

Opportunities for Municipal Clean Water Utilities to Advance Environmental Justice & Community Service



JULY 2017

A Report and Compendium Prepared
by the National Association of
Clean Water Agencies

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I. BACKGROUND

The National Association of Clean Water Agencies (“NACWA”) prepared this Report and Compendium to increase awareness of the many benefits America’s clean water utilities provide to their communities. Founded in 1970, NACWA is the nation’s recognized leader in regulatory, legislative, and legal advocacy on the full spectrum of municipal clean water issues. NACWA members include nearly 300 public wastewater and stormwater utilities, also known as “clean water agencies,” and encompass agencies of all sizes nationwide. Our vision is to represent every utility as a NACWA member, helping to build a strong and sustainable clean water future.

The projects in this compendium represent efforts by NACWA members to reach beyond the traditional model of simply conveying and treating wastewater and stormwater, to become assets and partners in their communities. Some of the projects included in this compendium represent work to address specific environmental justice issues, while others are examples of efforts by clean water utilities to better serve their communities as a whole. At their core, however, all of the projects and practices contained in this report can be adapted to address the needs of any community and clean water utility. The projects represent the type of efforts that all utilities, regardless of size, community needs, or location, can adopt to build stronger ties with, and to enhance, the communities they serve.

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This Report and Compendium also aligns with the larger “Utility of the Future” (“UTOF”)¹ concept adopted by many NACWA members. Utilities of the Future take on broader stewardship roles for their communities and watersheds and build local economies through creation of jobs and higher tax revenue. NACWA’s vision is that adoption and proliferation of these community service initiatives will become the norm, not the exception, and prompt widespread implementation of sustainable policies that will become the core of every clean water utility’s mission.

Though there is still room to grow, this Report shows that clean water utilities are increasingly working in close coordination with the communities they serve and the populations that are affected by the services provided. However, much of that work is not recognized, and often it is not documented. NACWA’s vision is to raise awareness of the breadth and depth of community-based projects in which the municipal clean water community is engaged, and to encourage implementation of similar projects nationwide. This Report and Compendium highlights industry case studies and best practices, encourages replication of these activities across the sector, and provides a “practical roadmap” for other clean water utilities to replicate successful practices.

It is NACWA’s goal that this document will serve as a resource in ongoing dialogues with EPA, state regulators, citizen groups, and communities on ways that clean water utilities can partner in fostering community benefits as well as sound laws, regulations, and policies. NACWA also hopes the Report provides examples of how clean water utilities can expand their understanding of what it means to

¹ In 2013, the National Association of Clean Water Agencies (NACWA), the Water Environment Federation (WEF), and the Water Environment & Reuse Foundation (WE&RF) collaborated on The Resources Utility of the Future: A Blueprint for Action. The Blueprint coined the phrase “Utility of the Future” to recognize a fundamental shift in the way America’s clean water utilities were beginning to define their role in society: from managers of waste to managers of valuable resources. A copy of the report can be [found here](#).

be a steward of the community, and that their efforts to benefit the communities they serve need not be limited to environmental justice as it is traditionally defined, but can also include a broader set of community service and community benefit programs.

Going forward, NACWA also believes discussions around environmental justice and community service should be expanded to include “community affordability” and the recognition that many of the communities identified as priority investment areas for large clean water infrastructure projects are the same communities that can least afford the resulting higher clean water rates.

Environmental Justice

The U.S. Environmental Protection Agency (EPA) defines Environmental Justice as the fair treatment and meaningful involvement of all people in the development, implementation, and enforcement of environmental laws and regulations, regardless of race, color, national origin, or income. While EPA’s implementation of Environmental Justice as a priority may shift with changes at the political level, historically, EPA has had the goal for all communities and persons across the nation to ensure everyone enjoys the same degree of protection from environmental and health hazards, and equal access to the decision-making process, to have a healthy environment in which to live, learn, and work.

Early environmental justice issues frequently involved the siting of industrial facilities, such as waste disposal facilities and refineries, in low-income communities or areas with a high proportion of minority residents or workers. More recently, in the clean water utility context, concerns around environmental justice have arisen in the context of siting and operations of wastewater treatment plants, failure to test and treat drinking water, and concerns over control of sewer overflows. Increasing awareness of environmental justice issues in the early and mid-1990s eventually led to EPA creating the Office of Environmental Justice in 1992, and establishing a National Environmental Justice Advisory Committee in 1993, with the goal of providing a forum for gathering independent advice and analysis from stakeholders.

In 1994, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was issued to draw Federal focus on concerns with disproportionate exposure of minority and low-income communities to pollution and to promote non-discrimination in Federal programs substantially affecting human health and the environment. The order directs all federal agencies to make achieving environmental justice part of their mission and to provide minority and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.

While focus on environmental justice at the national level may ebb and flow with the political tides, it may nonetheless remain in focus for state regulators. For example, Pennsylvania defines an “environmental justice area” based on specific demographic criteria with less emphasis on disproportionality. Under this approach, “any census tract where 20 percent or more individuals live in poverty, and/or 30 percent or more of the population is minority” is considered an environmental justice area.

Regardless of any pressure from state regulators or EPA, the case studies below show that many clean water utilities are working to address environmental justice concerns as part of their core business model through their wastewater and stormwater management programs. This document also demonstrates that utility efforts in this area need not be limited to addressing “traditional” environmental justice issues in their communities, but can be viewed through a lens that focuses on a broader set of community benefits and services.

