and whose vested interest was not in interrogating the process's environmental impact any further than they were required by federal and local laws. Ultimately, Detroit officials chose to build the world's largest incinerator in the middle of downtown because there was a strong logic from private industry, federal officials, and other cities that suggested doing so was the best decision for the long-term stability of the city.

In these ways, Detroit’s experience with resource recovery was not unique. Many other cities, including Chicago, Baltimore, Miami, Milwaukee, Honolulu, and Hartford, also built large resource recovery systems to dispose of their municipal waste. Many of these systems, too, encountered challenges. Some failed magnificently and were forced to close. Others are still in operation. Viewed in this context, Detroit’s resource recovery plant is actually one of the great
successes of the national experiment in resource recovery that swept through the 1970s and 1980s. But Detroit’s experience is notable for two reasons. First, with a capacity of 3,000 tons of waste per day, the Detroit facility was the largest in the United States. Second, no city was more deeply impacted by the economic constraints of the urban crisis than Detroit. The massive costs, then, associated with building a resource recovery plant - over $500 million in Detroit’s case - stressed the Detroit’s finances more than other cities. The Detroit story is important for both its similarities with other cities and its extremes. While they chose a path that was walked by many other cities across the county, Detroit officials chose to build the largest plant in the most financially troubled city in the nation, and it therefore tells a unique and revealing story about urban finance and environmental issues during a key moment of change.

This story draws upon multiple lines of historical inquiry, primarily the urban crisis, environmental injustice, science and technology, and the history of capitalism.

**Urban Crisis**

Urban history locates its origins in the urban crisis and changing cities of the 1960s and 1970s. Following mass suburbanization at the end of World War II and the resultant “white flight” as thousands of middle-class whites across America migrated out of the city, social scientists and historians began to search for the historical origins of the nation's urban problems. As the relationship between people and metropolitan space shifted from urban-centered to more decentralized, the character and the physical space of the city underwent significant changes as well. Once seen as the center for thriving industry and a collectivistic, heterogeneous society, the
city began to be characterized by the urban crisis, or “concentrated poverty, physical decay, and racial isolation.”

Thomas Sugrue sought the causes of the “urban crisis” in Detroit’s white neighborhoods, focusing on housing and employment as the main sources of contestation between whites and blacks in the 1950s and 1960s. As slumping urban housing markets opened new neighborhoods in the city to middle-class African American families, Detroit’s whites reacted to the economic and racial transformation of the city by fashioning a defensive local politics focused on threats to property and neighborhoods by blacks and their liberal allies articulated through a rhetoric of property values and homeowners’ rights. Eventually, those whites who could relocated out to the suburbs. It is within this context that the various actors I examine operated. Their perceptions of change and crisis as a result of disinvestment and decentralization had very real impacts on their actions and words; while some responded to change defensively, other residents, particularly African Americans, perceived opportunity in the restructuring of urban relationships. In working to combat their city’s perceived problems, Robert Self asserted that black power politics in Oakland had limited success in enacting the social vision they articulated because they ultimately could not command the same economic and political resources as their suburban neighbors, thus reinforcing the “urban crisis” narrative. The competition and cooperation is a central theme of this story as Detroit was forced to prioritize what to do with its limited resources.

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Yet the urban crisis was not simply a demographic trend confined to the physical city, but a moral and intellectual crisis that followed suburban migrants out of the city. Examining the Jewish community in Detroit, Lila Berman found answers to the intellectual urban crisis in a reimagined politics. The intellectual rearrangement of the community’s relationship to the city helped to organize the spatial changes they experienced following white flight.\(^5\) Likewise, my dissertation seeks to understand how different groups in Detroit employed a diverse set of strategies – political, economic, and social – to cope with perceptions of urban crisis. Yet such tactics did not occur over quite the same broad decentralized space, but in the concentrated downtown core thus encouraging more ferocious and rancorous conflict between the various stakeholders and presenting a new perspective from which to view the urban crisis on the ground.\(^6\)

**Urban Planning, Urban Renewal, and Development Politics**

Urban renewal serves as a central component of postwar urban historiography. The background of the construction of the GDRRA has implications in this narrative. The facility was constructed near a neighborhood that had already been severely impacted by the construction of the General Motors Detroit/Hamtramck Assembly or “Poletown Plant,” which

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displaced 4,200 people and destroyed 1,300 homes, 140 businesses, six churches and one hospital in 1981. The remaining racially diverse, working class neighborhood was driven out by the smell and noise associated with the plant until the 1990s.

Foundational works on the topic and much more recent trends inform this dissertation. In his depictions of urban renewal in Chicago’s Loop and Hyde Park areas in the 1950s, Arnold Hirsch outlines the ways that pro-growth institutions manipulated federal and municipal urban policy as a means to ward off decentralization and boost returns on investment. Self, while echoing some of Hirsch’s conclusions about the strength of institutional forces over the urban landscape – especially as it relates to black residents’ lives and spaces – sought to bring more agency into the story of urban renewal by emphasizing black activism and the resultant rise of black power politics against a growth liberalism coalition that sought the solutions of the urban crisis in large-scale public works projects and economic development. Yet this coalition, as in Hirsch’s conclusions, more often than not overpowered black activism, dispersing dislocated residents into other neighborhoods and creating barriers to successful community-based activism. This dissertation similarly emphasizes the competition caused by urban renewal as different segments of the urban community – divided by race, class, and space – worked towards dissimilar goals to ultimately achieve their different cultural visions of the city.

In his work on Camden, New Jersey, Howard Gillette Jr. emphasized the implications of past policy and economic choices on individuals of the present, a method that I also espouse. Exploring the impact of the urban crisis on Camden, New Jersey, Gillette argued that the city’s

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efforts at regional political cooperation as a means to gain some political or economic advantage for the city following federal disinvestment often meant ceding to the visions of state and county lawmakers, as well as corporations, rather than improving the lot of residents. This was most apparent in the creation of large-scale urban renewal projects concentrated on the waterfront and in the downtown core and focused on the perceived needs of middle class residents and suburban visitors rather than improving the majority of residents’ access to housing, education, and environmental protection. Such projects are similarly the focus of this dissertation, yet the Detroit incinerator was an infrastructure improvement that did not serve to bring suburbanites into the city. This dissertation emphasizes the competition between urban actors for power and resources as well as urban-suburban conflict during the urban crisis.

**Pollution and Environmentalism**

Environmental history has been a powerful force in the field in its ability to cross historiographical or disciplinary boundaries to reveal deeper connections across class, race, and space. Andrew Hurley determined that evidence of systemic racism could be found on the very landscape itself. Examining the industrial city of Gary, Indiana, Hurley argued that divisions of race and class exploited by the power of private capital were instrumental in creating patterns of environmental inequality in the physical urban landscape in the postwar period. Hurley’s conclusions were echoed both by Ellen Stroud’s examination of race and land use in Portland, Oregon and Julie Sze’s analysis of pollution and urban politics in New York City’s minority

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neighborhoods. These works served to deepen an already well-documented historical record of American racism, showing that notions of inferiority and otherness were inscribed on to the physical landscape. Yet these works take urban historians’ assertions of systemic racism even further, demonstrating that such racism goes deeper than institutions or policies to imbue urban space itself, in some ways making inferiority and segregation appear more “naturalized.”

The narrative of the Greater Detroit Resource Recovery Authority tells a story of community organizing and coalition building around environmental justice in Detroit. The health risks associated with the incinerator drove a number of Detroiter and surrounding metropolitan residents to protest against the facility throughout the 1980s, and continuing even today. The inability of the anti-incinerator coalition to halt construction through either political or legal means has the potential to add to narratives and analysis surrounding what makes successful or unsuccessful community movements and coalition-building.

Scholars who examine activism during and after the crystallization of the environmentalist movement tend to adopt a sociological approach, emphasizing environmental justice and community action and behavior without addressing questions of change over time. Barbara Allen and Robert Bullard were some of the first sociologists to address issues of grassroots environmental activism in their examinations of anti-pollution organizing in the Chemical Corridor of Louisiana. Similarly, David Pellow, Elizabeth Blum, and Julie Sze investigated environmental organizing in cities, focusing on coalition-building and the means by

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which groups attain political leverage to achieve their goals. My dissertation will also be guided by notions of environmental racism and social justice and will emphasize the actions of community members in their efforts to organize against the GDRRA. Yet this dissertation will look beyond the activism of the community to contextualize their concerns about pollution in broader postwar trends affecting the city, including the fracturing of the Democratic political coalition, metropolitan decentralization, and urban disinvestment.

More recently, historians have brought their methods to explore environmental activism. Scott Hamilton Dewey’s work regarding air pollution in metropolitan New York and Los Angeles and, especially, David and Richard Stradling’s examination of anti-pollution organizing in Cleveland are excellent examples of such historical work on local anti-pollution activism. The Stradlings’ work particularly seeks to unite a literature of the urban crisis with environmental history, arguing that both the actual (i.e. pollution) and perceived (relating deterioration and disease in “pathologizing slums”) decline of Cleveland was directly related to its environmental degradation. This dissertation also seeks to unite an environmental history of environmentalism with the urban crisis, yet in a setting more directly associated with the urban crisis historiographically and culturally, asserting my work’s importance in expanding that narrative to include a new environment-centered perspective.

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14 Other important work on environmental inequality include Barbara Allen, Uneasy Alchemy: Citizens and Experts in Louisiana’s Chemical Corridor Disputes (Cambridge, MA: MIT Press, 2003), Elizabeth Blum, Love Canal Revisited: Race, Class, and Gender in Environmental Activism (Lawrence, KS: University of Kansas Press, 2008), Robert Bullard, Dumping in Dixie: Race, Class, and Environmental Quality (Boulder, CO: Westview Press, 1990),
Science and Technology

Environmental historians have challenged the foundations of modernization, arguing that science and knowledge are also prone to the influence of cultural norms and expectations. Kate Brown argued that plutonium production facilities were linked through consumption, technology, and human bodies, as government controlled how people, knowledge, and radioactive discharge moved through space, while simultaneously providing the means to high levels of consumption and middle class status. Yet even as residents of plutonium towns achieved their new status, they did so only by placing unquestioning faith in American technological and scientific progress to keep their bodies, families, and communities safe from the dangers of working with radioactive isotopes. “As plutopia matured,” Brown explained, “residents gave up their civil and biological rights for consumer rights.” In my dissertation, city officials also failed to adequately question the impact incineration would have on residents’ bodies, instead relying on their convictions that the high-tech practice was as safe and efficient as industry scientists suggested.

Environmental historians have also illustrated the links between human bodies and medical advances. Tracing the use of diethylstilbestrol (DES) and other endocrine disrupting chemicals in foods and medication during the postwar era, Nancy Langston suggested that scientific inquiry into the effects of DES on humans, especially women, were heavily influenced

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by both economic needs and gender norms. Likewise, Gregg Mittman challenged scientific, standardized notions of disease, contending that definitions of allergies and hay fever were culturally formed by class and place, and that allergies, in turn, shaped economic development, attitudes towards land use, and the daily lives of Americans over the past 150 years. Mittman’s emphasis on environment in shaping cultural constructions of disease deepened historians’ understandings of the dialectic between culture and science. In this story, I am similarly interested in understanding the cultural dimensions of activists’ and scientists’ contentions regarding public health, risk, and illness.¹⁷

Chapter 1 examines the growing garbage crisis across the nation. As American prosperity grew following World War II and the "purchaser as citizen" ideal, as defined by Lizabeth Cohen, emerged, Americans purchased more goods and created more waste than ever before. Landfill operators struggled to keep up with the constant flow of castoffs and trash and the lifespans of their facilities started to shrink exponentially. Some landfills closed completely. As available space decreased, prices to dispose of waste increased dramatically. Meanwhile, continuing suburban sprawl made siting new landfills increasingly challenging as available open land was claimed for new housing developments. The economic problems associated with the urban crisis made the garbage crisis particular difficult for cities. Municipal officials, in Detroit and elsewhere, searched for creative and cost-effective solutions to the dual crises they faced, including incineration technology. New incinerators, often called "resource recovery" plants offered cities a way to turn the problem of waste into a useful commodity that also created

Chapter 2 extends the arguments cities were making in favor of resource recovery as the energy crisis gripped America. The constriction of national energy resources provided cities with another compelling reason to investigate Research and development of resource recovery was also undergirded by the Environmental Protection Agency, which characterized the method as "the technology of choice" for municipal waste disposal. As part of its campaign towards energy independence, the federal government prioritized the development of resource recovery for its ability to turn cheap and plentiful waste into electricity using technology that was readily available and could easily be connected into existing power systems. Despite their relative insulation from the worst impacts of the energy crisis, Detroit officials were enticed by the opportunity to transition their energy production from the coal- and oil-fired Mistersky Power Plant, which had long been a source of contention between the city and the Wayne County Air Pollution Commission, to a high-tech resource recovery plant. Resource recovery then offered Detroit the opportunity to free itself from monthly coal and oil expenditures and create all of the energy it needed from a material it already had.

Yet the path towards resource recovery would not be as simple as city officials may have hoped. In Chapter 3, I explore the growth of the national resource recovery industry and the difficulties city officials faced by the lack of their own technological expertise, which forced them to rely heavily on financial and environmental consultants from private industry as they worked to choose a contractor to construct their facility. Yet once they selected Combustion
Engineering, a powerful and well-funded firm that had no experience building a resource recovery plant, Detroit's fiscal woes weighed heavily on the project, even threatening to derail it completely. The state of Michigan's tax revolt, made law by the Headlee Amendment in 1976, and the city's own fiscal crisis in 1981 presented new and unprecedented challenges to the complex joint-financing agreement the city had – with great difficulty – negotiated over years with Combustion Engineering.

Chapter 4 begins exploring this tenuous moment for the city. Having devoted a great deal of time and energy over the preceding eight years into developing their resource recovery project, Detroit officials now found themselves frustrated by a troubling fiscal situation. Yet rather than use the moment to reassess resource recovery's place in the city, the Young administration pushed the project forward with gusto as Detroit's fortunes improved, led forcefully by new City Finance Director Bella Marshall. By 1984, the city triumphantly announced its plan to move forward with their "environmentally-sound" resource recovery plant that would turn Detroit trash into useful energy in the heart of downtown. As the city prepared to issue in bonds to fund the project, however, issues in the permitting process threatened to hold up the project once more. The federal Environmental Protection Agency's enforcement delegation of the Clean Air Act to the state of Michigan's Department of Natural Resource meant that the state was responsible for reviewing and granting permits to new sources of emissions, including the new Greater Detroit Resource Recovery Authority incinerator. Yet the state's failure to accurately define key enforcement criteria, as well as a thousand-fold calculation error in determining the facility's cancer risk to nearby residents, led some in government, the media, and the public to question the safety of the project.
Chapter 5 examines two groups of environmental activists – the radical Evergreen Alliance and the more traditional Detroit Audubon Society – and their campaigns against the facility. Their different advocacy strategies ultimately made cooperation towards their shared goal challenging, and the groups were never able to unify against Detroit and Combustion Engineering. While the Evergreen Alliance continued to demonstrate their opposition to the GDRRA incinerator in the streets and in print, legal challenges by the Environmental Protection Agency, a citizen coalition led by the Detroit Audubon Society, and the Province of Ontario all were thwarted by a federal judicial system determined to roll back environmental protections under the deregulatory Reagan presidency. Ultimately, Detroit's resource recovery plant started burning the city's waste in December 1988.

Though this story closes on a troubling note, it is not the end. In the Conclusion, I briefly consider some of the success activists and regulators experienced after the facility began operating. Air emissions test failures – which had been identified and warned against by state officials five years earlier – and controversy surrounding the toxic nature of the facility's ash gave the incinerator’s opponents new opportunities to characterize the facility as dangerous to human health and environmental safety. The incinerator's inability to operate in compliance with state and federal environmental regulations ultimately forced the City of Detroit to add expensive pollution control technologies in 1990. Yet the cost of those retrofits was unbearable for the financially troubled city, and Detroit was compelled to sell the facility in a complex leaseback agreement to Phillip Morris Company. Though the deal provided the city with the funds to finance the addition of new pollution controls, it also had long-term costs to Detroit's residents. Ultimately, the incinerator cost Detroit taxpayers over $1.2 billion since city officials issued
bonds to construct it in 1984. In this way, the successes of anti-incinerator activists to install new pollution controls that would protect city residents had deep implications on the economic future of their city.

This reveals the true tragedy of this story. While the incinerator certainly exacerbated the public health crisis Detroiter experience everyday - the Delray neighborhood, which lies downwind from the incinerator, has consistently been ranked as the most polluted zip code in America – the facility also took a massive economic toll on the city and its residents. Detroit's incinerator project forced the city into obligatory relationships with private contractors, environmental consultants, powerful banks, and credit rating firms, all of which shaped Detroit's fiscal future for decades to come. As Detroit continues to rebuild after its 2013 bankruptcy, there is value in interrogating the sources of its economic hardship. While there are many factors - federally-subsidized suburbanization, shrinking of its tax base, federal disinvestment in cities, reliance on the automotive industry - that contributed to Detroit's financial troubles in the late twentieth and into the twenty-first centuries, the role of private capital it equally important in this story. In "The Ruins of Detroit: Exploring Urban Crisis in the Motor City," historian Kevin Boyle suggests that historians have not adequately considered the role of corporate capital in the "unmaking" of Detroit. "[T]wentieth-century Detroit was, at its heart," Boyle contends, "a product of industrial capitalism."

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While I agree with Boyle's assessment, this dissertation argues a broader view of capital's influence on Detroit's troubles. Detroit was squeezed by multiple economic stakeholders during the urban crisis, the least of which, perhaps, were the automotive companies on whom Boyle directs his critique. The corporatization and financialization of municipal government - influx of private corporations into public infrastructure and the increased power of credit ratings firms in determining a city's access to capital – are even more to blame for Detroit's unmaking. Although not fully-fledged, Detroit navigated these new fiscal and political shifts by adopting a proto-neoliberal strategy that embraced public-private collaboration, encouraged private development through tax incentives, and conformed to prescription of "fiscally-responsible" as defined by credit rating agencies. Overall, the construction of the Greater Detroit Resource Recovery Authority incinerator was part of a larger trend in postwar Detroit towards fostering large-scale public and private development and modeled a “successful” project that still largely impacts how development is pursued in today’s Detroit.

Some notes on terms used in this dissertation. The terms “resource recovery,” “waste-to-energy,” and “incinerator” are all used relatively equally to represent the same process and type of facility. The term I choose to employ generally reflects the context in which I am discussing the facility. “Resource recovery” was used by corporate backers and government officials and included a wide array of post-energy crisis technologies that found useful applications for materials previously considered waste products, including incineration. “Waste-to-energy” was used nearly exclusively by corporate backers and appears sporadically, usually in quotations. “Incinerator” was primarily employed by environmental activists who saw value and power in calling the process what it was, the burning of household waste down to ash.
Finally, a note on the scope of this project. I end my story in 1988 with the beginning of the GDRRA’s operations. Yet this is not to say that anti-incinerator activism ended that year. The Evergreen Alliance, and later Zero Waste Detroit and the Sierra Club have continued to fight against the facility until it closed in 2019. Their perseverance and love for their city brought this story to a conclusion long after this dissertation ends, and I am grateful to them and their efforts.
CHAPTER ONE

“ONLY TWO THINGS ARE CERTAIN: DEATH AND GARBAGE:” TRASH CRISIS AND URBAN CRISIS, 1960-1973

Gripping a paper shopping bag and a pair of kitchen tongs, Mrs. Billie Pedigo walked from the Jefferson Avenue bus to the city-county building to talk with Public Works Commissioner Clarence Russell. She didn’t have a meeting scheduled with him, but she walked into his office anyway, bag in hand, on June 27, 1973. Without a word, she overturned the bag’s contents onto his office sofa. A rat, long-dead and covered in insects, plopped onto the sofa. Pedigo used the kitchen tongs to remove the tinfoil shroud she had fashioned for the creature and then turned to Commissioner Russell. Her trash, she contended, had not been picked up for an entire month, and this rat was clearly attracted by the piles of waste in her alley. “I don’t think there’s anybody in Detroit who hasn’t had his garbage picked up in a month,’ retorted Russell. But as the pungent stench of decomposing rat filled his office, Russell picked up the phone and told a subordinate to get “an answer on her garbage. And I don’t want to wait a half-a-day to get it either.” Pedigo, still gripping her kitchen tongs and now looking sheepishly down at the rat, admitted she could have written a letter about her concern to the Commissioner, but indicated she “didn’t want to delay matters.” Frustrated with this spectacle, Russell removed the rat from his sofa and dropped it in a bag to dispose of it himself as he escorted Pedigo back out to Jefferson Avenue.¹

While the retelling of this interaction may have caused some readers of the *Detroit Free Press* to chuckle the next morning, Pedigo’s act of personal protest revealed much about the frustration Detroiters felt about their trash and their city, a sentiment shared by residents in urban areas across the country and one which caused headaches for city officials from New York City to Los Angeles. Journalists, politicians, and everyday Americans were all fixated on the apparent proliferation of waste in streets and vacant lots, overflowing in landfills, and as new, hazardous industrial effluents. This public anxiety around waste suddenly made visible what had since World War II been mostly invisible. While previous generations of Americans were highly
conscious of wastes either by necessity during the Depression or by duty amidst the fat, scrap metal, silk, and rubber salvage campaigns of World War II, the abundance and relief of the postwar period made thriftiness unnecessary and, for the most part, softened old anxieties about wastefulness. The reuse of old or broken materials common in the previous decades became associated with “poverty and backwardness.” Rather, those in the expanding middle class were more interested in the ease that came with new disposable products. Paper towels, aluminum foil, and disposable diapers all were emblematic pieces of a consumerist culture that prioritized convenience, cleanliness, and ease, especially for the women who took on most of the household labor. In 1951, the Women’s Home Companion emphasized the freedom that single-use products allowed and encouraged its readers to “chuck your dishwashing and laundry problems in the wastebasket!”

Yet the impact of this out of sight, out of mind mentality extended beyond household trash cans. With the universality of municipal trash collection and disposal, made even easier by uniform, city-issued garbage bins that could be picked up automatically by new compactor trucks, more Americans also became detached from where their refuse went after they threw it out. Many city officials likewise espoused an out of sight, out of mind approach to the management of their waste streams. The privatization and corporatization of the waste system meant that most municipalities were only concerned with the collection aspect of trash service. City trucks would then deposit waste at a city-owned transfer station, where it would sit until

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3 Strasser, *Waste and Want*, 266-270.
private haulers or, in some cases, city trucks would transport it to a landfill owned by a private contractor. There, the waste would be weighed and dumped, and cities would be billed per ton delivered. Yet the privatized nature of the modern waste system also distanced municipal officials from the actual disposal process. Divorced from the responsibility of disposal and assured that the private landfills they relied on would have enough capacity for twenty, fifty, even a hundred years, municipal sanitation officials found themselves alarmed and unprepared for the changes that would eventually occur as the national garbage crisis developed.

This chapter will explore the causes of the garbage crisis as well as its impact on urban residents and municipal officials. Although it was called a “garbage” or “trash” crisis, it would more accurately be described as a “municipal solid waste” crisis in that the source of anxiety at the local level stemmed from the increasing volume of household waste. In this way, the trash crisis, as it was discussed by municipal officials and the public, did not take into account the postwar proliferation of new hazardous chemicals or industrial wastes that also found their way into landfills. While the baby boom and federally-supported suburbanization fostered the generation of more waste per individual per household, changing consumer trends and marketing strategies also exacerbated the growing problem of waste. As the volume of waste itself grew, many existent landfills ultimately filled overcapacity. Those that remained open charged exorbitant prices for cities and towns to dispose of their waste. Furthermore, continuing metropolitan sprawl and growing cultural awareness of ecology and the threat of pollution made

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4 Rogers, *Gone Tomorrow*, 12.

5 “Garbage” is technically defined as being predominantly composed or organic wastes, especially from kitchens, while “trash” is defined as any unwanted castoffs and discarded items. In common use, the two terms are applied interchangeably for the same thing – municipal solid waste (MSW), which is the technical terms for both garbage and trash that is generated by residents, schools, businesses, and other places in a community – and I will generally use them both in referring to MSW is discussion of the crisis.
siting new landfills physically and politically challenging. The financial insecurities of the urban crisis – caused in large part by federal disinvestment in cities – further aggravated the garbage crisis in urban places. In this way, the story of the national garbage crisis lies at the intersection of urban and suburban history, the history of capitalism and consumption, and cultural histories of environmentalism.

**Losing Space to Affluence: The Postwar Growth of Consumption and Sprawl**

The problems of urban trash were directly connected to two defining trends of the postwar period: a dramatic rise in disposable consumer goods and rampant decentralization across metropolitan regions. Participation in consumer markets had been a key part of Americans’ lives since the latter half of the nineteenth century. The rise of industrialized mass production and the growth of department stores that presented a “world of goods, constructed and shaped by the store into objects of desire” fostered a transition to a democratized “market-oriented culture” with “the exchange and circulation of money and goods at the foundation of its aesthetic life and of its moral sensibility.” While the Great Depression and World War II saw the emergence of the “citizen consumer” who exercised power in the marketplace as a “patriotic obligation…with the general good at heart,” in the postwar period Americans began to consider consumption in the context of their own enjoyment rather as well as a duty to their country.

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ideas helped bolster and extend this transition from consumer citizen to a new postwar ideal of consumption. First, a wide range of economic interests from big business to the federal government vocally supported in magazines and public reports the notion that mass consumption and an ever-expanding economy were the means to creating an equitable financial playing field rather than the radical redistribution of wealth. Secondly, as the Cold War smoldered, American consumers were convinced that mass consumption fostered economic egalitarianism and created a classless society with more choice and a higher standard of living than the Soviet Union’s restrictive communism. In this way, the proliferation of consumer goods not only represented personal prosperity, but also national success and the triumph of the marketplace as a democratizing force for all in America and beyond.

Delighted by their newfound affluence and easy access to cheap goods, Americans in the postwar era purchased more than any generation before them. Yet the proliferation of consumer goods also meant an increase in packaging, single-use products, and discarded castoffs that were considered obsolete. From 1940 to 1970, daily production of residential and commercial waste doubled from two pounds per day per person to four pounds. While the individual generation of waste leveled out at the four pound per day rate, it was compounded by the massive population boom following World War II. Increased economic prosperity in the United States and the return of thousands of GIs from their wartime service contributed to a prodigious baby boom,

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expanding the American population from 150 million people in 1950 to over 200 million two decades later.\textsuperscript{11}

Yet beyond population growth, the spread of people out from the urban center and into the suburbs also had a tremendous impact on the American landscape. Increased prosperity combined with federal assistance programs such as the GI Bill and the expansion of the Federal Housing Administration also expanded access to homeownership for thousands of Americans. This is not to say that home ownership and suburbanization were entirely new trends in the United States in the postwar period. But the scale of suburbanization – aided by decreasing construction costs and easy access to cheap building materials – accelerated after the War. While homeownership rates hovered between forty-six and forty-eight percent from 1900 to 1940, they increased an additional twenty percent from 1940 to 1960.\textsuperscript{12} The result was a sharp reduction in density at the urban core and unprecedented growth on the suburban and even rural peripheries.

As workers relocated from cities to the suburbs, so did businesses and industry. Commercial decentralization made new light industrial zones and business parks the largest land users in suburbia. As inner-city factories and offices aged without significant improvement or reinvestment, new suburban commercial and industrial areas – with high-tech amenities and plentiful parking – attracted companies away from the urban center. Likewise, the rise of the global economy and the relocation of manufacturing jobs from American Midwest and Northeast to the Sunbelt or out of the United States entirely – which took advantage of both cheaper labor


and proximity to much-needed natural resources like magnesium and zinc – also contributed to a growing economic crisis in cities.¹³

The scale and speed of decentralization prompted a new public anxiety about the future of cities that often framed the tremendous growth of the suburbs as the cause of urban decline during the 1960s and 1970s. Yet this dualistic perception was overly simplistic: in drawing such a direct connection many commentators failed to recognize the problems that had been developing in the cities for decades, such as decreasing federal outlays, growing deficit spending, and increasing reliance on short-term loans from local banks.¹⁴ Still, some of the critiques leveled at mass suburbanization were well-founded. A key one centered on decentralization’s impact on space, health, and the environment, including more air pollution from automobiles, soil erosion in recently cleared land, contaminated runoff from lawns and roads, and the “limits to growth” argument that centered on the finite nature of natural resources and open space.¹⁵

These criticisms though rarely addressed sprawl’s impact on the shrinking amount of available and useable space for new landfills. As land was used to build new housing development, shopping centers, and industrial parks, the spread of development out from the metropolitan core made opening new landfills even more challenging and forced such disagreeable uses farther out towards the rural periphery. Housing developers and suburban

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officials also understood that predominantly white, middle class Americans were moving away from cities to escape rubbish-filled streets and polluting industries, and any attempt to develop new waste disposal sites – landfills, as well as incinerators – nearby their new suburban enclaves would draw vocal opposition from homeowners ready to leverage their political and economic power.\textsuperscript{16} Combined with increased consumerism, suburbanization further exacerbated the growing waste problem to crisis level.

\textbf{Changes in Trash Composition and Municipal Disposal Strategies}

As cities increased in size and density during the latter half of the nineteenth century, public health officials and residents began to advocate for local government to handle refuse collection and disposal in order to protect public health. Municipal trash collection expanded during the Progressive Era and continued to become more prevalent through the 1930s, when all cities with populations over 100,000 provided for municipal waste collection.\textsuperscript{17} During this same time, cities were forced to adapt to new kinds of waste. In the nineteenth and the early twentieth centuries, municipal waste was generally sorted into three categories: ash, organic waste, and rubbish, which included rags, broken items, and other castoffs. This sorting, called source separation, was primarily a revenue generating measure for cities; ash was a useful binder in pavement and concrete blocks, while organic waste could be sold to hog farmers or “reduced,” a

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{16} Martin Melosi, \textit{Effluent America: Cities, Industry, Energy, and the Environment} (Pittsburgh: University of Pittsburgh Press, 2001), 76. This opposition to locally unwanted land uses or LULUs often meant that such sites, including landfills and incinerators, were often ultimately sited near less politically- and economically-powerful black communities. For more on race and LULU siting, see Robert D. Bullard, \textit{Dumping in Dixie: Race, Class and Environmental Quality} (New York: Westview Press, 1994), 28.
  \item \textsuperscript{17} Strasser, \textit{Waste and Want}, 119-120; Rogers, \textit{Gone Tomorrow}, 79.
\end{itemize}
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chemical process by which useful grease would be separated from the rest of the organic matter and sold as fertilizer.\(^\text{18}\)

Over time though, municipal wastes and disposal methods changed. Gas and electric heat replaced household stoves, making ash less common. Hog yards – which reached their peak in the 1939 – also fell out of use after multiple trichinosis outbreaks were linked to a parasitic nematode in garbage-fed pigs.\(^\text{19}\) The practice of source separation, then, fell out of use at the municipal level, while the rise of new disposable products, like paper cups, toilet paper, and facial tissues, was encouraged by developing cultural notions of hygiene and cleanliness in the 1910s and 1920s. Cities then had to contend with a growing waste stream and, during the lean years of the Great Depression, turned increasingly to the cheapest form of disposal, either dumping waste in water or on open land. But such “open pit” dumps, though cheap, were a nuisance: the rotting heaps of trash and food waste smelled and attracted rats and other pests that created a public health threat.\(^\text{20}\)

A new disposal method – the “sanitary landfill” – provided a cheap and safer method for easily disposing of all materials, from organic waste to more durable materials, in one place. Unlike open dumps, sanitary landfills entombed waste under layers of dirt or ash in order to prevent (or at least conceal) its decomposition. While the process was first employed in 1932 as an emergency disposal method when San Francisco swine farmers refused contract terms with the city for their organic wastes, by 1936 it had become the city’s official method of disposal.

\(^{18}\) Strasser, *Waste and Want*, 128, 134

\(^{19}\) Rogers, *Gone Tomorrow*, 83-84.

That same year, New York City built their own sanitary landfill at Riker’s Island as a means to reclaim land and allow the city prison also located on the island to expand.\textsuperscript{21} The systematized and scientific approach to sanitary landfills was intriguing to municipal officials who sought a disposal method that could accommodate all sorts of waste and were also concerned about allaying public concern about the public health issues associated with open dumps.\textsuperscript{22} The apparent effectiveness of the sanitary landfill in both regards allowed cities to efficiently dispose of large amounts and kinds of waste and also gave urban residents permission to discard freely with little thought about their trash’s afterlife.

Changes in the ways American lived and worked after World War II had major impacts on municipal waste systems. The advent of new durable plastics in the postwar years saw a rise in product packaging as well as cheap and plentiful toys, utensils, and other household goods that were meant to be disposable or – based on their cost – could easily be justified as disposable. The institutionalization of planned obsolesce also contributed to a growing portion of the household waste stream that would not decay or degrade in a landfill. The proliferation of paper also posed an enormous challenge for municipal sanitation officials. Paper use increased from 7.3 million tons in 1946 to 10.2 million tons in 1966, 55 percent of which was used in packaging alone.\textsuperscript{23} While paper was an organic material that would eventually degrade, the volume of wastepaper was practically unmanageable for many landfill operators. Even more alarming, durable materials, like glass and aluminum, were being used for food and product packaging that

\textsuperscript{21} Melosi, \textit{The Sanitary City}, 162-163.

\textsuperscript{22} Rogers, \textit{Gone Tomorrow}, 86-89.

\textsuperscript{23} Melosi, \textit{The Sanitary City}, 201.
were touted as disposable or single-use. In 1969, municipalities across the nation reported collecting over 60 billion cans and 30 billion bottles, as well as 4 million tons of plastic and 30 million tons of paper products and packaging. And all of it was, for the most part, heading straight to landfills.

City officials and their private waste contractors were largely unable to foresee these changes in waste composition or adequately adapt once the scale of the problem became apparent. One solution to the problems posed by both the scale and type of waste was to separate out reusable materials, like paper and plastic, at the front end of collection much as cities had done for ashes and organic wastes before the rise of the sanitary landfill. But Americans seemed to be less interested in recycling and more interested in the convenience provided by a single municipal collection for all wastes. In 1969, only 17.8 percent of paper was recycled, compared to nearly 27.4 percent in 1950.24 Plus, front-end separation presented an additional challenge and expense at a time when the cost of handling municipal waste was growing. In 1968, communities with a population of around 400,000 were already spending an average of $2.5 million annually on garbage collection alone, plus another $900,000 on disposal.25 Yet the exponential growth of America’s waste footprint could not be ignored. Rather than face the technical and logistical challenge of removing useable wastes from the front end, cities across the country scrambled to find more landfill space to accommodate growing heaps of household trash. Municipal officials found, however, that many landfills were already overwhelmed by this new kind of waste stream

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and were close to closing their gates. In the desperate search for places to stash the trash, the garbage crisis found its origin.

“It Took the Nation By Surprise”: The Emerging Trash Crisis

Crisis was undoubtedly the term of the 1970s. From the “urban crisis” and the “energy crisis” to the “housing crisis,” policymakers across the nation articulated their feelings of anxiety and uncertainty about shifts in the American economy and culture with the word. In his 1974 budget letter to the City Council, Detroit Mayor Coleman Young observed that the city found itself at “a time when, nationally, we are faced with a series of crises: rising unemployment and inflation, environmental threats, energy shortages, and Watergate and the possible impeachment of the President.” Yet by using the term “crisis,” Young and other politicians obfuscated the decades-long development of these issues, many of which found their sources in both de facto and de jure federal, state, and local policies. “Crisis,” writes Martin Melosi, “denies the complexity of the problem and ignores its persistence over time, failing to question whether it is chronic, recurrent, or temporary.” This characterization was certainly true of another crisis of era: the garbage crisis. While perhaps not considered a defining issue of the era by historians today, the national problems around trash collection and disposal were certainly front-of-mind for many Americans at the time, on equal footing with other more familiar events of the convulsive late 1960s and early 1970s. An ad for U.S. News & World Report that implored

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27 Coleman A. Young memo to Detroit City Council, April 16, 1974 in MS: Coleman Young 3:27 Budget 1974, Detroit Public Library, Burton Historical Collection.

readers to protect themselves and their families from “The News Monster,” which left readers “feeling helpless, frightened, and frustrated” with reports about student riots, tensions in the Middle East, smog reports, and the “garbage crisis details.” The problems associated with the nation’s increasing mountains of trash were of great concern to people across the United States, both city officials who were on the front lines of dealing with the physical and financial impacts of the crisis and common Americans who were weary of the anxiety-inducing news monster.

Like other crises of the decade, the garbage crisis of the late 1960s and early 1970s was the intersection of multiple, long-developing trends, including increasing waste volume, front-

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end separation challenges, debates between public or private management, high costs – especially for labor – associated with collection, and disagreements over local versus regional disposal options. At a 1973 meeting of the National League of Cities and the U.S. Council of Mayors, attendees reported the “skyrocketing” volume of municipal waste and “sharp decline” in the available space for landfills. Landfills, it seemed, were filling up quicker than city officials had planned and local governments, confronted by growth models for waste generation over the next five or ten years, were forced to confront the dire reality that they simply would not be able to keep up with the trash without a drastic change. Public and private disposal sites across the country that had been designed to accommodate a city’s waste for the next ten years would be full in half that time, even less in some places. In Baltimore, city officials predicted that their landfill could only operate for another five years as long as waste volume did not increase and their two municipal incinerators – built in 1933 and 1955 – continued to operate at 90 percent capacity or more. The situation was similar in Houston where the municipal landfill operators had for five years warned the disposal site had a future anticipated life of “only a few months.” Yet the city continued to use it, trucking in fresh fill dirt from elsewhere in order to cover the 900 tons of household waste delivered daily. Seeking to avoid the increasing license fees to dump at

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31 ibid., 240-241.

32 A 1968 survey conducted by the U.S. Department for Health, Education, and Welfare indicated that disposal of MSW in publicly-owned (77 percent) and privately-owned (64 percent) landfills was nearly even, and also suggests that some cities were relying on a combination of public and private land disposal options. Anton J. Muhlch, Albert J. Klee, and Paul W. Britton, “Preliminary Data Analysis: 1968 National Survey of Community Solid Waste Practices,” HEW Public Health Service (Cincinnati, 1968).

the city’s over-full landfill, some private waste contractors had taken to buying small city lots – sometimes in the middle of neighborhoods – excavating the soil down forty feet or more and then using the remaining pit as a “merchant dump.” Regulated by no other laws than “the law of gravity” as waste piled up above the pit, these illegal dumps, according to an HEW report “serve a real economic purpose, in an interim period extending over many years in the past during which neither the city nor the county has been able to provide adequate disposal facilities for the community's wastes.”

Though entrepreneurial, these were ultimately unsustainable solutions to the looming garbage crisis. Municipalities across America were coming to terms with the notion that they would need to locate and build new disposal sites in the not-too-distant future in order to accommodate the growing piles of garbage.

But the effects of decentralization and sprawl made locating new waste disposal sites – landfills as well as incinerators – significantly more expensive and politically challenging. In two of the nation’s fastest growing counties – Baltimore and Anne Arundel, just beyond the city of Baltimore’s boundaries – vacant land was topping $10,000 an acre. Although both counties and the city of Baltimore were interested in building a regional state-of-the-art incinerator to the cost of land made it more economical for county officials to pay private contractors to ship their trash to landfills in neighboring rural areas through the Harbor Tunnel at a cost of $90,000 per year for tolls alone.

In addition to an overall decrease in inexpensive open space not-too-distant from the urban core, the growing strength and influence of citizen groups added another hurdle to waste disposal. In Norwalk, Connecticut, city officials were considering an 80-acre parcel of

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35 *ibid.*, 40.
marshy shoreland – the last large open space within the city’s borders – for a new sanitary landfill. Yet local conservationists opposed the site, suggesting that its location along a major waterfowl migratory flyway merited its preservation as an open space.

Likewise, in the Connecticut town of Wilton, HEW contractors reported that after a dump in a nearby town was closed by the state, town officials proactively purchased land within their town’s borders for a new sanitary landfill. Nearby residents, however, brought suit against the town and obtained a permanent injunction that prohibited the town and private haulers from using the land for waste disposal. With no apparent solution, all trash pickup abruptly stopped in the community of 12,000. The situation, according to HEW contractors represented, “in a real sense, the type of problem that the nation faces, depicted on a far smaller scale.” Even more than waste volumes and suburbanization then, citizen opposition was a major challenge for cities who sought to build new landfills, especially within their boundaries. “The neighboring residents of any proposed new landfill area,” the HEW contractors contended, “are the primary obstacles to the selection of land.”

The desperate nature of the garbage crisis, especially in dense urban areas, was best illustrated by a sobering chart kept by New York City Sanitation Commissioner Griswold L. Moeller: “The chart, which has a steadily rising top line to indicate the 4 per cent a year rise in total waste…projects the problem into the years ahead” while “another line, which is steadily increasing, shows the tonnage going to landfills. But that line ends abruptly at 1975 when the last of the landfill areas remaining in the city…is filled to capacity. The chart at that point is dominated by a great red swath that is labeled ‘Disposal Systems Gap, 15,000 tons per day.’” To

meet this gap, the city considered many new creative disposal methods, all which sought to eliminate the volume of waste: a 6,000 ton per day incinerator, a pneumatic tube system located in subway tunnels and connected to a suburban shredder, and “an incinerator ship that would be loaded at dockside with the city’s garbage, then steam out 25 to 50 miles and burn the cargo of waste” before dumping the remaining ash overboard into the ocean. The absurdity and scale of these solutions reveal the extent to which city planners and engineers were made desperate by the garbage crisis. Any headway they made in its elimination one day was negated by the heaps and piles found the next morning in alleyways and on curbs across the country. As Moeller gravely observed, any “technological solution is far in the future and the solid waste crisis is already here.”37

The perceived lack of advancing technology in waste disposal systems contributed to feelings of an imminent crisis. In most municipalities, trash was collected and disposed of in much the same way as it had been at the turn of the century, merely trading out horse-and-cart for motorized vehicles. While there had been some innovation in the form of the compactor truck and new hydraulic lifts, for the most part, men still walked behind a truck and hefted the heavy cans full of household waste onto their shoulder and into a truck to be taken to disposal sites. In Nation’s Business, columnists commented on “how narrow the nation’s present margin of control is over the mounting solid waste problem.” “[D]ue to lack of suitable planning, interest, and public understanding,” they argued, “this threat to the public health and welfare received only token attention until a few years ago.”38 Though this assessment was accurate, municipal


38 “Where will we stash the trash?” Nation’s Business, Vol. 56 (September 1968), 73.
officials often had few available funds in their shrinking budgets to address solid waste problems, especially as suburbanization continued to draw taxpayers away from the urban core. There was also little incentive to pursuing regional planning or innovative practices as residents were less interested in such trends and more concerned with timely and efficient waste collection.

Yet for all the discussion around the failure of technology to produce a viable solution to the garbage crisis, others pointed to American innovation after World War II as the very root of the problem. “The nation’s affluence and growing technology have produced an alarming byproduct – fast-multiplying mountains of society’s throwaways,” lamented Los Angeles Times reporter Bill Stockton. Characterizing the nationwide fight against the trash crisis as a “lagging battle,” Stockton saw in the mountains of garbage “a crisis that has its roots in the lifestyle of an affluent society that seemingly knows no bounds to technological growth, and consequentially, to rubbish.” Overall, the crisis was too large of a problem for localities to deal with on their own, especially since the potential solutions – including cheap open land or far-flung landfills – lay far beyond their own boundaries. Yet changing perspectives about solid waste disposal began to frame the issue as a national environmental problem, one that only state or even federal government had the resources to adequately address.

Quantifying “Crisis:” Federal Investigations, Research, and Action

Until the mid-1960s, waste collection and disposal had largely been considered the responsibility of local government. Yet the scale of the garbage crisis both in terms of volume and geographic impact across many cities and regions combined to develop “a refuse disposal

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problem that far outstrips the waste handling resources and facilities of virtually every community in the nation.” In special address on “natural beauty” in 1965, President Lyndon Johnson called on Congress to pursue “better solutions to the disposal of solid waste” and recommended new federal investments into research and development and the creation of new programs to assist state and local governments to coordinate regional waste plans. Later that year, Congress attributed the “ever-mounting increase” of waste in America to changes in the “manufacture, packaging, and marketing” of consumer goods combined with “the economic and population growth of the Nation, and the improvements in the standard of living.” Yet representatives also saw large-scale urban renewal, blight-removal programs, and an expansion of new construction and infrastructure projects as a major cause of the “rising tide in scrap, discarded and waste materials.” In this way, Congress recognized federally subsidized suburbanization and urban redevelopment programs as key contributors to the rising tide of waste. Lawmakers, however, did not see a role for the federal government in administering what they saw as a local service, contending that “collection and disposal of solid wastes should continue to be primarily the function of State, regional, and local agencies.” Rather, the federal role would focus on providing “financial and technical assistance” and “leadership in the development, demonstration, and application” of new disposal technologies.

40 Melosi, The Sanitary City, 207.


42 Sec. 2 Public Act 89-272 Stat. 306 October 20, 1965
The resulting Solid Waste Disposal Act of 1965 appropriated funds towards a new national research program for solid waste disposal methods, as well as grants to states and municipalities to develop waste plans or explore new disposal technologies and techniques. The Act was administered jointly through the Department of Health, Education, and Welfare and the Department of the Interior, reflecting the dual impacts of the crisis on human health and open land. This multidirectional approach to solving the crisis, Congress believed, was essential to support the creation of new disposal methods as well as secure new landfill sites. But with municipalities spending $3 billion per year for both public and private haulers and disposal sites, Congress’s nearly $33-million appropriation did not sufficiently mirror the apprehension that cities and states felt as they pondered the future of their solid waste problems.43 “[T]he Federal Solid Waste program should be spending $500-million a year,” argued Commissioner Merril Eisenbud, head of New York City’s new Environment Protection Agency.44

One major challenge the newly created national solid waste program faced, however, was a dearth of information about how municipalities and regional authorities actually dealt with their solid waste. To address this, the newly-created federal Bureau of Solid Waste contracted with industrial firm Combustion Engineering “to assess the existing state of solid waste technology” and “to draw some conclusions concerning the economics of solid waste management.”45 Combustion Engineering, or CE as it was often referred to, had a vested interest in addressing the questions of solid waste needs across the United States. A leader in traditional

43 “Where will we stash the trash?” Nation’s Business, 73
44 Bird, “Problem of Ridding City of Garbage Eludes a Solution.”
coal- and oil- power steam boilers since the 1920s, CE diversified into nuclear power generating systems following World War II. From 1955 until the early 1960s, Combustion Engineering won federal government contracts to produce nuclear fuel for the United States Navy's fleet of nuclear-propelled submarines and develop the S1C prototype reactor where over 14,000 Naval operators trained. In 1967, CE secured its first contract to construct a major nuclear power plant, the Palisades Nuclear Generating Station, on Michigan’s west coast. Yet as nuclear energy scaled down amidst public anxiety and the national trash crisis grew, officials at CE saw an opportunity to apply their expertise in building power plant-grade boilers to developing municipal solid waste incinerators that could burn waste to create steam and energy. In conducting a federally funded national survey of waste disposal needs, including available open space for landfills, age and performance of existing municipal incinerators, and the potential for regional waste disposal, Combustion Engineering had access to valuable information about the landscape of municipal waste practices and what market might exist for their new incinerator technology.

Researchers at CE began their study by selecting six hundred cities and creating two groups: those with populations of 25,000 to 50,000 residents and another with populations of 50,000 or more. In the first round of the national survey, CE collected data from all six hundred cities. While the first three questions of the survey focused on disposal method, disposal site distance from the city, and estimated lifespan of the disposal site, the final five survey points focused on municipal incinerators, including facility capacity, age, hours per week it was operated, percentage of total refuse incinerated, if cities planned on constructing new incinerators

in the future, and, if so, what capacity. Yet the distribution of the survey questions did not reflect the actual disposal methods of the nation. Despite making up the majority of the survey only 9 percent of municipal waste was incinerated, reinforcing the notion that Combustion Engineering’s more vested interest was in collecting data that would ultimately help them assess the market for new incineration technology. The results of CE’s survey revealed just how real the trash crisis was. Approximately 50 percent of cities relied on dumps or sanitary landfills that had estimated lifespans of six years or less. And the disposal gap – the amount of disposal capacity in landfills or incinerators versus how much trash was actually generated – only widened as the size of the city increased. According to 1975 projections, municipalities with 500,000 to one million residents would have disposal capacity for three-quarters of the household waste produced, while those with populations over one million could dispose of only 62 percent of their trash. Moreover, most of the municipalities surveyed admitted they had no plan in place to locate a new facility. “If present trends continue and further long-range planning is not expanded,” CE’s study continued, “there will be a lack of facilities to handle solid waste by 1975.”

