

An abstract painting with a textured surface. The background is a deep, rich blue. Scattered across the canvas are several large, soft-edged shapes in bright yellow and red. The colors are blended and layered, creating a sense of depth and movement. The overall effect is vibrant and dynamic.

JUSTICE, EQUITY + SUSTAINABILITY

PROJECTIONS *volume 8*
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**SEWAGE IN OUR BACKYARDS :
THE POLITICS OF RACE, CLASS, +
WATER IN ATLANTA, GEORGIA**

ABSTRACT

This article considers the centrality of equity and justice and the importance of meaningfully engaging those most affected by planning decisions at the outset of the environmental planning process in two cases where African American communities in southwest Atlanta challenged the City of Atlanta to implement alternative solutions to wastewater treatment improvement proposals that were initially developed without community engagement. Ultimately, these proposals would have adversely affected their already overburdened neighborhoods. The two cases are examples of successful community education, mobilization, and advocacy that changed the course of public policy decisions. Poor access to environmental planning and public participation processes in the initial proposal development process led to plans that would have negatively impacted and increased existing disparities in the quality of life for impacted communities. The meaningful involvement in the planning and decision-making process by these two communities resulted in a more equitable, just, and ecologically sustainable solutions to Atlanta's wastewater infrastructure and environmental challenges.

INTRODUCTION

This article examines the centrality of equity and justice and the importance of meaningfully engaging those most affected by planning decisions at the outset of the environmental planning process in two cases in which African American communities in southwest Atlanta challenged the city government to implement alternative solutions to wastewater treatment improvement proposals. These proposals were initially developed without community engagement and ultimately would have adversely affected their already overburdened neighborhoods. The two cases are examples of successful community education, mobilization, and advocacy that changed the course of public policy decisions. Poor access to environmental planning and public participation processes in the initial proposal development process led to plans that would have negatively impacted and increased existing disparities in the quality of life for the affected communities. The meaningful involvement in the planning and decision-making process by the impacted communities resulted in more equitable, just, and ecologically sustainable solutions to Atlanta's wastewater infrastructure and environmental challenges than the initial proposal.

Every city must deal with issues of sanitation and sewage disposal. Often considered a less than glamorous public policy issue, wastewater treatment is critical to the economic and public health of communities. Citizens and policy makers are usually most comfortable leaving the solutions to wastewater treatment problems to public works officials, civil engineers, city planners, and other professionals. When such policies are developed in this traditional manner and potentially affected communities are not engaged to represent their own interests, communities of color can and historically have often been on the losing side of the equation. However, in an attempt in to achieve environmental justice for citizens living in environmentally burdened neighborhoods, communities of color in Atlanta, Georgia chose to alter this typical scenario when they entered the public policy debate concerning wastewater treatment and infrastructure in the early 1990s.

In the 1990s, the Atlanta metropolitan area, nicknamed the "sprawl capital of the world," grew more than any other American city, except Los Angeles, California (Bullard, 2000). Efforts by the City of Atlanta to improve and expand its wastewater treatment system to accommodate growth caused major controversy and intense public debate. This controversy centered on the City's strategies for meeting state and federal environmental mandates in two areas: abatement of combined sewer over flows (CSOs) and reduction of phosphorus levels in wastewater discharges (Sanders, 1995). A major controversy developed in response to the lack of equity and justice underpinning the processes by which the City initially chose to implement these strategies.

Southwest Atlanta neighborhoods, led by the Environmental Trust, a grassroots African American environmental justice organization, joined forces to address inadequacies in the environmental planning processes that birthed these two policies. Inequitable processes helped perpetuate a legacy of injustice and adverse health and quality-of-life impacts on southwest Atlanta communities, dating back to the late 1800s. The implementation of newly proposed sewage treatment policies for these same communities in the 1990s would have only exacerbated the pre-existing issues of environmental and social inequity already facing the community. At the heart of the citizens' arguments against the City's proposals were the following questions that have relevance to all environmental and city planning processes: (1) Did the potentially impacted community have adequate access to information about the proposed policies?; (2) Was the potentially impacted community engaged from the outset of the planning process?; and (3) Was there an equitable distribution of benefits vs. risks and burdens for the proposed policy?