Triple Bottom Line

America's clean water utilities are re-imagining their role in their communities and local economies by adopting an accounting framework, the "Triple Bottom Line," that measures costs and benefits more broadly than traditional measures to include environmental and social dimensions. This practice examines environmental, social, and economic impacts to measure sustainability and is transforming the way traditional wastewater utilities operate. For many clean water utilities, it is no longer enough to solely collect, transport, and manage wastewater and stormwater. As part of the UOTF model, utilities are taking into account the triple bottom line by managing valuable resources and partnering in local economic development in order to deliver the maximum benefits to society.

This concept is not often in the forefront of citizens' minds when they hear a new clean water treatment plant or stormwater management project is going to be located in their community. This is evidenced by the steady flow of lawsuits challenging these types of projects. For example, in February of 2017, a retirement community in Escondido, California, filed a lawsuit challenging the city's decision to build a large recycled water treatment plant just 300 feet away from their residential facility. Residents of the retirement home expressed concern that the plant was approved in that location because of the residents' social-economic status and ethnicity.

In Portsmouth, New Hampshire, opposition towards the wastewater treatment plant has been raging for some time. Recently, residents have filed suit to prevent an upgrade to the facility and demand it be relocated.

Utilities are highly motivated to transform this line of thinking by taking steps as highlighted in this Report to involve their resident communities in project planning and, to the extent possible, incorporate investment in improving the quality of life of residents situated near treatment facilities as well as those in all parts of the service area.

II. METHODOLOGY & ACKNOWLEDGEMENTS

Information for this Report was obtained through the voluntary participation of NACWA members to a survey request. Thirteen NACWA member utilities provided responses and from these, eight full case studies and nine case summaries were developed. Participating members provided information regarding practices at their utilities related to environmental justice issues and community service.

Information was provided through responses to [NACWA's Case Study Questionnaire](#). The Questionnaire was designed to solicit information on the size of the utility and the services it provides, demographics of the community, including any minority or low-income communities that might be disproportionately impacted by utility actions, and a description of the project, how it was identified and whether the project was intended to address an environmental injustice or provide a "good neighbor" community benefit.

NACWA's consultants, Clark Hill and the Sustainable Community Development Group, used the information to develop draft case studies that were reviewed by the clean water utility and a review committee established by NACWA. Final case studies were incorporated into the Case Study Compendium and this Report.

This project would not have been possible without the diligence and thoughtful and enthusiastic participation of many NACWA member utilities. NACWA thanks all the utilities that contributed time and effort to this document.

The participating utilities are:

Alexandria Renew Enterprises, *Alexandria, VA*
Avon Lake Regional Water, *Avon Lake, OH*
Camden County Municipal Utilities Authority, *Camden, NJ*
Capital Region Water, *Harrisburg, PA*
City of Los Angeles Bureau of Sanitation, *Los Angeles, CA*
District of Columbia Water and Sewer Authority, *Washington, DC*
Louisville and Jefferson County Metropolitan Sewer District, *Louisville, KY*
Metropolitan St. Louis Sewer District, *St. Louis, MO*
Milwaukee Metropolitan Sewerage District, *Milwaukee, WI*
New York City Department of Environmental Protection, *New York, NY*
Northeast Ohio Regional Sewer District, *Cleveland, OH*
Philadelphia Water Department, *Philadelphia, PA*
San Francisco Public Utilities Commission, *San Francisco, CA*
Sewerage & Water Board of New Orleans, *New Orleans, LA*

NACWA would also like to thank members of the Association's Environmental Justice Task Force for helping guide this project, especially the following individuals who served on a review team to help provide feedback on drafts of the Report:

Sandra Kilroy
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Andy Kricun
Executive Director/Chief Engineer
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David Lipsky
Senior Policy Advisor, Bureau of Sustainability
NYC Department of Environmental Protection

Shannon Gority
Chief Executive Officer
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Jim Pletl
Director, Water Quality
Hampton Roads Sanitation District

Finally, NACWA would like to thank to the two contractors, Clark Hill PLC and the Sustainable Community Development Group, for their work on this project. Clark Hill in particular showed extreme dedication to this project, going above and beyond to ensure a quality final product.

Readers who would like would like to learn more about the case studies and case summaries featured in this report, or who would like to contact the utilities directly, are welcomed to do so – please contact Nathan Gardner-Andrews (202/833-3692; ngardner-andrews@nacwa.org) or Erica Spitzig (202/533-1813; espitzig@nacwa.org) for more information.

III. CASE STUDIES

The following collection of case studies provides real-life examples of how municipal clean water utilities are adapting their role in their communities to balance operational needs and responsibilities with a desire to mitigate local burdens and create tangible community enhancements where possible and appropriate. The following collection includes full case studies that, in most instances, are intended to address a wide range of environmental justice and community benefit efforts.

The projects reflect the desire of utilities to address environmental justice concerns and community needs, ensure that disadvantaged populations are not disproportionately impacted by projects, and be more responsive to community concerns. Some projects are included in federal or state enforcement orders, while others are independent of any required compliance program. Regardless of the origins of a given project, all of the programs listed below are examples of how utilities can incorporate environmental justice considerations into their operations.

ALEXRENEW

H2O Fund Project

AlexRenew not only provides clean water to its community, but also offers a payment assistance program to residents temporarily struggling to pay their bills. This program recognizes that everyone in the community should have the opportunity to receive and utilize clean water, even in times of need. AlexRenew's Help 2 Others Fund, or H2O Fund, was created as a way to invest in the community and it continues to grow thanks to dedicated partners and community support.