Combustion Engineering, however, reported that most local governments were not planning for this gap. Less than 30 percent of cities surveyed for the report had convened local bodies to deal with the solid waste problem in 1969. “The only time we can get the [City] Council to do any planning is when the problem is so big that even a blind voter could see it, and then it is too late,” contended one waste commissioner. Considering the magnitude of the crisis, CE suggested that the “regionalization” of solid waste planning was the most promising solution. Yet they also acknowledged the “considerable political and emotional objections” municipal

officials had to regional governance, including differences of political party across cities and the “fear” that regionalization would force each participating city to “surrender its authority to another political entity.” A potential solution, CE suggested, was an expanded role for private contractors in the waste disposal process. As non-political entities, contractors, they argued, benefitted from the “ability to cross municipal and political boundaries” which could ultimately help “hasten the regional approach to solid waste disposal.” Yet in recommending an expanded role for private industry in their report, Combustion Engineering sought to make space for itself as the federal Bureau of Solid Waste began to craft policy based on CE’s survey data. CE had a particular interest in the regionalization of solid waste disposal, as it allowed them to take advantage of economies of scale and build larger incinerators that could turn thousands of tons of trash per day into mere handfuls of ash.48

The majority of Combustion Engineering’s report – nearly 200 pages – focused on the potential market for their new incinerator technology. Survey data compiled in 1969 found that there were approximately 250 incinerators in the United States, burning 75,000 tons per day. Larger cities – those with populations of 500,000 or more – burned more of their waste in incinerators than smaller cities and used their incinerators more heavily, allowing little down time at the plants except for repairs and maintenance. Yet these incinerators located in large cities also tended to be older – ranging from thirteen to seventeen years old – and CE reported that many of them would “have to be replaced within the next ten year period.” For CE, this was very useful information as they sought to define their market. Later in their report, engineers at CE laid out their vision for municipal incineration, one that they defined as a totally “integrated

system” in which the contractor who built and operated the plant had total control of the disposal process from the moment the waste arrived at the facility to the removal of ash from the boiler.\textsuperscript{49}

Yet there were obstacles to implementing such systems, particularly in the realms of performance, regulation, and finance. CE, for example, called for performance standards “expressed in clear, quantitative engineering terms” and “government financial support” for developing national regulatory test programs. Furthermore, CE engineers argued that cities’ specifications for incinerators “should be expressed in terms of engineering performance and not in terms of ambiguous perfection (‘shall be odorless, smokeless, and perform to the satisfaction of city officials’)” when they developed contracts. Yet in suggesting such definitions, CE put cities at a disadvantage and necessitated local governments hire consultants who would be able to “translate” engineering language into something lay people could understand. Finally, called for federally backed research into air emissions, ash composition, system capacity, and steam power production in order to generate more data and create standards for the growing industry. “Statistically reliable tests,” CE’s report contended, “are expensive and are therefore often curtailed to the point that true system performance is not known.” This need was key: until Combustion Engineering and other incinerator companies had sound data about facility performance, they would be designing and eventually constructing plants with little knowledge about how they would actually operate once they started burning trash.\textsuperscript{50}

In addition to gathering information, the federal government also funded statewide planning efforts and explored new disposal technologies and techniques under the Solid Waste


\textsuperscript{50} ibid.
Disposal Act. Between 1966 and 1970, the Bureau of Solid Waste distributed over $6.2 million to statewide agencies to develop solid waste plans assessed issues, coordinated solutions with local and regional stakeholders, and created regulatory frameworks for enforcing new solid waste rules. On the research and development side, the federal government also funded contractor-led demonstration projects like a municipal-scale composting plant, a household refuse grinder, and a hydraulic pipeline to transport shredded waste. Yet the private origins of many demonstration projects meant that much of the operational and cost information was considered proprietary, thus limiting the Bureau’s mission to collect useful and worthwhile data. In this way, Combustion Engineering’s call for an expanded role for private contractors in solid waste disposal had both advantages and disadvantages in fulfilling the goals of Bureau’s mandate.

Waste incineration combined with steam heat recovery was a particularly promising disposal technology. By 1970, four plants in the United States practiced heat recovery, the most notable being the Southwest Incinerator in Chicago due to its complex steam delivery system connecting it to the massive Union Stockyards. Yet the use recovered steam heat was limited and required a substantial capital costs to construct delivery systems. Even worse, delivery was inefficient since steam quickly easily dissipated and cooled over long distances. In 1968, the city of St. Louis began to experiment with replacing some of the coal in their power plants with


household waste. By first removing the metals, then shredding it into pieces of uniform size, the city could efficiently burn the waste to produce steam, which could then be converted to electricity in the normal operations of the power plant. With little handling, the city could thus recover the usefulness of their waste. In cooperation with local utility Union Electric Company, city officials began testing this method in the company’s main plant in downtown St. Louis. Yet the scale was small – Union Electric only granted the city access to two test boilers able to burn 300 tons of trash per day. What was needed was a refuse-exclusive plant that could handle more of the city’s waste. In 1970, federal officials granted St. Louis two-thirds of the capital costs to construct a “resource recovery” demonstration plant.\textsuperscript{54} National solid waste researchers saw in the St. Louis project a promising solution to the garbage crisis, both in its “simplicity” and totality: the necessary equipment was commercially available, the system could be tied into existing power plants for distribution, and the only limits on how much trash could be burned was the size of the boiler.

New interest in the recovery of useful or marketable resources from waste demonstrated by projects like that in St. Louis represented a key turning point in federal solid waste policy. In his February 1970 Message on the Environment, President Richard Nixon echoed many of the same concerns about the garbage crisis as Congress had five years earlier: the power and scale of consumerism, the wastefulness of packaging, demographic change, new non-degradable materials in the waste stream, and the rise of a “discard and forget” culture. Yet the president also suggested that addressing the waste problem by way of collection and disposal alone could not stem the crisis:

One way to meet the problem of solid wastes is simply to surrender to it: to continue pouring more and more public money into collection and disposal of whatever happens to be privately produced and discarded…If we are ever truly to gain control of the problem, our goal must be broader: to reduce the volume of wastes and the difficulty of their disposal, and to encourage their constructive re-use instead.

Nixon’s call for the federal government’s extension into new areas of waste disposal with a “greater emphasis on techniques for re-cycling materials” marked a key shift in national policy. Building off the accomplishments of the Solid Waste Disposal Act, a new expanded law – the Resource Recovery Act – reflected this shift, including new sections focused on the study of techniques for recovering materials and energy from wastes and allocated special grant funds specifically to construct prototype “resource recovery systems.” The act also revealed the federal government’s new interest in the commodification of waste by encouraging market research, tax incentives, and government contracts that prioritized recycled or reused materials. The trash crisis, like other crises of the decade, had become a business opportunity, and entrepreneurs, investors, and hucksters all lined up hoping to take advantage.

**The Garbage Crisis as Economic Opportunity and Constraint**

The new federal interest in reusing and recycling materials prompted study into salvage markets for a number of different products, including glass, aluminum, paper, rubber, plastic, textiles, copper, and zinc. The argument for recycled materials was strong from both and environmental and an economic standpoint: recycled, or secondary, materials required less intrusion into the environment to extract or harvest and cost less to reprocess into a new product.

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Yet in the United States, raw materials were still, for the most part, plentiful and were usually of superior quality to salvaged materials. Manufacturers then could often obtain a better-quality material for nearly the same price as a recycled product. Furthermore, mining and harvesting technologies were well-advanced and effective at exploiting concentrations of resources from forests, mountainsides, or fields. The same technological advances did not exist in the solid waste industry and most salvage operations relied on separating materials by hand. Yet this was both dangerous to the sorters and costly. According to EPA contractors at the Midwest Research Institute, hand sorting cost an average of $16 per hour, while profits from salvaged materials averaged only $4 to $9 per ton.57 Furthermore, most private waste companies – many of whom were growing rapidly during the garbage crisis – considered recycling “a nuisance” that interfered with their “principal mission” to collect and dispose of municipal waste.58 The waste industry, then, could not be relied on to develop new technologies or strategies to facilitate the federal government’s goal to expand the recovery of recyclable materials under its new solid waste rules.

Without federal, state, or local laws mandating recycling though, efforts to reclaim salvageable materials relied in large part on private industry to create markets for such commodities. Corporations like Reynolds Metals Company, Alcoa, and Owens-Illinois all organized voluntary recycling centers where Americans could bring used glass bottles, aluminum

57 Recycling still largely relies on hand sorting and is considered a very dangerous job to those involved. For more on recycling labor and workplace hazards, see David Naguib Pellow, Garbage Wars: The Struggle for Environmental Justice in Chicago, (Cambridge, MA: MIT Press), 2004.

foil, and cans in exchange for cash. But these were limited in scope and – much like the Keep America Beautiful campaign launched by an alliance packaging, beverage, and cigarette corporations nearly two decades earlier – were primarily focused on generating positive press for companies many considered as contributing to the garbage crisis by producing single-use, disposable containers. Furthermore, these industry programs relied on consumers’ willingness to participate. This was easier when prices for recovered materials were high. When the market was oversaturated and prices fell, so too did consumer participation. Recycling then was caught in a cyclical market that undercut its own success.

All in all, the challenges of early recycling efforts and the EPA’s research demonstrate the power of a growing coalition of government, corporate interests, and research contractors to shape policy and public action regarding waste and the environment. Although the Resource Recovery Act encouraged the reuse of salvaged materials, corporate interests – bolstered by their allies in nonprofit research firms – successfully lobbied federal regulators to put the onus of salvage and recycling under the Act on consumers rather than on industry. And while some Americans were motivated to continue recycling even after the high wave of enthusiasm surrounding the first Earth Day celebrations in April 1970, it also took effort to separate waste, identify disposal sites (if they existed locally), and deliver recyclable materials to corporate salvage operations. Under the guise of free markets and consumer preferences, research

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61 Over three thousand citizen-organized recycling centers popped up in cities across the country as a part of Earth Day efforts in 1970; Strasser, *Waste and Want*, 283.
contractors and private industry could thus pin low participation in recycling programs on disinterest and justify scaling back their efforts. Meanwhile, officials at the EPA relied on data gathered by contractors as they continued to guide federal policy in solid waste field and pass their recommendations on to local governments. The Resource Recovery Act thus failed to hold industry accountable for their sizeable contributions to the garbage crisis and did little to mitigate the impact of the crisis on cities across the country.

Beyond recycling, federal interest in the constructive reuse of materials previously considered waste also fostered creative and entrepreneurial thinking about trash and experiments with new waste-based products abounded. In Elgin, Illinois, community members contracted with engineers to create a 100-foot long, 7-foot wide pedestrian bridge over the Fox River made with a blend of concrete and 25,000 plastic bottles. According to the engineers, the novel “plastic-crete” was just as strong as traditional concrete but ten percent lighter, saving 1,800 pounds of concrete in the bridge project.62 In another instance, federal engineers from the Department of Transportation added 800 tons of sulphate sludge, lime, incinerator ash, and slag to cement to create what they termed “super sludge,” a powerfully strong yet flexible building material. To demonstrate the usefulness of the new material, the engineers paved a new 120-acre parking lot at Dulles International Airport entirely with super-sludge.63 In Chicago, Streets and Sanitation Commissioner James V. Fitzpatrick experimented with a Japanese process that dipped compacted trash bales into asphalt, concrete, or steel. Fitzpatrick attested to the building


implications for the new method, contending that “compaction is the breakthrough that is going to save cities.”

Yet most of these demonstrations failed to attract wide application. Much like recycling, many of these new waste-based products cost as much, if not more, to create than the products they sought to replace. In fact, much of the nation’s inability to cope adequately contend with the garbage crisis came down to questions of technology and cost. According to a National Academies of Science and Engineering study, the waste problem was “characterized by minimum attention, minimum funding and minimum application of technology” and was further exacerbated by “the continued reluctance of those concerned to come to grips with it and apply existing technology, systems and organizational know-how to its solution – and above all, to pay for these services.”

EPA solid waste officials, likewise, pointed to an “apathetic” public and local government as the cause of “inaction at all levels” towards stemming the crisis. Disinterest, according to federal officials, was reflected in how much municipalities were willing to spend on new technologies. “Who wants to spend money on something that must be thrown away?” contended the EPA’s Director of Technical Operations at an environmental conference in Prague.

Yet inaction, arguably, also stemmed from disagreements over who was now responsible for managing solid waste. While traditionally the purview of local government, the scale of the garbage crisis often meant that effective solutions were beyond the scope and power of localities alone. While federally supported regional- and state-level waste planning under the Solid Waste


Disposal Act created new roles in what had been a largely local issue for more than a century, the extent to which these new bodies would – or could – take action to mitigate the crisis was still unclear. State and regional planners did not always have the authority to take meaningful action nor were they adequately funded either by state legislators or by EPA assistance grants, which averaged less than $30,000 per state in 1966. Without support or expertise, local officials were left to cope with the crisis however they could, though they were often ill-equipped. EPA reports asserted that “the technology that is available and acceptable to do many jobs of solid waste management is not understood nor applied by those who plan, conduct, and operate solid waste management systems.”\textsuperscript{66} Without knowledge or expertise in engineering or solid waste technology, it was often easier for local officials to maintain the status quo until an alternative solution presented itself.

One of the reasons a solution to the garbage crisis remained elusive was that there were still profits to be had within the existing waste collection and disposal markets. Across the country, the garbage crisis drove up the price of per pound “tipping fees” charged to municipalities by private landfill owners, making the disposal business quite lucrative. As landfills and open dumps closest to urban areas filled and closed, waste needed to be transported farther and farther out to the periphery, and even to other states entirely. The interstate – and eventually international – commerce in trash became an enormous market, and landfill owners across the nation applauded a United States Court of Appeals decision clearing the way against

legal challenges to such a trade. Private waste contractors, especially those on the suburban-rural periphery, saw the decision as the complete solution to cities’ disposal issues. “There is no garbage crisis,” said Joseph Cassini, a New Jersey landfill operator. “We have plenty of land in New Jersey for New York refuse…for years to come.” Yet New Jersey’s Director of Environmental Quality suggested to the Appeals Court that Cassini was sorely mistaken and New Jersey landfills would be completely filled within the next three years. “Boloney,” retorted Cassini. Cassini’s assertion that New Jersey had enough land to accommodate New York City’s waste revealed the confidence private waste haulers felt that, as the crisis worsened, cities would increasingly turn to contractors to solve their seemingly insurmountable solid waste problems.

While some saw the trash crisis as an opportunity for profits and entrepreneurship, others viewed it as an opportunity to gain leverage in the highly competitive political landscape of cities during the late sixties and early seventies. For those cities that did not rely on private contractors to collect household garbage, organized labor came to view their power over trash as an opportunity to achieve their goals in the context of urban power arrangements. 1968 saw two of the most influential of strike actions by sanitation workers in New York City and Memphis. Seeking a pay raise, public and private sanitation workers in New York City went on strike, refusing to pick up the city’s waste along its busy streets. “This city is going to be inundated in

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67 The international waste trade is still thriving, especially in Michigan where over 10.6 million cubic yards of waste was shipped from Canada in 2017. This was largely due to Governor John Engler’s administration using state taxes via the Michigan Strategic Fund to underwrite over $122 million in tax-free bonds for new landfill sites. The overabundance of available landfill space today makes Michigan twelfth least-expensive state to dispose of waste in the country, after Mississippi, Louisiana, Arkansas, Utah, Kentucky, Montana, Alabama, Oklahoma, New Mexico, Idaho, and Texas according to the 2019 report “Analysis of MSW Landfill Tipping Fees” from the Environmental Research and Education Foundation.

garbage,” threatened Alfred Katz, an executive of the Uniformed Sanitationmens Association, “People are going to drown in it.”69 When Mayor John Lindsay attempted to enroll hospital workers to pick up the refuse surrounding the city’s seventy-one medical centers as a public health measure, officials of the Hospitals Employees Union refused, contending, “We will not be used as strikebreakers. We’re not going to scab on anybody.”70 The situation grew so desperate after eight days that Governor Nelson Rockefeller threatened on national television to send in the National Guard in to remove the 70,000 tons of wasteoverflowing the city’s streets if Mayor John Lindsay, a fellow Republican, did not reach an agreement with the strikers. Although Lindsey eventually negotiated with the strikers, Rockefeller’s “pro-labor” sentiments during the incident were greeted with distrust and suspicion by conservative Republicans, who ultimately chose Richard Nixon as their presidential candidate later that year. “It may just be that Nelson is just not a lucky man,” one Republican colleague suggested. “Four years ago, it was divorce and re-marriage. This time it’s Lindsay and garbage.”71

In Memphis, black sanitation workers also struck. Like their New York counterparts, they also saw the power of trash to incapacitate the city and assert their power over a racist labor system. Low wages and poor working conditions in the Memphis Public Works Department were a direct reflection of racial divisions in the workplace. On February 12 – Lincoln’s Birthday – over 1,300 black garbage men did not show up for work. Their struggle attracted news national coverage as well as the notice of Dr. Martin Luther King, Jr., who came to Memphis to march

with strikers and their allies. The strike was viewed by many as “the catalyst” the civil rights movement needed at the time – an issue that highlighted both the economic and social cost of racism in America.\textsuperscript{72} Two months later, the Memphis City Council agreed to recognize the sanitation workers union, a dues checkoff through the employees’ credit union, a 15-cent-an-hour pay raise, a grievance procedure, and promotions based on merit and seniority. Yet the end of the strike was overshadowed by the immense grief of the black community after King’s assassination in Memphis days earlier. As the City Council’s deal was announced to a crowd of strikers and their allies, Local 1733 President T.O. Jones led the crowd in singing “We Shall Overcome” as tears streaked down his face.\textsuperscript{73}

According to the \textit{Wall Street Journal}, civil rights leaders “found a weapon” in garbage that they could use to draw attention to their unjust situation. “When garbage collection is withheld by strikers, the impact on the white community can be immediate and painful.” While the paper’s comment perhaps unfairly suggested that black sanitation workers sought to actively harm white Memphians rather than assert their authority within a racist economic and social system, the garbage strike was indeed an effective “weapon” in the fight for civil rights and inspired similar actions elsewhere. Less than a week after the Memphis strike began, over forty black sanitation workers in Jackson, Mississippi walked off their jobs too, protesting low wages and discrimination.\textsuperscript{74} These actions also reveal the class implications of waste, the divides between those who got to ignore it and those who disposed of it. Across the country, in northern


\textsuperscript{74} Pearlstine, “Garbage Strike Piles Up Negro Unity.”
as well as southern cities, black men often found that the only jobs they could secure in city
government were as garbage men, street sweepers, and on sanitation crews.

“Trashtown, U.S.A.”: Detroit and the Garbage Crisis

Perhaps nowhere were the strains of the urban crisis more acutely felt than Detroit.
Detroit’s factories, which had fueled American victory in World War II three decades earlier,
were sputtering in the face of an economic recession as early as the 1950s. Detroit’s mass of light
manufacturers were feeling the effects of the recession too, as the Big Three automotive
producers – Ford, Chrysler, and General Motors – weren’t initiating any new work. Scores of
other businesses had picked up and left the city completely, part of the national trend towards
decentralization. Businesses were not alone in their removal to suburban peripheries: from the
1950s onward, thousands of residents too had left the city of Detroit, attracted by the promise of
federally-backed mortgages for larger suburban homes. This repositioning of businesses and
residents across the metropolitan landscape was mirrored by the redistribution of financial
resources across the area. As the suburbs flourished, Detroit’s population and tax base shrunk
and its economic status grew increasingly troubled.

Such financial issues made coping with the national trash crisis even more challenging
for Detroit. Not only did it face the same volume and disposal issues as cities around the country,
Detroit struggled to maintain basic city services, sometimes failing to even collect household
trash in the first place. The issues of rubbish and blight often found themselves on citizens’
minds and on the mayor’s desk. In the 1960s and 1970s, thousands of letters came to the mayor’s
office, detailing myriad complaints about the overflowing refuse in abandoned lots, along roads,
and in alleyways. Yet these complaints often had a veiled prejudicial undertone to them. Ideas
about Detroit’s trash crisis – and similar crises around the country – were often conflated with perceptions of postwar decline in cities, especially in regard to shifting racial demographics. To residents and observers, the piles of trash were only one symptom of the much larger problem of urban decay, disinvestment, and change.

Local newspapers also highlighted these issues of trash and rubbish, often articulating their concerns within the broader context of the city’s financial and social woes. In one of his weekly public interest columns, Detroit Free Press reporter Judd Arnet profiled problems across Detroit, including the “defilement of civilization:” trash.

Portions of Grand River, which either fate or my own stupidity has consigned me to travel each day, have been unspeakable as of late. Long stretches of sidewalk are ankle-deep in a moveable feast of trash, which shifts with the winds. It is a depressing scene and one flees it with a feeling of queasiness, as though increased speed might carry him away from the ultimate carelessness of a collapsing society.

To Arnet, such a scene was the ultimate evidence that the people in city government, bogged down by hopelessness, had simply given up on Detroit and its residents. He concluded, “Hopefully someone cares, at least a teensy-weeny bit.” But until he saw evidence to the contrary, Arnet suggested rechristening the city “Trashtown, U.S.A.”

Detroit’s local journalists and business elite weren’t the only ones troubled by piles of trash in the streets. Residents were acutely aware of the mounds of uncollected refuse. “Man, people are getting messier downtown every year,” said Sam Neal, who had swept Detroit’s streets for seventeen years, “and there ain’t as many of us white wings to pick up after them.”

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75 Judd Arnett, “City deserves better tag than ‘Trashtown, USA’,” Detroit Free Press, July 17, 1973 in MS: Roman S. Gribbs Collection, General Files – Detroit, City of; DPW, May-Dec.377:4, Detroit Public Library, Burton Historical Collection.
Neal was right about one thing: the city’s “white wing” force – the white coverall-clad street sweepers who pushed wheeled barrels resembling winged birds – had shrunk from forty-two to just ten over fifteen years due to budget cuts and increased labor costs. “Detroit used to be the cleanest city in America,” Neal noted, “got trophies for it – but it isn’t that way anymore.” Someday I wouldn’t be surprised to find those trophies in the gutter,” he concluded, “Everything else is there.”

Neal wasn’t alone in his perception that residents simply didn’t care about the city anymore. The city’s Environmental Enforcement supervisor Robert Pontoo, also argued that Detroiters themselves and their changing values about their city as the reason why “certain parts of Detroit bear a resemblance to a garbage dump.” Pontoo was referring to a letter he received from a church committee complaining about piles of garbage behind an apartment building across the alley from the church. When he went to inspect the site, he found three of the units abandoned and one occupied by a mother of two who had been told to vacate the premises but couldn’t get in contact with her social worker. Meanwhile, garbage collection had been stopped at the building and the trash had started piling up. The letter, Pontoo suggested, revealed the true source of Detroit’s filthiness: residents felt little responsibility to each other or their city, and so did not feel compelled to keep their streets or alleys clean. “When are people going to start caring for each other?” Pontoo lamented. “The church had a complaint committee, but not one that would give help.”

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76 Don Tschirhart, “Keeping Detroit Clean is Frustrating Battle,” *Detroit News*, August 6, 1973 in MS: Roman S. Gribbs Collection, General Files – Detroit, City of; DPW, Newspaper Clippings 377:8, Detroit Public Library, Burton Historical Collection.

77 Don Tschirhart, “Many just don’t care, litter chief says,” *Detroit News*, August 7, 1973 in MS: Roman S. Gribbs Collection, General Files – Detroit, City of; DPW, Newspaper Clippings 377:8, Detroit Public Library, Burton Historical Collection.
reveals that even city officials were guilty of making the troubling correlation between garbage and the racially-changing nature of their city, ultimately suggesting that African American residents did not care about their city, their neighborhoods, or each other. Even more though, Pontoo’s story suggests the overwhelming sense of the economic and social problems growing in Detroit and the disadvantages its residents faced as a result.

As early as 1968, city officials were aware of a looming garbage crisis. “How are Detroit and surrounding towns and counties going to handle the mushrooming mountain of waste produced by citizens?” asked the Detroit Free Press. One answer, the paper suggested, was to turn to the private sector to assume what had been a mostly public undertaking. According to Public Works Commissioner Robert P. Roselle, Detroit spent over $4 million per year to dispose of 855,000 tons of household trash. While 60 percent of it was burned in four archaic city-owned incinerators with no pollution controls, the other 40 percent was hauled by city trucks to private landfills outside of Detroit’s boundaries at a cost of $1 million. Roselle explained that the city hoped to replace all four of its incinerators, but estimated costs to do had ballooned to more than $60 million. Sensing opportunity, a number of private companies approached Roselle hoping to take over Detroit’s waste disposal, including Dearborn-based Thermal Conversion Corporation. Originally called Incineration Inc., Thermal sought a city zoning change to a parcel in the Delray neighborhood to construct a “massive” incinerator that could handle all of the city’s disposal needs in one facility. “Unproven,” was how Roselle characterized Thermal’s proposition. “It does not appear feasible for the City of Detroit to enter into agreement with any such organizations until such facilities are actually built and in operation,” he explained to the City Plan Commission. “They want long-term commitments from the city. We’re not in a position to
make those commitments now…we’re looking and listening at this point.”

City officials then were more comfortable maintaining the status quo, however tenuous, than entering into an agreement with a private corporation to build a yet-untested technology for city-wide waste disposal.

The issues of cost that had deterred city officials under Mayor Jerome Cavanaugh were no better under the next administration. In fact, the city had less money to take care of the garbage problem while a growing environmental consciousness in 1970s America made the situation seem even worse. Following other cities and their newfound post-Earth Day ecological awareness, Mayor Roman Gribbs created the city’s first Environmental Quality Task Force in 1971. The notes of their first meeting list fifteen concerns, including air quality, recycling, the quality of the Rouge River, and an urgent problem necessitating “early consideration” by the group “to plan, coordinate, and monitor [a] City solid waste disposal program.”

The high priority of this issue on the mayor’s new task force illustrates the degree to which city officials saw it as a problem that needed immediate attention. But the route the city would take to solving that problem was uncertain: Detroit was already spending millions of dollars on haulers to remove 4,500 tons of municipal waste per day out to landfills in rural Wayne County, but the city was also closing four of its outdated municipal incinerators, in part due to their detrimental

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impact on air quality in Detroit’s neighborhoods.\textsuperscript{81} The city’s options were shrinking, and every
day the officials put off a solution, 4,500 more tons of garbage were piled into trash cans in
alleyways across the city.

Detroiter, like residents across the country, proposed some unconventional solutions to
the trash crisis. In 1971, Wayne State University Underground, a self-described “citizens
committee proposing the underground disposal of solid waste,” wrote to Mayor Roman Gribbs
suggesting that the city dispose of solid waste in the 1,500-acre vacant salt mines underneath
Detroit, the decomposition of which would produce methane gas that could also be collected and
burned as fuel by the city’s Public Lighting Department, eliminating the substantial air pollution
produced by the “one bushel of coal per each man, woman, and child” the department burned to
produce electricity for the city’s public buildings. In this way, the project was “economical as
well as ecological,” the group contended.\textsuperscript{82} Whether the city ever investigated the idea is
unclear, but no disposal sites for municipal trash were ever constructed in the abandoned salt
mines.\textsuperscript{83} Still, the suggestion reflects the sense of public anxiety surrounding Detroit’s dwindling
affordable disposal options.

\textsuperscript{81} Roman Gribbs letter to Professor Stephen Romine, November 13, 1970, in MS: Roman S. Gribbs Collection,
1971 Subject Files – Environment, Miscellaneous Correspondence, 176B:11, Detroit Public Library, Burton
Historical Collection.

\textsuperscript{82} Sander Nelson letter to Roman Gribbs, August 30, 1971 in MS: Roman S. Gribbs Collection, 1971 Subject Files –
Environment, Solid Waste, 177:5, Detroit Public Library, Burton Historical Collection.

\textsuperscript{83} The abandoned portion of the salt mines were also suggested by Mayor Coleman Young’s administration as a
storage solution for industrial wastes and have recently been considered as a long-term storage site for nuclear
wastes, similar to the existing Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico. None of these
proposals were ever acted upon but do reflect persistent modern-day uncertainty about what to do with industrial and
chemical waste products.
In 1973, a federal Environmental Protection Agency case study focused on Detroit’s solid waste management system confirmed many of the same garbage problems that had concerned city officials and the general public for years. EPA researchers first observed that low productivity levels and growing labor costs in the garbage collection process threatened to become “a major problem area” in the city’s future. Yet “perhaps more significant,” the report continued, “is the potential for crisis that exists in the disposal area,” an issue precipitated by the city’s closing of three of its four municipal incinerators in 1971 without any plan in place to replace them. As a result, the city had been forced to change their entire waste disposal system – 60 percent of which had been handled by the city incinerators – to rely exclusively on private contractors. Under the new disposal system, the city was responsible for providing the manpower and infrastructure, like trucks, to collect household trash. Once collected by city workers, the garbage was then transported to one of five privately-operated transfer stations located across the city, each of which was contractually guaranteed a certain amount of waste – anywhere from 200 to 2,000 tons – per day. Private haulers would then pick up the waste, weigh it, and transport it to a landfill they owned and operated on the urban periphery. The city would then pay the contractor a “tipping fee” based on how many tons of waste they disposed of at their sites. In all, each contract the city had with private haulers cost between $200,000 to nearly $3 million a year for a total disposal cost of over $4 million in 1973. While this shift meant that expensive city

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84 EPA researchers pointed to strong labor unions – garbage truck drivers were represented by the Teamsters, while garbage men were represented by AFSCME – and a department comprised of many senior employees (the average age of workers in the Sanitation Division was 51), as the reason for the rise in labor costs to nearly $46 per ton of waste collected.

85 These calculations are based on “real loading” tonnage reported by private contractors multiplied by the contracted “tipping fee” charged per ton. They do not include the city-owned St. Jean Incinerator, which was used minimally to burn hazardous or medical wastes, or city-owned brush burners. *Detroit’s Municipal Solid Waste Management System: A Case Study*, United States Environmental Protection Agency, 1973.
labor wasn’t being used to dispose of household trash, the city also was not saving money in transitioning to an entirely private disposal system.

In their report, however, the EPA characterized the shift to private waste contractors as a positive one for city officials in that it eliminated “the problems associated with the acquisition and operation of landfill sites that most [other] cities have experienced.” Yet the shift to private contractors ultimately restricted the autonomy of city officials to shape Detroit’s solid waste policy for the future, especially as they often lacked good information about private owners’ landfills. While the city’s Department of Public Works, for instance, believed current disposal sites could be relied upon for a number of years to come, regional authorities who were better positioned to know the current state of disposal sites, indicated that the private landfills the city contracted with would be full in less than a year.86 In this way, Detroit’s reliance on private contractors to dispose of municipal waste exacerbated the growing garbage crisis by divesting them of their oversight authority and making it more difficult to adequately plan for the future.

This crisis situation was emphasized by Southeastern Michigan Council of Governments or SEMCOG in their report to the state as required by Michigan’s 1973 Garbage and Refuse Disposal, which mandated every municipality over 10,000 residents submit a solid waste disposal plan in cooperation with regional authorities. Working with noted Massachusetts-based environmental consultants Metcalf & Eddy, Inc., SEMCOG initiated a survey of all residential, commercial, and industrial waste generation in the tri-county area. The results of the survey indicated many of the same realities regarding waste volume in Detroit as across the country: per-person, per-day rates of waste had risen to nearly fifteen pounds and were expected to

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continue to increase annually. Sanitary landfills, the consultants contended, had not planned to accommodate such increases, and would quickly be phased out. The only long-term sustainable solution, according to their expertise, was the construction of a regional trash incinerator. Yet the regional model suggested by Metcalf & Eddy ultimately fell victim to the same obstacles Combustion Engineering had reported on in their 1969 survey of national solid waste practices, primarily that local officials felt that a regional authority was a “threat” to their own autonomy. The solution, according to EPA researchers, also echoed CE’s call for an expanded role for private contractors, who – as “non-political entities” – could move freely across city and county boundaries to provide disposal service.87

The uncertainty surrounding the future of Detroit’s waste made the city a promising potential customer for disposal companies from across the country. Seeing the strain of municipalities to cope with the national trash crisis, entrepreneurial waste service providers ramped up their recruitment efforts, sending literature and representatives to convince city officials that their disposal alternatives provided the ultimate solution to landfill shortages and expense. In Detroit, such companies were particularly aggressive in their marketing efforts, trying to pull Detroit away from the expensive and time-consuming transfer station-to-private landfill process. In March 1973, the City Incinerator Company of Wisconsin and Grow-Rich Organic Fertilizers contacted Mayor Gribbs’s office asking for city officials to consider the technological advantages of their processes over existing landfill disposal.88 While Grow-Rich’s


88 Clarence Russell memo to Terrian Givens, March 6, 1973, MS: Roman S. Gribbs Collection, 1973 General Files, Detroit, City of, DPW January-April, 377:3, Detroit Public Library, Burton Historical Collection.
primary focus was sewage sludge (another entirely separate, but equally troubling municipal waste during this time), City Incinerator appeared to offer a potential solution to Detroit’s municipal waste issues by decreasing the overall volume of waste at the back end rather than the front. Upon review by the Engineering Department however, the technology that City Incinerator was offering was not robust enough – neither in volume nor technologically – to meet Detroit’s needs. “The incinerator is very similar to our Brush Burning Plants in concept, design construction, reduction capabilities, air pollution control, and efficiency of operation,” argued Engineer A. Strauss, “It is our view that that for incineration of volumes of refuse of the magnitude the City encounters, this system has no advantages.”89 Yet the careful analysis and evaluation of the company’s proposal demonstrates that Detroit was seriously considering such proposals that sought to address the future of their waste.

In fact, when Commissioner Russell had sought the Engineering Department’s input on the City Incinerator proposal, Detroit officials were already discussing another proposal that had come to the mayor’s office. Black Clawson, an Ohio-based waste paper processing company, had offered to construct a 2,000-ton per day “refuse recycling plant” to burn Detroit’s waste, asking only that the city secure the land to locate the plant and pay a 6.45-cent tipping fee per ton of waste delivered. Less than two weeks after the initial proposal, the Mayor Gribbs gathered officials from across city departments to discuss securing Black Clawson the land required and determining the costs of other infrastructure that the city would need to build in order to support the plant. The group recommended a former industrial site at Ferry and Russell streets, located directly along both the Edsel Ford Expressway and the Grand Trunk Railroad line. Yet even

89 A. Strauss memo to Clarence Russell, March 19, 1973, MS: Roman S. Gribbs Collection, 1973 General Files, Detroit, City of, DPW January-April, 377:3, Detroit Public Library, Burton Historical Collection.
those at the meeting recognized the questionable nature of their discussion, suggesting that the Corporation Council be consulted to determine “the legality of the City entering into the agreement proposed by Black-Clawson.” While the thorny questions of mayoral authority, tax liability, and – most importantly for Detroit – project financing were worked out though, the city would continue moving forward with their plan to quickly accommodate the company’s proposal, asking the Counsel to also give them an opinion on “the possibility of using the ‘quick take’ method for land acquisition.”

The speed with which the city sought to move on Black Clawson’s plan is revealing. Most of the parties represented at that initial meeting – the Department of Public Works, Streets and Sanitation, City Engineering – were very aware of the troubled state of Detroit’s solid waste disposal procedures and planning (or lack thereof), and saw in the refuse recycling proposal a promising solution to the dual problems of shrinking disposal space and rising costs. The city’s strong motivation to move forward quickly with the project is even more apparent given their apparent ease with ignoring, for the time being, basic questions of fairness, standard operating procedure, and legality. Not only though was Detroit considering – even remotely – City Incinerator’s proposal while simultaneously engaging in serious internal discussions about Black Clawson for the same service, Commissioner Russell was also in discussion with Metro Waste Conversion Corporation of Texas, a pioneer in municipal composting. “Since the Black Clawson proposal…will only handle 2,000 tons of our waste,” Russell reasoned, “it would seem very wise

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to listen to whatever Mr. Brown [of Metro Waste] wants to propose.”

Russell then, if not city officials more broadly, understood that there was a growing market in waste disposal alternatives in the face of the national garbage crisis and was determined to investigate all of the options available to the city until he found the most favorable option for Detroit.

Detroit officials, like many of their counterparts across the country, were also sharing information and discussing strategies for managing solid waste in the face of rising costs and dwindling resources. In a report to the Mayor’s Office on a national Solid Waste Seminar sponsored by the National League of Cities and the United States Conference of Mayors, Deputy Commissioner of Public Works Galen Grogan reflected on the information he thought most useful to the city, including comparisons with others cities in regards to collection productivity and a “Fair Day’s” wages. Grogan also noted that the “highlight” of the policy forum was an address by East St. Louis Mayor James W. Williams, who “described problems encountered by all core cities with efforts to maintain services and halt physical decay, in the face of a diminishing tax base, etc.” Grogan’s observations reveal the other issues associated with Detroit’s own solid waste problems, particularly that of costs and finances. Grogan, no doubt, saw something of Detroit’s situation in Mayor Williams’s remarks, and acknowledged the city’s limitations in adequately addressing the solid waste question in the face of the high capital costs. Concerns about costs, however, did not deter Grogan from noting the apparent success of St. Louis’s resource recovery demonstration. “We are observing this operation very closely,” admitted Grogan. Yet he and his city colleagues weren’t the only ones taking notice: “In view of the energy crisis,” Grogan suggested, “several cities are looking at the St. Louis process…as a

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91 Clarence Russell memo to Phillip Tannian, March 5, 1973, MS: Roman S. Gribbs Collection, 1973 General Files, Detroit, City of, DPW January-April, 377:3, Detroit Public Library, Burton Historical Collection.
possibility in reducing fuel costs in power plants and also as a solution to the Solid Waste Disposal Problem.\textsuperscript{92} Like the EPA, municipal officials across the country likewise saw the St. Louis Project as the potential “total” solution to their solid waste troubles.

Grogan’s observation that the energy crisis had significantly changed the economic and political landscape around the garbage crisis was accurate: the sudden and acute pressures placed upon municipalities to find fuel and keep the lights on for their residents took some attention off of waste disposal. Yet concerns about fuel sources and costs also shifted the disposal conversation to be less about trash as a threat and more about it as a useful resource.

\textsuperscript{92} Galen D. Grogan memo to Norman Miller, October 19, 1973 in MS: Roman S. Gribbs Collection, 1973 General Files, Detroit, City of, DPW May-December, 377:4, Detroit Public Library, Burton Historical Collection.
CHAPTER TWO

“RESOURCE RECOVERY FACILITY A MUST:” GARBAGE CRISIS, ENERGY CRISIS, AND THE GROWTH OF RESOURCE RECOVERY, 1974-1976

On an unusually cold night in November, over 2,000 people milled around, talking excitedly in the ballroom of the Hilton Hotel Detroit. Ladies wearing colorful headscarves against the cold air and men in suit coats with campaign buttons on their lapels waited anxiously to see if Coleman A. Young would be elected the first black mayor of Detroit. When the word came that Young had narrowly beat his opponent, former Detroit Police Commissioner John F. Nichols, the ballroom’s exploded in jubilation, many well aware of the significance of the moment, exclaiming, “This is history. We saw history tonight.”

The optimism expressed over Coleman Young’s successful election reflected the persistent anxieties and contentiousness that defined Detroit during the late 1960s and early 1970s. The 1967 rebellion had deepened the divide between white and black Detroit, especially over the issue of the police force and crime prevention. This racial division featured prominently in the 1973 primary, a five-way contest between Young, former police chief John Nichols, City Council president Mel Ravitz, former judge Edward Bell, and Wayne State University law professor John Mogk. While Nichols claimed most of the white working-class vote, the progressive vote was essentially divided between Ravitz and Young. Long considered an ally of Detroit’s black community, Ravitz sought to inspire the traditional African American-white

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progressive coalition that he had relied upon as a Council member since the early 1960s. His reputation for building inclusive, community-centered coalitions in city politics even won Ravitz a key endorsement from the United Automotive Workers despite Young’s service as a UAW organizer before and after World War II. Yet politics in post-1967 Detroit were changed, and Ravitz’s goal to again unite white progressives and inner-city blacks was more challenging than
he’d envisioned. Young won the primary with more than 10,000 votes over Ravitz, exposing the fracture of the traditional New Deal liberal coalition along hard racial lines.

The general election saw Young and John Nichols face off in a race that reflected the stratification of Detroit. According to Wayne State University professor and Young biographer Wilbur Rich, the race “pitted a liberal-labor leader with a reputation for radicalism against a law-and-order candidate with thirty-one years’ affiliation with the Detroit Police Department [and] the last stand before the takeover by an onrushing black majority.”\(^2\) Young, then, faced the challenge of securing black voters while not putting off Detroit’s white population who may have perceived of his campaign as a black takeover of city politics. His strategy relied on advocating a sweeping reform agenda and a hard-on-crime stance, while simultaneously characterizing Nichols as a single-issue candidate with little political experience outside of the police force. In a statement to the *New York Times*, Young accused Nichols of orchestrating the heavy-handed police tactics that inordinately targeted young black men in Detroit’s neighborhoods and exacerbated racial tensions, referring to his challenger as “Black-Jack Nichols.”\(^3\) Ultimately, the high rate of new black voter registrations and the low overall turnout – only 56 percent – gave Young an advantage on Election Day. Defeating Nichols by less than 17,000 votes, Young’s appeal to both the city’s white and black population was effective enough to make him the city’s first black mayor.\(^4\)


\(^4\) Rich, *Coleman Young and Detroit Politics*, 105.
Coleman Young’s election reflected the resentment Detroit’s African Americans felt toward law enforcement and their persistent economic marginalization, and his victory saw a surge of black pride and optimism for the future. “To have a black mayor,” wrote Detroit fifth grader Dan Gonzales to Young, “it’s just what the city needs.” Coleman Young represented to many Detroiter the gains in civil rights that African Americans had struggled towards for decades. The new mayor saw his election as a mandate from the people of Detroit to enact his vision for the city. Yet Young was inheriting a troubled city in a troubled nation. Detroit’s automotive industry was sputtering in the face of a national economic recession. Vehicle sales had fluctuated wildly since 1955, losing $4 million in three years and rebounding by 1960 only to fall again in the early in the decade. Detroit’s scores of light manufacturers felt the effects of the recession too, and many businesses that supported the automotive industry picked up and left the city completely by 1970, relocating out to the thriving suburbs of Warren, Troy, and Southfield.

Businesses were not alone in their removal to the suburbs. From the 1950s onward, thousands of residents left Detroit, attracted by the promise of federally-backed mortgages for larger suburban homes, often in racially segregated neighborhoods. Between 1950 and 1960, the city’s population fell more than over 10 percent, a trend that continued between 1960 and 1970. Yet at the same time, the tri-county metropolitan area, which included all of Wayne County as

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5 Dan Gonzales letter to Coleman Young, December 14, 1973 in MS: Coleman Young 1:19 Election Congratulations, Detroit Public Library, Burton Historical Collection.

6 For more on the financial struggles of Detroit in the decades preceding Young’s election, see Sugrue, Origins of the Urban Crisis: Race and Inequality in Postwar Detroit and Darden et al., Detroit: Race and Uneven Development.
well as suburban Macomb and Oakland Counties, grew by nearly two million people.\(^7\) This repositioning of businesses and residents across the metropolitan landscape contributed to a drastic reduction in tax revenue for Detroit. Deteriorating infrastructure and backlogged city services – fallen trees, uncollected trash, burnt out or broken streetlights – regularly drew the ire of the residents who remained.\(^8\) Many Detroiters – white and black alike – were still haunted by the animosities and anxieties produced by the 1967 uprising and by overly aggressive policing in the years that followed.

Amidst the economic and social issues that plagued Detroit, the pressures of the region’s garbage crisis continued to mount. The financial implications of the national energy crisis only served to add new pressure on city officials to more earnestly explore alternative fuel sources. Detroit’s choice then to pursue resource recovery grew out of the intersection of three distinct yet interrelated crises – the garbage crisis, the energy crisis, and the urban crisis. While resource recovery had emerged as an attractive alternative to landfills in light of the financial and political pressures of the garbage crisis, the onset of the energy crisis made the process even more interesting to local planners as a cheap way to produce reliable energy with a plentiful domestic resource – trash. Detroit was no different – city officials’ investigations into resource recovery had started as a way to economically dispose of the city’s household waste as landfill costs increased. Yet with the change in administration in 1973, Detroit’s path forward with incineration was not certain. The onset of the national energy crisis, however, fundamentally changed the political and financial landscape of waste disposal. As cities and towns across

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\(^8\) Citizen letters in MS: Roman S. Gribbs 377:4 1973 General Files, City of Detroit, DPW, May-December, Detroit Public Library, Burton Historical Collection.
United States struggled with fuel shortages, resource recovery was heralded by federal energy and environmental experts as a complete and high-tech solution to two major municipal problems. By adopting resource recovery as their solid waste disposal strategy, cities could burn their plentiful and inexpensive trash to produce steam for electricity. Yet for a city like Detroit that was deeply impacted by the economic limitations of the urban crisis, the promise of federal grants and other resources to help mitigate their garbage crisis was an enticing opportunity. This chapter will examine how the energy crisis prompted federal support for the resource recovery industry and how Detroit and other cities – hoping to cash in on new federal research and development investments – increasingly adopted resource recovery as their waste disposal method of choice.

Given the economic and political pressures created by the energy crisis, the federal Environmental Protection Agency designated resource recovery as its disposal method of choice in the 1970s, encouraging its development in cities across the country through grants and technical expertise to municipal officials. Yet these highly technical and expensive plants were often beyond the achievable for cities on their own, ultimately forcing them into contracts with private industry to build, finance, and operate such facilities.

A “High Energy Society” Reckoning: The Energy Crisis Hits America

In October 1973, leaders of the Organization of Petroleum Exporting Countries (OPEC) placed an embargo on exports to the United States and threatened sustained cutbacks of overall oil production to 25 percent. Led by Saudi Arabia, OPEC’s actions were retaliation against President Richard Nixon’s support of Israel over Egypt and Syria in the Yom Kippur War. By

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putting economic pressure on the United States, OPEC believed it could turn American foreign policy to favor the Arab states in the Middle East. By December, the per barrel cost of oil had quadrupled. Though the United States was the largest producer of oil in the world, it still imported 36 percent of its total needs in order to meet Americans’ enormous demands. The national energy crisis – this acute shortage of oil to fill American gas tanks, heat homes, and power industry – was a defining event of the 1970s and precipitated a new questioning of the heretofore unstoppable growth and success of the American economy.

In his televised response to the crisis President Nixon detailed the new federal strategy, called “Project Independence,” which sought the energy autonomy of the United States by 1980. Both in the goal and the name of the plan, the president characterized dependence as a threat to American security. The severe impact of the oil embargo on industrial production demonstrated that reliance on imports left the economy and, therefore, national security vulnerable to foreign influence. President Nixon assured the nation, “There is no crisis of the American spirit” yet had he visited gas lines that stretched for blocks in cities and towns across the country or spoken to factory workers laid off due to manufacturing reductions, he would have found evidence that the American spirit, while perhaps not in crisis, was anxious, confused, frustrated, and even angry.

The energy crisis also deepened the era’s growing skepticism that government was responsible for solving all national ills. The federal response to the crisis included the creation of the new federal Department of Energy as well as new price controls and oil rationing, all of

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which expanded government intervention into the market. Yet, as Meg Jacobs suggests, the ultimate failure of these federal efforts to stabilize the crisis eventually contributed to the turn of American politics towards the right. Taking advantage of the crisis mentality, conservative insiders put forth a message that pointed to restrictive environmental and economic regulations as the reason for American energy dependence. These political restrictions limited the free market’s ability to locate, research, and tap into new domestic sources of energy. The solution to American vulnerability then was the unfettered ability to cultivate new energy sources.¹²

New energy sources did not just mean turning to previously untapped domestic reserves of oil and natural gas. In 1974, the Senate allocated $10 billion over five years for research and development in energy, with the majority of funding directed towards nuclear power, the centerpiece of Nixon’s Project Independence. The national mood surrounding nuclear energy, however, was increasingly uneasy. Factions of the growing environmentalist movement saw nuclear energy as an unmitigated improvement over fossil fuels in terms of reducing air pollution and the environmental impact of extractive industries. Yet others expressed concerns about nuclear proliferation, a lack of national planning around radioactive waste disposal, and the potential for catastrophic accidents in plants.¹³ As utilities began to bring new nuclear plants from plans to reality, the partial meltdown at Three Mile Island in 1979 quickly shifted the national mood surrounding nuclear energy from cautiously optimistic to outright fearful. Since

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¹² Jacobs, Panic at the Pump, 7-9.