Through a review of historical and archival data, first person accounts, and personal interviews with

community activists and public officials, this article demonstrates through two distinct, yet related cases, the critical role that concerned and involved citizens played to ensure equity in environmental planning processes that impacted their quality of life. In both cases, the disproportionate impact of the City's wastewater treatment policies on disadvantaged, low-to-moderate income, and communities of color were only considered when members of these communities brought the issues, "front and center," into the public dialogue and decision-making processes.

Specifically, this article highlights the ways in which low-income and communities of color "turned the tables" on over a century of discrimination by effectively inserting themselves into the public participation process and introducing the absent elements of equity and justice—positively changing the course of wastewater policy decisions that impacted African American and low-to-moderate income residents. Finally, this article offers important lessons for all city planners and other government officials on ensuring that racial and class inequities are not exacerbated through the implementation of essential urban policies.

Environmental Justice Framework

According to environmental sociologist Dr. Robert Bullard (1990), environmental racism encompasses any environmental policy, practice, or directive that, intentionally or unintentionally, differentially impacts or disadvantages (intended or unintended) individuals, groups, or communities based on race, color, or ethnicity. These policies and practices include: (1) unequal enforcement of environmental, civil rights, and public health laws; (2) differential exposure of some populations to harmful chemicals, pesticides, and other toxins in the home, school, neighborhood, and workplace; (3) faulty assumptions in calculating and assessing risks; (4) discriminatory zoning and land-use practices; and (5) exclusionary policies and practices that limit some individuals and groups from participating in decision-making (Allen & Neal, 1998).

Substantial evidence demonstrates that communities of color in the United States bear a disproportionate share of environmental hazards, in comparison to other groups (Braithwaite, Taylor, & Martin, 1999). A landmark study, *Toxic Wastes and Race in the United States* (1987), published by the United Church of Christ Commission on Racial Justice, was the first to assert that there is a correlation between race and disproportionate exposure to environmental hazards. The findings of this study became a catalyst for communities of color to identify environmental hazards in their communities and to seek environmental justice by initiating struggles for clean and healthy environments where they, or their families, lived, worked, played, attended school, or worshiped (Bullard, Mohai, Saha & Wright, 2007). Three years later, The United States Environmental Protection Agency (EPA) incorporated environmental justice (initially referred to as environmental equity) in its programs, defining it as, "equal protection from environmental hazards for individuals, groups, or communities regardless of race, ethnicity, or economic status" (U.S. EPA, 1997).

At a historic gathering of grassroots environmental justice activists in 1991, the First National People of Color Leadership Summit held in Washington, DC, seventeen Principles of Environmental Justice were adopted. These wide-ranging principles cover issues such as protection from the production, use, and disposal of toxic wastes to affirming the need for, "...the fundamental political, economic, cultural, and environmental self-determination of all peoples." The Principles also call for "...the rights [of communities] to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation," (First National People of Color

Environmental Leadership Summit, 1991) which have particular relevance to the two cases presented in this article. Furthermore, members of the environmental justice movement have advocated for the need for all citizens to have full disclosure with respect to the quality of their local environments and to have full access to participation, as informed partners, in the development of decisions that impact their lives (Sullivan & Warburton, 2003).

As the environmental justice movement has continued to take root, low income and communities of color have challenged many cities and municipalities concerning the location and operation of waste facilities, including sewage treatment plants (Bullard et al., 2007). Recent literature on sewage in low-income and communities of color confirms that the typical scenario involves communities protesting the siting and operation of sewage treatment facilities because of air quality concerns. Examples of these practices include the cases of Camden, New Jersey neighborhoods tackling odors from a large treatment plant and an open-air sewage-sludge-composting facility in the 1990s (Pomar, 2002), and West Harlem communities waging a successful battle against the North River Sewage Treatment Plant because of foul odors, toxic emissions, respiratory health of their children, and depressed real estate values, in the late 1980s and early 1990s (Shepard, 2007).

Although less represented in environmental justice literature, published articles and case studies are beginning to demonstrate the impact of sewage overflows from wastewater treatment systems on low-income and communities of color. These cases are now being documented as environmental racism claims and civil rights actions in cities like Indianapolis, Indiana (Neltner, 2005) Syracuse, New York (Parsons, 2008), and San Francisco's Bayview/Hunters Point community (The Environmental Justice Coalition for Water, 2005). This article adds to the growing number of case studies on proactive community action to address sewage overflows in an environmental justice context.