COMMUNITY BENEFITS

- *Affordability*
- *Stewardship*
- *Financial Aid*
- *Customer Education*
- *Employee Donations*
- *Local Problem-Solving*
- *Community Engagement*

AlexRenew is an advanced water resource recovery facility and political subdivision of the Commonwealth of Virginia. AlexRenew operates and maintains the sewage treatment system in a service area comprised of the City of Alexandria, and a portion of northern Virginia's Fairfax County, for a suburban population of 320,000. Its mission is protecting public health while helping to restore the bounty of the Potomac River, its tributaries, and the Chesapeake Bay watershed. AlexRenew's state-of-the-art facilities treat 13 billion gallons of wastewater annually from Alexandria's sewers, returning waters into the Potomac and the environment that are cleaner than the river itself.

By transforming water and improving local waterways, AlexRenew helps support a higher quality of life and a thriving local economy. The utility's dedicated professional workforce and state-of-the-art technology are committed to sustainable operations, delivering a clean, renewable resource of water to the community and local waters, improving the health of local waterways, production of renewable energy that fuels facilities, and investing in the community by providing quality jobs, training and education.

AlexRenew is an award winning public utility dedicated to citizen leadership and the best interests of community neighbors. The utility has been recognized by prominent agencies, industry, and associations including the Virginia Department of Environmental Quality and the Institute for Sustainable Infrastructure.

The Community

The City of Alexandria leads the nation in millennial population growth. Highly urbanized, it is also ranked

one of America's top 50 greenest cities. At the same time, the City is addressing challenges facing people with lower incomes in the community, many from minority groups that, in total, comprise 40 percent of the population. Fifty-four percent of community residents are renters. Like many municipalities throughout the nation, Alexandria struggles with affordable rental housing, having lost more than 12,000 affordable apartments since 2000. There are waiting lists for housing vouchers and limited available public housing. Poverty pockets, the increasing populations of the disabled and retired seniors on fixed incomes, youth developmental issues, and bridging the information gap for non-English speakers are major socioeconomic challenges in AlexRenew's service area. Cost considerations of clean water initiatives in the service area are also critical, including combined sewer system upgrades, and stormwater management costs.



Community Benefits Project

Recognizing that affordability and the increasing costs of water pose barriers for low income residents and people living on fixed incomes, the Alexandria City Council, along with two community assistance nonprofits, requested that AlexRenew investigate adopting a payment assistance program for financially challenged customers. The utility's 2040 vision statement also has a strategic outcome called "Community Benefit," so embarking on this journey was a logical step. AlexRenew decided to partner with the United Way due to its extensive experience administrating similar funds. After a year of meetings, phone calls, a \$1,500 corpus for startup and administrative costs to the United Way, and an approval from the five-member citizen board, the H2O Fund was born.

Along the way, AlexRenew looked to others for guidance, as it reviewed a Water Environment Federation (WEF) report and other regional water utility websites to determine best practices in pay assistance programs. The United Way was named as the administrator of the H2O Fund and a local design firm worked to create a logo. To effectively implement the project, the customer service manager was chosen to oversee the project with oversight from the chief of enterprise communications. The H2O Fund is promoted in the community through bill stuffers, social media, and the utility's website. Because of the pockets of Spanish speaking immigrants, AlexRenew provides translation services at its call center, and Spanish-speaking staff assist with inquiries and payment assistance applications. AlexRenew employees can also participate by donating funds through the United Way's annual campaigns at the utility. Beginning during 2017, customers will be able to donate through the "round-up" and one-time donation feature, which will greatly increase the potential of the H2O Fund, as more people will become aware of the project and can donate or request assistance. Currently, AlexRenew receives four to six requests for assistance each month.

Through the implementation of the H2O Fund, AlexRenew has worked to achieve the goals of those in the community as well as the vision statement of the Board of Directors. The utility's 2040 Vision Statement reflects a commitment to the highest quality community services, stating that AlexRenew will serve as a catalyst and effective partner with watershed stakeholders that will allow citizens to establish personal connections with local waterways, work to support a healthy local economy, and create an informed citizenry regarding the importance of water so that stewardship is achieved. The Board's definition of community benefit is: "engaging the communities served to increase understanding and commitment to water quality so that every person and organization demonstrates the important role he, she or they contribute to this effort," and AlexRenew continues its work to implement this goal.

More information regarding AlexRenew's efforts to serve its community can be found [here](#).

LESSONS LEARNED

- *Bill Payment Assistance Supports Community Stability By Providing Financial Aid To Help Residents Who Are Temporarily Unable to Pay Water Bills.*
- *Consultation With People Who Represent the Community Informs Project Research and Decision-Making.*
- *Community and Nonprofit Partnerships Facilitate Achieving Project Objectives.*
- *In Order to Be Cost-Effective, Find an External Partner to Manage the Fund.*
- *Assign a Staff Champion of the Project to Ensure a Focus on Completion.*

CAMDEN COUNTY MUNICIPAL UTILITIES AUTHORITY

Odor Control & Green Jobs Projects

Located in a community with some of the most significant environmental justice challenges in the nation, the Camden County Municipal Utilities Authority (CCMUA) in New Jersey has transformed into a utility that strives for high standards, not only within the facility, but in the community as well. Through several local partnerships, CCMUA has created safe summer jobs for youth that teach them the importance of environmental stewardship and has built beautiful greenspaces to reduce flooding and stormwater runoff. CCMUA's example proves that effective partnerships are the key to becoming a true asset to the community.