1970, over 120 plans for reactors were ultimately cancelled. Between 1979 and 2013, no new nuclear power plants were built in the United States.\(^\text{14}\)

Nuclear energy was also a tough sell in southeast Michigan. The near-meltdown at Detroit Edison’s Fermi #1 Nuclear Generation Facility in 1966 made citizens and politicians skeptical about the safety of nuclear power. Located in Monroe forty miles downriver from Detroit, Fermi was an experimental breeder reactor that would, in theory, produce more energy than it consumed. Early iterations of this type of reactor were considered riskier than conventional water-cooled reactors built in the 1940s and 1950s because their cooling mechanisms relied on the nonstop circulation super cool liquid sodium, a highly volatile substance that would explode if exposed to water or air. Both the unstable materials and the speed at which reactions took place meant that technicians had a smaller window of time to regain control over the system if anything went wrong. Thus, when radiation alarms went off throughout the reactor building in October 1966 followed by an announcement: “This is a Class 1 Emergency,” Michiganders living near the plant panicked.\(^\text{15}\)

The incident led author John Fuller to describe nuclear power as “an unforgiving technology…[with] no room for error.” “Let’s face it,” he concluded, “we almost lost Detroit.”\(^\text{16}\)

\(^{14}\) Larry Parker and Mark Holt, “Nuclear Power: Outlook for New U.S. Reactors,” Congressional Research Service, March 9, 2007, 3; Construction on two new generating units at the Allen W. Vogtle Electric Generating Plant in Georgia began in 2013 with operation to start in 2021. In 2016, the Utah Associated Municipal Power System (UAMPS) received construction and operation permits from the Department of Energy on twelve “small module reactors” (SMRs). These are set to begin operation in 2026.


\(^{16}\) John Fuller, We Almost Lost Detroit, (New York: Readers Digest Press, 1975), 1; Fuller also wrote about the dioxin poisoning of Seveso, Italy in The Poison that Fell from the Sky and was praised by the New York Times in his October 2013 obituary for “raising the most unsettling of questions” in his many books.
Fuller’s rejection of nuclear energy was echoed by many Michiganders, which left few options for large-scale electricity generation from alternative sources. The episode ultimately ended Detroit Edison’s plans to bring two more reactors online at the Fermi site in 1977 and 1982 and to build a new pair of reactors at Greenwood Energy Center north of Port Huron as part of a goal to generate one-third of their energy from nuclear sources by 1983.17 The public rejection of nuclear energy in the late 1960s had a significant impact on Michigan’s search for alternative sources of energy during the 1973 energy crisis.

The majority of power plants in Michigan during the 1970s were coal-fired, and the state thus luckily avoided most of the crippling electricity shortages common in regions that relied more heavily on fuel oil. But the effect on the state’s economy was serious. Having built itself on the automotive industry, a drastic spike in oil prices transformed cars – once manifestations of postwar middle-class abundance – into economic burdens, drains on a family’s little income amidst persistent “stagflation.” Put off by the economic squeeze of the fuel crisis, leery consumers avoided car lots and drove vehicle sales downward. Between 1973 and 1974, Detroit automotive companies produced over two million fewer passenger cars for a total loss of nearly $5 million.18

Although electric power generation in Michigan was primarily coal-based, many homes, buildings, and factories throughout the state did burn fuel oil for heat. In November 1973, Governor William Milliken addressed the legislature demanding their support for his emergency

17 “Effects of the Energy crisis on Detroit,” MS: Coleman A. Young Papers 15:7 Energy crisis 1974, Detroit Public Library, Burton Historical Collection. Fermi #2 would not open until 1988 and Fermi #3 is still not built, although DTE did pay $300 million for the permit in 2005, a cost which was covered by the Bush administration under the Energy Policy Act of the same year.

18 Holli, Detroit, 269
energy conservation measures. “Few states have the potential of greater discomfort and
disruption from the energy crisis as Michigan,” the governor explained. “We have long, cold
winters and…ninety-five percent of the oil and gas consumed in Michigan comes from outside
Michigan.” To address the potential crisis, the governor also declared a “Severe Energy
Shortage” in the state, an emergency action that would give the Executive Branch new expanded
authority to implement sweeping energy conservation measures, including suspending laws
passed by the legislature for a period of forty-five days, mandatory outages of streetlights across
the state, and restrictions on hours of operation for stores and businesses.

In addition to addressing the ongoing crisis, Millikan also looked to assure the state’s
future energy security by encouraging the development of new alternative technologies.
Michigan’s “technological resources…colleges, universities, and private research centers” were
among “the finest in the world,” the governor asserted, and their expertise ought to be put to the
task of identifying long term solutions to the nation’s energy needs. Finally, Milliken outlined a
“Statewide Ethic of Energy Thrift” that called for residents, government, and industry to “do
their share in energy conservation:” walking instead of driving, turning off lights, dialing down
the thermostat. In doing so, stakeholders across the state would “share our shortages equitably,”
the governor explained.19 Yet Milliken’s message said very little about how the state would hold
private industry accountable in shouldering their share of the conservation burden. While he
admitted that the “obligation of government is to take actions which are effective” and citizens
would be asked to make “sacrifices…in this time of energy shortage,” any long-term solution to

19 Michigan Legislature, Journal of the House of Representatives of the State of Michigan, Regular Session 1973,
Vol. 4, 2741-5.
energy stability, the Governor explained, should not involve the “encroachment of government upon the private sector.”

State legislators, meanwhile, worked to pass an emergency energy bill that protected Michigan residents from “heatless days and a lack of electric power” and address Governor Milliken’s calls for research into alternative energy and resource conservation.\(^{20}\) In 1974, four senators representing the Detroit metropolitan region – the area most impacted by both the garbage crisis and the energy crisis – introduced a bill “to establish a solid waste authority” in the state of Michigan. During the initial debate on the measure, Senator Gordon Rockwell of Genesee and Livingston Counties and a leading conservationist in the legislature, amended the bill’s title to establish a statewide “resource recovery commission,” suggesting the state’s interest in pursuing waste disposal and the recovery of useful resources together as a unified goal.

By the time it had passed to the governor’s desk for his signature, the bill’s purpose grew clearer. The Resource Recovery Act of 1974 sought to “encourage the conservation of natural resources through the promotion or development of systems to collect, separate, reclaim, and recycle…materials of value from waste, for energy production uses, and to provide a coordinated statewide waste management and resource recovery program.”\(^{21}\) This definition reveals why resource recovery was so appealing to so many different stakeholders. The process was meant to recover value – whether through recycled materials or energy production – from waste. In this way, state government sought to extract worth from that which was worthless: trash. While the


businesses of waste management had long been profitable, resource recovery, as defined by the state legislature, reframed waste itself as a valuable and productive commodity.

In Detroit, city officials believed they would have enough coal and natural gas to avoid the direct impact of the crisis. “In the area of primary energy resources and power production, Detroit and Wayne County are in one of the best positions in the country to weather the energy crisis without undue hardship,” a report to Mayor Coleman Young indicated. “Both major utility companies will be able to provide full service to existing residential customers and, with certain limitations, for commercial and industrial users.”22 In November 1974, Public Lighting Commission Superintendent Claude Bradford likewise reported the city had enough coal to “last until April 1,” including a commitment to supply 6,000 tons of coal to the Jefferies Housing Project to heat the complex through the winter. Detroit even had enough extra coal, according to Bradford, for the Public Lighting Department to keep the city’s Christmas tree lit the entire fifty-day season despite requiring nearly 100 tons of coal per day.23

Still, Young and his staff did anticipate productivity slowdowns at the major manufacturing plants, especially at the General Motors and Chrysler factories. A report to the Mayor’s Office on the crisis indicated that the “disruption caused by the decline in auto sales, and the shut-down period required to convert production lines to smaller car assembly may cause considerable hardship in Detroit” including “an unemployment rate four or five percentage


points higher than the national average,” up to 10 or 11 percent.\textsuperscript{24} While those future predictions were troubling, the impact of the crisis was already evident: car sales had dropped 13 percent and automakers laid off over 177,000 workers. Not only were the Big Three selling fewer cars in response to the energy crisis, the cars they were selling were mostly smaller and cheaper, prompting the \textit{New York Times} to ask, “Can the auto makers earn enough from smaller, more efficient cars to stay in business?”\textsuperscript{25}

Young appointed executive staff member Dan Dozier to track policy and economic changes related to the oil shortage. The mayor also organized a new task force that included key stakeholders from the coal and gas industries, Detroit Edison, the United Automotive Workers, city government, Wayne State University, and local business.\textsuperscript{26} At their first meeting in December 1973, the Task Force reported that natural gas customers would most likely have access to fuel throughout the winter, but shifts in the coal supply from Detroit’s supplier, meant that 10,000 residents – including those in the Jefferies Housing Project – would be short of or without coal for up to fourteen days beginning in January 1974.\textsuperscript{27} These shortages, the Task Force found, also extended to the city’s hospitals and nursing homes, four of which were already reporting fuel oil shortages. The Task Force also gathered information about converting older


residential coal and oil furnaces to natural gas. But with costs ranging from $350 to $1200, conversion was not realistic for many of the city’s residents.

Yet some Detroitors saw new possibilities. In *The Detroiter Business News*, Bank of the Commonwealth President and CEO A.A. Snyder conceded that “in the short-run, the Detroit area will feel the effects of the decline in big car sales,” but “in the long-run it will benefit from the changes the industry will undergo.” “Rather than tremble at the massive investment of men and money” that would inevitably come with huge shifts in the industry, explained Snyder, “we should delight in the challenge and opportunity it presents.”28 In taking such an optimistic tone, Snyder, of course, hoped that his bank and others in the Detroit area would be called upon to finance the plant conversions necessary to achieve such change. But Snyder was considering the crisis’s impact even beyond Detroit, suggesting that “the energy crisis affords us another opportunity [as] the nation will require every ounce of innovation we can muster if we are in fact to achieve self-sufficiency by 1980.”29

“Less pessimistic than the pessimists and less optimistic than the optimists:” Detroit’s Public Lighting Department

Detroit’s most pressing issue related to the energy crisis stemmed from the planned expansion of the Public Lighting Department, a body created at the turn of the century to provide the city’s electrical service at a lower cost than could be achieved in open bidding.30 For decades,

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29 ibid.

30 The Public Lighting Commission became the Public Lighting Department on July 1, 1974 with the adoption of the new city charter. However, many employees continued to call the department the PLC in their communications. I will use Public Lighting Department or PLD in my own verbiage, but will use PLC when quoting city employees
the Department produced energy for a cost of 5 percent less than Detroit Edison, encouraging Wayne State University, the Detroit Board of Education, and other state and federal clients downtown to contract with the Department for their power needs rather than Detroit Edison starting in the 1960s. These new contracts led to an enormous expansion of the Department, which had not seen any major upgrades to its operations or infrastructure since its creation in 1905.

In order to facilitate this expansion of service as well as address air pollution concerns from the newly created Wayne Country Air Pollution Board, the Public Lighting Department planned to transition their boilers at the city owned Mistersky Power Plant from coal to comparatively cleaner-burning oil in the 1960s. Yet what had seemed like a wise decision for the plant was, in light of the energy crisis, increasingly expensive and logistically difficult. “Because of a series of decisions by prior administrations, compounded by decisions within PLC and the recent events in the Middle East, costs have increased to a point where we are no longer competitive with Detroit Edison,” explained Budget Department Analyst Robert Banyai to Director Gerald Fischer in January 1974. The continued transition of the existing boilers to oil and the installation of new oil-fired boiler #7, Banyai said, would increase the Lighting Department’s kilowatt per hour costs from 1.8 cents in 1973 up to 3.6 cents in the next fiscal year, for a total increase of up to $8 million. To continue on the current path, according to

who used the term. For more information on municipal utilities and their creation during the Progressive Era, see Martin Melosi’s *The Sanitary City.*
Banyai, would mean losing clients to Detroit Edison, resulting in “poor public relations” and “an expanded plant with…higher depreciation charges to spread over a decreased load.”

Banyai offered four alternatives to the situation. The first called for city officials to exercise “political pressure” to secure natural gas – demand for which was growing quickly – as an alternative to fuel the boilers. Second, the Public Lighting Department could discontinue service to all non-city clients and put an indefinite hold on all plant expansion. The third and “least desirable alternative,” according to Banyai, was for Detroit to maintain the status quo and face an eventual financial crisis during Coleman Young’s first term as mayor. Finally, Banyai suggested the conversion of both the new and existing boilers to “utilize shredded refuse as fuel.” This final alternative resulted in the “greatest possible savings” since the cost of shredding and delivering the refuse to PLC at the Detroit’s Mistersky Power Plant would decrease the amount of required oil and was “below [the city’s] current cost of refuse disposal.”

Rather than pay haulers to transport Detroit’s garbage to their private landfills, Banyai suggested that municipal waste was not waste at all but fuel, and therefore a solution to the city’s financial problems.

Responding to Banyai’s concerns in a memo to City Controller Dennis O. Green, Public Lighting Department Superintendent Bradford found Banyai’s optimistic suggestion that Detroit convert its boilers at the Mistersky plant to burn refuse to be both too expensive and too uncertain. Bradford based his determination of the refuse-burning proposal on a Combustion Engineering report titled “Closing the Refuse Gap,” which the company had presented at the

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32 ibid.
meeting of the American Society of Mechanical Engineers the previous year. But Bradford did not disregard the use of refuse as fuel completely – at the end of his memo, he revealed that the Lighting Department and the Department of Public Works had been “approached by Combustion Engineering, Inc. with a proposal to sell steam to the PLC which has been generated by burning prepared city refuse.” According to Bradford, the proposal included CE’s promise to “finance and construct a refuse sorting and preparation facility and a steam generating facility at no cost to the city.” This allowed Detroit’s garbage to be disposed of for less and would generate steam for the Mistersky plant that was also less than current fuel costs. The benefits, Controller Green suggested, were “a solution to [the garbage problem] which the ecologists and conservationists can accept,” with “NO capital investment [by the city] other than minor steam piping.”

The debate about the uncertain future of the Public Lighting Department eventually attracted the attention of the Mayor’s Office. Young appointed Executive Assistant William Cilluffo to organize a task force “to evaluate the current policy of the PLC and develop policy as regards…the effect and relationship to PLC of the development of a refuse recycling facility.” The stated goals of the meeting show that the mayor was seriously considering a resource recovery plant in light of the Lighting Department’s fuel cost problems in light of the energy crisis. Cilluffo’s task, however, was frustrated by a lack of solid data, so that moving forward quickly with a plan of action was not realistic. “It is impossible to make an informed decision until and unless the facts are made clear as to what the objectives of PLC are; what its current

operating status is; where PLC is going in the future,” he explained. Cilluffo concerns about the discrepancies between different departments reveal the lack of clear and transparent communication within City government in the early days of the Young administration. While potentially a symptom of the “crisis” nature of PLC’s situation, such failures of communication ultimately prevented city officials from making fully informed decisions on key issues.

When the task force reconvened a little over a month later in April 1974, they had come to a number of uneasy conclusions about the future of the Mistersky Power Plant. First, the national fuel oil supply was shrinking and would likely be unavailable for the rest of the year. This meant Detroit officials had to reconsider the planned conversion of boilers #5 and #6 from coal- to oil-fired. But to do so meant losing one-quarter of the funds the city had already spent on the total $30.5 million conversion, plus spending an additional $16.2 million to purchase a new coal powered boiler if they wanted to maintain service to all of their non-city clients. Moreover, the Lighting Department’s supplier, Burns & Roe, suggested that the federal Environmental Protection Agency would soon ban all coal storage in cities in order to reduce harmful coal dust pollution. The task force’s report also confirmed that refuse burning was not a viable alternative at Mistersky: the new oil-fired Unit #7 could not accommodate waste because it lacked an ash control mechanism. The same was true of Units #1-6, even though they were originally coal-burning boilers. These older units had not been designed with adequate pollution controls for coal, much less for mixed municipal waste, and had already been identified by the Wayne

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County Air Pollution Commission as the number one source of airborne particulate matter in the entire county.\(^{35}\)

Furthermore, even if the boilers were able to burn refuse, the storage volume of milled waste was four times that of coal and Mistersky was hemmed in on both sides along the densely industrialized bank of the Detroit River south of downtown. While the task force report asserted that the “conversion of Mistersky to direct firing of refuse is not recommended,” it also suggested that “refuse could be utilized by constructing and firing a boiler designed for refuse burning to generate steam for use in the existing turbine generator units 1 through 4.” The previous administration’s Department of Public Works, the report continued, had been preparing a Request for Proposals for just such a trash burning plant for over a year.\(^{36}\) Now the energy crisis gave city officials another compelling reason to move forward with such a project.

Overall, the task force recommended halting work on the conversion of Mistersky’s #5 and #6 boilers until a contract for fuel oil could be secured, while installation of the new #7 boiler would continue in the hope that fuel oil would eventually become available by the time the unit was complete in 1976. In this way, the Public Lighting Department would be able to continue offering electrical service to its customers no matter which way fuel prices fell: “We are inclined to be less pessimistic than the pessimists and less optimistic than the optimists,” the task force explained in their report. “Hopefully, solid refuse may help relieve these high coal and fuel oil costs. Every effort should be made to use solid refuse in such a way as to benefit both the


\(^{36}\) ibid.
Department of Public Works and PLC.” The persistent interest in waste as a potential fuel source despite the technological barriers present at Mistersky reveals the deep anxieties city officials felt about the price and availability of fuel in the coming years.

Eyeing Garbage Greedily: The Impact of the Energy Crisis on Resource Recovery

The tone and message of the garbage crisis – both in Detroit and across the nation – changed drastically with the onset of the energy crisis. With a scarcity of traditional fuel resources and new federal support for alternative energy development under President Nixon’s Project Independence, resource recovery – burning trash to create steam that could be converted to electricity with a standard turbine much in the same way as traditional carbon-based fuels – became a national priority. Unlike older incinerators, which often recaptured the heat produced by burning household waste, newer resource recovery systems focused on recovering saleable products, like recyclable materials and steam. Viewed through the lens of capitalism, trash was thus transformed from a public health threat to a valuable commodity that could produce cheap, reliable, domestic energy. Such resource recovery plants were one of many strategies cities considered to cope with their impending garbage crises. Yet high cost, lack of effective pollution controls, untested technology, and the ease of simply maintaining the status quo deterred many local governments from moving forward with resource recovery systems. In New York for example, city officials proposed a 6,000-ton per day trash incinerator to be built in the decommissioned Brooklyn Navy Yard, but after costs rose far beyond initial expectations – to

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nearly $200 million – and community backlash grew virulent, city officials abandoned the project in 1971 after four years and nearly $8 million spent on planning.\footnote{38 David Bird, “Incinerator Plan Dropped; City Cites Costs and Pollution,” \textit{New York Times}, August 6, 1971.}

Yet other cities were moving forward with their resource recovery facilities. In Hartford, Connecticut, plans were underway to construct a 2,000-ton per day plant that would come on line in 1975, while local officials in Dade County, Florida were in negotiations to build a facility that could eventually burn 6,000 tons per day. At least twenty-two cities – from Portland, Oregon to Nashville, Tennessee – had resource recovery systems currently operating or were in final negotiation or construction phases for their facilities in November 1975. That same year, the federal EPA estimated that approximately 14 million tons of waste would be processed through resource recovery plants annually over the next five years. Given the number of planned plants across the country and the EPA’s ambitious research and development program, the Agency predicted that resource recovery plants would dispose of over 100 million tons of waste annually by 1990.\footnote{39 Environmental Protection and Maintenance Department, “City of Detroit Proposed Resource Recovery System,” August 4, 1975 in MS: Coleman A Young, 63:9 Resource Recovery Facility 1975, Detroit Public Library, Burton Historical Collection and U.S. Environmental Protection Agency, “Base Line Forecasts of Resource Recovery, 1972 to 1990,” (Washington D.C., 1975), 51.}

While incineration had been a waste disposal option for municipalities since the late nineteenth century, resource recovery systems in the 1960s and 1970s were highly technical and complex, and the field was developing rapidly. In the first half of the twentieth century, most early incinerators were designed as “mass burn” facilities that did not pre-sort plastics or other recyclable materials out of municipal waste before burning. Newer resource recovery plants, however, were usually Refuse Derived Fuel – usually called RDF – systems, which used
mechanical cutters to shred incoming waste and conveyor belts to separate out non-combustible materials in order to produce an even-burning, easily combustible mixture suitable as fuel. At the facility, garbage trucks unloaded their waste into storage bunkers that could hold thousands of tons of trash. After magnets removed metals (which could be easily resold to scrappers), a front-end loader compacted and moved the waste onto a conveyor belt where engineers sorted out noncombustibles like glass and rubber from the stream with a camera and mechanical crane. The waste then continued to move via the conveyor belt into the RDF system shredder and then into boilers to be burned.

In the boiler, temperatures of up to 825 degrees Fahrenheit completely incinerated the waste, creating steam, gases, and ash. The steam then entered into either a city’s district heating system or a typical turbine-generator where it could be converted to electrical energy. The gas flowed through air pollution controls mechanisms, like baghouse filters, electrostatic precipitators, or acid gas scrubbers to remove particulate matter, mercury, carbon monoxide, and other hazardous emissions. Lighter “fly ash” was moistened and fell to the bottom of the boiler to combine with the heavier “bottom ash” before being collected and disposed of in a landfill or sold to construction companies who used it as filler for concrete. Ultimately, waste would be reduced down to a pile of ash approximately 20 percent less by volume compared to waste before the burn, reducing a city’s landfill requirements by up to 80 percent per year.40

The need for cheap and reliable energy after the 1973 energy crisis revived many local discussions around resource recovery since facilities offered the triple advantages of cheap steam power, extra revenue from recovered recyclable materials, and a substantial reduction of waste

volume. The federal Environmental Protection Agency supported local governments that were interested in resource recovery with expert research and data from demonstration projects. The EPA-funded St. Louis-Union Electric project, for example, was able to sell recovered metals to local scrappers for over $20 per pound.\textsuperscript{41} Furthermore, the Agency reported that the potential heat energy of the country’s total refuse produced in 1974 was equivalent to the energy produced by burning 500,000 barrels of oil.\textsuperscript{42} In these reports and others, the EPA demonstrated that waste was a useful resource that could be realized through new resource recovery technology. But this new technology was also expensive and relatively unreliable. While some municipalities saw resource recovery as a potential solution to the duel problems of generating cheap, reliable energy and disposing of ever-increasing amounts of waste, the capital costs and high risk associated with such technologically-complex systems were often too great for cities to bear on their own. Luckily for local officials, the relatively new Environmental Protection Agency could offer both technical expertise and grant monies to support new projects.

The energy crisis had a clear impact on the EPA and its efforts related to solid waste management. Since the onset of the garbage crisis in the 1960s, the federal government – first as the Bureau of Solid Waste under the Department for Health, Education, and Welfare and after 1970 as the EPA – had encouraged regional waste management planning and the construction of new resource recovery plants in order to mitigate the continuing garbage crisis. Yet the onset of the energy crisis suddenly made the recovery of useful energy from burning solid waste an even more attractive process. The priorities of the EPA regarding solid waste shifted accordingly:


\textsuperscript{42} “Base Line Forecasts of Resource Recovery, 1972 to 1990,” U.S. Environmental Protection Agency, 55-56
between 1970 and 1975 the Agency initiated five new resource recovery projects in Nashville, Baltimore, San Diego County, West Virginia, and Los Angeles. This was in addition to the flagship St. Louis-Union Electric demonstration project that added shredded waste to pulverized coal in order to decrease the overall cost of fossil fuels to the city. In order to provide the expertise necessary to expand their national resource recovery program, the EPA turned to the private sector to collaborate with the Agency on research that would ultimately shape federal policy. Such government subsidized support for resource recovery reflects the pro-business leanings of the early EPA, an alliance that left many environmentalists uneasy with the Agency and its role as a national oversight authority over private industry.43

The energy crisis made the EPA’s priorities in developing resource recovery projects even more vital. “The current fuel crisis,” explained one Agency report, “has significantly increased the value of [solid waste energy products] and reduced the need to provide special incentives to enhance their marketability.” In this new economic landscape, EPA engineers were interested in developing an array of refuse-derived fuel products with different applications and each of the five new resource recovery projects sponsored by the EPA demonstrated a different process for recovering fuel from waste. Even more significant, fifteen major metropolitan regions were investigating resource recovery systems independent of direct Agency support, including Philadelphia, Chicago, Washington D.C., San Diego, and Detroit.44

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Yet many of the EPA reports developed between 1973 and 1976 relied on economic and resource assumptions that ultimately proved incorrect. For example, resource recovery forecasts out to 1990 were based on the EPA’s assumption that the energy crisis was more likely “to manifest itself as an inducement to resource recovery than to a basic change in demand patterns.” The rise of the environmentalist movement in the early 1970s combined with the close-to-home impact of the energy crisis did actually encourage change in the consumption patterns of some Americans. This aligns with Thomas Jundt’s work showing that many Americans who were concerned about corporate power over the environment and who did not see policy change as a viable solution used their power as consumers to challenge the status quo of American capitalism and politics and effect change. The strength of the environmental consumer movement throughout the 1970s and into the 1980s, as well as successful public information campaigns, did much to shift the daily habits of many Americans, despite the EPA’s predictions to the contrary.45

Resource recovery growth estimates were based on the assumption that traditional carbon-based fuel resources, especially natural gas and coal, would become scarcer and continue to increase in cost by up to 5 percent every year. As these finite fossil fuels became more expensive and energy costs overall increased, the EPA also predicted that resource recovery technology, especially the costs associated with processing and transporting waste, would become more economical. By 1990, the Agency estimated that “rising energy costs, coupled with increasing land costs (for disposal sites)” would make financing high-tech resource recovery plants more economical than continuing to rely on landfills in twenty-five to sixty-five

municipalities across the United States. Yet these assumptions regarding increasing costs for fossil fuels did not turn out to be true. Previously untapped domestic sources of coal and oil ultimately pushed prices of both resources back down to 1970-levels by 1990.

While EPA predictions about fuel prices might have pushed some municipalities to consider resource recovery for their waste disposal, there were very real problems facing existing plants. In St. Louis, the initial excitement that surrounded the city’s collaboration with Union Electric had diminished following three years of underperformance primarily due to maintenance issues. An EPA report on operations from November 1973 to March 1974 documented a number of problems with the facility, from built-in design flaws to operating inefficiencies that slowed or even stopped waste processing completely. Out of a potential 616 full capacity operating hours, the plant ran less than half, 264 hours. Nearly 40 percent of those lost hours were attributed to delayed trash pickup, sanitation worker strikes, and a fire that broke out in February 1974. Furthermore, the Agency reported that over 77 percent of the costs associated with the plant went towards maintenance. The pneumatic tubes that connected the refuse receiving area to the storage area, for example, had to be replaced multiple times due to excessive wear from incoming shards of glass, metal, and ceramics, while crews reported that refuse storage bin walls bulged out when it was filled, threatening to split the walls at the seams. While these issues were individually manageable, taken together they revealed deep problems for resource recovery in its early stages.


48 Sutterfield, “Refuse As A Supplementary Fuel For Power Plants.”
Like cities across the country, Detroit was considering a resource recovery plant as a solution to the dual crises of energy and garbage. After taking office in 1974, the Young administration picked up where Mayor Gribbs and his Department of Public Works had left off, even keeping Gribbs’s Superintendent of Solid Waste, Clarence Russell on staff. In a memo from new Public Works Commissioner James Watts to Young, Watts reviewed the actions of the previous Gribbs administration, including offering an enthusiastic description of a potential site at the intersection of Russell and Ferry Street, less than two miles northwest of downtown. The 27-acre site would be large enough, Watts explained, to build the “recycling plant” as well as centralize the city service yard to one location. “Acquisition of this site,” Watts continued, “is an essential first step to beginning the urgent task of replacing the shamefully inadequate hovels now used as District Service facilities [and] permitting the return to the tax rolls of this valuable property and initiating action to construct a Recycling Plant.”

The site was in many ways ideal for a resource recovery plant. In addition to being nearby an existing Detroit Edison power plant, the site also was located at the intersection of the area’s two major expressways, the east-west Edsel Ford Expressway and the north-south Chrysler Expressway from which waste haulers could drive loads from the entire length of the city. Watts’s memo also described a facility that was far larger than anything considered by the

49 James Watts memo to Coleman Young, April 9, 1974 in MS: Coleman A. Young Papers 36:7 Public Works #1 1974, Detroit Public Library, Burton Historical Collection.
previous administration, one that could process up to 4,000 tons of waste per day. This was more than twice the capacity of any other existing resource recovery plant in the United States.\textsuperscript{50}

James Watts was an unusual leader for such a project. A lawyer and former president of the Michigan NAACP, he had very little experience in waste management, building codes, or most other responsibilities expected of the city’s Public Works Department. What he did have was the trust of Coleman Young, with whom he had worked as a United Automobile Workers organizer for thirty years. “Mayor Young,” Watts wrote to DPW workers in 1974, “has told me to make Detroit ‘the cleanest big city in the nation’…I intend to do just that.”\textsuperscript{51} Young knew he could rely on his friend and colleague, who he often called “Jimmy” in official city communications, to forward his administrative vision.

Despite being described by local media as abrasive and outspoken, Watts also understood the power of media to sway public opinion and lend legitimacy to the new administration. In a memo to mayoral assistant William Cilluffo, Watts complained that the lack of a permanent publicist in his department left him ill-equipped to distribute accurate and engaging stories on the city’s work in environmental protection to the general public. “To complicate matters, we are now moving into some new areas of concern in environmental protection which will require a full-scale information program.” Watts argued that effectively communicating the city’s interest in environmental concerns that would improve the quality of life for Detroiters could be a major boon to the city’s image when so many other things – the budget, racial tensions, labor unrest –

\textsuperscript{50} James Watts memo to Coleman Young, April 9, 1974 in MS: Coleman A. Young Papers 36:7 Public Works #1 1974, Detroit Public Library, Burton Historical Collection.

\textsuperscript{51} DPW Newsletter February 1974 in MS: Coleman A. Young Papers 36:7 Public Works #1 1974, Detroit Public Library, Burton Historical Collection.
were going wrong. “[A] well-planned and implemented public information program…will enable us to tell the public what Mayor Young is doing to protect the environment and keep the City clean,” explained Watts. In a statement to Public Works employees following his appointment, Watts called his new role “the greatest personal challenge of my life.” That was probably true. And the greatest challenge of Watts’ new role would be to make the city’s Resource Recovery facility a reality.

Yet James Watts had other, more urgent battles to fight in the months following his appointment. The first was the reclassification of his department from Public Works to the Environmental Protection and Maintenance Department under the new 1974 City Charter. While

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this reconfigured unit performed many of the same tasks as its predecessor, the altered name revealed city officials’ growing awareness of the environment, pollution, and public health. This change mirrored broader shifts in American culture as environmentalism became more mainstream. The establishment of Earth Day, the creation of the Environmental Protection Agency, national battles for the preservation of open space, and increasingly visible “green” consumer movements all contributed to the shaping of a new national consciousness related to the environment. This increased consciousness was also reflected in the very language of the new city charter: whereas the previous charter did not once mention the word “environment” under the twenty-two duties of the Public Works Department, the word appeared in all four sections defining the new department and its role in city administration.\textsuperscript{53}

The new Environmental Protection and Maintenance Department’s responsibilities included street maintenance, vehicle management, building maintenance, and solid waste management, including the continued work towards the construction of a new resource recovery plant. Although the enumerated duties were substantially the same as those under Public Works, the new charter language was more vague, which Watts seized as a reason to draw in new responsibilities previously managed by other departments, including managing the City Pound and the Engineering Department. Watts’s consolidation efforts did have some benefits to Detroit.


\textsuperscript{54} Detroit City Charter, 1918 and Detroit City Charter, 1974, 32-33.
The Engineering Department, for example, had no Personnel Office or individual who negotiated with the labor unions represented in the Department, which Watts argued put their employees at a disadvantage. “I think,” explained Watts, “this is another reason why the City Engineering Department should be returned to the Environmental Protection and Maintenance Department where it rightfully belongs (smile).” Yet the expansion of his Department to encompass more staff and more responsibilities ultimately created more work for an already overtaxed James Watts.

The most pressing problem Watts faced was a projected financial shortfall in 1975. The Budget Office’s analysis for the city’s approaching fiscal year anticipated a $100 million deficit. Analysts pointed to decreased property tax revenue as more residents continued to leave for the suburbs, as well as decreased income tax revenue as national “stagflation” caused layoffs in businesses across the city, especially in manufacturing plants. While similar situations played out in cities across the country, Detroit – with its reliance on a single industry – was particularly vulnerable to national economic slowdowns. Budget Director Walter Stecher’s notes outlining other municipalities’ responses to their own budget woes read as an ABCs of urban austerity in the 1970s: Atlanta cancelled all annual pay raises for city employees, Baltimore instituted a hiring freeze and cut over 2,500 positions within city government, while Cleveland laid off over 1,000 employees and reduced garbage collection to once every two weeks. Yet Stecher seemed most compelled by New York City’s sweeping austerity measures, drawing a star next to his

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notes on their strategy: nearly 25,000 city workers laid off, five fire stations closed, and police officers taking on unpaid overtime to avoid layoffs.\footnote{Examples of Wage, Work and Force Reductions” in MS: Coleman A. Young Papers 41:24 Budget 1974-75 Analysis, Detroit Public Library, Burton Historical Collection.}

Detroit would replicate some of the same measures to meet their budget shortfall. 3,200 city layoffs would account for $52 million of the anticipated gap. All city employees were asked to write to the Mayor, foregoing their annual pay raise. The Budget Office meanwhile asked each department to present two scenarios, one that reduced their operating budget 15 percent, another by 25 percent. In Watts’s department, the 25 percent reduction could only be achieved through the elimination of twenty different budget items, from all new city vehicle purchases (including 500 new police cruisers and motorcycles) and all alley cleaning and street resurfacing to all backup garbage crews and all security watchmen for city buildings.\footnote{“EPMD Proposed Cuts in 1975-76 Budget Allowances to Conform to Required Reductions of 15% and 25%” in MS: Coleman A. Young Papers 41:28 Budget 1975-76 Recommendations, Detroit Public Library, Burton Historical Collection.} While the Budget Department only reduced Watts’s budget by 15 percent by the end of the cuts, that reduction included over 600 employees.\footnote{“Detroit: Needs vs. Resources, 1976-1981,” (City of Detroit, Detroit, 1975), A-4 and “City of Detroit Summary of Layoffs (Jan. 1975)” in MS: Coleman A. Young Papers 55:22 Mayors Office Press Releases 1975, Detroit Public Library, Burton Historical Collection.} Understaffed and underfunded, Watt’s Environmental Protection and Maintenance Department thus struggled to keep up with the new responsibilities the Director had brought under his purview.

It was this impending budget crisis that drew Watts towards resource recovery. During a budget review meeting in April 1974, Finance Director Dennis Green asked Watts what his plan was for solving the city’s “refuse disposal problems.” While it’s unclear if Watts had an adequate
answer for Green, in a memo to Young following this discussion, Watts suggested that the mayor’s “conversation with Mr. Henry Ford II, about Detroit’s disposal problems and their staff review in the total waste management problem in this area” prompted him to revisit the previous administration’s research into resource recovery.\(^5\) What he found was an extensive market analysis prepared in collaboration with accounting firm Price Waterhouse Company and communication with four resource recovery companies for preliminary plant designs. Yet this previous exploration into resource recovery was on a much smaller scale and was likely already obsolete. With expanding federal support for resource recovery research and development in response to the energy crisis, the field had changed and grown substantially since the Gribbs administration. Many new companies were actively recruiting city partners to collaborate with on what had the potential to be a lucrative opportunity.

**Resource Recovery, Private Industry, and the Power of Expertise**

With the reinvigoration of resource recovery across the country after the energy crisis, private industry regularly reached out to municipalities offering their expertise in constructing, operating, and financing large-scale refuse plants. In September 1974, Waste Resources Corporation and Combustion Engineering together submitted a proposal to Detroit for a “City-Wide Resource Recovery System.” The system would, according to the proposal, “minimize dependence on land for disposal” and “conserve natural resources,” concerns that were more reflective of the city’s garbage crisis of the 1960s and early 1970s. But the companies also acknowledged in their proposal the concerns brought on by the energy crisis and air pollution compliance at the city’s Mistersky Power Plant, stating the project’s objective was to “provide

\(^5\) James Watts memo to Coleman Young, April 9, 1974 in MS: Coleman A. Young Papers 36:7 Public Works #1 1974, Detroit Public Library, Burton Historical Collection.
long-term lower cost [energy] solution for the City of Detroit” and “replace non-complying power boilers with a new refuse boiler at no cost to Public Lighting.” The system that Waste Resources and CE proposed, however, was a three phase project completed over multiple years and across three different locations, each of which included major capital investment: $14.2 million in Phase I, 24.8 million for Phase II, and $42.7 Million for Phase III for a grand total of nearly $82 million.60

The Waste Resources-CE proposal described a resource recovery system that was “pollution free” and further explained that the company dedicated “relatively large resources” to keeping up with developments in “the broad field of environmental protection and control.” By centering their expertise in environmental protection and public health – both challenging issues in solid waste management – the companies made a persuasive argument to Detroit officials, who were struggling to bring their aging power plant into emissions compliance in the midst of a mounting budget crisis.61

CE saw the value in offering a top-to-bottom array of services including a dedicated task force to oversee the initial feasibility study to creating a new management division that would handle the day-to-day operations of the incineration plant once it was complete. It was this complete integration of expert services that allowed CE to state they could finish projects more “efficiently and economically” than the public sector alone. Corporate funding, they argued, allowed for expertise in all aspects, including “architectural, mechanical, electrical, structural,


61 ibid.
traffic and highway, and construction management.” In a growing and comparative field of private contractors, CE’s status as a “totally integrated company” was a compelling argument in favor of the company’s effectiveness and reliability for municipalities looking to implement large-scale projects despite limited resources – monetary or expertise-related – of their own.\textsuperscript{62} As more cities moved away from landfills and towards resource recovery, corporations – often with EPA support – sought to position themselves in the emerging public-private landscape of resource recovery.

In the postwar period, Americans often looked to science and technology to make daily life easier and control the chaos of the natural world.\textsuperscript{63} City officials, likewise, often put their faith in the scientific and technological expertise of private industry to address the inefficiencies of municipal services. This was particularly the case as the nation’s political landscape shifted away from governmental efforts to foster economic and political equity to a more individualistic and conservative politics in which government protected and supported the free market between the 1960s and 1970s.\textsuperscript{64} This ideological shift at the federal and state levels ultimately contributed to the evisceration of municipal services across the nation during the late 1970s and 1980s, as cash-


strapped cities, once the beneficiaries of grants, revenue sharing, and equity packages, turned to private development to solve urban problems.\textsuperscript{65}

In such a new and highly-technological field, city officials often did not have the knowledge to compare different proprietary systems, evaluate pollution controls, or fully consider the complex financing mechanisms available, forcing them to pay consultants for their expert opinions or, in some situations, rely on information from resource recovery developers themselves. On Long Island, Islip Supervisor Frank Jones explained, “[Consultants] have an inordinate amount of influence…In incineration you have no idea what state of the art is and you have to rely almost exclusively on them for judgments. I wouldn’t know water wall or mass burn or RDF from Joe DiMaggio.”\textsuperscript{66} This dependence on corporate expertise gave the private sector enormous influence over the public sphere and the direction of municipal waste management for decades to come.

City officials in Detroit were in a similar situation. James Watts had no past experience with solid waste management, much less in resource recovery. While some individuals in his department had worked in the solid waste field for years, resource recovery was still relatively new and its complex, high-tech nature made it inaccessible except to the most advanced engineers. Thus, officials in the city’s Environmental Protection and Maintenance Department readily admitted that “Private industry…may be better able to do the research and development and marketing work necessary for the beneficial recovery of materials and energy from solid


waste.” In relying on private industry for public services, however, Detroit risked falling into the same situation as Islip and other towns and cities across the country: that public policy decisions would be heavily influenced by corporate actors who had a vested interest in promoting the business of resource recovery.

Yet private industry in Detroit was also struggling with the economic impact of the energy crisis and a national recession, including potential stakeholders in the city’s resource recovery plans. In a meeting with a financial broker and analyst with ties to Detroit Edison, William Cilluffo learned that, if the broker’s information was accurate, the utility was on the “verge of bankruptcy.” Because of the energy crisis, the company had spent over $75 million more than they had brought in, and regulatory issues precluded them from raising the necessary capital in the stock market or through new bonds. “The only source of cash available to the company,” according to a report on the meeting from Finance Director Dennis Green, “is rate increases” nearing “approximately 100%.” Considering the alternatives to the city in the form of diminishing grid capacity and increased brownouts, Green recommended that Detroit officials take a stance of “no opposition” to rate increases during the next public rate hearing. In return for the favor, Green suggested that the city could prevail upon the expertise of Edison consultants during the future resource recovery negotiations. Such a partnership would provide Detroit with a key economic advantage as they pursued a resource recovery plant in that they had a guaranteed customer for the steam or electricity generated by the plant.

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68 Dennis O. Green memo to Coleman A. Young, “RE: Detroit Edison Company Meeting of Friday, November 15, 1974 with Mr. Joseph Bianco of Loeb Rhodes and Company and William Cilluffo, Executive Assistant to the Mayor,” November 19, 1974, MS: Coleman A. Young Papers 16:1 Finance Dept. – Green, Dennis O. Papers 1974 #4, Detroit Public Library, Burton Historical Collection.

In March 1975, EPMD sent a Request for Qualifications directly to twenty-three resource recovery companies and ten trade periodicals, seeking information from private industry “to design, construct, finance, and operate a Solid Waste Resource Recovery System” that would “solve the Solid Waste Disposal problem within the City’s boundaries.” This initial exploration called for proposals that included both a separation system that would remove glass and metals from the waste stream for resale and an energy conversion system. The city’s vision as presented in the RFQ further described a multi-phase system of three separate incinerators to be built over three years that could burn a total of 5,500 tons of waste per day when completed. This was a far larger project than had ever been previously considered by either the Gribbs or the Young administration and could accommodate 3,500 more tons per day than any resource recovery plant that had ever been built in the United States.69

Given the unprecedented size and scale of the proposed facility, as well as Detroit’s own budget issues, the city’s Request for Qualifications centered on companies’ financial soundness and explained that interested firms would only advance to the formal proposal process if they could demonstrate “the financial plan to implement the system.” Detroit also sought detailed information about the potential marketability of recovered resources and firms’ design and operational experiences related to recycling, energy conversion, and solid waste processing. Notably, nowhere in any of the questions to the proposers did the city mention the potential environmental impact, positive or negative, of the system. This silence demonstrates that

Detroit’s primary concern in building a resource recovery plant was the economic benefits in the form of saleable commodities and reduced disposal costs over the long-term. Yet the city’s silence on environmental issues also suggests the persuasiveness of companies’ assertions – especially given Combustion Engineering’s proposal six months earlier – that resource recovery systems were environmentally sound and completely safe.\footnote{“Request for Proposers Qualifications” March 14, 1975 in MS: Coleman A. Young Papers 63:9 Resource Recovery Facility 1975, Detroit Public Library, Burton Historical Collection.}

Over the next two months, the Resource Recovery Task Force received twenty-four proposals (although in the press James Watts would put that figure “between 50 and 60”\footnote{Peter Benjaminson, “City to Quit Burying Refuse, Begin Burning it for Power,” The Detroit Free Press, February 7, 1976.}). On May 12, 1975, Coleman Young asked Watts to convene an evaluation committee to review the proposals and recommend which companies Detroit would continue to negotiate with towards a final contract. The committee, according to Young, would include two members each from the Environmental Protection and Maintenance Department, the Public Lighting Department, City Engineering, the Law Department, the Finance Department, and three representatives from Detroit Edison. The mayor also told Watts to establish a “Blue Ribbon Committee,” consisting of representatives from “outside government, like Ford, General Motors and U.A.W.” that would help evaluate the proposals after an initial weeding out process by the city. Young understood that such a large-scale, expensive project would need buy-in from Detroit’s key economic stakeholders in order to be perceived by press and public what Lynda Ann Ewan has called the
city’s “ruling class,” a cohort of corporate leaders and influential families who used their economic power to exert ideological dominance across Detroit and the metropolitan region.\textsuperscript{72}

At a meeting of municipal services directors later that week, Watts shared the mayor’s vision for moving forward and also articulated his own concerns regarding the potential facility site at the intersection of Russell and Ferry streets. While Detroit’s Request for Qualifications assumed that any proposed plant would be built to fit this site, the City Council had not appropriated money to purchase the land in the 1975 budget nor in the upcoming budget year. While Mayor Young had told Watts to work with the Budget Department “so we can start moving on it,” Environmental Protection and Maintenance Deputy Commissioner Bernard Panush explained that there was still uncertainty whether or not there was actually enough space available at the Russell-Ferry site to accommodate the massive facility they envisioned in the RFQ. Panush suggested that City Engineering, Corporation Counsel, and Public Lighting review the site over the next week to account for space, before the Task Force met to evaluate RFQs. “If we do not select a site,” he suggested, “what good are proposals?”\textsuperscript{73} This cart-before-the-horse approach underlines the troubling lack of mindful planning with which Watts and the Young administration pursued resource recovery, resulting in inefficiencies and competing goals throughout the process.


\textsuperscript{73} “Municipal Services Group Meeting. Thursday, May 15, 1975 – 2:00 P.M.,” in MS: Coleman A Young, 50:12 Group Coordinators Municipal Services and Municipal Facilities #1 1975, Detroit Public Library, Burton Historical Collection.
Evaluating Detroit’s RFQ: A Case for Economics over Environment

After reviewing the twenty-four total proposals, the evaluation task force identified thirteen “qualified” bidders that had both the financial means and technical experience to build what would be the nation’s largest resource recovery facility. A review of the twenty-four bidders reveals much about resource recovery at this time. The majority of the companies were not involved in resource recovery as their primary industry. In fact, some of them were not involved in waste disposal of any sort. Monsanto was the infamous chemical company responsible for producing DDT and Agent Orange, Raytheon was an electronics and radio firm with deep ties to the United States military, and Black-Clawson was a paper producer based out of Franklin, Ohio. Others came to resource recovery by way of waste- or energy-related industries: Proler International had a background in metals recycling and Garrett Research was actually a division of Occidental Petroleum Corporation.74

These various pathways to the resource recovery market reflected how the field developed throughout the 1960s and 1970s, first in response to the garbage crisis and then the energy crisis. As cities struggled to cope with the volume of their municipal waste in the 1960s, the recovery of recyclable materials and the reduction of waste’s volume was a key priority for the federal solid waste officials and private waste processors. Later during the energy crisis, national research into alternative fuels that could replace or supplement traditional fuel oil created opportunities for the private sector to explore processes like waste-to-energy incineration or pyrolysis, the creation of an oil-like fuel from burning waste, with the backing of federal

government contracts. Economic slowdowns during the 1970s also led other industrial producers to shift some of their business to resource recovery. This was especially true of nuclear power engineering firms, like Combustion Engineering, which had many of their lucrative government contracts cancelled throughout the decade as public fears about the safety of nuclear energy grew. Resource recovery seemed a promising field. In addition to millions of dollars in federal grants, city officials were actively searching for reliable and cost-efficient ways to dispose of their waste and – having little technological expertise in resource recovery themselves – were highly dependent on consultants or firms themselves for information about the different processes and systems. This reliance on outside expertise thus put important policy decisions that would impact urban residents in the hands of private industry, not elected officials.