Wastewater pollution and other forms of municipal refuse (i.e. municipal landfill garbage, incinerated waste, and waste from transfer stations, etc.) present unique challenges for communities because the culprits are the very governing bodies that theoretically represent them. While potentially impacted communities do not have to contend with powerful companies with deep pockets and seemingly limitless technical resources, in these cases, the old adage, "You can't beat city hall," implies that municipal challenges can be just as or more daunting for concerned citizens (Natural Resources Defense Council, 2006).

During the 1990s, City of Atlanta public works officials ignored the environmental justice implications of locating combined sewer overflow treatment facilities and of siting a sewage tunnel. By compiling their own technical data on wastewater engineering best management practices, studying environmental and health impacts of the City's proposed plans, and raising arguments for environmental justice, African American community groups developed and advocated for the implementation of two alternate "citizens' plans" that promoted more just, equitable, and sustainable decision-making than the City's proposals. Through the implementation of carefully planned action strategies, including educating residents, city council members, county commissioners, planners, and city administrators over a three-year period, the Environmental Trust and its coalition of southwest Atlanta communities successfully influenced public policy decisions that challenged the injustice perpetuated through the city's outdated sewage system policies.

Tracing the Legacy of Injustice: The Atlanta Sewer System

Historically, the City of Atlanta developed wastewater treatment policies to meet the needs of

its growing population; however these policies often adversely impacted the health of low-income and minority communities. As late as the 1980s, precedents set by the City at the turn of the twentieth century were still prevalent in Atlanta's oldest neighborhoods. While typhoid, dysentery, and other waterborne diseases no longer plagued the city's poor and minority neighborhoods, remnant wastewater policies continued to adversely impact these communities through increased sewer backups, flooding in homes and overflows of raw sewage in yards, public parks, and school grounds (Galishoff, 1985).

Before the turn of the 20th century, it was a common practice in many American cities to discharge household excrement and industrial wastes openly into the streets. As a result of this practice, Atlanta faced many serious health problems (Galishoff, 1985).

In the late 1870s, when sanitation districts were implemented in Atlanta, sewer services were limited to the central business district and adjacent upper-class, white neighborhoods. Waste transported through sewer lines from the central city's hotel and finance centers was often dumped above the water reservoirs and on surrounding land in Atlanta's heavily populated poor and minority neighborhoods (Russell, 1988).

Although all Atlanta taxpayers financed the sewage system, there was an obvious bias toward the use of these fees to benefit the business elite and affluent neighborhoods. Historical data indicate that as the water supply system expanded in Atlanta, the system intentionally expanded in a north-south direction, serving primarily middle and upper-class whites. Meanwhile, wells supplying water to the low-lying areas of the City, predominantly inhabited by poor whites and African Americans, were contaminated with sewage carried by surface runoff (Russell, 1988).

In 1911, when Atlanta's first wastewater treatment plant was built, both stormwater and sewage were piped to treatment plants. After rainfall events, overflow pipes from the plants emptied into creeks and streams to act as safety valves releasing a toxic combination of storm water and raw sewage, called combined sewer overflows (CSOs). Since the early 1900s, new developments in the metropolitan Atlanta area have been served by a separated sewer system in which sewage and storm water are collected in separate pipes, sewage is treated and discharged into a designated receiving stream, and untreated storm water is discharged directly into a receiving stream. The areas that make up Atlanta's original city limits, however, continue to primarily operate combined sewers.

In the early 1990s, 17% of Atlanta's sewage was still collected in combined sewer systems (United States District Court, 1997). In these areas, CSOs contribute a combination of untreated sewage and storm water to Atlanta's creeks and streams during heavy rainfall events. These waterways are all tributaries to the Chattahoochee River and typically run through residential areas, school grounds, public parks, and other areas easily accessible to citizens, particularly children.

A River in Peril, Communities at Risk

Combined sewer systems collect wastewater and storm water in a single pipe. During dry weather, combined sewer systems transport wastewater directly to a wastewater treatment plant. In heavy rainfall events, the volume of the mixed storm water and wastewater effluent can overwhelm the capacity of a municipality's sewer system or network of wastewater treatment plants. When the capacity of the main wastewater treatment plants are exceeded, combined sewer systems over

and discharge untreated sewage mixed with storm water directly into a nearby receiving creek, stream, river, lake, or estuary (U.S. EPA, 2007).