CCMUA operates the regional wastewater treatment system for Camden County, New Jersey. Across the Delaware River from Philadelphia, the County spans 226 square miles, 37 municipalities, and a population of 510,000, approximately 77,000 of whom live in the City of Camden. The Camden County Municipal Utilities Authority treats 80 million gallons of sewage discharged per day from throughout the County, flowing through 135 miles of pipes and 27 pump stations to the Authority's Water Pollution Control Facility located in the City of Camden. The facility is the 3rd largest in New Jersey, servicing areas that combine denser urban and suburban communities, and the rural countryside.

CCMUA is committed to responsible stewardship and sustainability. Community service, protecting the water quality of the Delaware, Cooper, and Great Egg Harbor Rives, minimization of carbon emissions, operational cost efficiency, and ensuring that the plant is a good neighbor are priorities.

CCMUA is also a leader in green stormwater infrastructure practices. These practices have been referred to as a national model for small cities by various organizations including the Rutgers University Cooperative Extension--Water Resources Program; the Delaware Valley Green Building Council; and the national water industry magazine WaterWorld. CCMUA is also recognized for environmental stewardship by the New Jersey Department of Environmental Protection and the EPA.

Camden is a distressed urban municipality. The population dropped nearly 25 percent from 1970 to 2010 and is not projected to rise between 2010 to 2040. Nearly 39 percent of people in Camden live below the

COMMUNITY BENEFITS

- *Economic Opportunities*
- *Community Engagement*
- *Green Jobs Skills & Training*
- *Good Neighbor Leadership*
- *Neighborhood Revitalization*
- *Green Stormwater Infrastructure*

poverty line, one of the uppermost ratios in the State and more than double the national average. Nearly half of families with children under 18 and nearly 60 percent of single female-led families with children live in poverty.

African Americans and Hispanics comprise the majority of residents. The unemployment rate ranges from 19.2 percent and 9.5 percent for Hispanic males and females, to 14 percent and 13 percent for Black males and females, and up to 45.8 percent for the small number of American Indian and Alaska Native residents. Overall, household income is less than half of the statewide median, educational attainment is low, and crime rates are high. The City and the school district are heavily dependent on State funds. Most of the municipal infrastructure is old.

The City of Camden shares responsibility for delivery of water services to customers, while CCMUA treats wastewater. Camden operates the municipal combined sewer collection system and the drinking water system. Camden is one of the most economically distressed municipalities in the country, and consequently lacks sufficient resources for optimal water and sewer systems management or replacement of century-old infrastructure. CCMUA assists the City with water and sewer systems operations and maintenance through a shared services agreement.

Similar to other smaller municipalities around the nation that are faced with financial downturn, CCMUA and the City of Camden are tackling major urban water infrastructure challenges. As a result of Camden's overtaxed combined sewer system, a one-inch rainstorm can leave major roads impassable, turn parking lots into stagnant lakes, and send sewage into homes, parks, and waterways. More than a nuisance, ultimately the associated negative public health and environmental quality impacts affect the viability of the City and residents. Hurricane Sandy and flooding from the unseasonably wet summers that followed have shut down public transportation and cut off roads, stranding residents, workers, and visitors. Economic conditions in Camden compound these weather-related problems.

The future of Camden is inextricably tied to the future environmental, social, and economic health of the region, and CCMUA is engaged in multi-pronged efforts that address the linkages between these factors. CCMUA is partnering with Camden to address these linked factors by investing in Triple Bottom Line sustainability strategies. This partnership prioritizes green infrastructure and environmentally beneficial upgrades that restore water and air quality and reduce flooding while setting the stage for community revitalization and economic development which

improves the lives and well-being of residents, and sustains businesses and industries. In addition, CCMUA's peer-to-peer partnership with Camden calls for the utility to assist with operational oversight of the City's water and sewer systems, obtain funding on behalf of the City as it has no grant writers, and maintain parks and rain gardens. This relationship demonstrates how a utility with a sufficient capacity can work with neighboring communities with limited resources to achieve better overall community and environmental results.

Waterfront South Neighborhood Odor Control Project

Camden's Waterfront South neighborhood, where CCMUA's regional wastewater treatment facility is located, features some of the Authority's most innovative Triple Bottom Line sustainability projects. Waterfront South is cited by the New Jersey Department of Environmental Protection as one of the top environmental justice communities in the State. Brownfields, Superfund sites, and heavy industrial operations are located directly next to homes in this one-square-mile neighborhood, which contributes to the environmental disparities. Like Camden, most of Waterfront South's residents are African American (49.8 percent) and Hispanic (36.4 percent). Unemployment is almost 16 percent and the poverty rate is a mammoth 48.8 percent.

CCMUA's plant and flows from the entire County are merely 100 yards away from residences. Historically viewed as adversarial in the community's battles over environmental impacts, nowadays CCMUA is regarded as an ally in efforts to transform this legacy. Engagement with the community and CCMUA's culture were the change agents. When CCMUA acquired the plant from the City, the plant had never



had an odor control program, despite its proximity to residences and the high volume of wastewater and biosolids treated at the plant. Every day for years Waterfront South was subjected to foul smells. Following a change in culture at CCMUA, odors and a good neighbor policy became priorities at CCMUA. This was the turning point for CCMUA and Waterfront South, opening the door to new approaches and engaging the community. The Authority's first actions subsequently resulted in the implementation of the agency-wide Environmental Management System, a \$50 million investment in stringent odor controls, and decreased sludge production.