The Task Force’s evaluation of the RFQ responses, as presented to Mayor Young on August 4, reveals much about the city’s priorities in constructing such a system. Addressing the emphasis on the economic opportunities afforded by resource recovery and marketable materials presented by city officials in the Request for Qualifications, ten of the thirteen respondents proposed front end recovery systems that separated marketable materials, like metals and glass, out of the waste stream before the remaining refuse was burned to generate steam. This emphasis on economic benefits the system would bring to Detroit was present throughout the Task Force’s report to the mayor. The prime objective of a resource recovery system, Task Force members argued in the report, was “the economical disposition of municipal solid waste,” a goal officials hoped to achieve by identifying local markets for steam heat and the metals and glass removed

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from the waste stream, as well as through the “cost savings” the city would realize in eliminating the reliance on landfills far off in rural Wayne County.\(^6\)

Yet Detroit officials sought solutions to many different economic problems in a resource recovery plant, not all of which were possible as various city departments pursued different goals. All of the Environmental Protection and Maintenance Department’s objectives, for example, addressed concerns that stemmed from the garbage crisis, while the Public Lighting Department was concerned with the uncertain future of the Mistersky Plant in light of the energy crisis. The planned conversion of the plant’s coal-fired boilers to oil in order to comply with the Clean Air Act had been held up by the energy crisis and, in the meantime, Mistersky continued to burn coal and knowingly violate federal emissions regulations. When it came to selecting a resource recovery company, Public Lighting’s objectives, then, focused on a contractor’s ability to burn enough waste to match the capacity of the city’s coal-fired boilers. In this way, the Detroit’s Public Lighting clients would see no changes to their service and the city could retire the polluting coal boilers permanently. In order to meet Public Lighting’s 204-megawatt capacity, any resource recovery system would need to burn up to 4600 tons per day in an “emergency maximum” situation or 2,880 tons per day in a “normal use” state. These needs could, for the most part, be easily met as James Watts reported the city collected between 2,200 and 4,000 tons of household waste per day. If officials sought to sell their steam to Detroit Edison, however, city workers would need to collect and burn over 7,500 tons of waste per day to meet the utility’s maximum needs. While Young and Watts both considered selling their

steam to Detroit Edison as an ideal way to generate much-needed additional revenue, it seemed unlikely that the city could meet the required waste volumes, especially given Detroit’s consistently shrinking population.  

The review of the thirteen qualified bidders led the Resource Recovery Task Force to recommend a three-phase approach in order to accommodate larger waste volumes over time, but with less initial cost and, therefore, less financial risk. Phase I would include a 3,000 ton per day “recycling installation” located at the Mistersky plant that would use “processed fuel” to provide steam only to the city’s Public Lighting Department and would utilize that plant’s existing turbo-generators to create electricity. Phase II would see collaboration between the city and Detroit Edison to build a second 3,000 tons per day plant – preferably at Mistersky, but potentially at the much-larger Russell-Ferry site. Yet in order to even consider starting Phase II, Detroit would have to assure Detroit Edison that they could deliver double the amount of household waste they currently collected from city residents. Where that waste would come from – other nearby cities, industrial and commercial clients, or a growing city population – was unclear in the report. Detroit officials, then, were endorsing a resource recovery plan to Mayor Young without any strategy for acquiring the resources to enact that plan.

This dilemma, however, underlined one of the challenges of resource recovery, namely that in framing trash as a sought-after resource it became a new thing entirely, one totally separated from its origin. In falling into such thinking, city officials and contractors embraced the production of more waste by residents even though increasing waste volumes lay at the heart of the earlier garbage crisis. The Task Force report reflects such waste-as-commodity thinking. Its

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technical language obfuscated the burning process and divorced trash from its origin. Viewed through the lens of capitalism, waste became “fuel” and incineration became environmentally-sound “resource recovery.” When it came to actually protecting the environment, however, Watts and other task force members discussed the regulations they needed to adhere to as obstacles to their vision rather than rules put in place to protect the health and well-being of residents. Task Force members, for example, anticipated that the Wayne County Air Pollution Control Board would oppose the siting of both the Phase I and Phase II systems at the Mistersky site, given that it was already in noncompliance with the Clean Air Act. Yet bringing the refuse-fired boilers in line with pollution standards at Mistersky and building another separate facility at Russell-Ferry ultimately meant more cost to the city and was, therefore, not the ideal path moving forward.  

“Cooperation Between City Government and Private Enterprise:” Detroit Edison, Private Utilities, and Public Works

At the same Request for Qualifications report meeting with Mayor Young and the Resource Recovery Task Force, representatives from Detroit Edison made their case to be a collaborator on the project. While the Task Force concluded they could not provide enough waste to fulfill both the Public Lighting Department’s and Detroit Edison’s needs, representatives from the utility were convinced that access to cheap and reliable steam from a resource recovery plant was key to their economic survival. In the company’s pitch to city government, Systems Planner Norman Styczynski laid bare Detroit Edison’s financial struggles.

from the energy crisis and the decline of their Detroit-area customer base following the city’s depopulation in the late 1960s and 1970s. “[T]he Central Heating System is in serious financial trouble,” he wrote, “and may eventually be forced to discontinue its operation [leaving] over 1000 customers in the heart of Downtown…without a source of heat.” Styczynski continued, emphasizing the financial losses the city would sustain if Detroit Edison were forced to scale back their services: “The cost of installing their own [heating] systems may drive many…out of the City. There will also be the potential loss of tax revenue.” At a time when Detroit had lost 5 percent of its jobs every year since 1972 and federal aid to cities had dried up, the threat of losing more tenants in the central business district was a powerful motivator. “The only alternative,” Styczynski argued, “is…steam generation by the use of solid waste.”

Styczynski also played to city officials’ hope to build the resource recovery plant quickly and on their terms. In an effort to promote transparency and accountability, Detroit’s city charter mandated a public and open bid process that gave all contractors an equal opportunity to apply for city projects. Yet the charter also required officials to select the lowest project bidder, even if that company did not meet all of the city’s other preferences in terms of previous experience, financing capabilities, plant size, and other requirements. Styczynski characterized this situation as a “Time Consuming Process” that left Detroit open to legal challenges from its citizens or environmental groups during the public comment period. On the other hand, if the city somehow could justify not engaging in an open bid process and pursuing a negotiated


80 Detroit City Charter, Section 6-306 “Purchasing Division,” 1974.
contract with the contractor of their choice, they would be even more likely to face legal challenges. Instead, Styczynski proposed a “Joint Venture” between Detroit and Detroit Edison in which most of the contract negotiations, plant design, and regulatory matters would be handled by the utility in return for “guaranteed” steam purchase for the company’s heating grid. As a private utility rather than a municipal government, Detroit Edison was not held to the same level of transparency in their negotiations with contractors nor was it subject to the same level of scrutiny by citizens. Styczynski summed up his argument with an enticing scenario for city officials: “No Legal Challenge – Construction Starts Promptly.”

A second benefit that a partnership with Detroit Edison offered was political leverage in suburban communities and existing infrastructure in the surrounding region that could facilitate the collection of up to 10,000 tons of waste per day. Detroit could not interfere with the “wastesheds” of other towns and cities and the distrust – even outright animosity – some suburban communities felt for Detroit would not have made trash-sharing a likely option anyway. But as the electricity provider for all of southeastern Michigan from Port Austin at the tip of Michigan’s “Thumb region” to Luna Pier six miles north of the Ohio border, Detroit Edison had enormous sway over the communities in its eleven-county service area, as well as the extensive rail infrastructure that could make transporting waste across the region more efficient. By leaning on its corporate power in the suburbs to procure more refuse, Detroit Edison could provide a robust enough district heating system to facilitate some of Mayor Young’s major

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Moreover, pursing a resource recovery plant as a joint venture with Detroit Edison would create a “Model Refuse/Energy System for the Nation,” as well as “Exemplif[y] Cooperation Between City Government and Private Enterprise.” In closing his pitch to Mayor Young, Styczynski characterized a resource recovery plant tied into Detroit Edison’s district heating system as a flagship project that would attract new businesses downtown and encourage Detroit’s economic and cultural renaissance. “Trash City, U.S.A.” would no longer be an insult, but a new honorific.\footnote{Judd Arnett, “City deserves better tag than ‘Trashtown, USA’,” Detroit Free Press, July 17, 1973 in MS: Roman S. Gribbs Collection, “General Files – Detroit, City of; DPW, May-Dec.377:4, Detroit Public Library, Burton Historical Collection.} Yet if Styczynski’s pitch had made an impression on Watts or Young, neither man revealed their thoughts at that time. The Task Force’s final evaluation, however, envisioned Detroit Edison as a partner in the second phase of the facility, a 3,000 ton per day resource recovery plant built at the Russell-Ferry site just south of Detroit Edison’s St. Aubin Street Plant that would provide steam power for the utility’s district heating system.\footnote{Styczynski, “The City of Detroit-The Detroit Edison Company Joint Venture Solid Waste Utilization Resource Recovery/District Heating/Public Lighting,” August 4, 1975 in MS: Coleman A. Young Papers 63:9 Resource Recovery Facility 1975, Detroit Public Library, Burton Historical Collection.}

Styczynski’s optimistic vision for the Detroit of the future and its “Model Refuse/Energy System” faced significant obstacles, however. The end of the Task Force’s evaluation report highlighted three legal decisions the city needed to make in order to move forward with the process, two of which concerned the bid process. As Styczynski had anticipated, the Task Force

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\textsuperscript{83} Judd Arnett, “City deserves better tag than ‘Trashtown, USA’,” Detroit Free Press, July 17, 1973 in MS: Roman S. Gribbs Collection, “General Files – Detroit, City of; DPW, May-Dec.377:4, Detroit Public Library, Burton Historical Collection.

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was unsure if they had the legal authority to negotiate a contract with a preferred contractor based on the responses they had received from the Request for Qualifications or if they would have to advertise the project for “open competitive bid.” James Watts had sought clarity on this question three months earlier from Kermit Bailer, director of the city’s Law Department while the Task Force was still collecting and evaluating the contractors’ responses. “In view of the size of the facility planned, cost involved, financial status and technical knowledge of contractor, do we have the authority to negotiate a contract with a firm which is best qualified, based on our evaluation,” inquired Watts, “or do we have to advertise for bid proposals?” At the very least, he asked, did the city have the right to disqualify some companies based on the information provided in their RFQ responses? Essentially, Watts sought the legal ambiguity to bypass the city charter’s requirement. Yet with the substantial differences in resource recovery technologies, as well as the city’s vital concerns regarding the bidder’s ability to successfully finance the construction and operation of the facility, accepting the lowest bidder could put the project – and Detroit’s waste disposal plan – in jeopardy for decades to come.

The Law Department’s response came nearly four months after Watts’s initial memo and two months after the Task Force presented their evaluation report to Mayor Young. Looking to previous Michigan court rulings on competitive bid provisions by city charters, Assistant Corporation Counsel Darryl Alexander determined that the law was not on their side. The courts had previously upheld competitive bidding provisions even when there was only one potential bidder who could meet a contract’s specifications. Yet Alexander also pointed to recent court proceedings in Baltimore surrounding their resource recovery system, which had not been

procured through a public bidding process, as a possible model for Detroit’s path forward.

Ultimately, the Maryland Court of Appeals found the “peculiarly unique” facts of the case as cause to rule in favor of Baltimore’s negotiated contract with system designer Monsanto. Central to the case was the court’s acknowledgment that different companies’ resource recovery systems “differed materially” from each other and could not be adequately compared on equal terms.86

Despite pointing to the success of the Baltimore case, Alexander still concluded that, given the past rulings in the Michigan courts to not publicly bid for their resource recovery system would almost certainly present legal challenges that would ultimately prevent the project from moving forward. “We cannot advise you that your method of procurement would not be subject to question and consequent litigation,” Alexander concluded. To Watts’s second question regarding the disqualification of some bidders based on their RFQ responses, Alexander found “no legal prohibitions,” but did suggest the city have public hearings as the project criteria was developed “to avoid the appearance of favoritism.” Even then, Alexander warned, Detroit could be open to a suit from residents.87 The Department’s assessment of the legal issues presented a major obstacle to Watts and his plan to move the project forward. Writing to Mayor Young, who had already given his approval to the Task Force to move forward with a negotiated contract in August, Watts relayed the Law Department’s negative response to that scenario. “Consequently,” Watts wrote tersely, “we cannot proceed with the preparation of the…Request for Proposals for a negotiated contract, and we cannot conclude our selection of the top companies and advise them


87 ibid.
to start preparing proposals until we get a clear affirmative decision from the Law Department.”

Despite these troubling legal questions, Watts and his colleagues in the Environmental Protection and Maintenance Department continued negotiating with Detroit Edison on the utility’s role in the resource recovery project. While the Task Force’s reported that the city only collected enough waste to fulfill the needs of the Public Lighting Department, two months later Watts told the mayor he had guaranteed the company “a priority supply” of the steam produced by a resource recovery plant. He further pledged that the city would obtain “all the necessary refuse to meet the needs of both Detroit Edison and Public Lighting Department.” Having easily gained such concessions with their promise of collaboration and support for the project, Detroit Edison pressed city officials for additional advantages. As negotiations continued, Mayor Young sought to treat the city’s Public Lighting Department and Detroit Edison as equal customers that would both be charged the market price of steam and would be contractually obligated to purchase a minimum amount of steam at a set base cost every day. Yet company officials knew that – besides Public Lighting – they alone had the existing infrastructure to be Detroit’s only realistic customer for steam. As such, they asked that their steam price be based not on the market as city officials proposed but locked in at a set rate that would be “tied into total operation costs of the facility.”

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88 James Watts memo to Coleman Young, October 13, 1975 in MS: Coleman A. Young Papers 46:5 Environmental Protection and Maintenance Dept. 1975, Detroit Public Library, Burton Historical Collection.

Detroit Edison also sought the same economic incentives the city would receive from the incinerator operator for the sale of marketable commodities, including steam, ferrous metals, and glass. “If we follow Edison’s proposal,” Watts wrote to Mayor Young, “Edison will be partner with the City without any risks, only benefits if any accrue.” And the utility sought quick action on these questions, asking for a meeting with the Mayor to discuss the resource recovery plant the next week and to formally announce their collaboration to the media days later. Detroit Edison’s demands reflect the power that private utility companies – largely due to their geographic monopolies on essential services – had wielded over local governments for more than a century. Collaborating with Detroit Edison on the resource recovery negotiations would bring a level of certainty, plus political and economic power, into a largely uncertain process. But their cooperation had a price. In pursuing additional economic advantages in the early stages of planning, Detroit Edison sought to leverage their position as the region’s sole electric supplier. This imbalance of power between the private utility and city government foreshadowed some of the persistent challenges Detroit would face in negotiating with private industry to build their resource recovery plant. Detroit’s economic troubles consistently constrained officials’ ability to negotiate from a position of strength, often leaving them vulnerable to the demands of capital.

Beyond the legal obstacles and the continuing negotiations, issues also emerged regarding the city’s available financing strategies for the potential facility. Both Detroit Finance Director Dennis Green and Budget Director Walter Stecher questioned the overall economics of constructing a resource recovery plant. Green estimated the construction cost of a 5,400 ton per day plant that could accommodate waste for both the Public Lighting Department and Detroit

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Edison to be between $100 and $150 million. Yet the limited viable financing options available to Detroit in the midst of its fiscal troubles made such a large-scale project an even greater risk. All public sector financing – municipal bonds and general obligation bonds – was, according to Green, “shaky or non-existent” and would only further “erode” the city’s credit rating.91

But financing the facility through the private sector presented its own set of challenges. Dismissing the use of public-private Pollution Control Bonds due to Detroit’s poor credit rating, Green suggested a leveraged lease with the facility operator. Characterizing this option as “legally complex,” but potentially “least expensive,” Green warned that the required Internal Revenue Service rulings on the agreement would likely delay construction by six to nine months. Yet it appeared to be the only viable option: Green’s memo demonstrated just how limited the city’s financial choices were and how dependent Detroit would be on private industry to move forward with such a facility. Without the cooperation of a private contractor, Detroit could not finance, construct, or operate a resource recovery facility. With such facts in mind, Green argued to put the project on hold for the time being given that, “the information gathered to this point does not justify a commitment of $3-5 million for land [at the Russell-Ferry site]. It is recommended that no commitment be made [until]…the economics support proceeding with the project.”92

Budget Director Walter Stecher echoed Green’s concerns about the unfavorable economics of a resource recovery plant. In a memo to Green, Stecher explained that the city’s contract with their current waste hauler, Metro Waste, outlined a disposal rate of $5.90 per ton


92 ibid.
gradually escalating to $6.50 per ton over the next five years. Based on the city’s previous study into incineration under the Gribbs administration three years earlier, Stecher estimated the disposal cost in a resource recovery plant would range from $7 per ton to a high of $15. In addition to disposal cost, Stecher questioned the city’s financial obligation to the facility operator should they not deliver enough trash to produce the required steam for Detroit Edison and the Public Lighting Department. “[T]here remains the problem of how this shortage will be made up,” he advised. “Will the City accept refuse from other cities? If we do, what price will Detroit charge…and are we willing to accept refuse at a loss?” There were indirect expenses too that were not accounted for, Stecher argued. “[W]hat will the cost in time loss of 260 or more [garbage trucks] attempting to dump within a 60 to 90 minute period?” In the end, Stecher concurred with Green that the Resource Recovery Task Force would need to consider the total costs of such a facility before publicly announcing their plan.93

“Nothing to lose and everything to gain:” Defending Resource Recovery in Detroit

James Watts, however, would not be deterred by his colleagues’ economic postulations. He maintained that building a resource recovery plant would assure the future of Detroit’s waste management for decades to come. In a five-page memo to Mayor Young, Watts made his case as to why he and his staff “so firmly believe that the Resource Recovery Facility will be of great benefit to the City right now, if it is implemented during your first term of office.” He also echoed many of the environmental issues that contributed to the renewed popularity of resource recovery in the late 1960s and early 1970s, including the energy crisis and the apparent decline of nearby landfill space. “Landfill is environmentally and legislatively becoming an antiquated

method for refuse disposal,” Watts contended. “Although current costs for disposal range between $5.88 and $8.40 per ton, the City has no long range commitments or options regarding landfill availability. As witnessed by the New England situation ($13.00 per ton), prices skyrocketed as landfill sites become scare and/or heavily regulated.”

To Watts, the writing was on the wall: Michigan and other Rust Belt states were running out of landfill space and it was only a matter of time before disposal price increases would bankrupt Detroit.

In his argument to Coleman Young, Watts dismissed the concerns Green and Stecher raised in their memos, arguing that their conclusions were based on information “generated under an entirely different set of circumstances, i.e. no energy crunch and an apparent lack of interest in reclaiming raw materials by private industry.” Yet since that time, Watts contended, improvements in technology and federal support for resource recovery research and development had created a new economic landscape. He emphasized the marketable products that could be produced through the resource recovery process, including scrap metal and other reclaimed materials, all of which could be sold by Detroit to offset their disposal costs. “Even fly ash residue [from incinerated waste] can be utilized at the asphalt plant of the Street Maintenance Division of E.P.M.D.,” he claimed.

Watts also addressed Green and Stecher’s concerns about the city’s current waste collection and how Detroit would deliver enough waste to satisfy both the Public Lighting Department and Detroit Edison’s needs. He revealed that his office had been in “informal discussions” with the Oakland County Department of Public Works to dispose of the entire

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95 ibid.
county’s refuse in the new Detroit facility. “[O]fficials expressed a genuine interest,” he stated, though any formal agreements had “been stymied by the lack of a public announcement of the city’s intent to proceed.” Securing additional waste from outside Detroit would be critical to keeping Detroit Edison at the negotiating table, according to Watts. Otherwise, Detroit would “forfeit the benefit of large-scale economies” and the opportunity to establish “a centralized metropolitan refuse collection and disposal authority under the city’s auspices.” Watts, then, was captivated by the idea of positioning Detroit’s resource recovery facility as a center for municipal waste disposal across the region and charging suburban communities to dump their waste in the city as a way to generate additional revenue.96

Watts continued to refute Green and Stecher’s conclusions, characterizing Green’s assessment of the city’s limited financing options as incomplete. Green’s memo, he suggested, did not take into consideration inter-governmental cooperation with the state Resource Recovery Commission and with the EPA. Nor did the Green account for the financing abilities of the selected contractors, all of whom – according to Watts – had “arranged for successful bonding issues that are not necessarily dependent on the sponsoring governmental agencies [sic] own bonding capacities.” While Green understood that state and federal policies did little to provide financial support for cities (he only had to look at his own budgets in recent years to have that fact confirmed), Watts believed that Detroit’s resource recovery facility would be a compelling investment opportunity for private contractors.97

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97 ibid.
In his summary, Watts emphasized the precariousness of the current moment for Detroit. The positive response to the city’s RFQ and the “repeated telephone inquiries and frequent requests for…presentations” convinced Watts that the moment was ideal to move forward with the facility: “The City has nothing to lose and everything to gain from soliciting proposals; the longer we delay, the greater the inclination will be for contractors to question the integrity and sincerity of the city’s intention to have its own Resource Recovery Facility.” To advertise for bids, Watts assured Mayor Young, would not incur any responsibility or liability. “It is to the advantage of the City to implement a Resource Recovery Facility at this time, before refuse disposal becomes an emergency problem,” he concluded. Watts’s arguments were apparently well-received by Young, who highlighted and underlined the Director’s assertions regarding the approaching crisis point of landfilling, the reasons for collaborating with Detroit Edison, the recovery of commodity materials, and Watts’s determination to proceed to bids with all possible haste. A note at the memo’s head reveals Young’s ultimate impression on the question of moving the project forward: “RESOURCE RECOVERY FACILITY A MUST!”

“Burn garbage to save money:” The City Goes Public

On February 4, 1976, Coleman Young announced to the media the city’s intention to build a resource recovery facility. City newspapers responded to the mayor’s announcement with little criticism, observing that incineration made both economic and environmental sense for Detroit. “The logic is simple,” noted David Ashenfelter in the Detroit News, “Oil and other conventional fuels are costly while garbage is free, and Detroiters produce 3,200 tons of it every

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The News also emphasized that the anticipated lower disposal costs to Detroit would be passed on as savings to Detroit taxpayers. Peter Benjaminson of the Detroit Free Press emphasized these economic advantages as well, also noting that the facility would “provide new jobs and taxes for Detroit…and end refuse burying, which hurts the environment.”

But Benjaminson also was one of the few reporters to at least consider the potential environmental implications of the new facility, citing city officials’ promise the plant would not increase air pollution.

A Free Press editorial called Young’s proposal a “relatively radical concept” and, echoing Benjaminson, suggested that the pollution concerns that had plagued a similar project in the 1960s were no longer an issue. “[T]he type of resource recovery plant being built today is a generally clean operation that causes few – if any – problems for its neighbors,” the editorial claimed. In fact, the only disruptions the plant would cause, according to the paper, were “noisy trucks,” not pollution. “Garbage,” the article continued, “is a valuable resource that can help alleviate energy problems. And Detroit is to be commended.”

Citizens raised more environmental concerns than newspapers. The President of the Michigan Chapter of the League of Women Voters, Charlotte Copp, offered the organization’s congratulations to the city of Detroit for planning to “dispose of its refuse in an environmentally-sound manner.” “The plan to recycle where possible and incinerate the remainder,” she went on, “is preferable to burying in landfills” which “blight the landscape…[and] squander our natural

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100 Peter Benjaminson, “City to Quit Burying Refuse, Begin Burning it for Power,” The Detroit Free Press, February 7, 1976

resources.” Yet Copp also suggested that the real solution to increasing waste was not to burn it, but to combat “increasingly wasteful consumer habits” and the proliferation of “throwaway” goods and excess packaging. In this way, Copp was articulating a different vision of waste management than that of the city and private industry, one that centered capitalism as the problem rather than the solution to the growing stream of trash.102

As Detroit continued on its path towards resource recovery, city officials entered a new phase of negotiations with private contractors, financial consultants, and environmental regulators. These stakeholders all had their own goals and each would try to assert their priorities on the city. Facing their own budget problems, Young and Watts believed the solution was to make deep cuts and streamline city operations. By getting back to basics Young and his administration could reinvent Detroit, touting their new dedication to efficiency to business leaders to invest in the “new” Detroit and its renaissance.103 In this vein, Young and Watts may have believed that working with private industry to address the city’s waste issues and energy needs was a sound, long-term solution given Detroit’s lack of resources, but in doing so they also further placed themselves and the city in the hands of the corporations, banks, and financial authorities that would squeeze Detroit for decades to come.104 This was the result of maintaining and perpetuating perceptions of “crisis” – urban, waste, energy, or otherwise: by contextualizing the city’s decision to build a resource recovery facility within a political and economic landscape.


103 Although too early to truly be considered “neoliberalism” as we refer to it today, geographer Jason Hackworth suggests that neoliberalism in municipal governance is characterized by the diffusing of local government authority to public/private partnerships and emphasizing public choice and unregulated growth.

104 Kevin Boyle centers the power of corporation and financial institutions over Detroit as the most essential way forward for historians studying the City in the postwar era. Kevin Boyle, “The Ruins of Detroit: Exploring the Urban Crisis in the Motor City,” Michigan Historical Review, 27, 1 Spring 2001, 109-127.
based on fear and anxiety, Watts characterized inaction – or the time for more deliberate consideration advocated by Green and Stecher – as impossible. Companies would lose interest and again abandon Detroit to solve its own problems, leading to yet more decay and decline. Young, who was and would continue to be through his four terms as mayor fixated on development as the solution to Detroit’s urban problems, concurred with Jimmy Watts.
CHAPTER THREE

“DETROIT IS NOT DEAD; NOR CAN IT BE ALLOWED TO DIE:” RESOURCE RECOVERY, FISCAL CRISIS, AND REDEVELOPMENT, 1976-1984

In the first days of March 1976, the lower peninsula of Michigan stood paralyzed as one of the worst ice storms in the state’s history roared from Grand Rapids to Detroit. A mix of snow and freezing rain fell across the state over four days before the temperature dropped below freezing, forming ice sheets three inches thick in some places. The governor issued a State of Emergency and mobilized the National Guard to help residents across Michigan get out from under the damage. The icy mix pelted cars, brought down trees and coated homes. By the time the storm ended, over 120,000 Detroit residents were without power. Days earlier, rumor had it, two Detroit Edison linemen saw what they described as a small child scramble up a utility pole and then hop from pole top to pole top. When they yelled to the child, it turned and glared at them with its red eyes before hopping away. This last purported sighting of the Nain Rouge, the traditional harbinger of disaster in Detroit since its first sighting in 1701, was taken as an ill omen by many in the city in the days leading up to the storm.¹

Days later, after the streets were once again passable, Mayor Coleman Young, Environmental Protection and Maintenance Director James Watts, and their Resource Recovery Task Force moved forward with their search for a partner in private industry, convening the ten prequalified companies selected from the previous year’s Request for Qualifications at the

¹ Marie Caroline Watson Hamlin, Legends of Le Détroit (Thorndike Nourse, Detroit, 1884) 37-39.
Pontchartrain Hotel. The location was fitting: the first hotel built downtown since the 1920s, “the Pontch” was a sleek, modern building perched along the riverfront that was popular with visitors attending conventions across the street in the new Cobo Hall. Yet while company executives discussed the city’s plans for their resource recovery plant in the glitzy Pontch, the devastating damage of the ice storm still lingered in the neighborhoods as residents struggled to remove fallen trees and chip away at the thick ice blanketing the streets and sidewalks.

Beyond the unprecedented weather, Detroit also faced a troubling financial crisis. A month earlier, Mayor Young appeared on television to give his State of the City address. While the mayor’s tone was hopeful, the outlook was not good. In a letter to business leaders and citizen groups the next day, Young characterized Detroit’s financial status as “critical.” “The story is simple,” he explained, “Detroit, once a rich and growing city…cannot today support even its most basic services.” The culprit, Young argued, was the national recession, compounded by the state legislature’s punitive taxation regulations that unfairly singled out Detroit. In levying income taxes, state government required that Detroit residents pay four times more than non-residents who worked in the city but lived elsewhere. With such laws in place, Detroit could not engage in “responsible taxing…that can help us help ourselves,” as Young put it.²

Budget Director Walter Stetcher echoed Mayor Young’s indictments in his five-year fiscal report, blaming state and federal policies for the “agonizing” layoffs and austerity measures the city was forced to enact the previous year. The revenue raising measures available to local governments, Stecher claimed, did not allow cities – “at least the older core cities,” he

specified, drawing a stark comparison between Detroit and the growth and success of Sunbelt cities like Atlanta and Phoenix – to adapt to “the changing socio-economic conditions” of the 1970s.\(^3\) The solution, according to Stecher, was a sweeping series of new legislative proposals at the state and federal level, including increases to the municipal income tax, new state excise taxes on cigarettes, beer, and liquor, laws allowing off-track betting and casinos, expansion of federal job and fair housing programs, and a one-year moratorium on Detroit’s payments towards the national Social Security system.

Stecher’s report also proposed the adoption of a new program called “Moving Detroit Forward,” a $2.5 million federal appropriation that would supplement $1.2 billion in pledged private funds for housing, transportation, employment, and public safety programs in Detroit. The program, according to Mayor Young, would “repay America’s debt to Detroit” for fueling industrial and economic growth since the turn of the century and especially during World War II.\(^4\) Even with the major austerity measures city officials instituted in 1975, Detroit still had a deficit of $44 million, the largest in the city’s history. “Detroit is not dead; nor can it be allowed to die,” argued Stecher.\(^5\) Yet without cooperation from the state and federal government, he and other city officials believed that Detroit’s future was in peril. “The State, and especially the Federal Government have determined how cities functioned in the past,” Stecher contended. “They must now face up to the critical decisions which have to be made to assure the future well being of our City.”

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Despite the dire financial situation that Stecher and Young articulated, James Watts and members of his Resource Recovery Task Force were eager to open the official Request for Proposals and choose the contractor for the city’s resource recovery project. The final draft of the Request that emerged from the Pontch meeting echoed many of the earlier justifications for the city’s initial exploration into resource recovery: minimizing dependence on shrinking landfills, providing cheap energy in the form of steam, and earning revenue from recyclable materials. In the context of Detroit’s increasingly troubling fiscal situation, these economic justifications were even more appealing. By choosing resource recovery over traditional landfilling, Detroit officials believed they would save money in the long run by eliminating transportation costs and hefty tipping fees to landfill operators and by reducing their consumption of fuel oil and coal for their city-owned Mistersky Power Plant.

The Request for Proposals also reinforced city officials’ earlier contention that only the private sector could design, build, and operate such a complex facility. Municipalities, especially older cities like Detroit, did not have the funds, staff capacity, or the technical expertise to take on such an endeavor. “Private industry, rather than local government,” the city’s Request for Proposals read, “may be better able to do the research and development and marketing work necessary for beneficial recovery of materials and energy from solid waste.” In framing their call for contractors in this way, city officials acknowledged they were relying on the experience and expertise of private industry to build a system that was beyond their capacity, both in terms of technology and cost. Across the country, many municipalities were coming to the same conclusion. As over-capacity landfills closed and cities continued to collect hundreds of tons of

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trash daily, many officials turned to resource recovery as the only economically-viable disposal option available.

The chapter will detail the complex decision-making process Detroit officials faced in choosing resource recovery as their waste disposal method and consider how the city’s unstable fiscal status in the midst of the urban crisis ultimately threatened to derail the project entirely. Local officials in Detroit and their counterparts across the country were confronted with choices about different private contractors and the various incineration systems each employed in their plants, pollution control technologies that were effective against some emissions but not others, and an array of complex financing mechanisms ranging from public bonds, levered lease agreements, and private debt equity arrangements. Yet many cities were not suited to make these many decisions themselves. Local governments often lacked the expertise to well-informed choices and were forced to seek help elsewhere. One option was the federal government. The national energy crisis and the search for cheap and plentiful alternatives fuels initiated a massive federal research program into resource recovery, led by the Environmental Protection Agency, which produced hundreds of reports, bibliographies, and implementation guides geared specifically to local officials who were interested in building resource recovery plants. More often though, cities – including Detroit – often relied on teams of expert environmental and financial consultants to guide them through decision-making. Yet, as this chapter will demonstrate, consultants sometimes made recommendations that ran counter to what city officials envisioned. Despite consultants’ best advice, Detroit officials ultimately chose a contractor with limited experience in the field but that offered a sense of financial security. This security, however, did little to insulate the project from Detroit’s fiscal crisis.
State of the Field: National Resource Recovery Expansion

By 1976, resource recovery was a rapidly growing field. According to the federal Environmental Protection Agency, sixteen facilities were open and operating across the country, concentrated along the East Coast and the Midwest. Nine new resource recovery projects were under construction and twenty-nine, including Detroit’s, had moved into the advanced planning stages. An EPA survey indicated that nearly 70 percent of the forty-four projects that reported data relied on various types of bonds – general obligation, revenue, pollution, or industrial bonds – while five had been completely funded by government either at the local, regional, or state level. Yet resource recovery was a technologically-complex field that local government could not navigate on their own. As a result, 60 percent of projects also relied upon private contractors to build or operate the system. Cities, then, were taking on enormous amounts of public debt to fund partially private developments often based on unproven designs or technology. In Monroe County, New York, for example, local officials issued over $35 million in general obligation bonds to fund the construction of a Raytheon-designed, 2000-ton-per-day resource recovery plant in 1976, which was ultimately closed after years of failing to meet operating guarantees at a cost to the county of over $80 million. Similarly, an 1,800-ton-per-day “joint venture” project in Bridgeport, Connecticut between a regional waste authority, Occidental Research Corporation, and Combustion Equipment Associates, Inc. was financed with $52 million in industrial revenue bonds. While the regional authority had issued the bonds and taken on the debt to construct the

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facility, both companies would share in the revenues of the project with the authority, despite having taken on little financial risk themselves.⁸

Another important reality for cities seeking to build resource recovery facilities was their reliance on external environmental and financial consultants. Given the complex and highly technical nature of the systems, finances, and legal arrangements, local officials often required outside expertise to adequately evaluate proposals and navigate laws and contracts. Detroit officials contracted with two well-respected companies, the MITRE Corporation of Bedford, Massachusetts and White, Weld, and Co. of Boston. MITRE was a not-for-profit research and development organization sponsored by the federal government. The group emerged out of the Cold War era development of the Department of Defense’s SAGE (Semi-Automated Ground Environment) Project, a continental air-defense system that integrated radar, communications, and computers to track and intercept incoming aircraft. While the actual development of the SAGE system occurred at the federally-backed Lincoln Laboratory at the Massachusetts Institute of Technology, many of the engineers who worked on SAGE left Lincoln and moved to MITRE when that corporation formed to take over the project’s operations from MIT in 1959.⁹ MITRE’s work in developing weather forecasting systems for the Air Force led to government contracts with new federal environmental organizations, including the National Air Pollution Control Administration, the Council on Environmental Quality, and, eventually, the EPA. Ultimately, MITRE’s research into air pollution led researchers at the organization to explore the

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interrelationship between energy production, resource conservation, and environmental quality. The research group served as a consultant on resource recovery projects across the country, as cities sought solutions to pressing problems at the interface of solid waste and energy production.

In their first analysis of contractors’ responses to Detroit’s Request for Proposals in November 1976, MITRE also assured officials that resource recovery was “economically competitive with existing disposal methods” in Detroit and had a “lower overall environmental impact than traditionally operated landfills.” This assertion was in line with MITRE’s previous conclusions for an EPA-funded report on the environmental impact of resource recovery on the nation. “Emissions of most air pollutants will be reduced,” the MITRE report contended, while the “quantities of all pollutants present [in landfills] will decrease. Less landfill capacity will be required…Energy savings will be realized.”

To come to these conclusions, MITRE engineers created computer models that extrapolated the impact of various pollutants in the air, surface water, and groundwater in 1990 if all planned resource recovery plants were working optimally and at full capacity and compared their predictions to a scenario in which no new plants opened at all. In the former, total pollutants in groundwater decreased dramatically. This was based on MITRE’s assumptions that expanded resource recovery capacity would also mean decreased use of landfills, which were the primary cause of groundwater contamination. Yet MITRE’s models also predicted an increase in air and surface water pollutants with the expansion of resource recovery, especially particulate matter, formaldehyde, and hydrochloric acid in the air and chlorides and sulfates in surface water. Back on the positive side of the ledger, MITRE analysts highlighted other economic and

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environmental benefits, including the recovery and reuse of recyclable materials, energy generation without fossil fuels, and preservation of open space that might otherwise become new landfills. Considered together, these benefits, along with the improvements in water quality, outweighed the detrimental effects on air and surface water pollution, so that MITRE researchers characterized the national shift towards resource recovery as “primarily beneficial.”

MITRE’s first evaluation regarding Detroit’s resource recovery plant compared the three companies who had responded to the city’s Request for Proposals: Combustion Engineering, United Oil Products, and Canadian Industries Limited. In a presentation to Mayor Young, the firm characterized both CE and UOP’s proposals as strong, while CIL’s was “lacking in responsiveness” and did not include the required financial show-of-faith “corporate commitment” of a proposal bond. Given the importance of a contractor’s financial capabilities to Detroit officials, MITRE’s representatives suggested that CIL be eliminated from consideration. The consultants also suggested Detroit officials request additional information from UOP and CE, including adjusting their proposed systems to meet the emissions standards set by the Wayne County Air Pollution Control Commission, developing detailed financing plans, and providing more concrete details regarding the terms and conditions of energy sales to either the city’s Public Lighting Department, Detroit Edison, or both.

In addition to their evaluation of the three contractors, MITRE analysts also made some early observations about the “potential air pollution effects” from the proposed facility. While the report emphasized that the front-end separation of metals, glass, and other noncombustibles from the waste stream, as proposed by CE and CIL, would, in theory, result in less particulate

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matter in the plant’s emissions, the “lack of experience” with large-scale resource recovery systems meant that “such a system in Detroit could involve significant start up and operational problems, including air pollution control, no matter how well-conceived the system design.” To this point, the report went on to question whether electrostatic precipitators – considered the best-available anti-pollution technology at the time and suggested by all three companies – would mitigate air pollution enough to meet the emissions standards put forth by the Wayne County Air Pollution Control Commission, even if they “were modified to the maximum efficiency available in current precipitator technology.” Only CE suggested in their proposal that they would explore new innovations in air pollution control in order to potentially meet the high standards of the Commission, while UOP instead argued that the air pollution requirements should be changed to meet the realistic capabilities of current technology.12 All of this suggests that while resource recovery was expanding quickly in cities across the country, the technology to support its large-scale adoption still did not exist. As long as cities were restricted in the size and scale of their facilities based on local and national environmental regulations, resource recovery would continue to be outpaced by landfills despite their growing cost.

The air pollution question was just one aspect of the project that made consultants at MITRE apprehensive about the size and scale of the Detroit project. Despite assuring city officials that it was an “economically competitive” disposal choice, analysts still felt there were a number of financial uncertainties in pursuing the resource recovery, including increasing tipping fees, unforeseen capital improvements or reductions in revenue, the untested nature of such

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complex technologies, changing environmental regulations, and changing composition or amount of waste generated. All of these, the consultants contended, could potentially jeopardize the project and, more importantly, its bottom line. MITRE’s concerns in its report to Mayor Young persuasively articulated the most powerful deterrents to cities pursuing resource recovery in the mid-1970s: high cost and unknowable risk.

Given Detroit’s growing economic troubles and MITRE’s frank evaluation of the potential risks, one of the most pressing questions city officials now had to grapple with was how to finance the new resource recovery plant while still protecting the city from any enormous financial loss. While earlier in their private discussions about resource recovery, Young and Watts had both thought that any selected contractor would pay for the construction of the plant “at no cost to the city,” this was not realistic. Developers were simply not willing to take on the sizeable risk solely on their own, especially given the Detroit plant would be the largest ever constructed in the United States and, thus, had greater potential for operational issues and construction cost overages. To explore the available financing options, the city brought on as financial consultants White, Weld & Company, a well-established East Coast investment firm with extensive public and private experience. While most notable at the time for their role in bringing Walmart’s initial public offering forward, the bank had also recently played a key role in marketing $30 million in bonds for a resource recovery facility in Saugus, Massachusetts.

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In their analysis of the two selected finalists, UOP and Combustion Engineering, representatives from White, Weld & Co. examined the firms’ credit ratings, potential equity contribution to the project costs, their ability to use tax benefits, and other key financial data in order to evaluate which company was the most financially sound partner for Detroit. While the representatives came to the conclusion that both proposals were “attractive in their potential [financial] protection to Detroit,” they were unable to suggest one firm over the other, contending that unknowable future conditions like operating costs and market prices for steam would ultimately determine “the viability of the project.”

What White, Weld & Co representatives did provide guidance on, however, was how Detroit might finance their contribution to the facility in spite of their economic issues. The firm suggested that the Michigan Department of Natural Resources, which oversaw solid waste regulations in the state, could issue revenue bonds for the construction of the facility in place of the city. The MDNR’s credit rating was much better than Detroit’s and the bonds, therefore, would be far more marketable. Once the city selected their preferred contractor, according to a plan suggested by White, Weld & Co., the company “would provide equity, either direct or through a 3rd party (leverage lease) for up to 20-30% of the cost of the facility.” The contractor would also be required to guarantee the construction of the facility for an agreed upon amount and would have to assure that the facility would meet operating and environmental standards as required by local and state laws. In this way, the contractor would take on some of the potential

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financial risk of the facility and Detroit would be slightly less exposed amidst their fiscal troubles.\textsuperscript{16}

A key part of this operational guarantee, as laid out by White, Weld & Co. representatives, was the contractor’s assurance that they would accept and process all of the waste the city brought them once the resource recovery plant was open. This “take or pay” contract held that the contractor would pay Detroit a penalty if it chose not to accept a load of waste, thus guaranteeing the city wouldn’t lose money if the facility rejected a load. Detroit would then pay a “tipping fee” for every ton of waste that was accepted into the facility and processed. These tipping fees, plus any additional revenues generated by the sale of recyclable materials or steam would “be paid directly into a special fund which would be established by the Department of Natural Resources” that would provide for operating and maintenance costs to the contractor, property taxes to the city, or, in the best case scenario, revenues to both parties.\textsuperscript{17}

This complicated financing mechanism, however, relied on many assumptions that were not guaranteed, namely the cooperation of the state Department of Natural Resources. The Michigan Resource Recovery Act of 1974 gave the department sweeping authority over solid waste projects throughout Michigan, including the ability to enter into contractual agreements with private companies on behalf of municipalities for solid waste services.\textsuperscript{18} But state officials still had very little experience with resource recovery facilities, having instead focused their attention on modernizing landfills. The department had never previously issued revenue bonds


\textsuperscript{17} ibid.

for a municipality to create a local solid waste project. Nor had it ever created and managed a special fund like the one White, Weld & Co. consultants envisioned. Furthermore, the relationship between the Detroit and the state was a strained one: for years city officials, including Mayor Young, had vocally criticized state government for its tax regulations that they claimed asked more of Detroiter than other Michigan residents and for not paying for its share of infrastructure maintenance in the Detroit area.19

In addition to the uncertainties posed by the plan’s reliance on state-level cooperation, White, Weld & Co. acknowledged that the success of their proposed funding mechanism depended heavily on the marketability of the MDNR’s resource recovery bonds. “In order to get an A rating on the Bonds - - which we believe is essential to the sales of the Bonds at an attractive rate,” their evaluation stated, “the investing public must be convinced of the security of the revenues. This means…that the investors are convinced that the technology is sound, The City is obliged to deliver and pay for services, and the product purchasers are obliged to pay for all materials and energy produced.”20 Yet none of these conditions were assured. Detroit’s troubling financial situation did little to inspire confidence in investors, nor were the customers for recovered metals and glass guaranteed.

And as other cities across the country brought their resource recovery facilities on line, many faced mechanical failures that forced plants to temporarily shut down or required costly improvements. In Baltimore for example, city officials reported that “operating parameters” at their Monsanto-designed plant were “significantly different” from those experienced in tests of

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20 ibid.
the smaller prototype. “These differences,” according to an EPA report, “resulted in a lowered plant availability and an unacceptably high level of air emissions.” Such “scale-up anomalies” were not inexpensive for municipalities to correct. While the Baltimore plant was able to use $1 million from the EPA and $4 million from Monsanto (based upon contractual guarantees about operating success), the city was left to fund the $4.6 million difference for new pollution control equipment. In addition to the challenges posed by untested technology, increasing public activism around environmental issues and more stringent laws in response to such outcry often meant that between the time plants were designed and when they finally started operating, they were already obsolete and out of compliance with local or federal regulations. This was the case in Braintree, Massachusetts, where city officials and the EPA clashed over new emissions standards in 1976. The resulting legal conflict meant that the community had to continue to landfill its waste while its new $2.5 million resource recovery facility stood idle. In Nashville, a combination of both untested technology and changing laws forced city officials to replace air pollution control equipment, boilers, and other system equipment at a total cost of over $8 million. The scale of the Detroit project was unprecedented and was likely to have its own set of costly problems once it started operations. Every mechanical failure or new law that forced the plant to shut down meant lost revenues for the city and for its investors.

Three months later, in February 1977, MITRE presented their evaluation of the two final proposals for the city’s resource recovery facility to Coleman Young. At the start, MITRE reaffirmed their first report, stressing that resource recovery was “a solution economically competitive with the existing landfill method” and further emphasizing in this second report that

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it was a “technically, environmentally, and economically sound alternative” for waste disposal. Having ended their November meeting emphasizing the financial uncertainty of resource recovery, MITRE consultants sought to reassure Detroit officials that – despite the many risks – the process was still a sound economic investment for Detroit’s future. In a diagram comparing the estimated costs of tipping fees in local landfills versus the two facilities proposed by Combustion Engineering and UOP, MITRE argued that resource recovery was economically advantageous in the long run. While landfill tipping fees, they predicted, would rise to nearly $12 in ten years, fees to dump at a resource recovery plant located centrally within the city would actually decrease over time to $6.\(^{22}\)

Yet the consultants also had some disappointing information for Detroit officials. Additional analysis indicated that, based on the emissions regulations put forth by the Wayne County Air Pollution Control Commission, city officials could only build a facility capable of processing 3,000 tons per day, rather than the 5,700-ton maximum envisioned in their Request for Proposals. In their proposals, however, neither UOP nor CE guaranteed to meet the emissions guidelines laid out by the Wayne County Commission, instead choosing to design larger plants that would burn more waste for a higher profit margin. This choice suggests that the potential environmental and public health impact of the facility was less of a priority than the economic considerations. Although both companies would eventually change their designs to meet air quality guidelines following meetings with officials from the federal EPA, Michigan Department of Natural Resources, and Wayne County Air Pollution Control Commission, this size reduction

meant that Detroit officials could not pursue large waste processing contracts with nearby communities, thus eliminating an additional source of revenue to support the project, nor could they burn enough waste for both the Public Lighting Department and Detroit Edison.23

Having provided these important updates, MITRE’s moved forward evaluating the two proposals based on six criteria: technical, environmental, system management, marketing, financial, and economic. The technical and environmental criteria were the most complex, encompassing six subparts each. On the technical side, MITRE analysts ranked the two companies on their proposed system’s demonstrated experience, the ability of the facility to consistently process large loads of waste (as well as backup plans should the system shut down for any amount of time), the system’s flexibility to accommodate future expansions, and its energy efficiency. In prioritizing these considerations, MITRE’s was primarily concerned with maximizing the proposed plant’s revenue stream for Detroit by assuring its dependability, availability, and adaptability to meet changing market demands.24

Further down in the evaluation criteria, MITRE’s environmental considerations of proposed plant included the aesthetics of the site, the potential impacts on water and air quality, noise from plant operations and truck traffic, health considerations both in the plant and in the surrounding community, and the processing of hazardous wastes. While CE’s proposed system was considered to be more efficient, in that it required less waste and emitted less air pollution to generate the same amount of steam, MITRE analysts ranked UOP’s air pollution control system


24 ibid.
higher because its data, collected from its Northwest Chicago Incinerator, was considered more reliable than CE’s estimated data based solely on computer models. Both companies received the same overall technical rating, though the points each accumulated differed between categories: while CE ranked higher in availability, adaptability, and energy efficiency (suggesting that their system design was superior on paper), UOP was ranked highest in actual experience with its proprietary Martin system. “UOP is preferred in process experience…with 35-plus Martin system plants in operation around the world,” MITRE’s report explained. On the other hand, CE’s proposed system, while theoretically superior, had “never been operated over an extended period of time on a commercial scale.” These considerations are revealing; the enormous value MITRE’s consultants placed on experience and demonstrated operating success confirms that resource recovery was still a developing and uncertain field in the mid-1970s and presented great potential risk to local governments who sought to build facilities.25

Even more important than demonstrated experience, at least in Detroit’s particular circumstance, were the financial considerations of the two proposals. While CE’s proposed 5,700-ton-per-day plant was more economically advantageous with higher revenues from the tipping fee, the ultimate elimination of such a large plant in light of air quality regulations meant that both CE’s and UOP’s smaller plants were comparable in their day-to-day operational costs. Combustion Engineering estimated that they could build a plant at a lower overall cost compared to UOP, yet this advantage was misleading since CE had never built their own facility and their estimates were likely low. The range of total estimated costs, from a low of $96 million

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(CE at the Mistersky site) to a high of $119 million (UOP at Russell-Ferry), the project was, as MITRE reported, “basically…a $100 million project.” In all, MITRE’s evaluation of the final proposals from UOP and CE did not find notable differences between the two economically or environmentally. Ultimately, the “extensive operational experience” of UOP and the demonstrated success of their proprietary Martin process at the Northwest Chicago Incinerator for over five years, suggested to MITRE that selecting UOP as the contractor might put the Detroit project less at risk for the costly mechanical or technical issues that had plagued other large-scale resource recovery projects across the country.