Because of intense population growth in the 1990s, significant numbers of new wastewater customers in the City of Atlanta resulted in an overburden of the sewage treatment system's capacity (Seabrook, 1997b). This increased usage combined with an increased volume of storm water washing into the system, from the construction of new roads and other impervious surfaces, caused increased sewage spills into the Chattahoochee River from overflows of wastewater treatment facilities, particularly during heavy rain events (Seabrook). Sewage contamination containing hazardous fecal coliform bacteria also entered the River and its urban and suburban tributaries from old, broken and leaking sewer pipes, resulting from years of infrastructure neglect.

In the 1990s, the river conservation group, American Rivers, listed the Chattahoochee River as one of the most polluted rivers in the country five times in its annual report on Endangered and Threatened Rivers (American Rivers, 1998). Furthermore, EPA studies identified the 70 miles of the Chattahoochee River below Atlanta as one of the five most polluted river stretches in the nation. In the 1990s, the City of Atlanta was the single biggest polluter of the Chattahoochee River with inadequately treated sewage, from the City's CSO system, flowing into the River between 60 and 80 times a year (United States District Court, 1997).

FIGURE 1. Atlanta Combines Sewer Overflow Outfall Points and Demographic Characteristics

CSO at 1-mile Radius	Total Population	% Population Black	% Population White	% Population Other	Median Income	% Pop. Below Poverty Level
Clear Creek	9,390	9.1	88.8	3.9	\$54,551	14%
Tanyard Branch	11,053	10.4	86.7	5.2	\$50,899	13%
North Avenue	5,948	80.5	18.4	2.9	\$13,865	33%
Greensferry	17,135	99.3	0.3	0.8	\$15,718	33%
Utoy Creek* – North	12,561	98.2	1.6	0.3	\$26,360	21%
Utoy Creek* – South	14,280	97.8	2.0	0.4	\$28,256	20%
McDaniel Street	16,077	93.3	6.3	1.1	\$14,045	41%
Custer Avenue	10,864	54.6	33.0	28.0	\$25,098	34%
Intrinchment Creek	5,846	87.5	11.6	36.4	\$22,422	34%

*Combined sewer overflow outfalls eliminated April 1998

Source: U.S. EPA (1996). Retrieved from Landview III CD-ROM, 1992 Census data.

Not only is the River negatively impacted by Atlanta's CSO pollution, but also Atlanta's low-to-moderate income residents and people of color who live in the Chattahoochee River Watershed and along major stream corridors. Atlanta's CSO impacted streams flow through front and backyards, school grounds, and public parks, and these low-to-moderate income and communities of color bear a disproportionate burden from CSOs. In 1992, seven of nine or 78% of Atlanta's CSO outfall points (See Figure 1) were located within a 1-mile radius of communities that were at least 50% African American and had median incomes of less than \$30,000 per year (Bullard, Johnson & Mitchell, 2000).

CSO-contaminated waters contain pathogenic organisms from untreated human, animal, and industrial waste; toxic materials like petroleum products, heavy metals, pesticides, and other organic compounds; and floating trash and debris washed into the sewer system (US EPA, 1995). Raw sewage carries a variety of human bacteria and viruses. Depending on the amount and concentration of the sewage and the mode of people's exposure to it, these accompanying bacteria and viruses cause illnesses ranging from hepatitis and gastroenteritis to cholera, skin rashes, and infections like giardiasis (CDC, 2002).