Then CCMUA focused on other ways to be a good neighbor, which led to the acquisition and transformation of 5.3 acres of riverfront property that was contaminated by a chemical factory. Working extensively with respected community faith-based organizations, residents and businesses, CCMUA cleaned up and converted this brownfield into Phoenix Park, an award-winning green space with rain gardens that control stormwater runoff and a fishing pier, newly opening the Delaware River to access by Waterfront South residents and people citywide. Phoenix Park is countering blight and furthering neighborhood revitalization in Waterfront South.

CCMUA is now part of Camden Smart, a collaborative green infrastructure team that includes Camden, the New Jersey Department of Environmental Protection, New Jersey Tree Foundation, Rutgers and Rowen Universities, Cooper's Ferry Partnership, a public-private-nonprofit economic development alliance, and more. The partners work to reduce flooding through the installation of rain gardens, pervious paving, tree planting, and restoring long buried streams. In addition to \$30 million in infrastructure upgrades, as part of this initiative, CCMUA built 5 riverfront parks and scores of rain gardens. All of these projects have

helped take pressure off the dated combined sewer system while improving the City's quality of life.

Working for Green and For Good

CCMUA takes green infrastructure another step, focusing on training Camden's youth for green jobs through two programs, PowerCorps Camden and Green Ambassadors. The programs are modeled on comparable initiatives in nearby states.

PowerCorps Camden is CCMUA's partnership with Camden and Camden's Center for Family Services, funded by AmeriCorps. PowerCorps provides jobs for at-risk young people between the ages of 18 and 25. The Center for Family Services, a respected nonprofit service agency in Camden, screens the candidates, and delivers the skills training and job placement services. Twice yearly, 30 trainees participate in this six-month work experience. PowerCorps spends 40 hours weekly maintaining Camden's network of storm sewers, rain gardens, vacant lots, and parks in the City and the County. AmeriCorps funds 50 percent of the costs of the program, including the participants' salaries. CCMUA and the City split the remaining 50 percent of the costs. During the three-year funding period and any succeeding AmeriCorps grant renewals, 180 youth are expected to gain knowledge and skills training. CCMUA is facilitating development of the next generation of Camden's environmental stewards.



CCMUA's other major green jobs initiative is the Green Ambassadors Program. Now in its 4th year, this program hires 10-20 high school students for a five-week summer internship. Interns interact with the Camden Collaborative Initiative, a partnership that brings together CCMUA, Camden and 40 diverse and prominent community groups, community service, environmental nonprofit, and university partners, the EPA Region 2, and the New Jersey Department of Environmental Protection.

Green Ambassadors undertake a different project every week with one of these partners. For instance, they plant trees with the New Jersey Tree Foundation, construct rain gardens with Rutgers University, and accompany the National Park Service on kayak trips. CCMUA's vision is to provide safe summer jobs for Camden high school sophomores and juniors, encouraging them to become the environmentalists of the future. These are students that CCMUA grooms to serve in their schools and communities. They earn a salary that can be saved for college and gain skills that augment their college applications. Additionally, the program is a safe place in the summer, which is no small thing in view of Camden's crime rate. Forty-five students completed the program to-date and a few are now environmental science majors in college.

CCMUA demonstrates how smaller cities and utilities, especially ones serving economically depressed communities, can still provide valuable community service outreach. CCMUA also shows what utilities can do in terms of green stormwater infrastructure innovations and partnerships that engage residents, government agencies, the private sector, universities, and community service organizations in planning and delivering Triple Bottom Line social, environmental, and economic benefits to communities. The success of its green infrastructure collaboration led the CCMUA to form the broader "Camden Collaborative Initiative" along with USEPA Region 2, the New Jersey Department of Environmental Protection, and over 50 environmental and community service non-profits. This initiative not only deals with Camden's combined sewage flooding problem, but also air quality, brownfields, climate change vulnerability, illegal dumping, recycling, and environmental education.

More information on CCMUA's efforts to serve its community can be found [here](#).

LESSONS LEARNED

- *Partnerships greatly increase the effectiveness of a utility's project and its impact on the community.*
- *Serving as an Anchor Institution Contributes to the Community's Quality of Life.*
- *Commitment to Doing No Harm In the Community Should Be the Floor Not the Ceiling.*
- *Implement a Good Neighbor Policy In the Community and Be One.*

CAPITAL REGION WATER

City Beautiful H2O Project

Capital Region Water (CRW) in Harrisburg, Pennsylvania implemented a highly successful project with the help of its Community Ambassador Program. This was the largest project CRW has ever conducted and involved more residents and community organizations than any prior campaign. Through its grassroots approach, CRW learned that it takes an incredible amount of time to reach and educate the public, but it is much easier to do this with ambassadors planted within the community. CRW's green vision was furthered by its ambassadors who engaged thousands of residents and educated them about the utility's initiative to reduce combined sewer overflows and construct green spaces to enhance the surrounding areas.

CRW serves the Harrisburg, Pennsylvania area, providing eight million gallons of drinking water to 60,000 customers, sewer collection and stormwater management for 50,000, and wastewater treatment for 120,000 residents and businesses each day. The utility's Advanced Wastewater Treatment Facility is one of the largest in the region. Capital Region Water's service area includes the City of Harrisburg and the surrounding townships of Susquehanna, Swatara, Lower Paxton, Paxtang, Penbrook, and Steelton. Capital Region Water is addressing combined sewer overflows under a Partial Consent Decree with the U.S. Department of Justice, the EPA, and the Pennsylvania Department of Environmental Protection.