Energy Crisis and Tax Revolt: Troubles Early On

Although city officials were now forced to make a difficult choice between the two contractors, the emergence of another energy crisis in the early months of 1977 at the very least reassured them that they were on the right path in continuing to pursue resource recovery. As in the 1973 crisis, Detroit’s primarily concern centered on rising energy costs in the context of constricting fuel markets. In a report to the Energy Task Force of the Urban Consortium, Detroit Planning Director Anthony DeVito listed five “Priority Needs” regarding the city’s energy future. The list reveals concerns about rising energy costs that especially plagued older cities with outdated infrastructure and aging homes. First, DeVito identified the need for an energy audit of city buildings and a long-range energy conservation plan that could save the city money.


27 Ibid.
on operating costs. He also pointed to rising residential heating costs and “urban sprawl” as strains on Detroit’s energy needs.28

Lastly, DeVito reported securing “New Energy Sources” as the city’s fifth priority. Specifically, DeVito was interested in methods for recovering energy or in reusing materials generated by other city operations. “For example,” he wrote, “the Detroit resource recovery system will utilize the fuel value of trash to generate steam for heating in the central portion of Detroit.” Could other wastes, like trees, brush, and demolition material be reclaimed and used as fuel in a similar way, DeVito suggested. DeVito’s report suggests not only that city officials still viewed the resource recovery plant as a future protection against national fluctuations in the energy market, but that the promise of resource recovery – to turn waste into a valuable, useable commodity – had permeated beyond Watts’s Environmental Protection and Maintenance Department and into other city departments that sought to apply the principles to their own operations.29

With the economic pressures of a new energy crisis upon them, city officials sought to move forward with selecting a contractor for their resource recovery plant. Despite MITRE’s assessment in their February report that UOP would be the safe choice of contractor for the city’s unprecedented resource recovery plant, given their demonstrated experience in constructing and operating plants, the city chose to move forward in negotiations with Combustion Engineering. This was for several reasons, all of which came down to the economic advantages such a partnership lent to the city. First, although Combustion Engineering’s proposed facility was


29 ibid.
unproven and, therefore, less certain, according to city officials it had “the advantage of providing excess capacity and the potential for expanded operation and greater flexibility, assuming it performed up to expectations.”

Second, the city’s financial consultants at White, Weld, and Co. advised the city that “the participation of CE made the Project somewhat stronger financially.” This was a key endorsement as city engineers Michael Brinker and Harold Yaffe later reflected that the “ability to finance the Project was a major consideration and concern throughout the planning process.” Compared with UOP, CE boasted a higher credit rating – an “A” with both Moody’s and Standard and Poor’s – as well as 20 percent growth in net income between 1974 and 1975. UOP, on the other hand, had experienced a 15 percent loss over the same time period after a major construction contract for a Canadian oil refinery fell through when the oil company went bankrupt. In the end, CE’s stronger financial record and the sense of stability that represented was too attractive to Detroit, which had its own growing economic issues. On June 8, 1977 James Watts received a memorandum of understanding from Jack Carney, Combustion Engineering’s lawyer in charge of negotiating the Detroit project. Hours later, Watts relayed the document to Coleman Young. Pending one final review by the Law Department and Watt’s Environmental Protection and Maintenance Department, the city finally had a contractor for their resource recovery project. Yet construction, much less operation, was still far off: the two parties now had to negotiate the financing mechanism for what would be the world’s largest trash incinerator.


31 ibid.
Four months after receiving CE’s memo of understanding, newly appointed City Finance Director Paul Thompson Jr. already had the necessary bond measure on his 12-month calendar. Thompson shared this update with Mayor Young, indicating the city’s plans to seek $80-90 million in Resource Recovery bonds from the state of Michigan for the project. Yet the timing, whether due to bureaucratic necessity or the city’s financial uncertainties, was still up in the air: “Calendar calls for March ’78,” Thompson noted, “however realistic date – Fall, ’78”32 As city officials began to plan, however, they encountered lingering doubts in as to Detroit’s financial future. The city’s last five-year financial forecast, issued in 1975, painted a troubling picture, with Budget Director Walter Stecher contending that Detroit would “die” without assistance. While the extreme tone of the report was intended to urge action by state and federal officials, it also had negatively influenced Detroit’s credibility in the bond market. Earlier that year, Finance Director Dennis O. Green raised concerns about these negative reports in a memo to Coleman Young, writing that the city “must cease the issuance of the five-year forecasts in its present from because it is having extremely damaging impact on the tax-exempt market for the City of Detroit.” Rather, Green suggested, the city should present an honest and objective view of its finances without the “inflammatory fear-instilling impact.”33 While cutbacks and austerity measures had helped the Young administration weather its first fiscal crisis in 1975, the city’s credit rating and, thus, the confidence of investors reflected the lingering uncertainties of the city’s financial future.

32 Paul Thompson memo to Coleman Young, October 26, 1977 in MS: Coleman A. Young Papers 97:9 Finance Dept 1977 1, Detroit Public Library, Burton Historical Collection.

33 Dennis O. Green memo to Coleman Young, January 28, 1977 in MS: Coleman A. Young Papers 97:10 Finance Dept 1977 2, Detroit Public Library, Burton Historical Collection.
While investors might have harbored some misgivings about Detroit’s future under the Young administration, Detroit voters did not. Young’s 1977 reelection campaign pitted the mayor against City Councilman Ernest Brown in Detroit’s first exclusively black mayoral contest. Brown campaigned as a sober, even-keel statesman, criticizing Young’s “gutter values” and “high-roller” lifestyle. Young, on the other hand, characterized Brown as a “boy scout” and pointed to his administration’s many achievements during his first term, including ending discriminatory practices by police, instituting an ambitious affirmative action plan in city hiring, and steering Detroit through the difficult economic times of 1975. Young also was viewed by many in Detroit and beyond as a rising national political star on the national level, pointing to his role as chair of the United States Conference of Mayors, vice chair of the National Democratic Committee, and as a close friend and advisor of President Jimmy Carter. His status and demonstrated success secured key endorsements from Henry Ford II, Coretta Scott King, the local AFL-CIO, UAW and Teamsters, the Urban Alliance, and The Detroit News. At the end of the day, Young’s image won over many of the key power brokers in the city, as well as the voters. Detroiters reelected him with a plurality of 63%, winning all but one majority black district and four majority white districts.34

Young’s victory came at a key point in the negotiations over resource recovery. While city officials had spent a significant amount of time and money developing requests to contractors, hiring consultants, evaluating proposals, and conducting research on resource recovery, Detroit still had not signed a legally binding contract, issued bonds, or started construction of the facility. Had Young lost, a new mayor would have had the power to halt the

process and reassess the project based on the city’s solid waste needs and potentially found that the economics simply no longer worked out. Between 1970 and 1980, Detroit would lose over 20% of its population. Yet city officials under the Young administration still continued to pursue the construction of an incinerator that would dispose of the trash generated in 1970 versus 1980. In this way, the economics of resource recovery – processing more waste and generating more tipping fees in order to be economically viable – were ultimately not in Detroit’s favor as they moved forward.

Economics were not working in Detroit’s favor in other ways. Not three months after Young’s reelection, Detroit faced another budget shortfall. As the administration worked to set their 1978 priorities, the mayor was alarmed by the state of Jimmy Watt’s Environmental Protection and Maintenance Department. “I am deeply concerned about the huge budget deficit forecast for your department,” he wrote Watts. The main culprit, according to Young, was non-emergency overtime by the city’s garbage collectors, a cost that Watts and Young had negotiated with union representatives from the American Federation of State, County, and Municipal Employees to eliminate the previous year by hiring new full-time personnel. With a potential deficit on the horizon, Young warned Watts that each department, as in 1975, would be required to make difficult reductions in operations or to increase productivity during working hours. “I’m confident that you and your staff will find ways to ‘live within your means,’” Young suggested. “As in the past, I know I can depend on you.”

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management of his department. His goal to consolidate city services by bringing more responsibilities under his purview was not only met with resistance by employees but was also undermined by Coleman Young. Unbeknownst to Watts, the mayor was recommending a “slow analytical approach to the myriad of changes” proposed to the Environmental Protection and Maintenance Department in his discussions with other staff. Yet in not being forthcoming with the department director, Young allowed Watts to waste valuable time and energy pursuing ends that were not in line with the mayor’s vision.

In 1978, Michigan voters had successfully petitioned the state government to put a referendum on that year’s ballot to change the state’s constitution and impose new tax limitations on local governments. The Headlee Amendment, named proposal author and Taxpayers United leader Richard Headlee, would protect property owners from tax increases by forcing municipalities to roll back the tax rate when annual growth on an existing property was greater than the rate of inflation and by requiring voter approval for all new bond issues and tax increases at the local level. Headlee was one instance of the many tax revolts that took place across the country in the 1970s, as suburbanites sought to roll back the effects of inflation on their property taxes. “These two proposals…are a step in the right direction toward cutting and limiting our taxes, which are already too heavy a burden for the vast majority of us,” argued suburban Algonac resident Shirley A. Vanbuskirk. “Lower and more equitable taxes will only


come about if the taxpayer does it himself.” Yet in bringing every bond issue to the voters for approval, the amendment threatened Coleman Young’s vision for a development-driven renaissance in Detroit, including projects that were currently underway in the Downtown Development Authority and the Southeastern Michigan Transit Authority. “If it comes to having the people vote to approve these bonds then we’re in trouble,” Mayor Young told the Detroit Free Press in July.

What was unclear to James Watts and other officials working on the resource recovery project was how the Headlee Amendment would ultimately impact their ability to issue the necessary bonds. If Michigan voters passed the amendment in November, the central piece of the proposed financing package was in jeopardy and so, then, was the facility itself. Officials in Detroit’s Legal and Finance Departments started to shape a plan to navigate the potential limitations imposed by the amendment. In a meeting with Deputy Mayor Richard Simmons, Finance Director Paul Thompson suggested the city put a proposal on the ballot seeking continuous voter approval for “Budget Bonds” under five mils per year earmarked for “Capital Improvement Programs.” In this way, officials could market bonds for development projects without requiring voter approval, giving the city more flexibility and more autonomy in the future. Thompson, however, had some reservations with the proposal and sent it to the city’s outside counsel at influential local legal firm, Miller, Canfield, Paddock, and Stone.

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Upon review, however, bond counsel Stratton Brown expressed “reservations” as to the legality of the proposed ballot question. In a response to Thompson, Brown suggested that the purposes and amounts of the bonds in question were presented in a “most vague manner” and suggested that Michigan courts would almost certainly challenge the issue on the grounds that all financial matters brought to electors must be presented in a “fair and informative manner.” Furthermore, the state constitution mandated all bond proposals that required voter approval to be a well-defined “specific bond issue” on the ballot. All in all, concluded Brown, the city’s Headlee workaround would likely not stand up to legal scrutiny in court. In fact, he warned that if Detroit residents voted the proposed question down it could be interpreted as a total “block against future budget and rehabilitation bonding,” thus creating a situation potentially more damaging than Headlee.\footnote{Stratton Brown letter to Paul Thompson, September 7, 1978 in MS: Coleman A. Young Papers 117:9 Finance Dept 1978 2, Detroit Public Library, Burton Historical Collection.} With Brown’s assessment of the proposal, Thompson recommended against its placement on the ballot that November. With only two months until the vote, Detroit still had no plan to deal with the potential fiscal restrictions of the Headlee Amendment.\footnote{ibid.}

The day before city offices closed for the Thanksgiving holiday, James Watts received a troubling memo from his Environmental Protection and Maintenance Deputy Director, Charlie Williams. Williams had just assumed his new post in February of that year and had quickly become a key member of Watts’s resource recovery contract negotiation team with the city and Combustion Engineering. In his memo, Williams explained that the negotiations team had been addressing important “non-negotiable project matters” since April, including such basic questions as “How can the City accept force majeure liabilities? How does the City pay for the
service it receives?” or indeed, what exactly was “the service” itself. In his memo, Williams argued that the many contractual issues could be reduced down to three questions. The first was the question of risk and who was responsible should costs increase as a result of some unforeseen circumstance. Mayor Young and Combustion Engineering officials had agreed during a preliminary meeting in August that the city would assume risk in the case of a change in law that forced modifications to the facility’s design during the construction phase only and would later assume joint risk with the company during the operating phase. Combustion Engineering, they agreed, would thus assume all other risk during construction and share joint risk during operation. Yet Williams reported to Watts that the company now refused to accept any responsibility of risk during the operating phase, a shift that Williams believed “throws into consideration the creditability of Combustion Engineering’s representatives.”

Given the scale of the project and the untested nature of resource recovery, the question of who would assume risk and when was substantial and had major implications for the financial arrangements of the project.

The second major question of the negotiations also involved risk centered on the city’s precarious financial standing. Williams explained that the project’s insurance underwriters expressed concerns about “the ability of the City to pay if risk is assumed and also in case of default by the City of Detroit on any contractual provisions.” In response, negotiators from Combustion Engineering suggested that Detroit could still assume force majeure liability without the risk being characterized as additional debt, given that the assumption of more debt was a

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45 ibid.
non-negotiable point according to city bond accountant Larry Solomon. Instead, Combustion
Engineering representatives suggested the city could assume the risk as a “contingent liability”
for one year, meaning it would not appear in any of the city’s financial statements as potential
debt. Williams, however, was skeptical of the proposal, given the company’s renege on their
August agreement with Mayor Young, and suggested to Watts that the proposal be “closely
scrutinized” before the city agreed to anything.\footnote{46}

The third issue was the Headlee Amendment, which had been narrowly approved by
Michigan voters earlier that month. Although the law would go into effect on December 22 of
that year, state legislators were still uncertain exactly how it would be implemented, and
municipalities were tentative to proceed without direction from the state. “Everything is
speculation,” observed state fiscal official Tom Wagamon.\footnote{47} Without much-needed clarity from
the state legislature, the “uncertainties of the Headlee Amendment leaves the entire question of
bonding up in the air,” Williams explained. City officials thus had to grapple with the fact that
their ability to issue bonds, which had been their only assured funding mechanism, was now no
longer a reliable option.\footnote{48}

Changes were also coming to the city’s resource recovery team. In November 1978,
Mayor Coleman Young brought in attorney Mel Greenberg of the up-and-coming national firm
Greenberg, Traurig, Hoffman, Lipoff, and Quentel out of Miami, Florida to assist with
negotiations. The three founding partners – Greenberg, Traurig, and Hoffman – brought together

\footnote{46} Charlie J. Williams memo to James W. Watts, November 22, 1978 in MS: Coleman A. Young Papers 117:2
EPMD 1978, Detroit Public Library, Burton Historical Collection.


\footnote{48} Charlie J. Williams memo to James W. Watts, November 22, 1978 in MS: Coleman A. Young Papers 117:2
EPMD 1978, Detroit Public Library, Burton Historical Collection.
their particular expertise – tax law, real estate, and corporate law, respectively – to establish a full-service firm that specialized in financing and zoning issues for private development projects. They were particularly notable in Florida for guiding several large resource recovery projects forward in Florida.

A week after being contacted by Mayor Young, Greenberg was in Detroit having breakfast with the rest of the city’s resource recovery team, including Charlie Williams and resource recovery project lead Michael Brinker. Over coffee they discussed strategy in advance of an important afternoon meeting with Combustion Engineering officials, the city’s bond counsel at Miller, Canfield, and – after White, Weld was sold to Merrill Lynch earlier in 1978 – the project’s new financial consultant, top-tier bank First Boston. During the meeting, both Combustion Engineering and First Boston expressed doubts as to Detroit’s “ability to pay” and requested from the city “a documented statement on this question.” Yet with the Headlee Amendment’s impact on the city’s bonding capabilities still uncertain, city officials could not accurately account for their ability to issue $78 million in resource recovery bonds as planned. Until this question was resolved, the project was at a virtual standstill. In the meantime, accountant David Olmstead from Miller, Canfield was asked to research the “ability to pay” question and prepare a report for Combustion Engineering officials by January 1979. Yet Watts and Young also had Mel Greenberg and his firm prepare their own financial analysis and risk assessment by January 19. Whether Watts and Young were simply seeking a second opinion or if they were seeking to pit the two legal firms against each other is unclear. 49 According to Young biographer and political scientist Wilbur Rich, however, the mayor often employed “inventive

49 James Watts memo to Coleman Young, January 10, 1979 in MS: Coleman A. Young Papers 134.34 EPMD 1979, Detroit Public Library, Burton Historical Collection.
and aggressive” tactics to assure financing for city development projects and relied on internal “maneuvering” rather than transparency in his decision-making process.\textsuperscript{50}

With the financial analyses in hand and some clarity reached regarding Detroit’s fiscal status, the project stakeholders sought to make substantial progress on negotiations. Between April and June 1979, city and Combustion Engineering officials resolved most of the issues concerning the project’s construction phase. Combustion Engineering agreed their resource recovery facility would meet “performance guarantees,” including the amount and quality of energy production and total volume of waste processed. The company also assured the city they would complete the facility by an agreed upon “Commercial Completion Date.” Failure to meet that date or the performance guarantees meant that it would be financially obligated to make up whatever revenues were lost during that period, as well as “all applicable debt service for the Facility.” Combustion Engineering also agreed to meet both the performance standards and the completion date regardless of any technical issues or unforeseen setbacks, which had been a major sticking point in the negotiations early on.\textsuperscript{51}

Some of the important points regarding the project’s revenues were also easily resolved. Combustion Engineering and the city agreed that the company would process at least 780,000 tons of waste per year for a total contract term of fifteen years. During the first half of the contract term, Combustion Engineering would collect revenues on 90 percent of the “Guaranteed Processed Waste” or approximately 702,000 tons. For any waste delivered beyond that amount, Combustion Engineering would pay Detroit the revenues derived from energy and recycled

\textsuperscript{50}Wilbur Rich, \textit{Coleman Young and Detroit Politics}, 143-149.

\textsuperscript{51}James Watts letter to John Cunningham, July 11, 1979 in MS: Coleman A. Young Papers 134.34 EPMD 1979, Detroit Public Library, Burton Historical Collection.
materials. During the second half of the fifteen-year contract, revenues would be divided 80 percent to Combustion Engineering and 20 percent to the city.

Yet discussions flagged when stakeholders considered the more complex aspects of the facility’s operating phase. Would the city have any financial obligations to Combustion Engineering if they failed at any time to meet the minimum guaranteed waste delivery? What happened if the waste delivered by the city didn’t meet the standards of engineers at the facility? How or where would it be disposed? What if operating and maintenance costs skyrocketed? And who would be financially responsible to cover those? Taken together, the answers to these many questions were vital and had the potential to cost the city thousands, if not millions, of dollars.

By July of 1979, negotiations on these operating issues were no further along. In fact, the central question was now the uncertainty of Combustion Engineering’s proposed system to deliver the agreed upon results. In a lengthy letter to the company’s vice president, John Cunningham, an exasperated James Watts characterized this as unacceptable. “The primary reasons for the City’s selection of CE were CE’s promise that it would guaranty to the City that its system would yield a higher energy recovery and a more uniform and efficient fuel to offset the higher operating costs and capital costs of the CE system,” Watts explained. “[I]t is imperative that the promised efficiency of the Facility as stated in the Original Proposal be guaranteed in terms of both these key representations made by CE as to the construction and operation periods.” Particularly galling was Combustion Engineering’s suggestion they build a “downsized” resource recovery facility, capable of processing 2,000 pounds per day – 1,000 pounds less than guaranteed in their original proposal.52 But the economics of resource recovery

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52 James Watts letter to John Cunningham, July 11, 1979 in MS: Coleman A. Young Papers 134.34 EPMD 1979, Detroit Public Library, Burton Historical Collection.
were based on scale: more waste was burned to create more energy which generated more revenue. So though building a smaller facility was more realistic for the capabilities of Combustion Engineering, it was not an appealing option to the city. In this way, Watts faced the exact problem that consultants at MITRE predicted in 1976: Combustion Engineering’s lack of demonstrated experience in resource recovery combined with the unprecedented scale of the envisioned facility made what was already a difficult and uncertain process even more so.

In his response to Watts’s letter, Combustion Engineering Vice President John Cunningham tersely explained “we do not agree with the contentions” the Director had made in calling the company’s downsized facility plan “unacceptable,” but suggested “it is more constructive to respond to the substance of your proposal.” First, Cunningham proposed changes to the financial aspects of the construction phase, mainly that Combustion Engineering have access to the facility’s capitalized interest during construction. Unlike traditional interest, which is charged annually on a loan balance, capitalized interest is added at the end of a project and is considered as part of the project’s total cost. In the first year of the facility’s operation, the capitalized interest would thus increase the overall cost of the resource recovery plant on the city’s balance sheet. But because Detroit was taking on the debt to construct the facility, not Combustion Engineering, Watts and other city officials saw that capitalized interest as exclusively city money. 53

Cunningham also suggested a number of changes to James Watts’s proposed financial terms during the operating phase. In the case that “unforeseen circumstances” caused “operating and maintenance expenses to exceed its committed operating and maintenance costs,”

53 John Cunningham letter to James Watts, August 23, 1979 in MS: Coleman A. Young Papers 134.34 EPMD 1979, Detroit Public Library, Burton Historical Collection.
Cunningham sought a new clause that would require city officials to renegotiate the financial terms of the contact, including revenue sharing. Furthermore, Cunningham suggested establishing a joint escrow account between the city and Combustion Engineering for use towards capital improvements or other expenditures. This was an arrangement that city officials had earlier considered as an equitable way to share expenses related to the facility. Yet Cunningham further suggested that because “the City of Detroit realizing by far the greatest percentage of the benefits during the Operating Phase of the project, any amounts remaining in such escrow account(s)…would flow to CE” at the end of the fifteen-year contract.\(^5^4\) Both of these new suggestions were met with vehement opposition from Detroit officials. The proposed renegotiation of financial terms in the middle of the project contract was “Not even considered by City,” wrote project manager Michael Brinker and Cunningham’s suggestion that the funds in the shared escrow account remaining at the end of the contract belonged to Combustion Engineering was even more infuriating. Since Detroit was providing the capital for the facility through their resource recovery bonds, “THIS IS THE CITY’S MONEY,” Brinker argued.\(^5^5\)

City officials, however, would realistically need to make some concessions if they hoped to move forward with resource recovery. At a follow up meeting on August 30, Watts, Brinker, and other city officials from the Legal and Finance Departments met with John Cunningham of Combustion Engineering and representatives from First Boston, the Greenberg firm, MITRE, and Detroit Edison to discuss final terms. Detroit officials were confident heading into the

\(^{54}\) John Cunningham letter to James Watts, August 23, 1979 in MS: Coleman A. Young Papers 134.34 EPMD 1979, Detroit Public Library, Burton Historical Collection.

\(^{55}\) Michael Brinker, “Resource Recovery Project Meeting,” August 30, 1979 in MS: Coleman A. Young Papers 134.34 EPMD 1979, Detroit Public Library, Burton Historical Collection.
meeting that Watts’s July letter had “put CE on notice,” as Brinker described it, so that “[a]ll parties, including the investment banker, appeared anxious to proceed to the task of drafting and negotiating contracts.” While that might have been the case, there were still some points that were not settled by the meeting’s end, including the circumstances for renegotiation, the disposition of the escrow account at the end of the contract term, and the tipping fee formula that determined how much the city would pay Combustion Engineering per load of waste. While these were key questions, Brinker observed that the tone of the meeting overall was positive. “These differences are not irreconcilable,” he said, also noting that the “investment banker…was (for the first time) very enthusiastic” about the feasibility of the project. Still, Brinker explained that his observations “should not be read over-optimistically,” suggesting that the city’s negotiating team was still cautious about these steps forward and aware that the situation could change quickly.56

Such long and complex negotiations were not uncommon in the resource recovery field. The Northeast Massachusetts Resource Recovery Project, which took ten years from site selection to ground breaking, drew upon the expertise of the same environmental consultants and financial consultants as the Detroit project, and so serves as a useful comparison in that regard. In a conference paper outlining the Massachusetts project, the two stakeholders pointed to many of the same obstacles Detroit and Combustion Engineering faced in the development of their contract: fluctuations in the bond markets, shifts in the marketability of products or energy, passage of new state property tax laws, and questions over risk and revenue sharing. While the size (1500 tons per day) and the many collaborators on the contract (the facility serves twenty-

56 Michael Brinker, “Resource Recovery Project Meeting,” August 30, 1979 in MS: Coleman A. Young Papers 134.34 EPMD 1979, Detroit Public Library, Burton Historical Collection.
two different communities) distinguish the Massachusetts project from Detroit’s, the authors’
description of the contract and finance negotiations as “tortuous” echoes the Detroit case.57

Starts and Stops: Environmental Impact Statement and Fiscal Crisis

As policymakers created new laws to protect the environment, governments from the
national to the local level also created new oversight bodies to enforce these regulations. In
Michigan, the Environmental Review Board included representatives from each major state
department and made recommendations to the governor regarding a proposed project’s impacts
on human health and environmental quality. As negotiations between Detroit and Combustion
Engineering wound down in 1979, the city and its consultants at MITRE began preparing the
required environmental impact statement for submission to the state board. This report provided
comprehensive plans of the proposed facility and analyzed the impact resource recovery would
have on local air and water quality, traffic, and neighborhoods in the surrounding area.

The majority of the statement detailed how the facility would operate from the time
trucks delivered the waste until the ash was removed from the boiler. MITRE described a
complex system with three primary operations: the receiving, preparing, and processing of
municipal waste into refuse-derived fuel – what they called RDF – the production of energy from
burning RDF, and pollution control. The facility would operate five days a week in two 8-hour
shifts with a third shift reserved for system maintenance. During operating shifts, city garbage
trucks would queue up behind a set of scales to be weighed. Weights would be collected to

57 The authors’ statement about the precariousness of negotiations also rings true: “Concluding all of these activities
at one time and one place is not unlike a space launch,” the authors reflected, “for the failure of any one element
destroys the entire undertaking.” Harold Yaffe and Jonathan Wooten, “The Development and Financing of the
Northeast Massachusetts (NESWC) Resource Recovery Project: A Tale of Twenty-Two Cities and Towns,”
determine a total tipping fee, or the surcharge Detroit paid to Combustion Engineering to use the facility. The trucks would then proceed to one of fifteen bays to release waste into the storage area. This massive space, which made up nearly half of the entire facility, could hold up to 3,000 tons of waste and could accommodate nearly 600 trucks per day. From there, crawler tractors would move throughout the storage area, spreading and compacting the loads of waste as they were delivered and creating more space for new loads to come in.\textsuperscript{58}

From the storage area, loaders would feed the waste on to one of three identical conveyers past an inspection station, where a worker would remove large objects unsuitable for burning, like large pieces of glass and metals. After this first separation, a primary shredder reduced incoming waste down to a size of six inches or less. Further down the conveyor, a magnetic separator would then remove smaller pieces of noncombustible metal and a system of two mesh screens would sift out fine particles of sand, dirt, and glass and then rocks, larger glass pieces, and “other heavy objects” at a rate of up to 100 tons per hour. These removed waste materials were transported to landfills or, in the case of ferrous metals, sold to scrap dealers. The multiple points of separation were key to producing a light, uniform, and easily combustible fuel from the highly heterogeneous mix of materials that made their way into Detroiter’s trash cans. A uniform and easy-burning waste mixture ultimately produced a consistent, higher quality flow of steam that could be sold to Detroit Edison. Finally, the sorted waste passed into a secondary shredder that would tear the material into pieces four inches across or less and push them through a grate into a second storage area. This resulting material created through these multiple separations and shreddings was considered RDF suitable for burning.59

After the waste was processed into RDF, it was fed into one of the facility’s three boilers via conveyer belts and pneumatic tubes to promote even distribution throughout the combustion chamber. Once the boiler was fired, an air system would create turbulence throughout the combustion chamber, allowing each four-inch piece to burn more completely and for longer while it was suspended in the chamber. Along the bottom of the boiler, a moving grate captured

any non-combustible residue and unburned RDF for a final burn before the resultant ash would drop through into the handling system. This combustion process created steam in the boiler that either fed into a turbine to generate electricity or passed through a steam line to be sold to Detroit Edison for its Central Heating System in the downtown core. Excluding the 63,000 gallons of fuel oil required to reignite the boilers after maintenance six to eight times a year, the resource recovery facility was a closed-loop system that required no fossil fuels to operate.\textsuperscript{60}

In addition to ash and steam, the combustion of the RDF also produced exhaust gasses and wastewater. Each of the three boilers were outfitted with electrostatic precipitators or ESPs that captured particulate matter by adding a charged electron to tiny, solid particles as they passed through the precipitator. These charged particles would be pulled towards electrodes emitting a strong electric field in the boiler stack, thus preventing them from being emitted into the air as pollution.\textsuperscript{61} These ESPs were designated as the “Best Available Control Technology” (more commonly referred to as BACT), yet they were also new and still relatively unreliable in their effectiveness. Although ESPs could remove up to 99\% of large particles from stack emissions, they were far less effective in capturing “fine” particles, or those under three micrometers. These particles were ultimately the most dangerous to human health since they could easily pass through the natural air filters in human nasal passages and damage lung tissue.\textsuperscript{62} At an incinerator as large as that proposed by Detroit, consultants at MITRE believed


\textsuperscript{61}ibid.

ESP}s were vital to reducing air pollution to meet the air quality and emissions standards set out by the Wayne County Air Pollution Control Authority, the state DNR, and the federal EPA.\textsuperscript{63}

The environmental impact statement’s thorough description of the resource recovery plant’s operations is important for two reasons. First, the statement describes the complex nature of the RDF system. The many shredders and grates that made up the system were engineers’ response to the heterogeneous nature of American waste. European “mass burn” incinerators did not separate or process wastes before burning. Rather, European operators used cranes to select certain types of materials – wet food waste, dry newsprint – from enormous storage areas and added it to the incinerator’s furnace to keep the fire burning consistently. This strategy was only successful in Europe, however, because of corporate commitments to using less packaging and consistent consumer practices of source separation and recycling. This resulted in a smaller and more uniform waste stream that made mass burn facilities more appropriate in Europe than in the United States.\textsuperscript{64}

American garbage, on the other hand, included materials – particularly plastics – that cause more corrosion at the high temperature necessary to burn waste. The intensive shredding and separation process needed to create RDF was resource recovery engineers’ response to American waste. Yet the complex system of shredders and grates was easily gummed up during processing, often resulting in mechanical breakdowns or explosions, as in Akron, Ohio, where a plant explosion killed three workers in 1984. By 1987, over half of the sixty RDF-based plants in


operation across the United States would experience one-week or longer breakdown-related shutdowns and ten would close permanently. Such unscheduled shutdowns often put cities and towns in difficult situations, as some resource recovery companies did not have contingency plans for backup landfill space included in their contracts. Although Detroit’s RDF system would produce more even and reliable steam for Detroit Edison, ultimately resulting in a more satisfied customer for the facility’s product, that same system also had a far greater potential of expensive mechanical failures and shutdowns.

Secondly, while Combustion Engineering planned to install electrostatic precipitators in the plant to reduce emissions, federal EPA reports from as early as 1978 suggest that other forms of emission control devices were actually more effective than ESPs in reducing fine particulate matter. In tests by the Particulate Technology Branch of the EPA’s Office of Research and Development, fabric filter baghouses, for example, were 99 percent effective in removing dangerous chemicals and even moisture from gas streams. They did so by passing emission gasses through a series of super-fine, flexible fabric bags where particulate matter became trapped. In relying on relatively simple technology, baghouses were the least expensive form of pollution control to operate. Yet they were unpopular with industry because they were difficult to accommodate into plant designs, sometimes standing as tall as 80 feet, and cost millions of dollars to purchase and install into plants. Thus in selecting ESPs over baghouses to control

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particulate emissions, Combustion Engineering chose a technology that was still relatively unproven and had distinct disadvantages.

Overall, the environmental impact statement concentrated on the benefits of the project, which echoed many of the same justifications the city had used to justify its turn to resource recovery as early as 1970: it presented a long-term solution to solid waste disposal, reduced reliance on landfills, stabilized waste costs, and recovered energy and recyclable materials to generate revenue. The report, for the first time, also emphasized new job opportunities the project would create for Detroiter, including 240 temporary jobs over the three-year construction period and 82 permanent positions during the operating phase. Furthermore, harkening to both the energy crisis and the growing environmentalist concern about emissions, the report found that the shift to resource recovery would reduce fossil fuel use in Detroit by nearly 1 million barrels of fuel oil and over 350,000 tons of coal.67

Yet the report also articulated what MITRE characterized as “unavoidable” negative impacts on air and water quality in the city. Although the incinerator would be fitted with the “Best Available Control Technology” in the form of ESPs and would conform to all air quality laws, MITRE did state that the facility would contribute to air pollution in downtown Detroit. Even small increases were problematic, especially since the Detroit was already in violation of Wayne County air quality regulations. Most troublesome was the proposed facility’s location within one mile of twenty schools, nine playgrounds or parks, three hospitals, and the Wayne County Youth Home. In this way, the most vulnerable populations – young children, the ill,

those experiencing poverty – would bear the heaviest burden of the “unavoidable negative
impacts” from the incinerator. Yet the environmental impact statement also stated that the “net
benefits” of the project would “outweigh the disadvantages,” suggesting that the jobs and

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economic benefits presented in MITRE’s analysis of the project were more important to the city and its future than the potential health impacts on downtown residents.69

The environmental impact statement also, as required by state law, considered alternatives to the proposed project, including continued landfilling, a smaller scale resource recovery facility, and a robust municipal composting program. MITRE, however, contended all of these strategies had economic disadvantages that made them unappealing to the city. On June 10, 1981, James Watts sent the final impact statement to Mayor Young for his approval, explaining that the document had not yet been brought to the state Environmental Review Board, but that “DPW…stands prepared to most expeditiously pursue regulatory approval of the project.”70 While Watts was invigorated by this new and important milestone in the project’s development, his Mayor Young had more pressing issues on his mind.

In April 1981, Coleman Young received troubling news. A “blue ribbon” committee of city corporations, labor unions, nonprofits, and banks reported that, based on Detroit’s fiscal standing, the city would be bankrupt by June 30. The only way to avoid bankruptcy would be through sweeping change, including new wage freezes and other concessions from city employees and a controversial income tax rate increase for both residents and nonresidents.71 Yet in a state that had just passed a tax revolt measure like the Headlee Amendment, a tax increase would be a significant obstacle, and it needed the approval of both houses of the state legislature

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70 James Watts memo to Coleman Young, June 10, 1981 in MS: Coleman A. Young Papers 177.9 DPW 1981, Detroit Public Library, Burton Historical Collection.

71 Iver Peterson, “Detroit Mayor is Warned that Bankruptcy is Near,” The New York Times, April 1, 1981.
as well as Detroit voters. Yet, in a rare instance of “metropolitan agreement,” a Detroit News poll found that 51 percent of voters in the tri-county metro area supported the proposed 1 percent income tax increase for both Detroit residents and nonresidents.72

With both the polling data and intense lobbying from the Detroit Economic Growth Corporation’s corporate partners, the plan passed the state legislature with the mayor’s assurance that he would also get city unions to agree to $77 million worth of wage concessions, successfully market $125 million in emergency funding bonds, and get his fiscal plan approved by the State Administration Board by August 15. Less than a month later, Detroit voters approved the tax rate hike by 69 percent in a special election and Young, after tough negotiations, secured two years of wage freezes from nearly all of the city worker unions in return for guaranteeing no layoffs. Yet the bond sale proved difficult: Young sought to sell $25 million each in bonds to the state pension fund, the city’s police-fire pension fund, and the general employee pension fund, plus $50 million to a consortium of seven local banks. Yet the 17 percent interest rate demanded by the state fund made that sale unrealistic, and legal experts suggested that sales to the two city pension funds might threaten their tax-exempt status.

With the state sale out of the question, Young proposed that both city pension systems buy $31.2 million in bonds and sent two aides to seek clarity with the federal Internal Revenue Service concerning the tax-exempt question. Ultimately, the IRS agreed to the sale if half of the total bond package – over $62 million – was bought by private investors. The consortium of banks, however, baked at this suggestion, stating they would only purchase $56.5 million. While

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72 This was largely because Detroiter voted 65 percent in favor of the plan. When suburban voters were broken out of the total poll, 49 percent opposed the plan; Cynthia Lee, “Disowned Poll Raises Tax Hike Hopes,” Detroit News, June 3, 1981.
the city’s general retirement pension fund approved their half of the remaining bond sale with mild dissent, the police and firefighters pension fund sued to block their half of the sale. Despite the uncertainty the fund’s litigation presented, the state fiscal board unanimously approved the mayor’s plan on August 15, ultimately keeping Detroit from bankruptcy.

Though the Young administration again stabilized the city’s finances for the time being, the conditions that precipitated the crisis still had a deleterious impact. Detroit’s “economic misfortunes” had created a situation in which city government had “virtually no flexibility to raise additional revenues and virtually no flexibility to further reduce expenses.” With the city’s ability to make principal payments on its bonds increasingly speculative, credit rating firms Moody’s and Standard & Poor’s both downgraded Detroit’s bond rating to “junk status” in August 1980. “The rating change,” wrote Cathy Macsherry of S&P, was “reflective of rapidly gathering clouds of yet another potential fiscal crisis.”73 While city government successfully navigated the fiscal crisis foreshadowed by Macsherry, the damage in the bond market had already been done. Investors’ uncertainty in Detroit manifested in the form of high interest rates on their proposed Resource Recovery Bonds. The bond’s unmarketability effectively put the entire project on hold for over a year, and the city even, according to Environmental Protection and Maintenance official Mike Brinker, considered “deferring resource recovery for several years, and pursuing landfill options” as their primary waste disposal strategy.74


CHAPTER FOUR

“AN ENVIRONMENTAL FEAT OF GREAT SIGNIFICANCE:” RESOURCE RECOVERY, REVITALIZATION, AND REGULATION, 1984-1986

Exactly one month after a state fiscal review board approved Mayor Coleman Young’s plan to combat Detroit’s most recent fiscal crisis, the mayor stood before reporters to announce that the city of Detroit would contract with Combustion Engineering, Inc. to build a 3,000-ton per day trash incinerator in the heart of the city at Russell and Ferry Street. Young contended during the announcement that the project was a smart financial move for Detroit. The city was currently relying on privately-operated landfills in the suburbs at a cost of $13 to $15 million every year. By incinerating the city’s household trash down to handfuls of wispy ash, Detroit would reduce their landfill needs – and the cost to use those landfills – by at least 80 percent. Given the city’s fiscal crisis months earlier, Young framed the resource recovery project as a wise long-term investment for Detroit’s future – in spite of the facility’s estimated $300 million price tag.1 A week later, the Detroit Free Press ran a front page, above-the-fold article about Mayor Young’s plan to build the nation’s largest trash incinerator. Although reporter Judy Diebolt highlighted the cost-savings and energy-production benefits of the proposed facility, she also focused on the many challenges the resource recovery field faced in 1981, including the plastic-heavy nature of American trash, mechanical and operating troubles, contractual

1 “City want to turn trash into steam,” Detroit Free Press, September 15, 1981.
disagreements with contractors, and a “tight market for municipal bonds.”

Despite Mayor Young’s enthusiastic announcement about the city’s partnership with Combustion Engineering, this last point would ultimately trouble Detroit’s plan to move forward with resource recovery following the 1981 fiscal crisis.

Recognition of the interconnected nature of the city’s revitalization and the successful creation of a resource recovery facility marked an important shift in the way city officials talked about the project following the crucible of the fiscal crisis. Detroit officials sought to position resource recovery as essential to Detroit’s future both in assuring a reliable waste disposal method well into the twenty-first century and in insulating the city from the power and pressure of the surrounding suburban communities by eliminating its reliance on landfills. This chapter will explore the optimism and promise resource recovery presented to Detroit and other cities across the country. Yet as Detroit and other local governments learned, the shift towards new high-tech incinerators was not always an easy one. In a national landscape of increased awareness and public scrutiny of pollution and public health, municipalities that chose to pursue resource recovery often faced resistance from both environmental regulators and activists.

This chapter will also examine the failure of state and federal environmental regulatory frameworks to protect the environment and human health. Although city officials had shared their intentions to build a resource recovery facility with local media since they began exploring the project in the early 1970s, real public awareness of the Detroit incinerator did not coalesce until the mid-1980s. This came following revelation of issues with the state of Michigan’s evaluation of Combustion Engineering’s permit for the facility that ultimately called into

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question the legality of the entire project. These issues centered on the requirements of the federal Clean Air Act that applied to the resource recovery facility and ultimately highlighted the subjective nature of permitting and risk assessment in environmental regulatory procedures. Public debates about risk, scientific objectivity, and regulation ultimately inspired a wide range of activists to prevent the facility from operating beginning in 1986.

Though resource recovery was put on hold in the Young administration following the successful resolution of the fiscal crisis, James Watts and his Public Works Department still had to make plans for handling Detroit’s waste. Yet given the enormous investment of time and energy into the resource recovery project, Watts and his team had few backup plans for the future of Detroit’s waste. As a result, the department had to consider any and all potential arrangements. In a 1982 memo to Mayor Coleman Young, Watts detailed Public Work’s interest in working with the Water & Sewage Department to turn part of the city’s House of Corrections, or DEHOCO, into a landfill site. Located thirty miles west of Detroit in the city of Plymouth, the prison had been a significant draw on the city’s finances and officials had long looked for ways to make the expansive property productive, including the creation of a farm on the 45-acre site. By turning part of it into a landfill for both household waste and the Water Department’s sewage sludge, the city would avoid the enormous expenditures of the resource recovery project, while also eliminating tipping fees to non-city owned landfills. “If DEHOCO is determined to be a technically feasible landfill site and is sanctioned as politically acceptable,” Watts wrote, the arrangement would be of “mutual benefit” to both city departments.3

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3 James Watts memo to Coleman Young, July 23, 1982 in MS: Coleman A. Young Papers 191:3 Department of Public Works 1982, Detroit Public Library, Burton Historical Collection.
Either because of potential litigation that would inevitably stem from forcing inmates to share space with the city’s waste, the infrastructure investment needed to make such a project realistic, or some other reason, the DEHOCO plan was never discussed in an official capacity again. The suggestion does, however, reveal the desperate nature of Detroit’s long-term waste plans without the resource recovery plant and offers some explanation as to why, despite its tenuous financial status following previous year’s fiscal crisis, Detroit continued to pursue a resource recovery deal that was not guaranteed to work out in their favor economically. Still, Detroit officials persisted, and even began to frame resource recovery within their larger plans for the city’s revitalization.

But they weren’t alone in their optimism. In 1982, Mike Brinker and researchers from the Oak Ridge National Laboratory published a report for the U.S. Conference of Mayors on the economic benefits of resource recovery for Detroit. The report suggested that selling steam produced by the incinerator to Detroit Edison for use in their Central Heating System would be cheaper than continuing to burn expensive natural gas to power the system. The utility could then pass along those savings to their customers in the downtown core. As Detroit sought to attract businesses and residents back to the area, “a viable, cost-effective district heating system would be a major asset,” the authors reasoned.4 In his memo to Mayor Young about the report, James Watts characterized the document as a “promotional tool” that presented Detroit as a model for other cities searching for ways to reduce costs and incentivize redevelopment their own central

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business districts amidst the urban crisis. In this way, resource recovery in Detroit was linked with the recovery of the city itself.

Besides considering alternatives for the city’s waste, Watts was again feeling the pressure to do more with less in his department. The fiscal crisis had precipitated another round of austerity measures and layoffs, and the Department of Public Works was deeply impacted. In October 1981, Watts met with staff from the Budget and Productivity Departments to establish an essential “manpower base” for the department. Although Watts and his deputy director, Conley Abrams, both argued for 900 employees to maintain the department’s activities, they ultimately decided during discussions with Mayor Young that 727 employees in the winter and 839 in the summer would allow Public Works to keep up with anticipated workloads during both seasons. Yet the Budget office only financed 697 full time employees. “If we follow Budget’s line of reasoning,” Watts explained, “we will have a minimum work force in which we will be hard pressed just to pickup garbage and never mind demands concerning vacant lots, alley cleanings, special pickups, and some semblance of a clean city, which taxpayers are entitled to.”

The skeleton workforce was already hampering the daily life of Detroiter. Two massive snowstorms in February 1982 paralyzed the city because the Department of Public Works only had the manpower and equipment to plow 200 of the city’s 2,800 miles of paved roads. In an interview with the *Detroit Free Press* after the second storm pelted the city, Watts explained that the situation wasn’t likely to improve “because it is very, very expensive and the city doesn’t

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5 James Watts memo to Coleman Young, October 20, 1982 in MS: Coleman A. Young Papers 191.3 Public Works 1982, Detroit Public Library, Burton Historical Collection.

6 James Watts memo to Coleman Young, October 12, 1982 in MS: Coleman A. Young Papers 191.3 Public Works 1982, Detroit Public Library, Burton Historical Collection.
have the money.” Reduced manpower and limited equipment – much of which was in poor condition, Watts noted – made service improvements simply impossible. In fact, the Director admitted he was forced to reallocate the city’s garbage trucks to plow the snow, leaving him three to four days behind on trash pickup too. “Now the mayor likes me,” Watts went on, “if he could give me the equipment, he’d do it. If they don’t put equipment in the budget, it ain’t because they’re mean people. They ain’t got no money.”

Despite such unworkable conditions, though, the Department of Public Works was met with further cuts the next year. Needing to eliminate over $3.5 million from his budget in 1983, Watts was obliged to make more difficult reductions, including 93 budgeted vacant positions and 164 layoffs of current employees. Yet in a department that was already stretched thin, the Director argued that fifty-nine of the ninety-three vacant positions were “absolutely essential to operate this department.” As Detroit continued to cope with economic hardship in the early 1980s, James Watts and his department, which provided some of the city’s most essential services, were unfailingly the first victims of funding cuts.

The frustrating demands on his department to maintain productivity amidst continued reductions in funding and manpower had worn on James Watts, and in January 1984 he took a leave of absence from the city after undergoing heart surgery. Yet rather than hand the newly-resuscitated resource recovery project off to Al Johnson or Mike Brinker, both of whom had worked alongside Watts in the Department of Public Works for many years, Coleman Young chose his new Finance Director, Bella Marshall, to take the lead. Marshall was a rising star in

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8 James Watts memo to Coleman Young, August 8, 1983 MS: Coleman A. Young Papers 200.24 Public Works 1983, Detroit Public Library, Burton Historical Collection.
Detroit politics. With a law degree from the University of Michigan, Marshall became staff counsel for the Detroit office of the Michigan Housing Development Authority in 1975, and rose to become that agency’s youngest-ever director only three years later. In 1982, Marshall’s ascendency drew the attention of Coleman Young, who was searching for a new Finance Director after the departure of Paul Thompson. Marshall liked to recount that during her interview for the position with Young at an Italian restaurant, “either I talked him to death or he was dieting, but he did not finish his food. So he offered me his leftovers, and I took them
While seemingly an inconsequential comment, this reflection actually reveals a great deal about Young and Marshall, their similar personalities and styles – rarely did someone out-talk Coleman Young – as well as the resultant regard and trust Young felt for Marshall. Young appointed Marshall as the first female Finance Director at age thirty-two. Known for her rapid-fire communication and sharp sense of style, Marshall became a strong force in Coleman Young’s administration and fiercely supportive of the mayor and his vision for Detroit.

Marshall, perhaps, was a strategic choice to spearhead the resource recovery project because of her ability to collect and control information, a valuable skill in Young’s mind with a project that could be considered controversial. Her first memo in regard to the project set a new and telling tone against the previous years of Watts’ more casual management. “All communications…and particularly those involving policy, will be either handled initially by myself or referred to me,” Marshall wrote to Brinker and Johnson. “[A]ll public inquiries…will be referred to me. All written communications to any of the parties working on the project will now be reviewed by me,” she went on. “In this manner we may centralize and preserve the momentum of the project.”