In addition to potential public health risks, Atlanta's CSO problems greatly impact Atlantans financially. Atlanta residents have had to pay for the City's neglect of its wastewater infrastructure and for burdens caused by the region's growth and the associated overloading of the wastewater treatment system. From October 1990 to March 1994, the City of Atlanta was penalized a total of \$1,720,148 in wastewater-related fines (GA EPD, 1994). As of March 1994, Atlanta paid a daily fine of \$7,000 for non-compliance with national and state mandates regarding the release of effluents from five CSOs. A year earlier, regulatory pressure from the Georgia Environmental Protection Division (GA EPD), concerning releases from Atlanta's CSOs, prompted members of the Atlanta City Council to seek solutions to improve the City's compliance record. The Council authorized the sale of \$270 million in bonds for the construction of five CSO mini treatment facilities. Unfortunately for the impacted communities, equity and justice considerations were absent from the process by which the solutions were developed. The CSO facilities solution lacked early community involvement and input, and the affected communities were not convinced that it was the most effective alternative to correct Atlanta's CSO dilemmas. Therefore, a coalition of impacted citizens challenged the implementation of the CSO treatment plants (Russell & Mitchell, 1994).

Case I - Utoy Creek Sewer Separation Campaign

In 1991, plans for two proposed CSO mini treatment facilities faced a great deal of community opposition. The City's proposal to construct the Utoy Creek CSO treatment facility met the heaviest challenge from the impacted community. This proposed CSO facility was slated to be built in John A. White Park, public property located in a mixed-income, predominantly African American neighborhood in southwest Atlanta. Residents first heard of the City's CSO plan from one of southwest Atlanta's City Council representatives, Jim Maddox. At a community meeting held in the home of one of his constituents, Councilman Maddox alerted southwest Atlanta residents that a CSO treatment facility had been designed and planned for John A. White Park. The surrounding neighborhoods were already concerned about raw sewage and storm water previously overflowing from an open culvert in the park, running through areas where southwest Atlanta children frequently played, and putting them at potential risk for illness and disease including hepatitis, gastroenteritis, cholera, giardiasis or skin rashes (Russell & Mitchell, 1994).

The Utoy Creek combined sewer system, constructed between 1900 and 1930, served approximately 5,500 homes and businesses (CH2M Hill & TOC, 2000). Here three combined sewer lines converged

into a single 35-foot open concrete culvert near the middle of John A. White Park. The channel transported untreated, combined sewer overflows to a discharge point in Utoy Creek. The City proposed to remedy this problem by constructing a CSO mini treatment facility, but alternatively the impacted communities wanted complete separation of the combined sewer system.

In the early 1990s, residents frequently complained about foul odors coming from sewage in the fork of Utoy Creek that flowed through John A. White Park and the accompanying open culvert. These residents questioned the safety of park use because of its close proximity to untreated sewage. Their concern about the placement of a mini treatment plant in the park was that it would reduce, but not necessarily eliminate, the flow of untreated sewage. Additionally, they questioned the safety and effectiveness of the use of the “strain and spray” method of treatment that would be used because it would bring into community streets truckloads of chlorine to disinfect strained fecal matter (Russell & Mitchell, 1994).

But perhaps more importantly, the CSO plant had been planned without their input, and no consideration was given to the environmental stressors already present in the community, including the Utoy Creek Wastewater Treatment Plant, superfund sites, landfills, and other polluting industries that exerted undue and disproportionate burdens on community residents. In addition to the open culvert, pre-existing CSO-related problems and nuisances identified by residents that would not be addressed in the proposed plan included: bad odors coming from storm drains (particularly during summer or fall dry weather conditions); rodents traveling through storm drains to above ground residential areas; sewage flowing from sewer manholes; sewage backing up in toilets and bathtubs; clogged sewers during heavy rains; flooding in basements and yards; street flooding; street cave-ins due to collapsing, aging sewers; and house settling and foundation cracking possibly due to construction atop “hidden” streams (Russell & Mitchell, 1994).

The Environmental Trust (Trust), a community-based African American environmental organization, was established in 1993 by southwest Atlanta residents to fight the Utoy CSO battle (S. Marcus, personal communication, June 6, 2001). Members of the Trust had expertise in community and civil rights organizing, engineering and environmental health sciences, as well as other professional fields. The Trust mobilized southwest Atlanta residents to oppose the CSO facility in John A. White Park and the planned strain and spray technology. The Trust also joined forces with predominantly white environmental organizations: Safely Treating Our Pollution (STOP) and Save Atlanta’s Fragile Environment (SAFE) as well as southwest Atlanta neighborhood associations, and neighborhood planning units who were also opposed to CSO facilities in Atlanta. The coalition invited experts from other cities and countries to share examples of successful wastewater treatment technologies, used in their municipalities, with the group. Based on information gathered from these exchanges and other technical research, the Trust and its coalition members compiled examples of alternatives to the City’s plan, performed cost-benefit analyses of each alternative, and advocated for a more environmentally friendly and just solution than the City’s plan (S. Marcus, personal communication, June 6, 2001).