Capital Region Water is committed to protecting public health and the environment as the steward of the Harrisburg area's water system. These environmental commitments have beneficial ripple effects that extend beyond the provision of clean, safe water to residents, businesses and customers, which is especially important to the City of Harrisburg.

The State of Pennsylvania defines an "environmental justice area" as "any census tract where 20 percent or more individuals live in poverty, and/or 30 percent or more of the population is minority." Nearly all of Harrisburg conforms to the State's definition. The municipality and the school district are financially distressed, the poverty rate is high, and many of the neighborhoods are negatively affected by blighted properties and crime. In addition, Harrisburg, like cities across the country, is facing the challenge of upgrading and maintaining water and sewer pipes that were built decades ago.

The Project: Community Greening

To address wet weather issues related to its Partial Consent Decree, CRW envisioned that green infrastructure in the City's neighborhoods could deliver multiple benefits, especially in underserved parts of the city. For Harrisburg, green infrastructure could help tackle environmental and regulatory concerns through projects that could also enhance place-making, catalyze economic development, and lead to the creation of more memorable and enjoyable public spaces. Although green infrastructure's main purposes

COMMUNITY BENEFITS

- *Improved Public Health*
- *Improved Local Water Quality*
- *Community Revitalization*
- *Enhanced Parks & Green Spaces*
- *Job Creation*
- *Community Engagement*
- *Reduced Flooding*

are water quality and stormwater management, CRW recognized its transformative nature for residents, schools, businesses, and visitors. Green infrastructure represented the opportunity to leverage public dollars and expenditures for positive changes, especially for the City’s most economically challenged neighborhoods, but only if stakeholders in the community were engaged throughout the process.



To motivate and create buy-in with community stakeholders, CRW branded this work “City Beautiful H2O” after the successful City Beautiful Movement that led to major public infrastructure improvements in Harrisburg a century ago. From the beginning, City Beautiful H2O was implemented to engage every community across the city to align CRW’s wet weather needs with larger community concerns and priorities.

Success Strategies

The first major initiative of City Beautiful H2O was a Green Infrastructure Master Plan to create a green vision for Harrisburg, identify green infrastructure opportunities in neighborhoods prioritized by community stakeholders, and build long term community partners. CRW invested in an 18-month planning process in partnership with Harrisburg communities, the City of Harrisburg, key municipal agencies, businesses, and nonprofits, from the ground floor of planning through implementation. To kick-off the project, CRW created the Community Ambassadors Committee to gather input on public engagement strategies, prioritization criteria, program design and recommendations, and project implementation.

City Beautiful H2O commenced with extensive community outreach with the strategic assistance of the Community Ambassadors. CRW developed the Community Ambassadors Program as a grassroots approach to community engagement guided by deep insight from the community. The Ambassadors were 18 local community leaders and advocates who, representing neighborhoods throughout Harrisburg, were instrumental in strategizing community engagement, connecting with local neighborhoods, residents and leaders, and capacity building. Community Ambassadors shared information about issues and events, and helped to educate their community about greening measures. They empowered residents, encouraged peer-to-peer neighborhood outreach and discussions, and supported face-to-face interaction and feedback. During the campaign, Ambassadors met monthly to discuss activities, and issues, and provide feedback on City Beautiful H2O planning efforts. Their work with CRW on the Community Greening Plan and projects is ongoing.



CRW asked residents at the very first community meeting to identify areas where they wanted to prioritize investments. The categories of the greening concepts in the Plan – green alleys, green streets, green schools, green neighborhoods, green public spaces, green businesses, green community centers, green vacant lots and green parks – were selected based on this input.

CRW then went into the community and hosted more than 30 events to engage the community and residents as well as at art contests, festivals, community greening parties, focus groups, stakeholder sessions, and meetings. Language translation services provided by CRW facilitated education, information-sharing, and public participation. Over the course of the 18-month process, CRW engaged with over 1,000 residents.

Online surveys, social media, fliers, website updates, media placements, and emails provided supplementary outreach.

Participation of the city, the community, and other stakeholder partners in the planning process to create the Community Greening Plan - from residents, to local agencies, organizations and businesses, to experts in design and infrastructure - were essential and continue to be vital to plan implementation. Community meeting participants stressed the importance of integrated benefits; the natural environment; trees, parks and the river; reducing flooding and sewer backups; and improving schools, streets, parks, and vacant lots. Throughout the Plan, on a neighborhood-by-neighborhood basis, these opportunities and potential partnerships that could improve the community and open spaces are detailed and prioritized.

Community Benefits

In addition to the direct water quality improvements, the Plan's green infrastructure projects will deliver multiple benefits for Harrisburg's residents and the public. Social benefits include reviving public space in distressed neighborhoods, community engagement, improving parks and green spaces, public health and recreation, and reducing the urban heat island effect. Environmental benefits include improved air and water quality, reduced flooding and sewer backups, and energy efficiency. The economic benefits also include community renewal, attracting economic investments, and job creation. Taken together, these projects will begin to improve the overall sustainability of Harrisburg through a Triple Bottom Line approach.

CRW is committed to engaging communities that were long overlooked in Harrisburg well beyond the completion of this Community Greening Plan. Now that Harrisburg communities are engaged and better informed about water quality issues and infrastructure solutions, the work of implementation begins. CRW continues to work at the neighborhood level with local partners to educate residents, help communities achieve their goals, and improve the quality of life for residents through investments in green infrastructure.