Marshall assumed leadership of the resource recovery project permanently in March 1984 when James Watts died of a heart attack, mere months after being honored at a testimonial dinner organized and attended by 650 labor, civil rights, and community activists. “Detroit has lost a vital, unique citizen with the death of Jimmy Watts,” said Mayor Young. “He was

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maligned in a lot of circles,” explained Public Works Deputy Director Al Johnson, “but he initiated things that saved this city millions of dollars.”

While Marshall assumed leadership over most aspects of the resource recovery project following Watts’s passing, Mike Brinker also assumed an essential role in providing technical expertise as well as deep familiarity with nearly a decade’s worth of financial and legal negotiations with Combustion Engineering. Brinker joined the Public Works Department a year after graduating from John Carroll University with a degree in Business Administration in 1971. With his business and accounting expertise, Brinker was asked to join the Resource Recovery Task Force when it was first formed in 1974 and eventually worked his way up through the department as a policy analyst and accountant. By the time of Watts’s passing, he had become part of the core Public Works team working on the resource recovery project. Between the two of them, Brinker and Marshall represented a formidable team that believed resource recovery was in the best interest of the city and was dedicated to making sure this project would be seen through to completion.

The transition of leadership on resource recovery from James Watts to Bella Marshall wasn’t the only change to the resource recovery team. In May 1982, the city replaced the MITRE Corporation with Roy F. Weston, Incorporated as the environmental and technical advisor on the project. The Pennsylvania-based company was founded in 1957 as wastewater treatment specialists and eventually expanded into a full-range firm for environmental engineering. While Weston was probably best known in the environmental consulting field for being one of the federal Environmental Protection Agency’s first contractors for the Superfund program to clean up contaminated sites of hazardous wastes, the company’s background in resource recovery

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began in the early 1970s. In 1974, Weston was selected as an Agency contractor to research incineration of both sewage sludge – a common municipal waste issue the firm had extensive experience with – and municipal solid waste to produce steam. The firm also was responsible for key contributions to the state of New York’s 1970 solid waste plan as well as a two-volume report for the state of Illinois on resource recovery potential throughout the state, and in 1976 they were listed in the EPA’s survey of the expanding industry as an “engineering consulting firm with experience in resource recovery.” While Weston certainly had useful experience in the resource recovery field, it was unclear why Detroit officials chose to terminate their eight-year relationship with MITRE in 1984.13

Creating the Greater Detroit Resource Recovery Authority

One of the key final issues Bella Marshall would face before breaking ground on the resource recovery facility was the creation of the authority that would manage the plant. There were two purposes for creating an authority. First, by creating a new an autonomous public corporation that was legally separate from the City of Detroit but managed by city appointees, the city more effectively market the bonds needed to begin construction since the new authority’s would not be limited by Detroit’s troubled credit rating. Second, the resource recovery team could potentially attract more municipalities to join Detroit in the project—to bring their garbage into the city—and generate more tipping fees. Since those fees ultimately went towards the operations and maintenance of the facility, it was in Detroit’s interest to contract more municipalities to dispose of their waste at the resource recovery facility. The state Joint Garbage and Rubbish Disposal Act of 1947 mandated that the incorporation of an authority for the

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purposes of waste collection and disposal required “any 2 or more” municipalities to participate.\textsuperscript{14} There were, however, few cities interested in such a partnership with Detroit.\textsuperscript{15} Whether it was trepidation over the city’s precarious financial standing after the spectacle of the 1981 fiscal crisis, the uncertainty about resource recovery and its new technologies, or simply the daunting nature of a project that large and expensive, no city voluntarily stepped forward to join Detroit to create the authority.

Yet there were two natural partners to join the authority: the cities of Hamtramck and Highland Park. Having withstood annexation pressures during the early twentieth century, both municipalities were almost totally surrounded by Detroit on all sides, except for a small sliver of border the two cities shared with each other. The recruitment of Hamtramck and Highland Park to join Detroit in a resource recovery facility was intended nearly from the beginning of the project. In the original Request for Proposals that was distributed to resource recovery companies in 1976, Detroit officials justified their intention to build a larger incinerator by suggesting that they would invite “the cities of Highland Park and Hamtramck which are within the City Limits to utilize the resource recovery facilities. The City feels confident that an attractive disposal rate will result in signed long-term contracts with these sources to supply the additional refuse needed.”\textsuperscript{16} Detroit officials, however, had not approached either community to join the new


\textsuperscript{15} Eventually, the city of Warren also entered into a contractual agreement in dispose of their waste at the incinerator, but since Highland Park never formally signed the Articles of Incorporation, the GDRRA was technically never created and Warren did not have to join the authority.

\textsuperscript{16} “Request for Proposals for design, financing, construction, and operation of a Resource Recovery System to service the City of Detroit,” City of Detroit Environmental Protection & Maintenance Department, page II-3 in MS: Coleman A. Young Papers 97:5 Environmental Protection & Maintenance Dept. Resource Recovery System, RFP Draft 1977, Detroit Public Library, Burton Historical Collection.
waste authority before or during negotiations with Combustion Engineering from 1976 until 1984, thus preventing either city from affecting negotiations and, instead, pressuring them to join in a venture of which they had no say in shaping.

On April 25, 1984, the *Detroit Free Press* reported that Mayor Young would seek to partner with Highland Park to create the resource recovery authority. Although Mayor Robert Blackwell indicated he supported the plan, there were little details regarding his city’s financial stake in the authority. Would they receive any of the expected revenues? Would their credit rating come into play when the proposed authority issued bonds? Yet on May 22, the *Detroit News* reported that Highland Park’s City Council had unanimously approved the city’s participation in the new Greater Detroit Resource Recovery Authority. Characterizing the project as “Mayor Coleman A. Young’s answer to the growing refuse problem in the area,” the *News* reported that the facility would cost between $300 and $400 million to build and encouraged other municipalities to enter into the authority.  

On July 10, 1984, Mayor Young sat at a press conference on the 11th floor of City Hall with CE’s Industrial Group Vice President John B. Kelly, Highland Park Mayor Robert Blackwell, Detroit Edison Chairman and CEO Walter McCarthy Jr., and Smith Barney Vice President Robert Randol to announce that they would break ground on the long-awaited resource recovery plant at a projected cost of $420 million. All five men reaffirmed many of the same benefits that had been discussed for over a decade: a long-term solid waste solution, reliable energy, and sale of recovered materials.

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In some key ways, however, the focus of the conversation around resource recovery had changed over the past ten years of research and negotiations. While the benefits of the plant were still being discussed with regards to energy production and long-term waste planning, all five stakeholders also emphasized the environmental soundness of the project. “This innovative, environmentally sound plan will take care of Detroit’s solid waste needs well into the 21st century,” explained Mayor Young. “Our substantial suburban landfill requirements will be used constructively within Detroit.” McCarthy likewise called the project “economically competitive and environmentally clean,” while John Kelly characterized the project as “continuing [Combustion Engineering’s] commitment to provide environmentally sound and reliable energy systems” around the world. Randol, who was also the head of Smith Barney’s resource recovery finance operations, commented that the Detroit facility was the fifth project his firm had arranged financing for that year. “We believe these projects make an important contribution to the communities they serve by helping to solve both environmental and energy concerns,” Randol observed.18

These comments reveal how society had shifted since 1974. As the fears that Americans felt changed, so had Detroit’s priorities. The energy crisis and the trash crisis had given way to the urban fiscal crisis and the environmental justice movement. Yet by reframing resource recovery as a mean to achieving economic revitalization and social stability in the city, Young and his administration could ultimately justify such an expensive capital project to the City Council and to Detroiters. “The project is state-of-the-art…providing a wide range of social benefits and meeting urban, environmental, energy, and social needs” Young contended in a

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presentation to the City Council. “The resource recovery project will be another addition to Detroit’s renaissance program [and] will assist in the retention of downtown businesses and support the City’s general commitment to revitalization.”19 “We’re taking a step that every city in America will have to take – they’ll be watching us very closely.”20

In front page coverage on the press conference, local papers echoed the benefits Detroit would derive from the proposed plant. The *Detroit Free Press* emphasized the new jobs – 750 construction jobs and 84 permanent positions – the facility would create, the money the city would save by burning its waste rather than relying on landfills, and the freedom the city would gain by reducing their reliance on suburban landfills by “90 percent.” Yet the paper also pointed to the obstacles that remained for city officials: public hearings, construction permits from multiple local and state agencies, and an environmental impact review by the federal Environmental Protection Agency. “I would certainly say it’s conceivable that it could be affected,” said EPA Air Management Chief Joseph Paisie. “That’s a pretty good-sized incinerator.” Mayor Young, however, was confident that Detroit’s incinerator would not be impacted by the EPA’s sanctions because it was designed to burn waste at a high enough temperature to release no harmful emissions whatsoever. “If anything,” he told reporters, “this plant will greatly improve the atmosphere. This is an environmental feat of great significance.” All in all, the project had a path forward, but it would not be an easy one.21


21 ibid.
Yet not everyone was convinced by Mayor Young’s contentions. In a memo to all City Council members, Council President Erma Henderson enumerated three pages worth of unanswered questions about the facility focused particularly on the project’s long-term financial impacts on the city. Pointing to Combustion Engineering’s contract to operate the system in return for a “excalatable [sic] fee per ton,” Henderson raised doubts. “More information about this fee is needed. Is it reasonable? How do we know it is reasonable?...How do we know this system is cost effective?” “Since tax money will be used for this project,” she pressed, “how will taxpayers benefit?” Most importantly: “When, if ever, does Detroit ever get a payback?” While Young, Marshall, and other city officials praised the resource recovery plant as a long-term solution to Detroit’s waste disposal needs and part of the city’s “renaissance,” Henderson sought assurances that the project made financial sense for Detroit and, more importantly, its residents.22

There was also public doubt rising in regards to the Young administration. Elected to his third term as mayor, enthusiasm around Young and his vision for the city was waning. While the city’s economic and political elites pointed to Young’s accomplishments over the past decade, some Detroiters were less interested in Young’s new developments and more concerned with where the city’s money was being allocated. Right before the 1981 fiscal crisis, neighborhood activists began to question how city revenues were being collected and directed. “Detroiters…have reason to be wary of developers and of the federal assistance programs that the Mayor has welcomed,” explained Abdeen Jabara, a prominent spokesperson in Detroit’s growing Middle Eastern community. “We still have whole neighborhoods that are devastated, and instead of

doing something about them, we’re building flashy towers to draw suburbanites downtown at night on the same freeways that took them and their tax money out in the first place.”

Even within city government, Young had his critics. Councilman Ken Cockrel was often vocal about Young’s uneven distribution of city resources “The fact is,” explained Cockrel, “that services in the city are declining while tax abatements are granted to every tycoon developer who submits a proposal for downtown construction. The neighborhoods get virtually nothing from City Hall.” Two months before the resource recovery press conference, news came out that Young planned to sell Joe Louis Arena, Cobo Hall, and Tiger Stadium – all city-owned properties – to private developers Tom Monaghan, Mike Ilitch, and Al Taubman so that, according to Detroit News columnist Pete Waldmeir. “his rich pals can lease them back and get federal tax breaks.” Yet all three men were not reinvesting these tax breaks into Detroit. Instead, Taubman’s Michigan Panthers football team played in Pontiac and Monaghan was building the headquarters of his company, Dominos Pizza, in Ann Arbor. In this way, Young’s local brand of “voodoo economics,” Waldmeir explained, did not bring money back into the Detroit economy to support neighborhood services or redevelopment.

While activists talked about “flashy towers” and “tycoon developers” that were drawing on the city’s limited funds, none before 1986 pointed to the mayor’s planned trash incinerator as a significant draw on city resources. While CE was not directly receiving tax abatements like Ilitch and Taubman, the project increased Detroit’s debt burden, impacted their credit rating, and


24 ibid.

put the city in a less advantageous position to be able to allocate their finances equitably. While
the effects of such a deal might not have been evident to residents at the time, their impacts ran
deep and continued to reverberate for decades afterwards.

In addition to community activists who questioned how deals were made in City Hall, cultural notions of pollution and the environment had changed since the project began in the early 1970s. With acute national anxiety around a looming garbage crisis having somewhat quieted and public attention turned towards disasters like the Love Canal disaster and reports of “killer smog” in Los Angeles, environmental concerns about shrinking landfills had been replaced by ideas more focused on public health and environmental protection. Over time, public debates surrounding pollution, industry, and the environment would take center stage as the city was forced to navigate community concerns to construct its long-anticipated and hard-fought incinerator.

**Regulation and Risk Assessment**

Since announcing their plans to build the nation’s largest trash incinerator in July 1984, Detroit officials and their environmental consultants at Roy F. Weston, Inc. had been working through the extensive permitting process. Because they burned waste to create energy, resource recovery facilities were regulated similar to coal- or oil-fired power plants and the key law that governed the permitting process for the industry was the 1970 Clean Air Act. The Act defined a series of National Ambient Air Quality Standards and identified six “criteria pollutants” – lead, nitrogen dioxide, carbon monoxide, sulfur dioxide, ozone, and particulate matter – that could exist at “primary” or “secondary” levels. Primary level pollutants were those identified to be a threat to human health, while secondary pollutants were designated as a threat to public welfare,
including damage to property, transportation hazards, or personal comfort. Each of the six pollutants could be considered both primary and secondary criteria pollutants and could have different concentration standards for the two levels. For example, sulfur dioxide was a primary pollutant at 75 parts per billion (ppb) by volume in a given air sample taken over one hour, but was a secondary criteria pollutant if found at .5 parts per million (ppm) by volume over a 3 hour period. Lead, however, was considered both a primary and secondary pollutant at the same concentration: .15 micrograms per cubic meter of air. A city could be judged not in compliance (non-attainment, as it was called) for any or all of these pollutants, and that status ultimately made it more difficult for cities to build new factories, power plants, or other developments with a potential to negatively impact an area’s air quality.26

Any new source of emissions, including incinerators, had to obtain a Prevention of Significant Deterioration or PSD permit. By federal law, PSD permits required installation of the “Best Available Control Technology” based on an analysis of existent air quality and a predictive model of air quality after the new facility was operational. But in fact, the definition of “Best Available Control Technology” was variable and imprecise from the beginning because it was determined on a case-by-case basis that took into account the unique energy, environmental, and economic impact of each project. Yet the determination of the Best Available Control Technology was, in some ways, the most important part of the PSD permit since the development of new, more effective pollution controls were what allowed new facilities that contributed to air pollution to be built at all. In this way, the PSD permitting process, according to the EPA, was designed to balance protection of human health and well-being with the

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demands of economic growth. In evaluating PSD permits, the goal, then, was to prevent the air quality in a given area from “significantly deteriorating” as a result of a new emissions source. By determining the PSD “increment,” or the amount of air pollution an area was allowed to increase, of the proposed facility, the maximum allowable concentration "ceiling" set by the federal national air quality standards could be maintained.27

The EPA had passed along most of the responsibility for enforcing the Clean Air Act to the states, which were required to meet federal air quality standards at a minimum. In September 1979, the Agency delegated authority to the Michigan Department of Natural Resources in order to “reduce duplicate PSD permit reviews by our respective Agencies and to provide prospective applicants with only one agency to deal with in obtaining a construction permit.”28 While this delegation of authority might have made it easier for developers to obtain the necessary permits, it also decreased the level of federal oversight on PSD permits and placed responsibility for enforcement of federal law in the hands of the state. In this way, the debates that swirled around the incinerator and its permit from 1984 to 1990 raised questions about the shortcomings and limits of environmental regulation by government to protect its most vulnerable citizens in the face of corporate development.

Detroit began its permitting process when Combustion Engineering delivered a “Permit to Install” to Wayne County after Weston completed the revised Environmental Impact Statement in June 1983. Wayne County had its own robust air quality commission, the Wayne

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County Air Pollution Control Division, which had its own permitting process in addition to that of the state Department of Natural Resources and the federal EPA. Although this was a joint project with the City of Detroit, as the contactor, Combustion Engineering was considered the applicant and was responsible for making sure the facility made it through the permitting process. Less than two months later, company officials submitted the “ Permit to Install” with the Michigan Air Quality Division.  

According to state Air Quality staff reports, in 1984 Detroit was in compliance with both primary and secondary levels for sulfur dioxide, nitrogen dioxide, and lead under federal standards, but non-attainment for primary and secondary levels of total suspended particulates, carbon monoxide, and ozone. In their analysis of Combustion Engineering’s designs for the facility, state officials identified two new sources of pollutants from the facility. The first was during the shredding and processing of waste before it was fired. As the waste went through the shredder, it generated large amounts of fine particulate matter that, if not properly exhausted, could pose a major health risk to workers inside the plant. Particulate matter was also an extremely dangerous pollutant in ambient air outside of the plant, since it was fine enough to enter into lungs and harm the organ’s soft tissue. To mitigate the impact of particulate matter both inside and out, Combustion Engineering installed a baghouse – literally an extremely fine mesh fabric bag – on both exhaust lines from the processing area that would capture most of the particulate matter as it was emitted. The finest particulates that did pass through the baghouse would be released almost 100 feet in the air, allowing the wind to disperse them. Another source of particulate emissions came from the boiler as waste was spread and stoked during combustion.

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ultimately becoming super-light “fly ash.”\textsuperscript{30} To capture the ash as it moved up the exhaust stack, Combustion Engineering employed electrostatic precipitators or ESPs that created a strong magnetic field inside of the stack. Despite research conducted by the EPA in the 1970s suggested that fabric baghouses were actually more effective with regards to fine particulate matter – and their use of baghouse filters to control particulate matter elsewhere in the plant – both Combustion Engineering and Detroit’s environmental consultants at Weston characterized ESPs as the Best Available Control Technology for the facility’s exhaust emissions.\textsuperscript{31}

The six criteria pollutants created tradeoffs between human health, environmental protection, and cost. In the case of sulfur dioxide, for example, staff noted that the high sulfur content of municipal waste based on national studies would result in an airborne increase in that pollutant as the waste was burned. To this end, state regulators suggested the addition of a lime dry gas scrubber to decrease emissions. Yet the cost to install, operate, and maintain multiple scrubbers would increase the tipping fee charged to the City of Detroit every time one of their trucks unloaded at the facility by more than 40 percent. “Such an increase,” a report suggested, “would render the project non-competitive and therefore non-profitable, or economically feasible at this time.”\textsuperscript{32} As a result, the Department did not require Combustion Engineering to install these pollution control devices, though the company did leave room in the facility for them to be

\textsuperscript{30} Michigan Department of Natural Resource Air Quality Division, “Staff Activity Report,” October 16, 1984 in in MS: Coleman Young 233:28 Law Dept. – Detroit v E.P.A. 1986, Detroit Public Library, Burton Historical Collection...


installed after operation commenced in case the facility was found not to be in compliance with emissions standards. Such problems reveal the limitations of resource recovery as a viable method for waste management and suggests Detroit’s decision that burning its waste was more environmentally sound than landflling it was also questionable.

In order to attain even more emissions allowances under the Clean Air Act, Combustion Engineering applied for a permit as a “Major Offset Source.” In order to be considered an offset source, Combustion Engineering had to demonstrate that other particulate-emitting facilities in Wayne County would cease operations before the incinerator would begin to burn Detroit’s waste. According to Combustion Engineering, the shutdown of six coal-fired boilers at German chemical company BASF’s recently closed production facility fifteen miles south in Wyandotte, Michigan accounted for over 600 tons of available emissions offsets per year. Combustion Engineering only requested 432 tons of the available offsets for the Detroit resource recovery facility, suggesting that the operation of their waste-fired incinerator would actually improve air quality, a conclusion state Air Quality Review staff echoed in its staff notes characterizing the “net air quality benefit” that would result.33 Yet this reveals the inherent limitation of federal and state environmental regulations, which were – and still are – less focused on improving air quality than they were on preventing deterioration of conditions. In this way, environmental regulation was intended to balance protection of public health with continuing economic growth.

To qualify as an offset source, the state Air Pollution Control Commission also required that the resource recovery facility meet the Lowest Achievable Emission Rate demonstrated at an

existing facility or specified in a state air quality plan. In the case of the Detroit facility, the demonstrated emissions rate identified as “achievable” was that of the Baltimore City Incinerator. Yet this facility was a poor model for the Detroit project. Not only was it far smaller – five times less than that proposed for the Detroit plant – this fact was due in large part to its own troubled history with emissions violations. Built and partially financed by chemical giant Monsanto for the city to own and operate, the $20 million plant opened in 1975. Yet mechanical problems, temperature control issues, and failed emissions tests, plagued the facility and led to a temporary shut down and $9 million in city-funded modifications in 1978 and 1979. Even after Baltimore retrofitted the plant with ESPs to address excessive particulate emissions, the incinerator still failed regulatory tests. The only solution, according to city officials, was to scale back the incinerator’s daily capacity from 1000 tons per day to 600. By burning less waste, the facility generated fewer emissions.\textsuperscript{34} In identifying the Baltimore facility as the emissions rate model for the 3,000 ton-per-day Detroit facility, state analysts created a regulatory framework that was unrealistic from the beginning and, therefore, likely to become a problem once the plant started burning.

Overall, state Air Quality Division staff notes on the Detroit plant permit reveal the limits of resource recovery regulation. Resource recovery’s development in the 1970s – often funded by EPA grants – focused on small-scale demonstration or prototype projects that were intended

to be replicated and scaled up as the technology progressed. These projects provided, in most cases, the base of data that future megaprojects, like that in Detroit, were based upon. Yet in relying on data from smaller facilities to predict how larger, more complex plants would operate, regulators made many incorrect assumptions about emission concentrations and contents. Regulators, as a result, often applied unrealistic rules to resource recovery projects across the country, so that resource recovery plants across the country often failed emissions tests during shakedown. As a result, many plants — including those in Baltimore, Rochester, New York, and Bridgeport, Connecticut — were forced to burn far fewer tons per day than they were designed, ultimately resulting in lower revenues than anticipated and negatively impacting local governments’ bottom line.\(^{35}\)

These same debates about regulation, emissions, and cost were happening in other states across the country as well. According to a *Newsday* investigation into a cluster of thirteen incinerators near Long Island, New York, plant developers predicted emissions that were vastly different from each other, despite their similar size. Calculations showed that the Islip incinerator, for example, would emit seventeen times more arsenic than the proposed New Hempstead plant and thirteen times more hydrogen chloride than an incinerator in Babylon, while a resource recovery facility proposed in Huntington would emit 2,800 times the cobalt the Brooklyn incinerator.\(^{36}\) Vastly different extrapolative models combined with the lack of regular, mandatory emissions testing at either the state or federal levels meant that there wasn’t good data


to accurately estimate what plants were emitting and how much of it. Yet in basing emissions predictions off of bad data or models, incinerator developers were often forced to add additional pollution controls after the plants failed emissions tests. And those costs were often made up by raising the tipping fees. At a 400-ton-per-day plant in Duchess County, New York, officials reported that when they explored the costs of adding new pollution controls to their facility, they saw their tipping fees grow from $5 per ton to over $15 per ton, all to add ESPs, baghouses, and acid gas scrubbers.\(^{37}\) In raising tipping fees to accommodate plant retrofits, however, resource recovery often lost their affordability compared to landfills, much to the frustration of municipal officials who had taken on significant public debt to construct these facilities.

While state and federal regulatory agencies often pointed to innovations in pollution control technology as what enabled new facilities to operate below Clean Air Act guidelines, they still contributed to air pollution. For example, the proposed Detroit facility would emit over 100 tons of particulates per year, over 2500 tons of hydrogen chloride, plus chromium, furans, and dioxins. At their anticipated concentration, state regulators characterized these pollutants as “environmentally acceptable,” and suggested that the generation of dangerous, cancer-causing furans and dioxins could be mitigated through the maintenance of “good combustion conditions” and other best practices at the facility. Yet, the staff notes also did not ignore the enormous risk these chemicals posed to human health: “Staff assumed that all of the chlorinated dibenzodioxins [dioxins] and chlorinated dibenzofurans [furans] that could be emitted are…the most toxic dioxin isomer.” Yet following a risk analysis, state officials considered the health risk to the public to be

“one in one million,” and, therefore, “acceptable.” In this way, environmental regulations were not focused on preventing pollution, but at mitigating its impact and balancing it with continued economic development.

Despite the measurable impacts the Detroit incinerator would have on air quality in city, state analysts characterized the proposed facility as “the most environmentally prudent and feasible alternative” for waste disposal in Detroit, and suggested that the Michigan Air Pollution Control Commission – the body responsible for granting permits – approve the facility’s permit to install. On September 17, the state sent staff analysis on the permit and its determination of compliance with the Clean Air Act, a notice of public comment period, and other communications between the state and Combustion Engineering to Joseph Paisie, Chief of the Technical Analysis Section in the Air Quality Management Division for EPA Region V. This was part of the Clean Air Act enforcement agreement that delegated permit review from the federal EPA to the Michigan Department of Natural Resources: the state was required to send copies of relevant application documents related to a permit and the EPA could then communicate its comments or concerns based upon those documents to the state before the close of the public comment period.

According to EPA Technical Analysis Section staff member, Ronald van Mersbergen, it was common for Paisie to review each permit himself or to assign permits to other staff or engineers for a special review if there appeared to be any discrepancies with the state’s

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39 ibid.
In the case of the Detroit permit, the state never received any comments from Region V staff during the project’s public comment period or special testimony during the Michigan Air Pollution Control Commission public hearing about the permit in October 1984. As a result, the state granted a final permit to Combustion Engineering and the City of Detroit on November 9, 1984. Having secured their permit, the city officials began the process of breaking ground on the new facility and issued $500 million in short-term bonds on December 27 to finance construction. It was essential that Detroit secure this financing by the end of the year because the newly passed Deficit Reduction Act eliminated the tax exempt status of industrial revenue bonds issued towards certain types of public-private projects, including casinos, sewage treatment plants, and solid waste disposal projects. The rapid proliferation of state- and local-issued private activity bonds from $6.2 billion in 1976 to $62.4 billion in 1983 was extremely alarming to Congress, not because they were concerned about the growing power of private development in the public sphere, but because the tax-exempt status translated into a revenue loss to the federal government and the expanding volume of private activity bonds inflated tax-exempt interest rates on bonds and made borrowing by state and local governments for traditional public purposes, like roads and schools, more expensive.

Rather than potentially lose the tax-exempt benefits that had been central to financial negotiations with Combustion Engineering and jeopardize those hard-negotiated terms, Detroit finance officials and city council fast-tracked the project’s financing deal in the last days of

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41 ibid.

1984. They were not alone. City officials across the country rushed to issue bonds for resource recovery project in the final days of 1984. “A lot of municipalities planning on issuing resource recovery bonds do not want to get into a situation where they will be held back next year” by the restrictions imposed by the Deficit Reduction Act, explained a senior vice president at Standard and Poor’s municipal finance department. The Act would place a cap on the amount of industrial development bonds that could be issued in each state to a maximum of $150 per capita or approximately $1.4 billion in Michigan, for example. Yet with resource recovery projects costing upwards of $400 million to build, such caps would make financing extremely competitive.

Furthermore, many of the complex financial agreements between private companies and cities were based on assurances that the companies would reap the tax exemption benefits that came with public financing. Yet under the new Act, only resource recovery plants owned by local governments could qualify for tax exempt financing in the bond market. As a result, cities issued more than $2.5 billion in resource recovery bonds over the last two months of 1984, five times the amount marketed in the previous five years combined.\(^\text{43}\)

Eventually, Detroit’s variable-rate short-term bonds would need to be converted to fixed-rate resource recovery bonds to protect Detroit from unfavorable interest rate fluctuations in the bond market. Yet that would not be an easy task as banks were still leery of Detroit as a reliable investment. Though the city had survived the 1981 fiscal crisis, they had since faced two more deficits in three years. When Detroit officials went looking for a buyer for their short-term escrow notes in January 1985, no bank was interested backing the city. This was no surprise given “half of the revenue for the Project was based upon the credit of a City that had recently

faced bankruptcy and was still paying off past debts,” explained Bella Marshall. Finally, in mid-1985, New York-based Citibank and Manufacturers Hanover Trust offered letters of credit to Detroit to back their short-term notes’ conversion to $438 million in long-term bonds. Given the risk Detroit presented, the interest rate the banks proposed was far higher than the industry standard and would end up costing the city over $600 million in interest by the time the principal came due in 2008. Realizing that this deal, though unattractive for the city, might be their only chance to refinance their short-term bonds, Marshall accepted the banks’ terms and Detroit prepared to convert and remarket their bonds.44

The Thousand-Fold Calculation Error

Although they did not submit comments on the Detroit resource recovery plant permit during the review process, the EPA did conduct an audit of the state’s permitting process for new sources of emissions as required by their enforcement delegation agreement with the state. This included reviewing a sample of twenty-nine approved permits from the previous year, including the permit for the Detroit project, as well as four other new permits during a twelve-month period. Overall, EPA staff found Michigan’s procedures demonstrative of the state’s “ongoing striving for excellence” and called staff analysis reports “noteworthy efforts to document all factors,” including impacts to public health and environment.45

A year later, however, there were issues. Following the state’s own audit of the permit in November 1984, state Air Quality Division Permit Supervisor Gerald Avery wrote in a letter to


Mike Brinker and John Cunningham of Combustion Engineering that developments in resource recovery technology since the company had submitted their environmental impact statement in 1983 made the pollution controls employed by the Detroit facility obsolete before it had even been built. Avery explained that his office determined CE’s use of electrostatic precipitators or ESPs did not “represent the Lowest Achievable Emission Rate (LAER) technology for particulates or the best available control technology (BACT) for sulfur dioxide, hydrochloric acid, heavy metals, or chlorinated organics.” In order to meet both emissions standards, according to Avery’s analysis, the Detroit facility would need to add two more pollution controls. The first, a dry acid gas filter, provided “very efficient control of sulfur dioxide and hydrochloric acid emissions,” according to Avery. While he admitted that the adverse environmental and health impacts of hydrochloric acid were still “presently unquantified,” Avery also indicated that scientists and regulators were becoming “much more concerned” about these emissions and that future research into its public health impacts would likely mean Detroit officials would have to retrofit new pollution controls into the incinerator in the future. Yet Avery’s assertions again reveal the lack of good data available to regulators amidst the still-evolving field of resource recovery.46

In addition to the dry acid gas filter, Avery suggested Combustion Engineering also install a fabric baghouse filter in the exhaust stack to control fine particulate emissions. These emissions, Avery explained, were “of most concern from a public health aspect since the fine particulate is what actually enters the lungs, and…contains a higher proportion of dioxins, furans, and heavy metals,” exposure to which had been linked to increased rates of cancer in

humans. Overall, the installation of both of these pollution control technologies rather than the proposed ESPs would, Avery contested, “result in significant additional control of dioxins, furans, chromium, arsenic, cadmium, and other potentially toxic heavy metals.” Avery further intimated that this should not have come as a surprise to Combustion Engineering, as they were already employing both pollution controls in their newest facilities in California and Connecticut. Whether the company considered the Detroit project already too large and expensive to add the more effective pollution controls or viewed the largely poor and African American population the increased pollution would impact as unimportant is unclear, Avery’s revelation does suggest that Combustion Engineering was well informed about the different types of pollution controls and their varying levels of effectiveness. In this way, company officials and engineers perhaps consciously chose to include ESPs in the Detroit project despite the fact that they would allow more emissions than other technology.47

Yet Avery made another, even more disturbing revelation in his letter to Brinker and Cunningham. While reviewing the permit, Avery explained that state analysts had “made an error specifying the ambient concentration for…dioxins and…furans which represented an increased cancer risk of one in a million. The one in a million risk which the Permit Engineer used was assumed to be in milligrams per cubic meter, instead of the correct metric, micrograms per cubic meter. Therefore…the conservative screening analysis which was performed for the dioxins and furan should have only indicated that the risk was only less than one in a thousand.” This thousand-fold calculation error meant that the plant would be significantly more dangerous than regulators had projected. Avery did attempt, however, to temper any serious panic that his

letter might cause by reminding Combustion Engineering officials that his analysis was based on “many very conservative assumptions” about emissions projections, and that “the true risk from your proposed project is actually much less than one in a thousand.” Should Combustion Engineering incorporate the improved pollution control technologies he suggested into the plant’s design, Avery was confident that a re-evaluation of the plant and its projected emissions would reveal that “the true ambient impacts form this facility will represent a minimal risk to public health and welfare.”

Avery’s letter came as an enormous shock to Detroit officials and their partners at Combustion Engineering, who scrambled to confirm what impact Avery’s assessment would have on their permit. Two months later, Michigan Department of Natural Resources Director Ronald Skoog wrote to city project manager Mike Brinker about Gerald Avery’s letter, suggesting that it was just that: “a letter. It is not an order…and it is not a modification to [your] permit.” Skoog went on to write that dry gas scrubbers, as Avery suggested, were indeed a more effective pollution control and would be required of all new resource recovery plants built in Michigan. Despite this fact, Skoog clarified that his department could not require a permit modification to incorporate this new pollution control technology because it had not issued the permit. Rather, the authority to rescind or modify the permit fell to the Michigan Air Pollution Control Commission. To that end, despite Avery’s assertions, Detroit had a “perfectly legal permit in hand” and could proceed with construction as planned. However, Skoog reminded Brinker that should air pollution regulations change or the facility’s equipment fail to comply with emissions standards once it started burning waste, his department could suspend the plant’s

operating permit until the city took “appropriate corrective action,” including adding the pollution controls Avery had recommended.\(^{49}\) In this way, Skoog revealed the inherent problems the Detroit incinerator faced in its development given the accumulation of bad or incomplete data and poor regulatory frameworks in the resource recovery field.

Seeking clarity on the question of how much risk the Detroit resource recovery facility posed, the Department of Natural Resources requested a review of the analysis by the state’s Center for Environmental Health Science under the Department of Public Health. In his report, Toxicologist Dr. David Wade agreed with Avery’s characterization of his risk assessment as “conservative.” This was an accurate appraisal given that the Department based their analysis on a number of assumed conditions that represented most extreme operating circumstances, including that individuals would be exposed continuously for their lifetime, that the incinerator would always be operating – and, therefore, emitting – at maximum capacity, and that outdoor and indoor concentrations of certain pollutants were the same. By adjusting the assessment’s assumptions to reflect the “expected” concentrations of emissions rather than the maximum presumed by Department of Natural Resources analysts, Wade estimated the excess cancer per one million exposed individuals to be 7.7 rather than 35.6 as suggested by Gerald Avery.\(^{50}\)

In making his determination, however, Wade also emphasized the subjective nature of risk assessment, given the lack of good data. After admitting that his analysis was limited by the data supplied to him by the Department of Natural Resources, Wade explained that “in the case


\(^{50}\) Dr. David R. Wade letter to Lawrence Chadzynski, March 11, 1986 in BHL MS: Coleman Young 233:28 Law Dept. – Detroit v E.P.A. 1986, Detroit Public Library, Burton Historical Collection.
of most of the RRF [resource recovery facility] pollutants considered, there is a lack of accurate data on the extent of human exposure and a correlation to observed adverse health effects.” As a result, he suggested there were many “uncertainties” in the process and that most risk assessments were based on extrapolation and estimation. Furthermore, Wade suggested that the Department’s health risk assessment protocols were incomplete because they did not take into consideration potential exposure through ingestion or skin absorption and did not include other chemicals typically present in incinerator emissions, including confirmed carcinogens benzene, nickel, and formaldehyde. Wade ended his report by observing that the Department of Natural Resources needed to address “how much risk is acceptable” as it performed its assessments. “As you are well aware,” he continued, “there is no one answer to this question.”

In other words, he and other officials had no precise answers.

Wade’s comment suggests that state regulators applied the definition of acceptable health risk unevenly, adapting to different contexts as they saw fit. In a largely black and poor city like Detroit, state regulators were perhaps willing to accept more risk than usual. Historians have well-documented the uneven distribution of environmental burdens upon poor and non-white communities with little political power or redress. This sense of environmental injustice on a national scale crystalized in 1987 with the United Church of Christ Commission for Racial Justice’s study “Toxic Wastes and Race in the United States,” which reported that racial composition of a community – rather than class or geographic location – was the best variable for predicting the location of hazardous waste facilities and thus drew, for the first time, a direct connection between race and pollution. Many other sociological and historical studies followed,

51 Dr. David R. Wade letter to Lawrence Chadzynski, March 11, 1986 in BHL MS: Coleman Young 233:28 Law Dept. – Detroit v E.P.A. 1986, Detroit Public Library, Burton Historical Collection.
documenting the activism of non-white communities against powerful alliances of private corporations and governments at all levels. Yet the correlation between race and pollution is also reflective of deeper patterns of inequality across metropolitan space, with people of color historically being restricted – either directly through redlining or indirectly through housing prices – to areas considered “undesirable” near dumps, heavy industry, and chemical production.

These debates surrounding risk assessment and acceptability also made their way into the public discourse via local newspapers. After Avery’s letter and Skoog’s walk-back of Avery’s assessments became public in March 1986, Detroit Free Press staff writers Bob Campbell and Patricia Edwards reported extensively on the ongoing debates between the state and the city about the risk assessment and additional pollution controls. Ultimately, Campbell and Edwards revealed through conversations with Ronald Skoog and Governor James Blanchard’s spokesperson Tom Scott that the potential breakdown of Detroit’s tenuous $470 million financing package was the primary reason regulators did not demand the additional pollution controls recommended by Gerald Avery. Both Skoog and Scott stated that they were convinced by Coleman Young and Bella Marshall that adding the additional $17 to $30 million estimated

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for the dry acid gas scrubber and the baghouses to the facility’s design could, as Young explained, “very well break the deal.” “We made this decision based on trying to save the financial package for Detroit,” Skoog explained to the *Free Press* reporters. “What is the alternative? There’s no way they’ll get a landfill sited anywhere around Detroit.”

Skoog also sought to diminish the controversy surrounding the excess cancer deaths attributed to the plant by emphasizing the inexact nature of the risk assessment process itself, describing it as “not very accurate.” Highlighting these internal disagreements within state government, the *Free Press*’s Bob Campbell further undermined the notion that scientific accuracy and objectivity ought to have characterized the assessment process in revealing the Michigan Department of Natural Resources and the Public Health Department used two completely different methods to estimate risk, one endorsed by the EPA and the other by the Centers for Disease Control. Yet the issue of which method was more accurate and could be trusted remained unresolved. With the objectivity of scientific analysis called into question through the discrepancies in the various risk assessments, the general public began to grow suspicious of the proposed resource recovery facility and the potential risk it presented to their city and their bodies.

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54 ibid.

CHAPTER FIVE

“WE ARE ALL DOWNWIND:” ANTI-INCINERATOR ACTIVISM FROM THE STREETS TO THE COURTS, 1986-1988

Laurie LaPine sat down in her apartment’s kitchen to read the Detroit Free Press. On the front page, directly above the fold, she saw a bold headline that startled her: “Burner is OK’d, Pollution from plant to raise health risks.” LaPine read that, despite state regulators’ warnings, the city of Detroit had just been granted a permit to build “the world’s largest trash-burning plant without extra pollution equipment.” Continuing, she read that the proposed facility would be located at the intersection of Russell and Ferry streets, less than two miles from where she sat, smack in the middle of the core city. She knew exactly what to do next. LaPine set out to spread the word.¹

Although Detroit had been working towards building their resource recovery facility for over a decade, the project had rarely been part of public discourse. Although local media uncritically reported on the city’s announcements over the years Gerald Avery’s letter documenting the state’s thousand-fold calculation error in determining the risk posed by the facility seemed to change that. Soon, local environmental activists centered in on the threat Detroit’s incinerator presented. Two anti-incinerator groups emerged, each with different approaches to achieving their common goal. The Evergreen Alliance looked to the radical

¹ Laurie LaPine Kopeck, interview with the author; Bob Campbell, “Burner is OK’d: Pollution from plant to raise health risks,” Detroit Free Press, March 6, 1986.
organizing past of their Detroit neighborhood in shaping their own anti-incinerator strategy. By contrast, the Detroit Audubon Society drew upon their long history of success in environmental restoration and conservation through the more traditional pathways of legislation, advocacy, and legal action. Despite their different strategies, both groups articulated similar concerns about the incinerator as a threat to human health and the environment. Both groups also pointed to regulatory failures at the state and federal levels as the reason for their resistance.

Yet both sets of activists also, as this chapter will demonstrate, faced unique obstacles to success. Radical activists were limited by a number of barriers, including their inability to build an inclusive coalition that incorporated African American voices and perspectives, their decentralized antiauthoritarian organizing structure, and their commitment to their ideals over cooperation. On the other hand, activists who pursued political and legal means to stop the incinerator were blocked by a federal administration determined to scale back environmental protections. Because of the federal Environmental Protection Agency’s failure to provide adequate and vigilant oversight as required by the Clean Air Act, activists were forced to bring their concerns to court.

Changes in the traditional liberal coalition that defined Detroit politics in the 1960s and 70s – namely the decline in the strength of the labor movement – impacted anti-incinerator activism. In Detroit, the United Automotive Workers had long been a central group in various left-leaning movements since the early twentieth century. Yet the postwar shift of the white working class away from the Democratic Party, as well as conservative attempts to undermine unions throughout the 1980s made the UAW more vulnerable and less likely to take political
risks that could undermine their own tenuous position. This made the union a more tentative partner for anti-incinerator organizers as they sought to build a broad and strong coalition.\(^2\)

Activists also faced structural shifts in municipal finance markets that ultimately restricted the potential for political or economic compromises. As demonstrated in previous chapters, the economic constraints posed by the onset of the urban crisis placed cities across the nation – but especially those in the deindustrializing areas of the Northeast and Midwest – in challenging situations as they struggled to maintain city services and infrastructure in the face of dwindling federal outlays and local tax revenues from a declining population. One strategy was to increasingly rely on private investment or public-private partnerships, as Detroit and many other municipalities did in constructing expensive and highly-technical resource recovery plants. Another strategy was to borrow money in the form of short-term notes or long-term bonds.

Before the 1970s, municipal debt transactions were primarily conducted with traditional lending institutions – especially local banks – that would issue funds to cover budgetary shortfalls or infrastructure projects. Yet the ballooning of municipal debt in the 1970s and New York City’s calamitous fiscal crisis in 1975 alarmed traditional banks and made them leery of lending to cities. Cities turned to the individual and institutional investors of the bond market, but they too were nervous about increasingly unstable public debt and sought information about which investments were considered safe based on a city’s creditworthiness. This allowed bond ratings agencies like Moody’s Investors Service, Standard and Poor’s, and Fitch’s – which had existed since the Gilded Age – to fill that information vacuum and ultimately become, in the words of

geographer Jason Hackworth, “influential and intrusive gatekeepers” in a city’s financial operations.³

When a city seeks to issue long-term debt in the form of bonds, it must hire a credit rating agency and provide that private institution with public financial records. Agencies use this information, along with its own independent research, to determine credit rating. Ratings are based on a city’s past financial history, its future economic prospects, and any previous history of mismanagement. These ratings – usually divided into investment-grade or speculative-grade – ultimately determine the market’s investment in a municipality’s bonds and, by association, their ability to provide essential services and rebuild infrastructure. In this way, the removal of traditional banks from municipal finance markets and the growing authority of credit ratings agencies marked an important shift in how cities operated in the twentieth century.

Another key aspect of this shift was the transitioning of financial relationships from local banks that were often invested in a municipality’s long-term economic health and development to international corporations. Ultimately, this process placed cities in complex obligatory and supplicant relationships to private capital and forced them, at times, to value the preservation of their credit rating over the needs of residents. In order to support services and infrastructure for residents through access to the bond market, municipalities had to demonstrate their fiscal health, which during the urban crisis often meant cutting services, raising taxes, and instituting other austerity measures that negatively impacted residents’ lives.⁴ In Detroit, the city officials’

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concerns about their precarious credit rating motivated them to value protecting the city’s fiscal health over public health, for example, by contending that adding new pollution controls to the incinerator would unravel the project’s financing. As cities continue to rely on the bond market in the face of budget shortfalls – especially after the 2008 fiscal collapse – it is increasingly important to scrutinize the seemingly “natural” financial relationships as they directly impact the political relationships between local government and its citizens.5

As more information about Gerald Avery’s letter detailing the potential health threats posed by the Detroit incinerator became public, local residents organized to oppose its construction and operation. Between 1985 and 1986, concerned citizens in Detroit and Windsor formed a loose anti-incinerator coalition they called People for Clean Air. Eventually changing their name to the Evergreen Alliance, the group eventually came to be made up of ten to twelve active organizers centered in the Cass Corridor area located less than two miles southwest on Ferry Street from the GDRRA site. The Corridor, as residents often called it, had been an intellectual and creative locus in Detroit since the 1950s and attracted artists, musicians, and writers until the mid-2000s. Home to counterculture rockers the MC5 and the radical anarchist newspaper The Fifth Estate, Cass Corridor was also a center for political and antiwar organizing in the 1960s and 1970s.


5 Steven Stoll suggests that capitalism developed a “natural history” over time rather than a “historicized” past, which makes scrutinizing capitalism and envisioning economic alternatives far more difficult; “A Metabolism of Society: Capitalism for Environmental Historians” in The Oxford Handbook of Environmental History, Andrew Isenberg ed., 2014
This activist tradition ultimately influenced the direction of the Evergreen Alliance and their struggle against the incinerator. Alliance member and *Fifth Estate* contributor David Watson reflected on the group:

The Evergreen Alliance was never exactly an organization (which, according to anti-organizational principles at the time, would have co-opted us, “reabsorbing” our activities to rationalize and improve capitalist domination and the industrial house of toxic cards). But it did function as a loose coalition with regular meetings, press releases, and committees. We kept it minimalist, voluntarist, and anarchistic, which also tended to satisfy many of our already radical and counter-cultural neighbors who preferred a relatively structureless association. Sometimes we Cass Corridorites were proud to be little more than an undisciplined, angry, but technically and legally informed mob.6

The name Evergreen Alliance reflected many of these same ideals. “[T]he word alliance speaks of our non-hierarchical structure. I envision the Evergreen Alliance as a community forum,” member Beth Miller wrote, while Evergreen “resonates of Green Politics, our indigenous habitat, to our connection to the tree of life, to our vigilance.” In this way, Evergreen spoke to both the group’s connection to the rising environmental justice movement, as well as a more spiritual connection to the earth and the natural world.7

Emulating many of the same nonviolent demonstrative strategies of the civil rights movement and antiwar demonstrators, the Alliance’s central organizers planned marches, demonstrations, concerts, lectures, and “die-ins” in Detroit and across the Canadian border in Windsor, Ontario from 1986 to 1991. Over those five years, the organization boasted approximately fifty active members and hundreds of participants in their actions. The group also

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enjoyed strong connections with *Fifth Estate* and its editor, Peter Werbe, who helped guide the group as they developed their vision. “Peter was like an elder statesman to us,” explained Laurie LaPine Kopack. Overall, the anti-capitalist and technology-suspicious sentiments of Werbe and other contributors at *Fifth Estate* had a deep impact in framing the Alliance’s attacks on the incinerator. Yet by contextualizing the facility within these broader and more complex critiques, the Alliance also made defeating “The Beast,” as they often called it, more challenging.

One of the Alliance’s first actions stemmed from Laurie LaPine’s observation of the facility’s permit approval in the *Detroit Free Press* in March 1986. LaPine quickly mobilized her friends, including sisters Kathy Rashid and Marilyn Rashid and her boyfriend at the time, Ralph Franklin. The group sought to “raise the call” to other neighborhood friends and activists. Tom Stephens, then a law student at Wayne State University, remembers first learning about the incinerator from LaPine at a protest against United States aid to the Nicaraguan Contras in downtown Detroit: “She [Laurie] climbed out of a car and said to me, ‘Did you know they’re about to spend enough money for three Contra armies on an incinerator in our neighborhood?’ I had no idea.”

Within three days, the friends gathered in LaPine’s living room to discuss strategy and basic facts. “I don’t think any of us had ever used the words ‘solid waste management’ consecutively,” recalled Stephens. “We were working through the very basics of the issue. We obtained Paul Connett’s pamphlet *Waste Management as if the Future Mattered* and that was

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8 Laurie LaPine Kopeck interview with the author.

9 ibid.