Members of the Trust and its coalition of environmental groups and neighborhood organizations argued that sewer separation was the healthiest and most environmentally sound option to correct the sewage pollution problem in the Utoy Creek Watershed. The coalition focused its efforts on the Public Utilities Committee and its chair, Councilwoman Mary Davis, because the committee’s recommendation to the full City Council would greatly influence the final decision. The coalition also utilized the media to draw attention to their cause by sending them photographs of sewage flowing

through John A. White Park, crumbling sewer pipes, and other failures of the system. For more poignant effects, members of the Trust and its coalition held press conferences at strategic locations where raw sewage could be seen flowing through streets or yards in their neighborhoods (Braithwaite et al., 1999).

The Trust used its own expertise and that of its partners to develop a plan to totally eliminate combined sewer overflows in John A. White Park through sewer separation. In the proposed separated system, new, separate pipes would carry storm water directly to a receiving stream and sewage would remain in the existing pipes and flow to a treatment facility. According to the Trust, the citizens' plan would cost less than the City's proposed CSO treatment facility and would also address needed improvements that the City's plan did not, including the replacement of deteriorating sewer lines in southwest Atlanta (S. Marcus, personal communication, June 6, 2001).

Former Mayor Maynard H. Jackson and his administration supported the CSO plan, providing formidable obstacles for residents who were opposed to it. CSO treatment plants were already in use in Atlanta and were therefore an accepted technology by city officials. The City planned to address all of its CSO problems with the same technology, and had already expended significant design costs before the affected community became aware of the City's intentions. The high-intensity, citizen-led campaign for sewer separation in the Utoy Creek Watershed continued for two years before the City of Atlanta decided to construct a separated sewer network instead of a CSO treatment facility in John A. White Park. The Trust, in collaboration with its partners, successfully lobbied the Atlanta City Council to override Mayor Jackson's veto three times, an unprecedented feat. Former City Councilman Bill Campbell who voted on the side of the community activists conceded that, "...the community has spent considerable time and energy. Their technical expertise has overwhelmed our own expertise. That raises questions in itself" (Blackmon, 1993). The community coalition was determined to be involved in the CSO planning process despite their initial lack of information about it and exclusion from it. It is important to note that their sustained involvement, development of alternative solutions to the City's proposed plan, compelling documentation of community health concerns (risks and burdens), and persistent advocacy led to environmental justice for the impacted communities and to the elimination of combined sewers in the Utoy Creek Watershed, thereby eliminating 2% of the existing CSOs in Atlanta at that time.

Implementation of the Citizen's Sewer Separation Plan

The combined sewers were completely separated in the Utoy Creek Watershed in 1998. After the city completed the two-year, \$45 million project at the park, no other non-compliance fines were levied against the City, by the Georgia Environmental Protection Division, for CSO contamination in the Utoy Creek Watershed (Associated Press, 1998).

A water quality assessment of the north fork of Utoy Creek was conducted in November 1999 in order to determine if, and to what extent, water quality had improved as a result of separating the combined sewers in the Utoy Creek Watershed. Within a year of sewer separation, the health of the fish and aquatic insects directly downstream from the former CSO discharge had improved, and there was an increased number of native fish species--both good indications of improving water quality (CH2M Hill, 2000b). Moreover, the study attributed these improvements to separation of the CSO system (CH2M Hill, 2000b).

In addition to these improved environmental parameters, residents living in neighborhoods in close proximity to John A. White Park no longer complained about foul odors from raw sewage nor were

they concerned about the health and safety of park users because sewage contaminated waters no longer flowed openly through the park (S. Marcus, personal communication, June 6, 2001) .

Case II - Strategies to Halt Construction of a Sewage Tunnel

In 1994, during the time of large expenditures on sewage infrastructure and rapid city growth, the City of Atlanta received pressure from the Atlanta Regional Commission to comply with a state order to reduce phosphorus levels in wastewater. The City was threatened with a sewer hook-up moratorium that could stifle further city growth if it failed to act quickly. Sewer service would also be impacted in DeKalb, Fulton, and Gwinnett counties, three neighboring municipalities that relied on three Atlanta sewage treatment plants to help treat their wastewater (Atlanta Journal Constitution, 1994).