Green infrastructure may not solve all of the issues Harrisburg is facing. However, through a combination of green and traditional infrastructure, the City is poised to benefit from a reduction in the amount of stormwater entering the system, an improvement in water quality, and additional benefits that affect the overall social, environmental, and economic health of residents.

LESSONS LEARNED

- *Designating Community Ambassadors is Key to Learning the Desires and Needs of the Community.*
- *Posters, Free Food, and Activities Produce Better Results than Print Ads and Online Surveys*
- *Major Investments of Time, Effort and Resources Are Required to Plan, Initiate and Complete Projects.*
- *Think About Your Goals Before Planning Tactics.*
- *Partnerships Can Give Access to Facilities and Audiences that Would Not Have Been Reached Otherwise.*
- *Evaluate and Adjust.*

More information about CRW's efforts to serve its community can be found [here](#).

CITY OF LOS ANGELES BUREAU OF SANITATION

Avalon Green Alley Network Project

The City of Los Angeles Bureau of Sanitation, or LA Sanitation (LASAN), is pursuing a green alley project that will enhance water quality in the Los Angeles River by reducing the amount of pollutants in urban and stormwater runoff, but will also improve the quality of life for residents. New walking paths, open spaces, and safe alleys are just a few of the positive effects. With immense community involvement, including utilizing artwork and poetry created by local students, the project represents the wishes of the surrounding neighborhoods.

LASAN provides wastewater, solid waste, and stormwater management services for residential, commercial, and industrial users across the entire City of Los Angeles, which is the nation's 2nd largest city, and the largest municipality in Los Angeles County and Southern California. LASAN operates and maintains the biggest treatment and collection system in the U.S., collecting, cleaning and recycling wastewater for over four million people, as well as 29 contracting cities and agencies, in a 600-square mile service area.

With over 2,800 dedicated professional, technical, administrative, craft, clerical and service personnel, LASAN manages more than 6,700 miles of public sewers conveying 400 million gallons per day of flow from residences and businesses to multiple water reclamation plants. LASAN delivers a triple bottom line of economic, environmental, and social benefits, planning and administering programs that both sustain quality of life in the region and contribute to an overarching goal of environmental sustainability.

Green Stormwater Infrastructure Program

LASAN's Green Stormwater Infrastructure (GSI) Program is a multi-purpose initiative for creating healthier and sustainable communities by addressing triple bottom line objectives. The GSI combines the environmental benefits of combating historic drought, saving water, and enhancing limited park space and urban wildlife habitat with the economic and social benefits of avoiding expensive water treatment, minimizing flooding, encouraging walking and playing, cooling the vicinities, crime reduction, and providing safe community spaces. In some of the City's most densely populated parks and poor neighborhoods, LASAN is partnering with environmental justice stakeholders and community members to transform rundown sites and old alleys into green places that residents use and value.

Creating Open Space

Los Angeles ranks last among major cities in per capita open space. South Los Angeles is identified by the Los Angeles County Public Health Department as a "Severely Disadvantaged" low income community. Residents suffer from the highest rates of obesity, diabetes, and heart disease in the City, possibly exacerbated by the lack of open space and recreational amenities. The Avalon Green Alley Network, LASAN's GSI Program demonstration pilot, is a multi-benefit project, located in the underserved South Park neighborhood.

South Park is highly urbanized and one of the most densely developed areas of South Los Angeles. With a population of 30,000, over 80 percent of the people are low income. The community is 99 percent minority and many speak Spanish. LASAN and a coalition of community partners in South Park are building new community green spaces through green infrastructure, revitalizing often unsafe and polluted alleyways.

COMMUNITY BENEFITS

- *Water Quality*
- *Flood Abatement*
- *Water Conservation*
- *Green Open Spaces*
- *Groundwater Recharge*
- *Public Safety Measures*
- *Community Engagement*
- *Educational Opportunities*
- *Neighborhood Connectivity*
- *Artistry & Art Installations*



Neighborhood alleys are being repurposed as interconnected open spaces for people, water, and wildlife, with pedestrian walkways and community gathering areas built over infrastructure that is also designed to address Los Angeles' pervasive water needs. Walkable and bikeable thoroughfares incorporate stormwater low impact development practices. The Avalon Green Alley Network Project is a replicable model of community participatory design in underserved places that maximizes the potential for converting underutilized alleys into healthy open space.

Partnerships and community engagement are indispensable elements of the development and implementation of the Avalon Project dating back to the earliest efforts in the City to research and develop a green alleys project. LASAN works together with the Project's municipal agencies, the South Park Green Alley Green Team that was established by neighborhood leaders, organizations, and schools. Additional critical partners that provide essential technical expertise include the Trust for Public Land, the University of Southern California's

Center for Sustainable Cities, the Council for Watershed Health, California State Polytechnic University Pomona, and the Coalition for Responsible Community Development.

To kick off the process, the City's redevelopment authority provided funding for outreach and design documents for networking two of the ultimately four South Park alleys that would undergo makeovers. The partners prioritized community outreach, engagement, education, and training through their distinct roles. The Green Alley Green Team led community education efforts, convening meetings and forums. Jefferson High School conducted outreach, hosted a Green Design Academy, and stewards one of the green alley projects. Maya Angelou Community High School and Main Street Elementary School engaged in the participatory design process, and school students participate in alley cleanups. The Green Alley Green Team also trains residents to plant trees and take care of them, and co-hosts tree care and planting days in the neighborhood. The Council for Watershed Health monitors and evaluates water quality. The Coalition for Responsible Community Development is part of the long-term maintenance strategy.