10 Thomas Stephens interview with the author.
sort of the education.” Their first step would be to convince state regulators that the Michigan Air Pollution Control Commission needed to have a public hearing in Detroit in addition to the one already scheduled in Lansing. The day of the meeting, LaPine, Kathy Rashid, and Tom Stephens drove to the state capital to make the case to their state representatives and the Commission.\textsuperscript{11} Despite objections by a member and General Motors executive, who contended that holding a hearing in Detroit would “stir up the citizens,” the Commission agreed to hear public comment from Detroit residents at City Hall the following month.\textsuperscript{12}

Yet the group’s initial success in winning a Detroit hearing was quickly tempered once they arrived at City Hall on April 9. Alliance members and other concerned residents protested outside the City-County Building carrying signs with slogans like “Burn politicians, not garbage” and “Trash the incinerator” before the hearing was to start at 7:30 P.M. Yet when the meeting started, police turned away over 100 people because the fire marshals declared the hearing room filled to capacity.\textsuperscript{13} The protesters who made it into the building were surprised to find most of the seats already filled. According to Laurie LaPine Kopack, “The meeting was packed with city employees so that there was no room for us...and I remember one or two telling us ‘We’re getting paid overtime to be here.’ It was a real battle to shut us out.”\textsuperscript{14}

Gerald Avery of the state Department of Natural Resources began the hearing by reviewing the permitting process, the Air Pollution Control Commission’s issuance of the

\begin{flushleft}\textsuperscript{11} Laurie Kopeck interview with the author.\textsuperscript{12} “A History of the Incinerator,” \textit{Detroit Trash Incinerator: We Say No!} in Thomas W. Stephens Collection 3:9 Detroit Trash Incinerator Community Opposition, 1986-92 1, WRL.\textsuperscript{13} Patricia Edmonds, “400 jam raucous hearing on trash plant,” \textit{Detroit Free Press}, April 10, 1986.\textsuperscript{14} Laurie Kopeck interview with the author. Thomas Stephens and Tanya Sharon also mentioned that the meeting had been packed by city employees in their respective interviews with the author.\end{flushleft}
facility’s final permit in November 1984, as well as his own audit and letter to Combustion Engineering and Detroit officials challenging the Best Available Control Technology determination and suggesting that the facility would need additional pollution controls in order to begin construction. City officials disagreed with Avery and argued the electrostatic precipitators they intended to use were the safest technology available and that state regulators had been “dishonest” in its characterization of the plant as unsafe without the additional pollution controls. “[T]he bottom line,” Bella Marshall argued on behalf of the city, “is whether the technology is necessary. We will show that it isn’t.” To that end, Marshall and Dr. Kay Jones of the city’s environmental consultant Weston Engineering testified that other cities across the country had added dry acid gas scrubbers not because of the environmental protection they provided, but rather because of “political pressure, especially regarding acid rain.”

Jones’s suggestion that acid rain and pollution controls were a political issue rather than an environmental one played off of contentious debates happening across the country as environmental scientists and policymakers argued over both the sources of acid rain and its impact on delicate freshwater ecosystems. Amidst the uncertainty, the Reagan administration questioned “scientific objectivity” to justify political inaction. When federally-funded studies proved inconclusive, officials said the problems were technical, not political. In connecting the acid rain issue with pollution controls in Detroit, Jones thus sought to politicize environmental regulation in the same way and characterize it as unnecessary government intrusion in private enterprise.


Jones’s statement set off nearly eight hours of “inflamed” and “raucous” debate as city officials and their consultants, state regulators, and the public heckled and shouted over each other’s testimony. At one point, shortly after 2 A.M., Detroit Director of Neighborhood City Halls Willie Fowler shouted down gubernatorial candidate John Lauve’s objections to the incinerator saying that Lauve’s petitions to remove current governor James Blanchard from office would be the first thing fed to the trash incinerator. One of the last commentators was Assistant State Attorney General and MAPCC Counsel Stewart Freeman, who suggested that the Commission had very little legal power to alter or revoke the permit. Furthermore, based on the evidence presented during the hearing, Freeman believed the city had a strong case and the state a very weak one. “I tell you frankly, you’re not giving me much to work with,” he conceded.17 Members of the Air Pollution Control Commission were also not persuaded by Avery’s testimony and argued that if the new pollution controls were proven to better protect the environment and public health, they would require all plants across Michigan to install them. But the unproven nature of the technology at that time left most commissioners unconvinced that they should revoke Detroit’s permit.

Yet disagreement and uncertainty prevailed even within the Commission, revealing the lack of proven and accurate information about rapidly developing incineration technology, its effects, and its regulation. “I personally am not convinced the Department of Public Health will be satisfied with this permit by the time this is ready to go,” Commission Chairman Lee Jager contended. The expert testimony provided by scientists, regulators, and consultants at the hearing was, he argued, based on models and assumptions that could not accurately predict how the

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incinerator might actually impact Detroitters, Windsorites, and other residents across southeast Michigan and Ontario. The truth was that the Detroit incinerator was the largest ever constructed and its actual impacts would be impossible to accurately know until it started to burn. Finally, just after 3 A.M., the Commission voted 9-1 to uphold Detroit and Combustion Engineering’s original permit. The decision came as an enormous blow to the community, many of whom felt as though the whole hearing had been a charade and an attempt by city government to undermine its own residents. “A travesty,” was how Irene Brown, one of the fifty protesters outside the City-County Building earlier that day, described the hearing. Yet she also promised that anti-incinerator organizers, including the Evergreen Alliance, were not backing down: “We’re going to have sit-ins and the whole bit when they come rolling in with trucks to build it.”

Noticeably absent from the Detroit hearing were officials from the EPA’s Region V offices in Chicago. According to a letter sent to the Michigan Department of Natural Resources the following day, the three officials were prevented from attending the meeting due to mechanical difficulties with both their original flight and their alternative flight to Detroit. Alongside the letter was the prepared testimony to be presented by Technical Analysis Section Region V Chief Joseph Paisie. Paisie’s testimony highlighted several “deficiencies” with the GDRRA permit following the EPA’s review in March 1986. First, Paisie suggested that the proposed facility might be located in a “nonattainment area” under the Clean Air Act, which Paisie admitted “raised a serious question” for regulators. Furthermore, EPA reviewers found

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that state analysts had not performed an adequate evaluation to determine the Lowest Achievable Emission Rate for both particulate emissions and carbon monoxide required by state and federal law. In their review, EPA officials found seventeen other permits from eleven different states that demonstrated emissions rates lower than the rate determined for the GDRRA. Similarly, the EPA found state’s Best Available Control Technology analysis was “cursory” and the data the approved permit was based upon “unsubstantiated.” These three rules, however, were approved by the EPA in 1979 to regulate electric utilities that burned fossil fuels, not waste. According to Paisie, Combustion Engineering officials had earlier assured the EPA that the facility did not even have the capacity to fire the amount of fuel oil required to be considered under the NSPS regulations for electric utilities, even though they were in fact generating electricity at the plant.20

In this way, the still-developing nature of resource recovery and the failure of regulatory frameworks to adapt to changes as they happened created a technical loophole that allowed the Detroit resource recovery facility to operate in a gray area.

In addition to his uncertainty about what kind of facility the GDRRA ought to be qualified as, Paisie also noted that the federal Clean Air Act required that the owner or operator of new sources of emissions to prove that all of their other sources had to be in compliance or on a compliance schedule to meet state and federal air pollution limitations. Yet the City of Detroit did not meet this requirement: the Mistersky Power Plant that was owned and operated by the city was in violation of emission regulations for sulfur dioxide when the state issued the GDRRA permit. Despite this clear violation, Paisie suggested that the question of ownership in the case of

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the GDRRA was murky, due to the complex contractual and financial relationship between the city and Combustion Engineering. In this way, the financial and legal mechanisms employed by the city and CE to build a piece of city infrastructure obfuscated the definition of ownership and made applying regulations to the facility even more challenging.

Following receipt of Paisie’s written testimony on April 10, Bella Marshall went into “panic mode.” Having just secured the Air Pollution Control Commission’s reaffirmation of Detroit’s permit to construct the previous day, she was stunned that a top EPA official now casted doubt on its validity. At stake was the approaching remarketing of Detroit’s short-term notes with the help of Citibank and Manufacturers Hanover Trust the previous year. That sale had earlier been held up by Gerald Avery’s letter at the end of 1985 and now the uncertainty placed upon the project by Paisie’s testimony would make those bonds even more difficult to sell to investors. Yet these tenuous financial arrangements were reaching their expiration date: both the letters of credit from both banks, as well as the GDRRA’s Energy Purchase Agreement with Detroit Edison – which would serve as 50 percent of the revenue from the facility – were all set to expire on May 9.


Paisie’s letter ultimately sparked a series of meetings and communications throughout April 1986 between EPA staff and city officials. While representatives from the EPA were primarily concerned with the technical questions around pollution controls, Detroit officials were more worried about the financial implications of adding expensive equipment to the facility. Based on their contractual arrangement with Combustion Engineering, the city was responsible for covering construction modifications stemming from a “change in law” and though the laws had not themselves changed, the enforcement of those laws had. During the first of these meetings on April 10 between city officials and EPA Region 5 staff, Bella Marshall attempted to make federal officials understand Detroit’s precarious financial situation. Yet, according to Marshall, EPA staff were “not able to comprehend the magnitude of the existing situation.” In a later deposition, she recounted how EPA officials “gave us examples, like in the case of this private industry; somebody made some kind of flip remark like: Well, they always say they cannot pay but we really draw the line and they find the money. And I explained to them: This is not General Motors, this is not Chrysler, this is public money.”

Concerned that EPA staff did not fully grasp Detroit’s troubled financial state, Marshall presented a more complete picture of Detroit’s financial status in a fourteen-page report to Region V Air Management Division Director David Kee. Marshall ticked off a population decline of 25 percent, an unemployment rate of more than 14 percent, a reduction of 7,000 city employees, and a multitude of deferred infrastructure projects and delayed or eliminated services. This, combined with the precariousness of the project’s financing arrangements, made

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the EPA’s request for additional pollution controls a near impossibility, Marshall explained to Region V Administrator Valdas Adamkus. Detroit, she argued, “could not make any additional financial commitments to the Project, particularly in light of the fact that other essential services were still not fully restored” and neither Citibank nor Manufacturers Hanover Trust was willing to take on the additional risk of backing the expensive equipment based on the city’s past financial troubles. “The position which the Authority and the Project find themselves in at this point is a very difficult one,” Marshall explained. “To indicate that a project of this size and complexity, structured as a result of virtually prevailing upon various financing sources to fund the Project, and finally obtaining the only available financing at a premium, could simply be undone, restructured, and successfully refinanced, is a factual, technical, and legal impossibility.”

Yet Marshall never received a response, a sign she and Coleman Young took to be tacit agreement that there was nothing that could reasonably be done to add the pollution controls at this stage of the project.

Following the disappointment of the Michigan Air Pollution Control Commission’s hearing, anti-incinerator activists turned to other tactics to forward their opposition to the resource recovery facility. Relying on the radical organizing traditions of the 1960s and 1970s of the Cass Corridor, members of the Evergreen Alliance staged their first public “Stop the Plant” demonstration against the incinerator in Detroit’s Eastern Market. The location was a strategic one: located less than a mile south of the proposed incinerator site, Eastern Market was the largest open-air market and wholesale center in the city and a major food source for restaurants, grocers, and residents. By staging their first protest there, Alliance members sought to raise

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awareness of food as the primary absorption point of dioxin, a known incinerator emission and a
dangerous bio-accumulating carcinogen that could persist and build up in the environment and in
human bodies decades after being emitted. In this way, organizers intentionally chose Eastern
Market to highlight the threat the incinerator posed to city residents and their health because, to
Detroiter, it was synonymous with food and nourishment. From there, demonstrators marched
down Russell Street to the future site of the incinerator beating drums, wearing respirator masks,
and carrying signs with slogans like, “Experts Lie – Trash Plants Kill!” that evoked their feelings
of betrayal after the Air Pollution Control Commission hearing.26

_The Detroit News_ characterized the demonstrators as “environmental terrorists.”27 _The
News_ sensationalized the Alliance’s nonviolent actions by associating them and their cause with
both the violent radicalism of the New Left in the 1960s and 70s, as well as with the anti-
Western religious fanaticism of Islamic terrorism that had gripped headlines and American
consciousness since the 1979 Iranian hostage incident.28 This misappropriated epithet from the
city’s right-leaning newspaper drew sharp criticism from Detroit leftist communities. “The word
‘terrorist’ is now the catch-all tag for anyone who challenges or opposes established laws or
prescribed plans,” argued Peter Werbe, writing in the _Fifth Estate_ about _The News_’s comment.
“That one word does it all—obscures the facts, turning meaning on its head, and ‘sabotages’ the

millardberry.com/galleries/resistance-to-the-detroit-incinerator-1986-1990/nggallery/thumbnails/page/1

28 _The News_ also called Greenpeace activists “environmental terrorists” during their protests in June of 1987, and
Great Lakes Toxic Campaign Coordinator Joyce McLean would likewise criticize _The News_ for associating the
environmental organization’s actions with “a fanatic person or group dedicated to the slaughter of innocent people
and the destruction of property in order to further political ends.” McLean in “Incinerator Will Hurt More Than
Help,” _The Detroit News_, June 30, 1987; Beverly Gage, “Terrorism and the American Experience: A State of the
intentions of people who are trying to defend their community, protect the earth, and simply breathe clean air.”

Alliance members’ understanding of the interconnectedness of environmental degradation and capitalism suggested one of their weaknesses: by considering the incinerator as one piece of a much larger global problem, the Evergreen Alliance was at times unable to focus their energies and act concretely given the vastness of the issue as they viewed it. Nor were they willing to accept compromise, especially after the bitter Air Pollution Control Commission hearing. To accept any concession from the city or CE that was not the total abandonment of the incinerator project would, in their view, mean co-opting their values and ideals as an organization. As a result, the Evergreen Alliance’s actions were more symbolic rather than action-oriented. To Alliance members, this was not a shortcoming but a confirmation of their identity as a loose coalition of neighbors organized around a shared goal. “I believe,” Beth Miller wrote to Alliance co-founder Tom Stephens, “that anyone who looks to the Evergreen Alliance to accomplish ‘practical’ activities will find themselves struggling unnecessarily for consensus.”

Yet in maintaining this identity, the group failed to hold up the political and financial mechanisms – such as the bond remarketing or permitting questions – that were necessary to the project.

While less focused on tangible solutions to stop the incinerator, the Evergreen Alliance effectively articulated their ideas in print. Werbe regularly allowed the Evergreen Alliance to use

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The Fifth Estate and reach the paper’s established readership. Later in 1987, the Alliance also developed their own newspaper, Detroit Trash Incinerator: We Say No!, in which they more completely articulated their broad anti-capitalist, anti-technology, and anti-government discourse against the incinerator and American society more generally. The corrupting influence of capitalism lay at the center of most of their critiques.

At the root of Detroit’s professed need for a trash incinerator was “the whole production/consumption system” that created more waste. The only solution, therefore, was not better pollution controls, but to “openly repudiate capitalism,” wrote George Bradford. Similarly, the use of technology and science to create solutions – or “technofixes” – to the problems of waste and pollution – again produced by capitalism – was likewise troubling in that it deferred the systemic change the Evergreen Alliance deemed truly necessary.31 The anti-authoritarian leanings of the Alliance also moved them to question the credibility of city and state officials associated with the project, especially those tied to corporate capital. As Alliance member Charles Willis observed “to a certain degree, it would be accurate to conclude that the incinerator project is the result of a sinister plot, involving evil politicians, corporate gangsters, and their hired hands.” All in all, the “horror represented by this incinerator” was only one aspect of a much larger, systemic problem, “an emerging picture of ecological disasters fostered by corporations, scientific-technological institutions, and government” and the only solution was radical action. We Say No! echoed this demand for a total reconsideration of the social and economic status quo with its closing call to arms against the interlinked onslaught of capitalism.

against humans and nature alike: “DESTROY WHAT DESTROYS YOU! DEFEND YOURSELVES! DEFEND THE EARTH!”\textsuperscript{32}

In this way the Evergreen Alliance was one example of a long tradition of institutional distrust in extreme leftist movements. The Beats of the 1950s articulated a wide-ranging critique of triumphant American postwar culture, including militarism, racial segregation, anticommunist fervor, and consumerism, the youth-led counterculture of the 1960s amplified these critiques. Groups like Students for a Democratic Society (SDS) questioned the paradoxical nature of a government that professed equality yet treated African Americans like second-class citizens and sought to effect change through political campaigns and community organizing. Later in the 1960s, SDS splinter groups like the Revolutionary Youth Movement and the Weather Underground articulated a more anarchist platform that rejected SDS’s attempts to effect political and social change from within existing institutions and instead endorsed a radical revolution against American imperialism and capitalism. Yet the failures of leftist organizing, perhaps best embodied by the schism of SDS, also influenced the Alliance’s suspicion of organizational hierarchies. In this way, the Evergreen Alliance carried on the radical intellectual traditions of the 1960s alongside concerns about the environment and public health in a way that was eventually called the environmental justice movement.\textsuperscript{33}


The Detroit Audubon Society and the Conservation Tradition

While the Evergreen Alliance primarily attacked the incinerator as a symptom of exploitative capitalism, the Detroit Audubon Society articulated their opposition through concern for human health and environmental integrity. Founded in 1939 by Evelyn Kelly and Grace Sharitt, Audubon focused on education, recreation, and conservation related to natural places and resources across the state. The Detroit branch was an offshoot of the larger Michigan Audubon Society founded in 1904, one year before the national organization coalesced out of various state-level societies. The long history of the Audubon Society in Michigan reflects the state’s conservation and recreation tradition that developed alongside its industrial growth in urban centers such as Detroit, Flint, Saginaw, and Port Huron. Throughout its history, the Michigan Audubon Society, and later Detroit Audubon, worked to pursue protective legislation for birds and other wildlife and to create natural reserves for the enjoyment of Michiganders. These efforts were often supported throughout the twentieth century by likeminded groups who supported conservation efforts for their own ends, from Progressive Era reformers who advocated for scientifically managed forest reserves in heavily-logged pine cutovers to the United Automotive Workers (UAW) and their allies in the Michigan United Conservation Clubs, which lobbied the state legislature on fish and game laws that balanced recreation with conservation from the 1940s.

through the end of the century. While the Michigan Audubon Society fought for state level laws that protected songbirds from the booming millinery industry at the turn of the century, hunters and conservation scientists in the Progressive Era simultaneously pursued bans or shortened seasons for game birds as flocks dwindled precipitously.\textsuperscript{35} Later in the 1960s, the UAW’s Recreation Department and the Audubon Society were among the state’s first to raise awareness of the environmental impacts of massive suburbanization and industrial pollution.\textsuperscript{36}

In line with this long tradition of environmental advocacy, the Detroit Audubon Society pursued its own plan of action against the threat of the GDRRA incinerator. In contrast to the grassroots Evergreen Alliance, which was interested in probing the ideological underpinnings of what the incinerator represented, the Detroit Audubon Society drew upon their organization’s long history of successful environmental protection by working through institutional methods, like legislation, scientific inquiry, and legal action. In this vein, the organization first turned to scientific expertise in their fight against the facility. In April 1986, Detroit Audubon Society member Stephanie Ruttinger obtained a copy of Combustion Engineering’s risk assessment they had submitted to the state during the permitting process and sent it for reevaluation to Barry Commoner and Thomas Webster, both biologists at Queens College in New York City.

Commoner, one of the nation’s most respected environmentalists, characterized the risk assessment as “inadequate,” full of “errors and inconsistencies,” and further contended that “the


A key point in Commoner’s findings that echoed earlier debates between Michigan Department of Natural Resources and the state’s Public Health Department concerned the methodology employed by CE to evaluate cancer risk from dioxins and furans. Since these were broad names for large groups of many similar compounds, the methodologies for assessing the risk they posed varied, taking some variants into account while leaving others out. For example, of the eight different methodologies that existed for measuring dioxins and furans, the lifetime maximum cancer risk per million individuals ranged from 3.6 using the EPA’s 1985 guidelines to 110 with the state of California’s 1983 method. Although Commoner did not reveal which methodology he used, he found CE’s risk assessment, in his opinion, “42 times too low.”

Commoner also refuted the notion that adding more effective pollution controls, like the baghouses and acid scrubbers sought by the EPA, would reduce the danger presented by incinerator emissions, contending there were “no tested control methods that can reduce dioxin to acceptable levels.” “[I]f the Detroit facility is built,” Commoner concluded, “there is a serious risk that it would be unable to operate within legal emission requirements, forcing it to close.” After hearing Commoner’s grim assessment of the GDRRA project, the 6,000-member Detroit Audubon Society voted to seek a one-year statewide moratorium on incinerator construction, including the GDRRA project, from the state.

Seeking to delay CE’s construction start-up of the facility, the Society released Commoner’s report, along with data from two other Roy F. Weston-led projects, to local media.

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38 ibid.
The information from other the projects included a risk assessment for a proposed incinerator in Montgomery County, Maryland, in which a citizen review committee called Weston’s data and their methods for determining emissions levels “inadequate” and “flawed.” In the other, city planners in Minneapolis expressed similar doubts with Weston’s environmental and public health assessments related to the construction of a city incinerator. Yet city officials and their partners at Weston and CE were not dissuaded. “We’re not going to hold up a half-billion-dollar building project calculated to improve the environment in this state while Barry Commoner scratches his head trying to come up with an alternative,” Mayor Young told the Detroit Free Press. Dr. Kay Jones of Weston also disputed Commoner’s findings, defending his company’s risk analysis as “very conservative.”

Yet Commoner’s report and the Society’s actions brought the discussion of the Detroit incinerator and improved pollution controls to other local governments. On May 7, Warren City Council member James Fouts sent letters to leaders in twenty-one suburban communities around Detroit asking them to join in a lawsuit mandating Detroit add better pollution controls on its proposed incinerator. Just 15 miles north of Detroit, Warren was a dense working-class suburb known for its racial homogeneity, sizable property tax base, and political power in Macomb County. As a result, Fouts’s concerns about “Detroit’s cancer-producing garbage” – a not-so-veiled call back to the racist undertones used to describe cities and their lack of cleanliness that

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40 At its highest total population of 179,270 in 1970, 99.5 percent of Warren residents identified as white. Later decades also saw very slow racial integration (98.2 percent in 1980 and 97.3 percent in 1990), until 2010 when the white population decreased to 78.4 percent). Warren had long rejected federal funds for urban renewal or community block grants fearing that federal officials would force the city to build open public housing. When city resident voted in 1970 to pass more than $30 million in urban renewal funds, Time Magazine called Warren the nation’s most racist city.
had permeated urban redevelopment language in the 1960s – and its impact on his city brought
the Detroit incinerator debate into the broader metropolitan region. While Roseville City
Manager Thomas Van Damme expressed confidence in the Michigan Department of Natural
Resources and EPA, Harper Woods City Manager James Liedein was less certain, contending
that Detroit officials, state regulators, and the Detroit Audubon Society had all raised good
points. “We just want them to have the lowest possible emissions,” Liedein explained,
suggesting that the solution was a simple one.

This debate also revealed the complex and often fraught relationship between Detroit and
its northern neighbors in Macomb County. Macomb had most directly benefitted from the
relocation of light and heavy manufacturing from Detroit to spaces along the County’s many
industrial corridors and workers who followed those jobs. Between 1950 and 1960, Macomb
County’s population increased by 119 percent. Yet the area was hit hard by economic decline
and manufacturing losses in the 1970s and 80s, moving one of Detroit’s most notable
sociological observers to characterize the southern half of Macomb County as one of “many
Detroits” as economic hardship spread across the metropolitan region. In this way, the suburban
concerns about emissions from Detroit’s incinerator stemmed from anxiety about pollution as
much as the spread northward of Detroit’s economic struggles and the relocation of black
Detroiter's themselves to Macomb County.

41 For more on race and urban redevelopment in Detroit, see June Manning Thomas, *Redevelopment and Race: Planning a Finer City in Postwar Detroit*, (Detroit: Wayne State University Press, 2013).
Though the release of Barry Commoner’s report perhaps inspired new conversations, it ultimately did not have the desired effect in either the media or on city officials. The Detroit Audubon Society turned to another familiar tactic: legal action. On May 8, 1986, the Society, the Mackinac Chapter of the Sierra Club, the North Cass Community Union, and the Environmental Defense Fund delivered to the EPA, state Department of Natural Resources, the Michigan Air Pollution Control Commission, John Cunningham of Combustion Engineering Bella Marshall, and Mayor Coleman Young a notice of lawsuit against the Resource Recovery Authority in order to “bring the project in line with statutory requirements.” In their memo attached to the suit, the coalition cited familiar technical and procedural issues, including Gerald Avery’s letter acknowledging the state’s thousand-fold calculation error and the project’s failure to comply with Best Available Control Technology and Lowest Achievable Emissions Rate standards.44

The coalition’s memo also presented place as an important criterion in the determination for better pollution controls. Given the proposed facility’s site “in an urban area on the Canadian border,” the coalition argued that both the location’s population density and its unique context along an important international waterway made potential impact from the facility far more dangerous to human health and environmental quality. As for the economic constraints Detroit used against adding new pollution control technology, the coalition argued that “the key concern is how much control is obtained for the amount spent, not the owner’s ability to pay.” Together, these statements demonstrate that the activist coalition considered more stringent pollution controls to be essential no matter the economic cost, especially considering the facility’s dense

urban location. “[S]hould CE fail to correct the deficiencies of the project,” the coalition concluded, “we intend to file an action against CE, the Greater Detroit Resource Recovery Authority, and other responsible persons and entities.”

Yet the citizen coalition also threatened to bring suit against the EPA within sixty days if the Agency chose not to intervene and demand additional pollution controls. By arguing that the GDRRA was not in compliance with the Best Available Control Technology and Lowest Achievable Emissions Rate requirements of the federal Clean Air Act, the coalition contended that the EPA Administrator was obligated to take action against the project, even though it was the state’s failure that led to the permit’s deficiencies. This was because of a technicality of language in the Clean Air Act, which stated that the Administrator “shall” or a state government “may” take action against a facility that did not conform to the Best Available Control Technology and Lowest Achievable Emissions Rate sections of the Clean Air Act’s Prevention of Significant Deterioration requirements. This specificity of language, according to the coalition, placed a mandatory legal obligation upon the Administrator to force the GDRRA into compliance. “EPA has a nondiscretionary duty [to enforce the Clean Air Act],” they argued. “Should it breach that duty, we intend to seek to compel its performance.”

This notice placed additional pressure on the EPA to act in the Detroit case lest they become caught up in legal proceedings themselves.

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The Evergreen Alliance’s and the Detroit Audubon Society’s attempts to pursue their objective through different yet simultaneous ends revealed a key shortcoming in the citizen opposition to the incinerator. The Evergreen Alliance was the intellectual descendant of a more radical form of activism that had defined the Cass Corridor since the 1950s; the Detroit Audubon Society was a part of a long tradition of wildlife and environmental conservation organizations that had operated within existing political and legal structures to protect wildlife and wild places. Their diverse approaches were untenable to each other. As one Evergreen Alliance member commented in Fifth Estate, the Detroit Audubon Society’s commitment to “respectability” and “realpolitik” over solidarity ultimately made that group “uncomfortable working with those who hold a more radical critique” of capitalism. In this way, the Detroit Audubon Society chose to “submit to proper procedure” rather than question broader economic, political, and social conventions as the Evergreen Alliance did.

Yet the two groups’ inability to cooperate was as much the Alliance’s unwillingness to compromise as the Detroit Audubon Society’s trepidation in adopting radical solutions. While

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48 For more in the choice between radicalism and gradualism by environmental organizations, see Keith Makato Woodhouse, The Econcentrists: A Radical History of Environmentalism, (New York: Columbia University Press, 2018), 95.
the benefits of a unified, broad-based coalition were undeniable, the Evergreen Alliance saw the path presented by cooperation as one that would ultimately force them to moderate their radical politics, work within the system they fundamentally opposed, and compromise their ultimate goal of preventing the incinerator from being built at all. The Alliance’s discomfort working “with people whose views we did not share” ultimately moved them to separate from the Detroit Audubon Society as the latter organization sought to build a legal coalition with the Sierra Club and the North Cass Community Union.49

The Evergreen Alliance considered this a necessary lesson in the nature of organizing rather than a loss. This choice between compromise or maintaining their radical beliefs “remains a problem which anti-authoritarians must grapple with in order to work effectively with others in our neighborhoods and workplaces,” Alliance member Charles Willis contended. But in making the difficult choice to uphold their values, the potential reward was the radicalization of others. “Every social struggle,” he suggested “holds the potential for becoming a battle against the modern technological society as a whole.”50

Yet coalition-building was not impossible, as demonstrated by the North Cass Community Union. Founded in 1978, the Union was focused on a variety of issues in the neighborhoods along the Cass Corridor, including mitigating crime, fighting gentrification, providing services to residents, and promoting community cohesion through its annual Dally in the Alley festival. Like the Evergreen Alliance, the group drew its vision and strategy from the radical past of the Cass Corridor neighborhood. While the Union resented the fact that “outside


50 ibid.
interests,” like the Sierra Club and the Detroit Audubon Society, were telling them “how to live in our own city,” the Union also chose “by necessity” to join those organizations in bringing legal proceedings against the incinerator. “Let us keep in mind,” member Roger Bailey wrote, “that none of these groups were around when N.C.C.U. fought the early battles that led to the formation of our community” and that “their best interests may not be North Cass’s best interest.” Despite this skepticism, the North Cass Community Union clearly believed that they were more likely to be successful in their fight against the incinerator by joining in the coalition’s legal action despite the resentment the group felt towards these “outsider” groups.

City officials actively worked to exploit the divisions between anti-incinerator activists in order to weaken their efforts and to marshal public support against the movement to block the project. After the Windsor City Council sent a resolution to city officials in Detroit on April 22, 1986 expressing their “strong objection and outrage” to the incinerator citing health risks to Windsorites, Mayor Coleman Young responded by contending Windsor Mayor David Burr was “just being used by some of the Cass Corridor people,” referring to the Evergreen Alliance. Young also attempted to characterize the mostly white Alliance as “outside agitators” from the suburbs trying to foster discord in Detroit. In discrediting them and focusing on persistent issues of race rather than the environment and public health, Young sought to demonize the Alliance and their efforts. Evergreen Alliance members themselves acknowledged their shortcomings in regard to race and attempted to attract more African Americans from across the


52 “Young believes incinerator foes are leading Windsor mayor astray,” Detroit Free Press, November 4, 1986.

53 Laurie Kopack and Tom Stephens interviews with the author.
city into their movement. Members believed they shared common cause with all of the city’s residents, as the incinerator ultimately would impact everyone’s health equally. Alliance members organized a speaker’s bureau to conduct outreach to many of Detroit’s black churches and even went door-to-door in mostly black neighborhoods that would be most impacted by the GDRRA’s emissions to collect data about residents’ health.54

For various reasons, however, the Evergreen Alliance’s attempts to draw Detroit’s African American residents into the organization were unsuccessful. According to Evergreen Alliance member Tom Stephens, longstanding divides between blacks and whites in the city created a significant barrier to forming a coalition with the black community, not to mention the strong loyalty African Americans felt towards Coleman Young. “Everything in Detroit is about race,” Stephens reflected. “[T]here’s no basis for the majority of people in Detroit to ally with a bunch of white radicals on environmental issues against Coleman Young. It just wasn’t gonna happen.”55 Alliance members Laurie LaPine Kopack and Tanya Sharon likewise agreed that structural racial issues in Detroit were a significant obstacle to the Evergreen Alliance, but also suggested that it was difficult to activate community groups against a threat that did not yet exist. “I think it wasn’t real yet,” explained Kopack.56 Ultimately, the Alliance’s lack of success reveals persistent racial divides – both spatial and social – in the Detroit region through the 1980s. In 1990, the U.S. Census Bureau classified the Detroit metropolitan area as the most segregated in the United States. This stratification extended to how blacks and whites in the

54 Laurie Kopack interview with author.
55 Thomas Stephens, interview with author.
56 Tanya Sharon, interview with author; Laurie Kopack interview with author.
region regarded each other. Poll data from 1968 shows that 21 percent of black respondents in Detroit agreed that most whites wanted “to keep blacks down.” Yet by 1987, black respondents who agreed with the statement rose to 59 percent, while 39 percent of white respondents also agreed.\(^{57}\) In this way, the Evergreen Alliance faced numerous structural challenges to building a widely inclusive coalition, in addition to the Young administration’s attempts to discredit them and their work.

**A Failure of Oversight**

On May 12, 1986, the EPA announced that a three month-long probe into the GDRRA permit by Region V Administrator Valdas Adamkus and his staff determined emissions from the GDRRA would violate the federal Clean Air Act provisions despite the state Department of Natural Resource’s assessment to the contrary. According to EPA calculations, the incinerator needed to reduce carbon monoxide emissions by 225 tons per year, particulate matter by 120 tons per year, and sulfur dioxide by a considerable 3,100 tons per year. Given these findings, the Agency issued notices of violation to the DNR, the city of Detroit, and Combustion Engineering for failure to comply with the carbon monoxide and particulate emission standards. With that, the EPA moved to revoke the sulfur dioxide portion of the incinerator’s permit, and threatened to bring Detroit and Combustion Engineering to court.\(^{58}\) Although the EPA had the legal authority to revoke review privileges from any local or state entity should they fail to adequately enforce the Clean Air Act, the Agency’s action challenged a permit that had already been granted by

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state Department of Natural Resources and audited by the EPA (though it is unclear if Adamkus and his staff were aware of the audit at the time or if they were intentionally attempting to hide their previous confirmation of the permit approval). In this way, the EPA’s challenge to the Detroit incinerator permit served as a litmus test for the inherent authority of the Agency over state and local governments to whom PSD enforcement had been granted.

Generally considered a fair and independent administrator, Region V head Valdus Adamkus was widely known for his very public battle with EPA Administrator Anne Gorsuch Burford in 1983. At the center of the feud was her suppression of a report written by Adamkus’s regional office that accused Dow Chemical of polluting the waterways near their Midland, Michigan headquarters with dioxins. The incident ultimately contributed to Burford’s resignation in 1983 and served a major morale boost to an often-stifled EPA under the Reagan administration. Adamkus, who later served two terms as the president of Lithuania, was one of the few EPA officials during the Reagan years to be recognized by environmental groups, especially those in the Great Lakes region, as an ally. Under his watch, Region V filed more enforcement orders than any other EPA office and developed a reputation as one of the most independent and aggressive offices in the nation.

The EPA’s threat to revoke a portion of the GDRRA’s permit to install placed Detroit in an extremely precarious position. Having received no response from Adamkus or anyone else in the Region V office to her April 23 letter detailing the city’s troubled financial status, Bella


Marshall and city finance officials had removed the short-term variable rate notes it had issued in December 1984 from a joint escrow account with CE and remarketed them as long-term fixed rate bonds with the backing of Citibank and Manufacturers Hannover Trust. With the financing process initiated, CE was set to start construction at the project’s Russell-Ferry site on May 14.

Given the many uncertainties surrounding it, the Young administration’s choice to move forward with the GDRRA project in May 1986 was troubling. Having received no reply from EPA officials absolutely confirming the permit’s validity, the decision to initiate financing arrangements for the project was risky if the EPA questioned the permit, as they were now. Nor were city officials apparently considering the facility’s long-term costs to taxpayers or the potential for economic risk presented by the still-unproven technologies and a profit structure that relied heavily on massive volumes of waste. The contract Detroit had negotiated with Combustion Engineering in the late 1970s stipulated that the city would be liable for the cost of new technology or infrastructure related to a change in environmental regulation.62 Furthermore, though CE was financially responsible for unplanned mechanical failures at the plant, any unscheduled closures for repairs at the facility would cost the city too. Even if the GDRRA was closed, Detroiters would not stop producing trash and the city would still be responsible for collecting it, transporting it 30 miles to a backup landfill in Sumpter Township, and paying the tipping fee to dispose of it. Finally, Detroit would be forced to pay CE a fee should they fail to deliver the agreed upon tonnage of waste every year. Yet as Detroit’s population continued to decline from its peak in 1950 – from 1.5 million in 1970 to 1.2 million in 1980 and even further

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62 CE, however, was financially responsible for the GDRRA’s noncompliance under the Clean Air Act once it started operating. So, in some ways, the risk was evenly distributed between the two, given the uncertainty of resource recovery technology.
to 1 million in 1990 – the city was contractually bound to build a facility for a population and a waste volume that no longer existed. In this way, Detroit bore enormous financial risk from the project, especially once construction was complete. Inevitably, those costs would be passed on to residents, either in the form of higher taxes or waste disposal fees – despite already boasting the highest taxes in the state – or in the assumption of more debt, which would negatively impact their credit rating and make it more difficult to finance other necessary city services and improvements.

Detroit was not the only American city to grapple with the complex questions of long-term cost as they related to resource recovery. Inspired in part by the infamous garbage-barge *Mobro 4000* which was rejected from off-loading its cargo of more than 3,000 tons of Long Island garbage at ports from North Carolina to Belize over seven months in 1987, reporters at *Newsday* launched a months-long investigation into resource recovery in 1987. Ultimately, the team (known within the bureau as “the Garbage People”) found that cities and towns along the East Coast – especially in Massachusetts and Long Island – that had been sold on resource recovery as an alternative to rising landfill disposal rates were ultimately “pressed into a solution that may be an enormous environmental and economic gamble.”63 While the tipping fees and transportation costs to dispose of municipal waste at an incinerator might be lower than at a shrinking landfill, the bonds and other financing mechanisms used to construct high-tech resource recovery plants generated long-term costs shouldered primarily by taxpayers. In Hempstead, *Newsday* reported city officials were forced to raise garbage disposal taxes 137 percent once the new resource recovery facility opened. Elsewhere in Long Island, disposal fees

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rose 350 percent for some households. These drastic increases were also likely in Detroit’s future: in their weekly newsletter Waste Not!, Paul and Ellen Connett estimated that the GDRRA project would cost the city of Detroit $1 billion after all of the bonds and interest were finally paid off. Overall, incinerators were “being built with little regard for financial consequences,” suggested Richard Firstman of Newsday.

That was perhaps true for the municipalities, but not for the companies building and financing the facilities. Three of the largest companies in the United States – Wheelabrator Environmental Systems, Ogden Martin System, and Combustion Engineering – reported nearly $7 billion combined in resource recovery-related business in 1987, while underwriters for resource recovery bonds reported more than $110 million in profits in 1984 and 1985 alone. One trade periodical noted in 1986 that potential resource recovery market was valued at approximately $100 billion and that “entrepreneurs are showing a willingness to invest in the development of more efficient and reliable technologies.” This potential could only be realized if waste disposal costs around the country continued to rise due to decreased landfill space.

Consensus at two separate resource recovery conferences in Washington D.C. suggested resource recovery would be “competitive” with traditional landfills “once garbage disposal costs

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reach $25 a ton.” Yet this meant that municipalities sending their waste to incinerators were, in some cases, paying more in tipping fees than if they had continued relying on landfills in the first place. It also meant that the resource recovery industry and cities were highly motivated to encourage Americans to create more waste and to prevent the growth of curbside recycling, which threatened to divert valuable waste away from incinerators. In Detroit, the City Council passed a “flow control ordinance” in October 1985 that funneled all residential waste to the planned incinerator and left little room to develop a city-wide recycling program.

Many Detroiters were thrilled by the EPA’s intercession in the GDRRA permit controversy. The North Cass Community Union, a member of the citizens’ coalition that threatened to bring legal action against the GDRRA, voiced it’s support for the “impending legal action…to invalidate the permit for this plant. Let the voice of the people be heard!” Yet members of the Evergreen Alliance did not think the EPA represented the “voice of the people” and were concerned that the Agency’s intervention would ultimately allow the plant to move forward. Claiming they had convinced members of the Detroit Audubon Society and Sierra Club not to compromise on any outcome that was not the facility’s complete shutdown, the Alliance suggested that with the EPA’s endorsement of better pollution controls for the facility “there is the danger that these groups will retreat to their previous position, the state will pick up the

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difference, the plant will be built with the control technology." The Evergreen Alliance sought a complete shutdown.

Yet the city would not enter into any sort of compromise with the EPA easily. On July 7, the GDRRA and Combustion Engineering filed suit in the Eastern District Court of Michigan seeking a declaration from the court that the EPA had “exceeded its authority” in attempting to revoke the GDRRA permit and to bar the EPA from any further attempt to interfere with what they argued was a legally-approved permit. At a status conference a month later, attorneys for both Detroit and the EPA agreed to expedite the case, given the uncertainty that the legal action created for Detroit, and would take one month to collect evidence for their respective cases. Yet as the discovery deadline approached, Detroit officials learned of the EPA’s 1985 audit of the GDRRA permit during the Agency’s annual review of state Department of Natural Resources. In the audit, EPA officials “commended the Michigan DNR for…the demonstrated competence of the staff, as well as for the quality of its NSR [New Source Review] program, policies, and procedures.” According to lawyers for the city, the audit was only provided when they “learned of its existence from other sources and asked for it specifically, although they had requested in discovery any information that EPA possessed regarding the permit.” Ultimately, the audit contradicted earlier statements made by EPA lawyers that the Agency had not reviewed any material related to the GDRRA permit until after Gerald Avery revealed the DNR’s thousand


fold calculation error in December 1985. In a statement to the *Detroit Free Press*, EPA spokeswoman Virginia Donahue argued that the permit was a “surprise to EPA management and attorneys” and that it had not been intentionally withheld from city officials. Their position now undermined, EPA Region V officials indicated that they would be willing to enter into a settlement. Yet Detroit’s demand for “finality” regarding their permit’s legality, including a court order that ultimately barred the EPA from any future interference with the project, was viewed by the Agency as unacceptable and talks between the parties quickly broke down.

Following the discovery of the 1985 audit and the breakdown of settlement talks, the EPA announced that it would “reluctantly” end its attempt to revoke the sulfur dioxide section of the GDRRA’s permit and admitted that there had been a failure of regulation on their part, though the news release did not specifically mention the discovered audit report. On September 22, Region V Administrator Valdas Adamkus issued a statement “strongly urging the city and the State to install environmental controls that will protect the health and environment of the people of Detroit and the surrounding communities. I regret we cannot do more.” “Sour grapes,” was how Mayor Coleman Young characterized Adamkus’s response. “Since they now know the public record reveals their environmental and procedural approval of the plant, they wish to end the lawsuit.” While a victory for the Young administration, the EPA’s decision to

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end their revocation of the GDRRA permit as a result of their own botched oversight was a major blow for anti-incinerator organizers. “It kind of blows you out of the water,” admitted Detroit Audubon Society member Grant Ruttinger. “They [the EPA] made a big mistake and we’re all going to have to pay for it.”

The same day the EPA withdrew its legal proceedings against Detroit, the city filed suit in the Eastern District Court of Michigan, arguing the EPA’s attempt to change the terms of the permits, “were illegal, invalid and beyond the scope of any power granted to any regulatory agency.” City officials claimed the Agency’s overreach of their regulatory power and the resulting uncertainty around the GDRRA permit resulted in a loss of investor confidence in their remarkeeted $438 million in resource recovery bonds. In a deposition given by incinerator financing firm Smith Barney, Harris, Upham, and Co., Managing Director Robert Randol declared, “the taint placed on the permit’s validity and the Project by the EPA’s actions had and continues to have a direct adverse impact on the Project and the bonds issued to finance the Project.” Randol also noted that the uncertainty about the permit resulted in higher interest rates to the GDRRA and made resale of the bonds in the secondary market extremely difficult for their backers at Citibank and Manufacturers Hannover Trust. Investor doubts surrounding the marketability of the city’s resource recovery bonds also further eroded Detroit’s credit rating for future projects since they had pledged the “full faith and credit” of the city behind those bonds regardless of their success in the market. Finally, Randol suggested that the EPA’s conduct in


questioning a legal, state-approved permit put *all* future resource recovery projects at risk, not just the GDRRA. In this way, the EPA’s mandate to protect the environment and human health was called into question because of the financial hardship that mandate imposed on the regulated.\(^79\)

**Back on the Streets and in the Courts**

Despite their disappointment at the EPA’s retreat, Detroit’s citizen activists ramped up their respective efforts against the incinerator. In March 1987, the Evergreen Alliance embarked on a nine-day series of actions they called the Festival of Life, “an effort to gain greater public support and to raise consciousness with respect to the environment and solid waste.” The events and actions planned for the week were reflective of this mission, as well as the long artistic tradition of the Cass Corridor. While two of the days involved direct action, the remaining events were concerts, poetry readings, and art exhibitions at venues along the Corridor, including the Bagley Café, Saint Andrew’s Church, and the First Unitarian Church, suggesting the key role of churches in providing free event and meeting spaces to community residents who were not registered members of the congregation.\(^80\) They also organized a protest march from the Kern Block along Woodward Avenue downtown across the I-375 expressway and north through Lafayette Park before ending at Eastern Market. The group’s choice to end the march there harkened back to their first anti-incinerator action following the disappointing Air Pollution

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\(^80\) The Evergreen Alliance and the NCCU both held their weekly meetings in the First Unitarian Church as well.
Control Commission hearing and again underscored the connection between the incinerator, air pollution (especially dioxin), food, and public health.  

In pursuit of their own agenda, the Detroit Audubon Society, the Mackinac Chapter of the Sierra Club, the North Cass Community Union, and the Environmental Defense Fund filed suit in Wayne County Circuit Court against the City of Detroit, the GDRRA, and Combustion Engineering on April 15, 1987 for two violations of the Michigan Environmental Protection Act or MEPA. This made good on their threat nearly a year earlier to take legal action in order to demand additional pollution controls. According to the coalition, the incinerator violated state law because both the emissions and ash produced by the facility would ultimately harm the environment. Second, the coalition alleged that the City of Detroit had failed to fulfill its duty under MEPA to both fully consider all the potential waste disposal alternatives before moving forward with the GDRRA and to duly take into account all modifications to its design that would avoid or reduce environmental pollution, including the additional pollution controls suggested by the Michigan Department of Natural Resources.

The same day, the Province of Ontario also brought legal action under MEPA against the GDRRA for its failure to install the recommended pollution control equipment in order to protect “the common airshed of Michigan and Ontario from particulate matter, heavy metals, acid gases, chlorinated organic compounds and other air pollutants.” But some anti-incinerator activists

81 “Festival of Life Announced” in North Cass Community Union Records, Box 1, Folder 34, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.


83 ibid.
were not optimistic. Given the failure of the EPA’s suit to compel Detroit’s strict compliance with the Clean Air Act, they saw legal action as an ultimately unproductive path. For example, in the anonymous and irreverent publication *Detroit Freek Press*, activists opined that the “suit’s chances, considering the corrupted state of ‘environmental’ law, and the right-wing ideology of the judge assigned to the case (Barbara Hackett), are pretty slim.  

On June 2, activists from the international environmental organization, Greenpeace, arrived in Detroit to lend their weight to the anti-incinerator movement following an invitation from the Evergreen Alliance. Their action began when three members – Paul Walker from Midland, Michigan, Teresa Concannon of Chicago and Richard Harvey from Chicago – each scaled building cranes at the incinerator construction site at 4:30 that morning. Equipped with rock climbing gear, hammocks, and 36 hours-worth of provisions, two of the climbers unfurled a banner that read “BAN THE BURN” and tied it across the cranes. Four hours later, police arrived and arrested Greenpeacer Steve Loper, who communicated with Walker and Concannon via radio from just outside the construction site gates.

Over the next hour and a half, three officers from Detroit’s rappelling rescue team climbed the cranes and, guided by a helicopter overhead, secured two of the three protesters and lowered them in a quickly rigged pulley system down to police waiting below. Unable to be reached by the city’s rappelling crews as he sat atop the tallest crane, Harvey was arrested at 10 AM after Officer Anthony McGowen dramatically lowered himself from the helicopter circling overhead. McGowen tied a tow rope to Harvey and both were lowered to the ground. The following day in the *Free Press*, Bella Marshall criticized the group, arguing they risked lives.