High phosphorus levels in wastewater are a common result of wastewater customers' use of household products that contain phosphorus, including detergents and fertilizers. Treatment plants can remove much of the phosphorus in wastewater, but they cannot treat and remove it all. The phosphorus that cannot be removed is released into receiving waterways in treated wastewater (United States Geological Survey, 2006). What is noteworthy here is that Atlanta's increased phosphorus discharge levels, alone, did not have environmental justice implications; however as in the Utoy Creek CSO case, the City's proposed remedy for addressing them did.

In this case, the same southwest Atlanta neighborhoods that were impacted by the proposed CSO mini treatment plant in John A. White Park publicly resisted the placement of an eight-mile, deep-rock sewage tunnel in their neighborhoods. The tunnel would transport untreated waste from the R.M. Clayton Wastewater Treatment Plant, on the north side of town, directly underneath low-to-moderate income and predominantly African American neighborhoods, to an expanded facility at Utoy Creek in southwest Atlanta for treatment.

The City of Atlanta operates four wastewater treatment plants: R.M. Clayton, Utoy Creek, South River, and Entrenchment Creek. The City signed an agreement with the Georgia Environmental Protection Division (GA EPD) in 1991 to treat wastewater at these facilities for phosphorus and faced fines if it did not reduce its phosphorus releases into Atlanta creeks and streams flowing into the Chattahoochee River. To address the increasing levels of phosphorus releases related to population growth and increasing fines, the City hired engineering consultants who in turn recommended the construction of an 8-mile-long, 20-foot-wide, deep-rock sewage tunnel to connect R.M. Clayton in northwest Atlanta to Utoy Creek in southwest Atlanta/South Fulton County (Sanders, 1995). The proposed tunnel would be constructed 200 feet below ground and would cost an estimated \$114 million. Under the City's plan, the capacity of the Utoy Creek Wastewater Treatment Plant would also be expanded to treat wastewater effluents from two neighboring municipalities, DeKalb and Gwinnett Counties, in addition to wastes from Atlanta's north side (Sanders, 1995), thus making Utoy Creek carry the wastewater treatment burden of predominantly white and affluent communities who were sheltered from the environmental impacts of their waste.

As in the Utoy Creek sewer separation case, the Trust worked in coalition with other environmental and southwest Atlanta community groups to challenge the tunnel plan. The coalition believed that construction of the tunnel would force predominantly African American southwest Atlanta to store and treat waste from white affluent communities on the north side of town as well as neighboring municipalities. Southwest Atlanta and South Fulton County residents were concerned about locating a sewer line the size of the proposed tunnel under their homes, the potential for methane gas releases

and explosions, and the potential reduced property values (Russell & Mitchell, 1994). These residents also argued that deep-rock sewage tunnels could lead to further environmental problems because of the potential for leakage to ground water aquifers as well as in flow and infiltration of water through leakage (Russell & Mitchell).

Once again, the Trust and its coalition of partners introduced an alternative plan to the City's proposed plan. This four point plan included: (1) placing filters at both the Utoy Creek and R.M. Clayton wastewater treatment plants; (2) preparing for future growth by building a modern state-of-the-art sewage treatment plant upstream from R.M. Clayton and close to the source of population growth; (3) recommending a modern water reuse system at the new treatment plant; and (4) placing modern clarifiers and odor control mechanisms at the new treatment plant (Russell & Mitchell, 1994).

The Trust and its coalition gained the assistance of County Commissioner Emma Darnell whose southwest Atlanta and South Fulton County constituents would be affected by construction and use of the tunnel. According to Darnell, these communities would bear increased health risks. To support her argument, she cited findings of a 1995 Fulton County Health Department study stating that residents were already at increased risks for lung and other cancers, asthma, and other respiratory and pulmonary diseases (Pendered, 1994). According to the study, additional burdens associated with the wastewater treatment, including devalued properties, damaged parks and public spaces, and unpleasant odors, would further decrease the quality of life for residents.

On the community level, members of the Trust gathered technical data on phosphorus treatment methods, educated residents on alternative treatment methods, mobilized community support for the "citizens' plan," and prepared southwest Atlanta community members to debate effectively at public meetings. Residents attended City Council meetings to follow the status of the City's proposal, studied documents introduced to relevant City Council committees, and thus resisted the City's continuous attempts to convince citizens that the issues were too technical for them to understand (Braithwaite et al., 1999). In 1994, in one dramatic demonstration of opposition to the proposed tunnel plan, hundreds of residents filled the Atlanta City Council Chambers and gathered outside City Hall to publicly voice their opposition (Russell & Mitchell, 1994).

At a critical point in the Utoy Tunnel project, a 90-day moratorium on construction was proposed to allow members of the City Council adequate time to review the tunnel proposal and phosphorus control plan in-depth before moving forward with implementation. However, Councilman Jared Samples, who represented low-income and African American citizens in some of the impacted neighborhoods, was convinced by the citizens' technical data and influenced by their activism. As a result, he introduced legislation to halt the tunnel plan. With several hundred southwest Atlanta residents showing up at a city council meeting to support Councilman Samples' ordinance, it passed in a vote of 12 to 6, signaling a victory for residents of southwest Atlanta and South Fulton County. After this crucial vote, one south Fulton resident, Mike Harper, commented that if the community had been involved from the start, the contentiousness of the issue might have been avoided (Russell & Mitchell, 1994). Also, Fulton County Commissioner, Gordon Joyner said of some Atlanta City Council members, "They thought this was a done deal. But they miscalculated the power of the informed citizens" (Coleman, 1994).

Not including the community from the outset, in the plans for the proposed Utoy Tunnel and the associated phosphorus control plan, proved to be a costly mistake for the City of Atlanta. Before the

tunnel plan was halted, the City had already invested \$2 million in design costs (The Atlanta Journal Constitution, 1994). As in the Utoy Creek sewer separation case, the City did not intentionally engage the affected communities in the planning process about decisions that impacted their lives, and the risks and burdens to these communities outweighed the benefits of implementing the proposed plan. These inequities prompted community resistance and advocacy. In the end, the weight of the impacted neighborhoods' proposal for an alternate plan, coupled with advocacy to gain City Council support for that plan, proved to be an effective means to change public policy decisions in favor of environmental justice.

CONCLUSION

As illustrated in the aforementioned Atlanta cases, correcting CSO problems is a major environmental and quality-of-life challenge for urban areas that are operating with aging infrastructure and century-old technology. To meet the growing needs of major metropolitan areas, planned growth and development that incorporates forward thinking, the input of citizens who are impacted by policy decisions, and principles of environmental justice, are necessary. Since the construction of the combined sewer system in Atlanta at the turn of the 20th Century, new wastewater infrastructure improvements and policy decisions related to the combined sewer system have not been proactive, have not included considerations of justice and equity from the outset, have continued to be in non-compliance with state and federal laws, and have therefore been challenged by communities, court mandates, and state levied fines.

Attempts have been made to improve Atlanta's combined sewer system, but the associated environmental planning and decision making processes have not always proactively involved meaningful citizen input. In both the Utoy Creek sewer separation and Utoy Tunnel cases, the City failed to involve affected communities in environmental planning from the onset of the processes and did not adequately consider the potential negative impacts of the initial proposals on local communities, ultimately costing taxpayers millions of dollars and a great deal of time. In both cases, however, the development of alternate citizens' plans and grassroots tactics proved to be viable forces against discriminatory policies (Russell & Mitchell, 1994). Solutions to wastewater infrastructure problems which were compiled and proposed, by the affected southwest Atlanta citizens and activists working with the community, were successful in improving the City's compliance record for state and federal water quality and pollution control laws, and in eliminating a disproportionate, environmental and quality-of-life burden on low-income and communities of color.

When those making infrastructure policy decisions in cities and municipalities do not proactively account for the social and community impacts of infrastructure neglect, weigh considerations of fairness or equity in their decision-making, or meaningfully engage the affected communities in the planning processes, there is potential for adverse impacts on these communities. Although not sought intentionally by politicians, planners and other city officials in the Atlanta cases, environmental justice was ultimately realized because citizens demanded a place at the decision-making table and made their voices heard.

AUTHOR'S BIOGRAPHY

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