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84 491, “No Incinerator!,” *Detroit Freek Press* in Thomas W. Stephens Collection, Box 3, Folder 10, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.
and wasted tax dollars for “a media show.” The city must not tolerate such opponents of the incinerator she said, and she reminded readers that the plant was not unsafe, and that “no one has presented a scintilla of evidence to the contrary”\textsuperscript{85}

Yet Greenpeace’s planned actions against Detroit’s incinerator only escalated. The next day, two activists, Kenn Hollis and Scott Sibley, scaled the Ambassador Bridge between Windsor and Detroit at midday, carrying a banner that read: “Mayor Young: More cancer isn’t the answer. Stop Detroit’s Incinerator.” Starting from the Canadian side of the bridge, the two activists walked across to the Detroit side where they hung their banner and then camped out overnight on one of the bridge’s crossbeams. Although strong winds that day blew off most of the banner, leaving only “Stop Detroit’s” hanging by the evening rush hour, the choice to stage their protest on the busiest vehicular border-crossing in the United States grabbed attention. Such dramatic and highly visible actions were part of Greenpeace’s new media-focused strategy that co-founder Robert Hunter nicknamed “mindbombs,” meaning direct action aimed at global media in order to change public sentiment. Not “storming the Bastille…but a storming of the mind,” Hunter called it.\textsuperscript{86}

Following the arrest Hollis and Sibley on the morning of June 4, Greenpeace’s action continued with a rally outside of the City-County Building. Two dozen supporters, including some Evergreen Alliance members, carried picket signs and chanted “We don’t want Coleman’s furnace to burn us.” The group also invited Dr. Paul Connett, a chemistry professor and


incinerator specialist at St. Lawrence University, to speak. Connett emphasized reduction and recycling as the key to economically and environmentally effective waste management. In a story for *Newsday’s* investigation into resource recovery, Connett suggested that sorting recyclable materials out of their waste streams ultimately made better economic sense for cities than creating more waste since the tipping fees landfills and incinerators charged municipalities was based on weight. “It’s not what you make from recycling,” Connett suggested, “it’s what you save.”

He echoed these economic considerations to protesters in Detroit, arguing that the city’s choice to burn its waste “smacks of economic and not environmental interests.”

Connett’s critique was directly on point: by encouraging the generation of more waste to keep the GDRRA operating at full capacity and prohibiting recycling, Detroit’s argument that the facility was an environmentally-sound solution to the region’s waste crisis was untrue.

Greenpeace’s demonstration ended with a symbolic “die-in” – a common tactic used by environmental activists that both suggested the nonviolent sit-ins of the civil rights movement and enacted protesters’ worst fears of the incinerator’s impact on human health. Some draped over retaining walls and others face down on the concrete, picket signs scattered on the ground, activists lay motionless under the stony gaze of Marshall Fredericks’s iconic *Spirit of Detroit* sculpture, with its inscription from Corinthians: “Now the Lord is that Spirit: and where the Spirit of the Lord is, there is liberty.” The images of “dead” bodies in yet another incinerator

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story on the front page of the next morning’s paper must have shaken some Detroiter. At the very least, that was protesters’ intention.⁸⁹

Figure 8. Greenpeace’s “die-in” under the gaze of Marshall Frederick’s Spirit of Detroit. Detroit Free Press.

Following the die-in, Greenpeace’s “Great Lakes Toxics Campaign” Coordinator, Joyce McLean, published an open letter to Mayor Young. She framed the incinerator as more than a threat to clean air, but as an environmental justice issue. Citing a 1985 joint report from the U.S. National Research Council and the Royal Society of Canada, McLean noted that residents along the Detroit-Windsor corridor had “‘appreciably more’ toxic chemicals in their bodies than anywhere else in North America.” While she emphasized the inequitable burden Detroit residents already bore in regard to pollution, she also argued that environmental injustice was an issue that cut across geographic divides of city-periphery, pointing to the concentrated, highly-toxic ash from the incinerator that would be landfilled southwest of Detroit in rural and poor Sumpter Township. She ended her letter declaring that clean air and water were an inherent right of all people (a principle, incidentally, that was not widely recognized until the United Nations appointed the Special Rapporteur on Human Rights and the Environment in 2012.)

“‘The citizens of Detroit deserve the right to clean air,’” she wrote to Mayor Young. “‘All Detroit citizens have a right to expect you to protect the safety of their environment.’”

McLean’s letter reflects a growing awareness in the public discourse about the uneven burden of pollution and environmental degradation across the country. In 1982, black activists in North Carolina made national news when they attempted to stop trucks full of PCB-laced soil.

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90 Despite many resolutions about environmental quality since the Special Rapporteur’s appointment, the UN still has not formally recognized a healthy environment as a guaranteed human right; General Assembly resolution 19/10, Human rights and the environment, A/HRC/RES/19/10 (19 April 2012), available at: https://documents-dds-ny.un.org/doc/RESOLUTION/GEN/G12/131/59/PDF/G1213159.pdf.

from being dumped in a landfill the state had sited in their community. A year after Greenpeace’s McLean suggested that the Detroit area bore an unequal burden of the nation’s pollution, the United Church of Christ Commission for Racial Justice published their study “Toxic Wastes and Race in the United States,” which found that racial composition of a community was the best variable for predicting the location of hazardous waste facilities and drew, for the first time, a quantifiable connection between race and pollution. Although they did not recognize it at the time, all three Evergreen Alliance members interviewed for this project saw their work as a part of this nascent movement.

While Greenpeace’s tactics certainly drew local and even national attention to the city’s plan to build and operate the world’s largest incinerator, there was no identifiable long-term impact their presence had on bolstering the anti-incinerator movement. In fact, residents of the metropolitan region appeared to be heavily divided on Greenpeace and their tactics. Like the Young administration, the Detroit Free Press sought to drive a wedge between anti-incinerator activists by condemning Greenpeace’s actions as doing “the environmental cause no favor.” “Such groups as the Sierra Club and the Environmental Defense Fund are doing less dramatic and more substantive work toward assuring a safe plant,” the paper argued. Yet other residents voiced their support for the radical activists, their courage, and their message. Speaking directly to the Free Press’s attempts to differentiate between “good” and “bad” environmentalists,

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94 Thomas Stephens, Tanya Sharon, and Laurie Kopeck interviews with the author.

Evergreen Alliance member Thomas Stephens wrote, that the newspaper’s “narrow-minded condemnation of Greenpeace’s direct action civil disobedience tactics reflects an indefensible rejection of basic democratic values…. This type of action is part of a long and honorable tradition dating back at least as far as the famous Boston Tea Party and is in no way inconsistent with the litigation tactics used by other environmentalists.” Kim Ostheimer of the village of Franklin in Oakland County agreed, arguing Metro Detoriters “should applaud [Greenpeace] for having the courage to take action.”

Others were more critical of Greenpeace. “I agree that it should be unnecessary for the type of behavior shown by Greenpeace individuals,” explained Michael Maddison of Windsor, but he also argued that their message was an important one given the threat of the incinerator: “[W]e don’t want your waste contaminating Canada…Good neighbors do not contaminate each other’s property.” Radical anti-incinerator activists were also dubious of the impact Greenpeace had on the controversy. “While the actions of Greenpeace did propel the incinerator into the media spotlight for a week or so, seemingly, no long-lasting effects have resulted,” argued Cass Corridor activists in the parody newspaper the Detroit Freek Press. “The theatrical nature of the acts lent themselves to ridicule and many people were attracted to the stunt-person aspect, rather than to the political content, of the protest.” While their “mindbomb” tactics perhaps forced some Detroit metro residents to take notice of the issue for the first time, Greenpeace’s actions in

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97 ibid.

1986 and later in June 1988 when protesters climbed the iconic Renaissance Center to protest the incinerator did not seem to substantially help further local anti-incinerator activists’ efforts to close the facility.

Though it’s uncertain what tangible impact Greenpeace’s actions had to strengthen the opposition to the GDRRA, local groups did gain another ally in their fight not long after the activists’ four days of protest. On June 30, members of the United Automotive Workers (UAW) Southeast Michigan Community Action Program, the union’s political and social action committee for the metro Detroit region, voted to publicly endorse better pollution control equipment for the facility. “The UAW always leans on the side of the safest technology in the factories where we work and in the communities where we live,” explained Odessa Komer, Vice President for Conservation and Recreation. In letters to EPA National Administrator Lee Thomas and Michigan Governor James Blanchard, Komer and Vice President Marc Stepp further argued that state and federal agencies should ultimately pay for the added costs presented by the additional pollution controls because of mistakes those agencies made in approving the GDRRA permit in 1984.99 Yet the union did not stand against the project overall and even defended Coleman Young, arguing that the uncertainty fostered by EPA officials around the project forced “Mayor Young to dangle like a villain in midair.”100 In characterizing Young as a victim in the controversy, UAW protected their important political relationship with the mayor, while putting

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the governor on notice. According to Governor Blanchard’s environmental adviser, Dave Dempsey, the union’s position was “significant” to the state.\footnote{Bob Campbell, “UAW urges incinerator controls,” \emph{Detroit Free Press}, July 15, 1987 in Coleman A. Young Papers Part II, Series V, Box 105, Folder 9, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.}

The UAW’s entrance into the incinerator controversy represented a return to its environmental activism of previous decades. Through its Conservation and Resource Development Department, both union leaders and rank and file members participated in cleanups of local waterways, organized neighborhood anti-air pollution leagues, and endorsed stricter regulations on industrial polluters through the 1960s. These activities declined, however, as the UAW lost some of its strength amidst the high unemployment and deindustrialization of the 1970s and the rise of anti-union conservative politics in the 1980s. Still, by the mid-1980s the UAW was still an important political voice in Michigan and especially in Detroit.\footnote{Montrie, \emph{Making a Living}, 93; Jefferson Cowie, \emph{Stayin’ Alive: The 1970s and the Last Days of the Working Class} (New York: The New Press, 2010).} Yet the following day Governor Blanchard refused to honor the UAW’s request, explaining that he preferred to allow the incinerator to continue to be built as planned and to pursue improved pollution controls only if post-operation tests demonstrated the facility was not in compliance with the Clean Air Act.\footnote{N. Scott Vance, “Governor rejects incinerator request,” \emph{Detroit News}, July 16, 1987 in Coleman A. Young Papers Part II, Series V, Box 105, Folder 9, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.} In taking such a stance, Blanchard was also echoing Coleman Young’s concerns that adding additional costs to the project at that late stage would jeopardize the project’s finances overall. The governor’s refusal to consider the UAW’s request immobilized the union’s attempts to bring its political weight to bear on the issue.


The Evergreen Alliance, meanwhile, continued their work to educate and mobilize the community about the incinerator. Equally important, they expanded their scope to address environmental justice issues more broadly. In May 1988, the group organized a four-day “Regional and International Mobilization to Save the Great Lakes,” including talks by Love Canal activist and Citizens’ Clearinghouse for Hazardous Waste founder Lois Gibbs, *The Late, Great Lakes* author William Ashworth, anti-incinerator scientist Paul Connett, and Greenpeace Great Lakes Coordinator Joyce McLean. This conference reflected a key moment in the Evergreen Alliance’s maturation. The concept of “mobilization,” Alliance organizers explained, “evolved out of a growing awareness among the anti-incinerator activists to link up the many different assaults on the environment in this region,” including “the Fermi II nuclear reactor, other incinerators, toxic and nuclear wastes, and the development of the riverfront.” In bringing these different though related issues together, Alliance members looked to foster a “liberatory, earth-oriented community” in Detroit and beyond and indicated a shift in the Alliance’s goals towards forwarding a much broader and deeper concern for environmental degradation and social justice that went beyond the single issue of the Detroit incinerator. Yet the group’s anti-authoritarian and anti-capitalist ideology continued to underpin its concern for the environment as they pointed to “politicians and corporations” as the source of both pollution and inaction in strengthening protection of the Great Lakes ecosystem.104

In their newly written “Vision,” the Evergreen Alliance characterized the incinerator as a “manifestation of a systemic crisis,” the source of which was “industrial production and the market economy.” “We want to disengage ourselves,” the group went on, “from any economy

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104 **“A Call to Action: Mobilize to Save the Great Lakes”** flyer in Thomas W. Stephens Collection, Box 3, Folder 9, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.
that profits from contamination, oppression, and war.”\textsuperscript{105} Throughout 1987, the Evergreen Alliance continued to spread this message through demonstrations, presentations, and benefits, including a “Cycle & Recycle” protest that crossed the Ambassador Bridge to Windsor to emphasize the international impact of the incinerator’s emissions and a “Ban the Burn” protest outside of Cobo Hall, the city’s convention center, where participants chanted “Coleman’s Joke – Killer Smoke!” as Mayor Young spoke at the Detroit Press Club luncheon.\textsuperscript{106} Although the incinerator continued to rise at the Ferry and Russell site, Alliance members persevered in their work to raise awareness and prevent the facility from burning even one bag of the city’s trash.

Yet all was not well within the Evergreen Alliance. Some of the group’s female members felt that they were not being heard and that “the guys,” especially those closely associated with the \textit{Fifth Estate}, “were taking up all the air.”\textsuperscript{107} Seeking a more supportive community, some women of the Alliance went on to organize a separate group, Women (sometimes also styled as Womyn) Empowered Against Violence to the Environment, or WEAVE. According to the group’s newsletter, WEAVE was “an ecofeminist group which works to empower itself and to organize community events which demonstrate our commitment to restoring the delicate balance of life on Earth.” In contrast with the Evergreen Alliance, the goal of WEAVE was not to attract new members or change minds, but to “act as a catalyst” for other women to “heal” themselves and their communities. The creation of WEAVE out of the Evergreen Alliance mirrored other

\textsuperscript{105} Evergreen Alliance, “Collective Statement” flyer in Thomas W. Stephens Collection, Box 3, Folder 10, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.


\textsuperscript{107} Interview with the author (the individual who made this comment wishes to remain anonymous.)
debates about inclusivity and social justice that were happening nationally in environmentalist circles.\textsuperscript{108}

Community was a key organizing principle for these women, and their place in Detroit was central to their discourse. Just as women were wounded and abused by capitalism, politics, and other male-dominated spheres, so too, they argued, was Detroit. “When we think about Detroit as a city, a physical space,” explained Marilyn Rashid, “most of us who live here must admit that it is not a beautiful place. It is, rather, a wounded landscape.” Yet in being a wounded place, Detroit also had the potential to heal itself if not subject to the “corporate greed and the bureaucratic power” represented by the incinerator. Rashid pointed to “families of wild ring-necked pheasants,” wildflowers, grasses, and trees as evidence that when “land is left alone” it could regenerate itself “in spite of…exploitation and destruction.” The same rejuvenation, the women of WEAVE argued, could also happen to Detroit. “The earth fights back,” Rashid claimed, “communities of caring people fight back too.”\textsuperscript{109} The women of WEAVE, then, saw the rejuvenation of the environment as a symbol for their own healing and that of their city. While the women of WEAVE never viewed themselves in opposition to the Evergreen Alliance regarding the Detroit incinerator, the dissatisfaction of Alliance women reflected a splintering of political and cultural views within the group that foreshadowed its eventual disintegration as members turned their efforts to other causes.

\textsuperscript{108} For more on the rising ecofeminism movement and debates within the movement, see Keith Makako Woodhouse, \textit{The Ecocentrists: A History of Radical Environmentalism}, (New York: Columbia University Press, 2018), 199-200.

Losing the Legal Battles

As the Evergreen Alliance continued its grassroots activism against the incinerator, the movement against the incinerator was dealt a major blow. On December 17, 1987, Justice Barbara Hackett ruled in favor of Detroit in the city’s litigation against the EPA. Hackett had only been appointed to the federal bench a year earlier by President Ronald Reagan. A trailblazer for women in the judicial system, Hackett was also active in Republican politics at the local and state level. Though described by many of her colleagues as a fair and respected judge, Hackett’s legal background leaned heavily pro-business. She first served as a legal assistant to the Michigan-Wisconsin Pipeline Company and later became counsel to her husband’s law firm, which represented railroad companies.110

The questions at the heart of the case were threefold: the first considered if the GDRRA could be defined as eligible under the Equal Access to Justice Act and, therefore, could seek fees and other expenses related to their legal action against the EPA. The second question considered if the EPA acted “in bad faith” under United States common law, which meant Combustion Engineering could also seek attorney fees. The final question centered around whether the EPA was “substantially justified” in its actions against the GDRRA. In her decision, Hackett characterized the EPA’s attempt to revoke the Authority’s permit as an “unreasonable government action” and categorized the GDRRA as eligible to seek damages under the Equal Access to Justice Act because, at the time of litigation, its net worth was purportedly zero. This

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was accurate since the resource recovery facility had not yet started burning the city’s waste, and so, had not sold any steam to the region’s electric utility, Detroit Edison.  

Second, Hackett identified multiple instances in which the EPA had acted “in bad faith.” First, she suggested that the Agency attempted to hide their 1985 audit of the GDRRA permit. Once the audit was revealed, she also argued the EPA endeavored to make the city’s legal action against the Agency moot by withdrawing their May 1986 letter questioning the validity of the permit. Finally, the EPA called the GDRRA permit into question before the reissuing of the long-term bonds, but then did not actually revoke the facility’s permit. “[T]his emphasizes the EPA’s attempt to make a stand without taking a position,” Hackett argued.

In regard to the third question, Hackett explained that the EPA had rested its argument throughout litigation on the fact that it possessed “the inherent authority” to withdraw a facility’s permit at any time. “However,” she reasoned, “it is well established that as creatures of Congress, administrative agencies have no ‘inherent power’, but only that power specifically delegated to them.” Therefore, the EPA “had no justification, factual or legal, for its action.” In response to the EPA’s contention that it had to take legal action against the GDRRA because the Detroit Audubon Society and the other community groups threatened to sue the Agency for allowing “deficiencies” in the permit, Hackett castigated the EPA for seeking to “appease community groups” by revoking the facility’s permit without any substantive evidence. “The procedure used by the EPA,” she suggested, “violates all notions of fundamental fairness.”


112 ibid.

113 ibid.
Hackett’s ruling in favor of the GDRRA and CE reflected the judicial activism that was common throughout the federal court system at the time. The Reagan administration’s Justice Department had earned a reputation for an unprecedented level of philosophical vetting for prospective appointees to the federal bench. Daylong personal interviews with candidates and direct questions about where they stood on key conservative issues, like corporate regulation and abortion rights, ultimately led to the appointment of more than 400 judges to the appellate and district court systems who the administration identified as in line with their political agenda. Central to this agenda was the rolling back of federal regulations protecting the environment from corporate and municipal polluters, substantially gutting the authority of the EPA and its important gains of the previous decade. The environmental impact of the Reagan presidency, though massive, was only one part of what former Attorney General for President Dwight Eisenhower Herbert Brownell characterized as a “shocking ideological politicization” of the federal court system. The legacy of legal conservatism that began in the Reagan years continued to have a significant impact on the nation’s court system and environmental regulation for decades.114

Two months after Judge Hackett’s decision, the activists who sought to prevent the GDRRA from operating received another major blow. On February 24, 1988 Hackett ruled against both the Province of Ontario and against the coalition of anti-incinerator activists who sought to stop construction of the GDRRA. In her decision, Hackett contended that Ontario lacked standing in US District Court to bring their suit against Detroit. While Hackett concurred with the broad ecological view of shared watersheds and airsheds that flowed freely across the

international boundary of the United States and Canada, she disagreed that the protection of Ontario’s natural resources was within the purview of the Michigan Environmental Protection Act (MEPA). That act, rather, was only concerned with addressing threats to Michigan’s natural resources. Air and water might not be confined by international boundaries, Hackett admitted, but laws were. Having based their entire suit on the environmental protections provided by MEPA, Ontario had no authority, according to Hackett, to seek judgment from her court.115

The justice went on to dismiss the activists’ case on technicalities as well. In her judgment, Hackett suggested that in bringing legal action two years after the GDRRA’s permit had been lawfully approved, the activists were “improper[ly] attempting to revisit the administrative proceedings concluded in 1984” and were “squarely at odds with the permitting process.” In this way, Hackett argued that in seeking judgment from the court on a procedure created by Congress and enforced by legislative bodies and regulatory agencies, the activists sought to overrule the separation of powers doctrine, which, according to Hackett, lay “at the heart of our constitutional form of government.”116 By dismissing both cases through a series of legal technicalities, Hackett withheld judgment on whether or not CE and the GDRRA were in violation of environmental regulations, clearing the way for the incinerator.

As September 1988 approached, Detroiters in the Cass Corridor looked forward to the annual Dally in the Alley community festival. The Dally, put on annually by the North Cass Community Union for more than a decade, was a staple of Corridor life and gave residents a


116 ibid.
chance to come together in celebration of the strong cohesion and collectivism of their neighborhood. The Dally’s annual official poster contest drew entries from local Corridor residents and celebrated the artistic tradition of the area. The 1988 edition of the poster featured an artist’s rendition of a brick wall littered with graffiti that articulated the community’s most pressing issues, as well as its radical bent towards solving them: “NO SLUMLORDS,” “BE REALISTIC. DEMAND THE IMPOSSIBLE!,” “COMMUNITY UNITY,” and “STOP THE INCINERATOR.” Despite the legal setbacks of the past year, Corridor activists were still focused on the Detroit incinerator as a threat to their neighborhood’s health and well-being.117

Nine days after celebrating the Dally, EPA Region V Administrator Valdas Adamkus sent a letter to state Air Quality Division Chief Robert Miller formally withdrawing all aspects of the Agency’s opposition to the GDRRA permit. Despite his “grave concerns” about the state’s decision to not compel Detroit to install the additional pollution controls in the GDRRA, Adamkus admitted there was “insufficient basis” for the EPA to seek revocation of the permit and they would therefore withdraw their intent to invalidate it. Adamkus, however, suggested that the EPA’s decision to step away from the permit dispute did not preclude the state, county, city, or other local governmental unit “from taking whatever steps it deems necessary and appropriate to protect the environment.”118

Yet Adamkus’s optimistic invitation for state or local government to enforce environmental regulations where the EPA had failed was unrealistic, especially given Justice


Hackett’s recent decisions upholding the GDRRA permit. Furthermore, Adamkus’s call to “do the right thing” placed the onus of enforcing federal regulations on lower levels government – a task most local units lacked the expertise and staff to be successful in, especially given the likely threat of litigation from the City of Detroit. Adamkus’s letter ultimately meant that local activists would have to wait until the facility began operating to see if the GDRRA would comply with the emissions limits imposed by the Clean Air Act.

On December 8, 1988, the Greater Detroit Resource Recovery facility began operations, burning its first delivery of waste from city garbage trucks.
CONCLUSION

Though anti-incinerator activists in Detroit were unsuccessful in their work to prevent the Greater Detroit Resource Recovery Authority incinerator from operating, members of the Evergreen Alliance continued to advocate and demonstrate against the plant and, in some cases, won major victories alongside environmental regulators at the state and local levels. In its first few years of operation, the Detroit incinerator experienced some of the same dangerous mechanical issues that plagued other facilities across the country. The enormous plant also failed multiple compliance tests, just as regulators and activists predicted, that ultimately threatened Detroit’s ability to operate the facility. Yet a lack of transparency on the part of city officials and investors, as well as the continued economic decline and disempowerment that forced city government to make economic choices rather than those that centered residents, meant that the incinerator would ultimately be allowed to burn Detroit’s trash for more than three decades with little accountability to resident or regulators.

In November 1988, weeks before the facility started burning waste, Sierra Club member and Observation Representative Anne Woiwode wrote to the new Michigan Department of Natural Resources director, David Hales, seeking clarity regarding the state’s position on testing protocols for the ash produced at the Detroit incinerator. Specifically, Woiwode sought assurances that managers at the facility would treat every new load of ash as a hazardous material – meaning it contained unsafe levels of lead, mercury, and other heavy metals – until
testing proved that it was not. Hales responded that the Detroit incinerator would be “expected to comply with ash testing and management requirements” mandated by state and federal law. Yet Woiwode was not satisfied with the Department’s enforcement plan, suggesting that the last time state regulators attempted to compel compliance – Gerald Avery’s 1986 letter questioning Combustion Engineering’s Best Available Control Technology and cancer risk assessment – was an “unmitigated disaster.” “We would be fools not to expect that the Authority will quite possibly thumb its nose at any attempts by the Department to impose a stricter protocol for the disposal of the incinerator ash,” Woiwode asserted.2

Woiwode’s concerns about the safety of the ash produced at the facility manifested in January 1989. Less than a month after the Detroit incinerator began burning its first load of household waste, a mechanical malfunction in the boiler stacks failed to dampen the ash as it was burned. Instead of falling to the bottom of the boiler in heavy, wet clumps, tons of fine, flaky ash filled the main powerhouse of the facility and spilled out into the surrounding neighborhood. Workers complained of itchy eyes and skin, rashes, nosebleeds, headaches, swollen throats, and coughing, leading over fifty electrical contractors and construction personnel to walk off the job in protest of the unsafe conditions on January 10. The following day, thirty Evergreen Alliance members protested outside the plant gates in solidarity with the workers, who they characterized as the “first victims” of the incinerator to local media.3

1 Anne Woiwode letter to David F. Hales, November 18, 1988 in MS: Coleman Young 275:13 Greater Detroit Resource Recovery Authority 1989, Detroit Public Library, Burton Historical Collection.


In the midst of the walk-off, some of the electrical contractors collected ash samples and delivered them to the Southeastern Michigan Coalition for Occupational Safety and Health. Analysis confirmed that the ash contained dangerously high levels of lead, cadmium, nickel, and mercury. Yet officials at Combustion Engineering insisted that the impacted workers had merely been exposed to “dust associated with the combustion process.” The incident, however, was reported to the Wayne County Air Pollution Control Commission, the board responsible for overseeing the Detroit incinerator’s compliance testing. Ultimately, the state Department of Public Health cited Combustion Engineering for eighteen health code violations, including excessive airborne lead exposure, failure to require respirators, and failure to inform workers about health hazards, and levied a total of $5,000 in fines.4

Yet the incident also highlighted new concerns about the ash the incinerator produced by burning the city’s trash. At question was whether the ash contained high levels of lead and other heavy metals that could ultimately seep into and contaminate the groundwater beneath the City Sand and Landfill site where the ash would be dumped. If levels of these materials was too high, the ash would be categorized as a “hazardous” waste, necessitating special handling that would balloon disposal costs from $2.25 million per year to more than $21 million and ultimately make the project “economically unfeasible,” according to city lawyers.5 Though extreme, such an outcome was not unprecedented. In 1988, the Grosse Pointes Clinton Incinerator in Macomb

W. Stephens Collection, Box 3, Folder 10, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.


County and the Jackson County Resource Recovery Facility were both shut down by the Michigan Department of Natural Resources after multiple tests found dangerously high levels of lead and cadmium in the ash. While tests conducted by city officials at the Detroit plant found the ash to be “eminently safe,” according to Mayor Young, these findings were not accepted as valid by the state Department of Natural Resources or the U.S. Environmental Protection Agency.\(^6\)

Ultimately, the state Department of Natural Resources and city officials signed a consent decree stating that the ash would be classified as a hazardous waste, but would be treated with lime in order to render it safe for burial in a special, ash-only “monofill” landfill.\(^7\) Yet the ash debate also highlighted the inequitable burden Detroit’s project had on poor and minority communities across the metropolitan landscape. The landfill where the facility’s ash would ultimately be disposed of was located forty miles southwest of Detroit in the largely rural and poor community Sumpter Township. While the northern half of the township was predominantly white and more suburban, the southern half where the incinerator’s landfill was located was characterized by a higher than average concentration of African American households. Yet the hazards and nuisance brought by landfills were not new for this community: Wayne County had

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long relied on a landfill in this same area for years. One resident identified as Freddie, “an African American man [and] disabled veteran,” complained of chemical smells or rotting garbage stench coming from the landfill. “There are times when we wake up in the morning with clogged noses or throats,” he went on. “The area is permeated with a rotten odor.” Freddie also suggested that the landfill was there because the rural community lacked the economic and political influence to oppose it.

Freddie was correct. Beginning with the United Church of Christ’s Commission for Racial Justice’s *Toxic Wastes and Race in the United States* report in 1987, environmental justice advocates had demonstrated the concentration of Locally Unwanted Land Uses or LULUs in low-income communities of color with little political or economic power to oppose them. Yet in Sumpter Township, residents did try to fight back. On February 26, 1990, Sumpter Township resident Judy Davies and more than 100 of her neighbors rallied outside of the Township Hall to oppose the permit for the new “monofill” site, citing issues stemming from the landfill where incinerator ash had been sent for the past year. “The stench is horrendous,” Davies explained. “Then there’s the truck traffic, day and night, seven days a week. The noise, the litter, the low land values…” Yet these community protests were ultimately overruled by the Township Council, which several multiple landfill permits associated with various 1990 county solid waste

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plans. Decades later, Sumpter Township continues to be a center for solid waste disposal in the state. Beginning in 2002, the Canadian city of Toronto shipped one millions tons of waste annually to the Carleton Hills landfill in the township. In 2017, that amount grew by more than 500 percent.

Although the ash issue was finally resolved, in September 1989 the Wayne County Air Pollution Control Division issued violations to the City of Detroit and Combustion Engineering for failing emissions tests after excessive levels of mercury and hydrogen chloride were recorded. Over the next four months, Division Director Alan Greenberg requested a documented plan for compliance from Combustion Engineering and the operations manager for the Detroit incinerator, Michael Brinker, including plans for additional pollution control measures similar to those sought by state regulators and activists in 1986 and 1987. Yet Brinker and other city officials balked at the idea of retrofitting the $438-million plant. Instead, they sought to eliminate harmful chemicals from the incinerator’s emissions by changing the composition of the waste entering the facility at the consumer end by instituting city-wide hazardous waste drop-off programs and battery recycling services. Yet such programs relied on residents to shift their deeply formed habits concerning waste, as well as extensive neighborhood engagement and educational initiatives in order to be successful.

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While Greenberg and regulators with Wayne County continued to negotiate with city officials as they sought to bring the facility into compliance, environmental activists saw the continued failures of the plant as proof that the incinerator could not operate “safely” as regulators and city officials had contended for years. “It’s one screwup after another,” explained Alex Johnson of the Detroit Audubon Society, “The whole plan has some serious flaws.” In fact, the Society, along with its allies in the North Cass Community Union, the Sierra Club, and the Environmental Defense Fund had shifted their position on the incinerator by the fall of 1989. During the court battle with Combustion Engineering and the City of Detroit, the coalition had argued that only improved pollution control technology, like baghouses and acid scrubbers, were necessary to make the plant operate safely, they had since called upon officials to abandon the incinerator project entirely and develop a city-wide recycling program.14

Members of the Evergreen Alliance, meanwhile, continued to work against the incinerator both through public demonstrations and through political advocacy and legal action. At a Detroit City Council meeting to address the emissions issues, Alliance member Scott Craig gave assertive testimony that also suggested that Combustion Engineering and other corporate interests had misled city officials, marking a notable shift in the activists’ arguments. “It is our contention that the City of Detroit was sold a bill of goods by a company which, at that time, had no experience in building or operating incinerators,” explained Craig. “These ‘experts’ didn’t really know what they are doing when they told us they could produce a plant that would be safe.” His comments also revealed that the Evergreen Alliance was also seriously considering the economic implications of the incinerator, rather than simply the environmental. The facility’s

failure to meet compliance standards and operate normally ultimately presented “a serious threat to the economic foundation of this City,” Craig contended, given the city’s extensive outstanding bond debt on the plant. “[T]he time has come…to cut our losses and look for a way out of this project before it causes irreparable damage.”

Throughout During testimony to the Michigan Air Pollution Control Commission in December, Wayne County staff had endorsed a four-month extension to the incinerator’s trial operation period to allow city officials to implement their proposed plan to remove hazardous materials from the waste stream. Yet by April 1990 Detroit officials still had not implemented any elements of the program nor had they submitted a finalized compliance plan to the country Air Pollution Control Division. Meanwhile, the incinerator continued to fail compliance tests for mercury emissions, with some readings as high as 400% over the allowable emissions limits. Without any effort to mitigate emissions on the part of the city, the state Commission voted 6 to 4 to temporarily shut down the Detroit incinerator. This decision was vocally criticized by Mayor Coleman Young, who told the Detroit Free Press that the Commission members wanted a “sacrificial lamb to lay at the altar of the environment. And they got a big one – Detroit.” Young went on to explain that he had been assured by two members of the Commission that they would vote in favor of a proposed deal that would grant Detroit a nine-month extension to bring the

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15 Presented to a Meeting of Detroit’s City Council, Human and Economic Risks Posed by the City’s Trash Incinerator, March 16, 1990 in Thomas W. Stephens Collection, Box 3 Folder 10, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.

16 Minutes of Meeting, Michigan Air Pollution Control Commission, December 5, 1989 in Thomas W. Stephens Collection, Box 3 Folder 11, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.

17 Summary of stack emissions test results for the Greater Detroit Resource Recovery Authority boilers when burning refuse-derived fuel at maximum capacity in Thomas W. Stephens Collection, Box 3 Folder 10, Walter P. Reuther Library, Archives of Labor and Urban Affairs, Wayne State University.
incinerator’s emissions into compliance, turning the outcome to be 6-4 in the city’s favor. “We had talked to the governor’s staff about an agreement that would allow us to continue…Two of those voting against us were the governor’s appointments. Now you figure that one out,” Young went on. “Somebody double-crossed somebody and we want to know who it was.”

Environmental activists from Detroit Audubon, the Evergreen Alliance, and the Sierra Club all cheered the Commission’s ruling. “This is a real victory for the environment,” explained Dennis Piper of the Sierra Club. “Detroit is going to have to get serious about recycling.” That Earth Day, four days after the vote to shut down the incinerator, the Evergreen Alliance led a “New Orleans style funeral procession” accompanied by a marching band from Wayne State University to the “then-calm beast” along with thirty-eight coffins, representing the thirty-eight deaths by cancer risk assessments conducted in 1986 claimed the facility would cause. Once at the facility’s gate, thirty-eight volunteers lay in the coffins, as onlookers mourned and an officiant read what they had died from, each representing a different health concern exacerbated by the incinerator. The action, which included enormous decorated fish, paper flowers, and other over-the-top pageantry featuring demonstrators dressed as Mayor Young, Governor Blanchard, and the incinerator, brought more than 600 people to fill the streets. The group’s mood was celebratory despite the funerary theme, and “friendly greetings and warm hugs were in

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abundance.” Once their funeral was complete, the group disbanded to refrains of “When the Saints Go Marching In” to enjoy the “unusually untainted air” and spring sunshine.20

The optimism of the moment was short lived, however. Just one month later, the Michigan Air Pollution Control Commission voted at an emergency meeting to reverse their decision to close the facility. Immediately upon the vote, activists attending the hearing exploded in outrage, some even rushing the table where the Commissioners sat. The following night, eighty Evergreen Alliance members and other environmental activists camped out at the facility’s gates and mockingly “performed street theater outside…the big burner.” Despite this setback, activists were determined to continue their efforts to close the facility, pointing to recent success by anti-incinerator advocates in Eastern Europe as proof that closure was possible.

“People all over the world are rising up in defense of the Earth and against everything these state an industry functionaries represent,” wrote North Cass Community Union member Larry Talbot, “If we can stop this one, the world’s largest, it will be the beginning of the end for incineration everywhere.”21

Later that year, city officials and stakeholders from Combustion Engineering met with regulators from the Michigan Department of Natural Resources to discuss a consent agreement that would ultimately allow the incinerator to continue burning waste, despite its failure to comply with emissions requirements. In return, Detroit officials agreed to retrofit the facility with the pollution control technology that activists and EPA regulators had called for four years


earlier, at a cost of $175 million. The state, however, gave engineers at Combustion Engineering six years to install the equipment. In the meantime, the incinerator could continue operating without the emissions controls. City officials also agreed to “bypass” or landfill a substantial amount of the waste that was brought to the incinerator in an attempt to decrease mercury emissions by decreasing waste volume. This bypass, however, would direct 45 percent of the waste that came to the facility back to a landfill as opposed to the planned 15 percent at an additional annual cost of more than $3.5 million. In this way, the thin line of profitability the city had relied upon in their defense against additional pollution controls in court against the federal EPA in 1987 had completely collapsed.22

The state Air Pollution Control Commission’s vote to shut down the facility also complicated Mayor Young’s newly-announced plan to sell and lease back the incinerator in a complex financial transaction that would raise $54 million to help balance the city’s 1991 budget shortfall. In a transaction called a “leaseback,” the Greater Detroit Resource Recovery Authority would sell the incinerator to capital subsidiaries of tobacco giant Philip Morris and General Electric. In exchange for the direct cash investment, Philip Morris would receive $200 million in tax credits from federal resource recovery subsidies passed under the 1986 Tax Reform Act. The new owners would then lease the incinerator back to the city, which would continue to dispose of the city’s waste as planned. Yet Goldman Sachs, coordinators of the leaseback transaction on behalf of the city, raised concerns in February 1991 that the operating plan permitted by the consent agreement with the state ultimately threatened the proposed sale. “The investor’s

motivation for acquiring the facility is based on the return on its investment,” representatives from the bank wrote to Detroit Finance Director Bella Marshall. Specifically, the bypass requirement mandated by state regulators made the facility, according to the federal Internal Revenue Service, “not yet placed in service” and, therefore, ineligible for tax credit benefits sought by Philip Morris and GE.23 Without a bypass waiver from the Michigan Department of Natural Resources, the leaseback could not proceed, an outcome that Bella Marshall characterized as “catastrophic, both environmentally and economically.”24

State regulators agreed that preventing the leaseback transaction would do more harm than good for Detroit, and approved the bypass waiver. With the approval, Philip Morris and General Electric paid $54 million to the City of Detroit to help plug the city’s 1991 municipal budget deficit. Though the sale led Moody’s Investors Services to confirm the city’s credit rating of “Baa” rather than lower it, the company warned that “unrealistic budget assumptions and the continued weakening of the city’s economy” meant that Detroit’s financial status had reached a “critical juncture.”25 Meanwhile, the many compliance issues that persisted at the Detroit incinerator from 1988 until 1991 ultimately soured many state and local officials on resource recovery as an effective waste disposal strategy. “The storm warnings are out,” as state


environmental advisor David Dempsey pointed out, “We should answer the social, environmental, and economic questions before we embark on building more incinerators.”

In 1998, the state deemed the incinerator to be in compliance and cancelled the 1991 consent agreement. Yet many of the regulatory structures that had previously held the facility to account at both the state and the local level, as well as provided a forum for public comment, have been disbanded. In 1991, Michigan’s new governor, Republican John Engler – a staunch opponent of regulation – eliminated the state Air Pollution Control Commission, the body responsible for revoking the incinerator’s permit after multiple failed emissions tests. In 2001, the Wayne County Air Pollution Control Division, which had refused to accept the in-house emissions tests offered by Detroit and Combustion Engineering officials and was disbanded and its oversight authority transferred to the already overburdened state Department of Environmental Quality.

The incinerator continued to be a target of environmentalists and grassroots activists in Detroit and nationally for the next three decades. When the facility came up for another five-year renewal of its operating permit by state regulators in 2002, a coalition of made up of Detroiters Working for Environmental Justice, the Michigan Environmental Council, the American Lung Association of Michigan, and the Sierra Club used the opportunity to advocate for a new city waste plan that incorporated curbside recycling and the closure of the incinerator. “Economically, it’s a boondoggle,” explained activist and Midtown business owner Jackie


Victor. “Environmentally and healthwise, it’s a disaster. I couldn’t imagine this in the middle of Bloomfield Hills or Ann Arbor…Why are we acting like this is normal?” Yet, city officials, citing familiar economic considerations for keeping the facility operating, opposed such calls. “Those bonds still out, and someone has to pay them,” said Bob Berg, spokesman for Mayor Kwame Kilpatrick. “It’s not a matter of going in and turning off the lights in the facility and having it go away. You can’t just default on bonds.” The state agreed and granted another operating permit.29

In the late 2000s, major demographic shifts in the Cass Corridor neighborhood where anti-incinerator activism had centered during the 1980s contributed to new and heightened awareness of the incinerator. Between 2011 and 2016, the white population in Cass Corridor – now called Midtown – grew by nearly 10 percent, driven – according to observers – by “surging interest and demand” in residential units in the neighborhood.30 At the same time, debt service on the original bonds for the incinerator came to term in 2009, prompting the Energy Investors Fund, which had purchased Philip Morris’s majority stake in the incinerator two years earlier, to seek a new buyer for the facility. The likeliest purchaser was, of course, the city itself. EIF’s proposed price of $45 million for the plant, however, was too steep for Detroit, especially in the midst of the unfolding financial crisis.31 In July 2008, Deputy Mayor and Greater Detroit Resource Recovery Authority chairperson Anthony Adams suggested during a City Council meeting that city officials were instead investigating policies to “move toward a greener Detroit.”

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This aligned with earlier votes by the City Council to pursue a new waste disposal strategy focused on recycling and landfilling.³²

But again, economic considerations ultimately took precedence. Contracts with Detroit Edison for electricity from the facility through 2024 meant that city could lose more than $25 million held in a joint escrow account if they shut down the plant. Furthermore, agreements between the city and the Authority gave the latter power to set municipal waste management policy through 2021 and compelled Detroit to continue sending city trash to the facility unless landfill operators could dispose of it more cheaply.³³ In this way, environmental activists once again felt as though city officials failed to take public health impacts into consideration and ultimately left citizens “in the dark, as deals that will ultimately serve corporate interests over the public's are being cut behind closed doors instead of out in the open.”³⁴ In the end, the incinerator operator, Covanta Energy, purchased GE’s 30 percent share in the facility and renewed their operating agreement.

Under the new owners and operators, performance and maintenance at the facility declined markedly. After assuming ownership in 2010, Detroit Renewable Power – a partnership of industrial holding company Atlas Holdings and steam company Thermal Ventures – received thirteen Notice of Violations over odor from the Michigan Department of Environmental Quality. In 2013 alone, the state logged 114 odor complaints against the incinerator compared to just four in 2008. And 2012, equipment malfunctions led to a six-week backlog of waste at the


facility, eliciting one complaint from a local resident who described the stench as “chokingly disgusting.”\textsuperscript{35} In addition to the odor complaints, investigators at the \textit{Detroit Free Press} found that the facility had exceeded air pollution emissions over 750 times from 2013 to 2018. State regulators, however, only fined Detroit Renewable Power for eight of those violations, at a total cost of $149,000. "That's really the tool we have to try to bring them into compliance," explained Todd Zynda, the Department of Environmental Quality's inspector for the incinerator.\textsuperscript{36}

In the mid-2000s, new grassroots organizations like Zero Waste Detroit launched another wave of activism directed against the incinerator. Though the group and their environmental allies did win some notable victories against the facility, including City Council approval for a new city-wide curbside recycling program in 2009, and effectively raised local and national awareness of the facility as organizers of the thousand-person demonstrations against the incinerator during the 2010 United States Social Forum, activists continued to encounter some of the same issues as the Evergreen Alliance and Detroit Audubon Society. While environmental groups had, for the most part, learned to cooperate in pursuit of their shared goals, they continued to be frustrated by a lack of corporate and political transparency, as well as the underlying economic motivations of both city officials and corporate entities. In what was perhaps the most apt metaphor for the decades-long grassroots struggle by Detroiter to close the incinerator, Metro Times reporter Curt Guyette once suggested that image of Sisyphus,


“condemned by the Greek gods to forever roll a boulder uphill only to have it roll back down
again,” might be appropriate as a new logo for Zero Waste Detroit.37

Although Coleman Young was able to put funds from the leaseback sale towards the
city’s 1991 budget deficit, the long-term costs would continue to reverberate through city
finances over the next two decades. Amidst the international outcry against the Detroit
incinerator, Ontario’s Environment Minister, Ruth Grier announced a ban on all future municipal
incinerators in September 1991. Grier suggested that incineration was a “superficial solution”
that encouraged consumers to create more waste and, through burning, created new and even
more harmful compounds, like mercury, dioxins, furans, nitrogen oxide, and carbon dioxide.
“Incineration is an environmental sleight of hand,” she explained, “which gives the illusion of
making waste disappear when, in fact, it reappears in different and often more hazardous
forms.”38 This was true in Detroit’s case, but even more deeply than Grier had intended when she
made her comments. In incinerating the city’s trash, Detroit officials perpetuated the illusion that
waste simply disappeared, obfuscating any apparent negative impact to the environment. The
incinerator also hid a pernicious legacy of corporate capitalism and credit ratings companies.
Coleman Young and city officials sought the leaseback agreement with Phillip Morris and
General Electric as a strategy to avoid an $88-million budget shortfall and additional
deterioration to the city’s credit rating. Yet in doing so, they bound the city and its taxpayers into
a financial relationship that ultimately cost over $1.2 billion and contributed substantially to the

Incinerator,” Metro Times, November 30, 2011.

38 “Environment Minister Ruth Grier Bans All Future Municipal Solid Waste Incinerators in Ontario,” Ontario
Ministry of the Environment in Thomas W. Stephens Collection, ---- Walter P. Reuther Library, Archives of Labor
and Urban Affairs, Wayne State University.
city’s bankruptcy filing in 2010.\textsuperscript{39} Today, even former Evergreen Alliance members suggest that Mayor Young had been misled by companies and other financial stakeholders as to what was best for the city’s long-term economic and environmental sustainability. “He was sold a bill of goods,” explained Ralph Franklin, while Donele Wilkins suggested that the mayor had been “bamboozled.”\textsuperscript{40}

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I was leaving my job as a Sustainability Graduate Assistant at Loyola University Chicago when my mother texted me with the news: “The incinerator is closing down. Did u know this?” I didn’t. Like me, most of Detroit was caught by surprise at Mayor Mike Duggan’s announcement that the incinerator would be shut down, forcing Detroit and other suburban communities to send their municipal waste to landfills.\textsuperscript{41} “It’s closing is a blessing,” said a statement on Zero Waste Detroit’s website. While the closure was the ultimate goal of nearly three decades of activism – including my own, as I envisioned this dissertation acting as an \textit{amicus curiae} for the facility’s lease renewal hearings scheduled for 2022 – it was still a shock. And despite this success, there is still much work to be done. This dissertation tells one story of environmental degradation on the part of a cash-strapped city that looked to corporate capital for a solution, and its failure to be held to account by regulators at various levels. Although the activists in this story were not successful in closing the facility at the time, they were a compelling voice that inspired new

\textsuperscript{39} Ryan Felton, “Detroit’s Incinerator has Folks Calling for Action, \textit{Metro Times}, July 8, 2014.


\textsuperscript{41} Kat Stafford and Christina Hall, “Controversial Detroit incinerator shut down after years,” \textit{Detroit Free Press}, March 27, 2019.
generations of grassroots activists who continue to advocate for cleaner air and safer communities in Detroit.

As we face our own global environmental catastrophe in the form of rapidly advancing climate change and political powers concerned more with deregulation and denial than with progress, this dissertation is a reminder that we must also be that compelling voice advocating for a better, safer place for all. We must identify and articulate the threats against us and the planet, and we must build inclusive coalitions to fight the fight together. Most of all, we must interrogate corporate power and envision different economic and political systems that value people over economic considerations. While this might sound like an overly optimistic contention, I would point to historian Steven Stoll’s suggestion that environmental history presents the best opportunity for historicizing and, therefore, confronting the inevitability of capitalism. “Our task as environmental historians is to bring historical truth to self-evident truth and open the deepest and most closely held assumptions to scrutiny,” he concludes. In confronting the systemic forces – both economic and political – that drew Detroit into a web of longstanding financial obligations to corporations and companies rather than its citizens, I also suggest that these forces are not inevitable. I do this in the hope that leaders and residents of Detroit – unconstrained from the “self-evident” facade of capitalism, itself a sort of sleight of hand – can envision alternative paths towards a more equitable and sustainable future.

BIBLIOGRAPHY

Primary Sources

Archives

Benson Ford Research Center, The Henry Ford
Burton Historical Collection, Detroit Public Library
Illinois Digital Archives
Walter P. Reuther Library Archives of Labor and Urban Affairs, Wayne State University
Windsor (CT) Historical Society

Periodicals

Alternative Sources of Energy
Bridge
Chicago Tribune
City: Magazine of Urban Life and the Environment
Detroit Free Press
Detroit News
Detroit Trash Incinerator: We Say No!
Detroiter Business News
Economic Leaflets
Fifth Estate
Grosse Pointe News
Jet
Los Angeles Times
Metro Times
Mother Jones
Nation’s Business
New York Times
Observer & Eccentric
Time
Wall Street Journal
Washington Post
Waste Not!

Interviews

Published Manuscripts & Legal Documents
City of Detroit. Charter


_Her Majesty the Queen in Right of the Province of Ontario v. GDRRA._ 87-CV-71578-DT (ED Mich 1988).


U.S. Energy Information Administration, Annual Energy Review.


**Books**


Secondary Sources

Articles


Books


VITA

Dr. Chelsea Denault was born in Detroit, Michigan and raised in the Macomb County suburbs of Clinton Township and Shelby Township. Before attending Loyola University Chicago, she attended Albion College in Albion, Michigan, where she earned a Bachelor of Arts in History, with Highest Distinction and Honors, in 2012.

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