Over 1,000 surveys about alleys collected from residents in South Los Angeles, residential town hall meetings, workshops, information sessions, alley cleanups, tree planting events, and door-to-door contacts illuminated the vision, informed the implementation plan, and primed the community's follow-through. Education, information sharing and alley maintenance continue to be consistent aspects of the project, taking place on a regular community schedule in collaboration with the partners.

Community rapport is instrumental, exemplified during the construction phases that frequently involved disruptive activities such as daily noise, dust, changes in travel routes, blocked driveways, and temporary but lengthy alley closures.

Interdepartmental coordination of governmental agencies with resources, shared City responsibilities, and leveraged funding sources are also significant to the success of the Avalon Project. Working together with agencies, nonprofits, the private sector, and donors, LASAN engaged the community in ways that fostered community ownership and stewardship. The cross-section of agencies spans the Los Angeles Departments of Planning, Transportation, Water and Power, Public Works, the Fire and Police Departments, the Mayor's Office, City Council, and LASAN. Multiple sources of funding and support from the City of Los Angeles, the County, the State, public and private donors, and community volunteers were crucial. Philanthropic support was provided by The Aileen Getty Foundation, the JIB Fund Community Building Initiative, the Goldhirsh Foundation, Kaiser Permanente, the National Fish and Wildlife Foundation, Wells Fargo, and the Trust for Public Land.

In the Avalon Green Alley Network Project, the development of a multipronged community outreach and engagement strategy led to community-led maintenance, ownership and stewardship of the alleys. The groundbreaking celebrated what would become LASAN's \$3.88 million transformation of a debris-filled alley into a Green Alley by adding art murals, infiltration trenches, native plants, permeable pavement, dry wells, and other rainwater harvesting elements, creating a more livable, greener space that captures, cleans, and infiltrates stormwater runoff while also providing safer routes for residents and pedestrians. Due to its success, to replicate and scale up the Project, LASAN and the partners developed the South Los Angeles Green Alley Master Plan, which focuses on 17 square miles in other underserved neighborhoods.

LESSONS LEARNED

- *Develop Objectives That Align With City Goals*
- *Partner With Local and Established Community Entities and Technical Experts*
- *Lead Activities and Events That Encourage Residents to Become Long-Term Stakeholders*
- *Collaborate With Foundations and Local Businesses for Support and Resources*
- *Project Funding Is An Ongoing Challenge*

More information about LASAN's efforts to serve its community can be found [here](#).

DC WATER

DC Water Works Project

The District of Columbia Water and Sewer Authority (DC Water) identified a problem in its community—the high rate of unemployment—and sought to change it. Beginning in 2014, DC Water implemented a program to connect local residents with over 100 jobs created by DC Water contractors each year. This dedication to improving the lives of local residents proves that clean water utilities can help people provide for their families and equip them with the skills necessary to hold a long-term job.

DC Water delivers water and wastewater treatment services to one of the most diverse cities and regions

COMMUNITY BENEFITS

- *Trade Jobs & Apprenticeships*
- *Quantifiable Local Hiring Goals*
- *Workforce Skills Training*
- *Economic Opportunities*
- *Community Education*

in the nation. The utility provides water services to more than 672,000 residents, 17.8 million annual visitors, and 700,000 people who are employed in the City. DC Water’s regional Blue Plains facility also treats wastewater from jurisdictions in Maryland and Virginia for an additional 1.6 million people in Montgomery and Prince George’s counties in Maryland, and Fairfax and Loudoun counties in Virginia.

DC Water operates more than 1,300 miles of pipes, four pumping stations, five reservoirs, four elevated water storage tanks, 43,860 valves, and 9,500 public hydrants for distribution of drinking water. To collect wastewater, DC Water operates 1,900 miles of sanitary and combined sewers, 22 flow-metering stations, and nine off-site wastewater pumping stations. DC Water’s Blue Plains Advanced Wastewater Treatment Plant is the largest of this type of facility in the world. Approximately 1,100 people work for DC Water at facilities throughout the District delivering vital, safe, high-quality services while protecting and enhancing the environment.

DC Water Creates Pathways to Jobs for Local Residents

In carrying out its mission, DC Water actively encourages and supports the development and inclusion of local residents in the Authority’s contractor workforce. The majority of workers on DC Water’s construction projects are hired and employed in a variety of trades by construction contractors and their subcontractors. Creation of a local, readily available labor pool with skills sought by these contractors benefits DC Water’s customers by enhancing the Authority’s ability to provide environmentally-friendly, efficient and economical water and sewer services. At the same time, DC Water is connecting residents and communities in its service area with employment opportunities and economic benefits. Providing pathways to jobs is a significant matter in the District of Columbia because US Department of Labor statistics show that the City has the highest unemployment rate in the Washington metropolitan area. In particular, African Americans are affected by the District of Columbia’s unemployment rate, many of whom live below the poverty level.

DC Water’s capital program is one of the biggest in the region with multiple large-scale infrastructure projects currently underway and planned over the next decade. Since these projects are chiefly funded by customers, DC Water’s Board of Directors created DC Water Works, a multi-pronged initiative to boost hiring of local unemployed and under-employed residents on the Authority’s projects.

Most DC Water contractors are well-staffed with a very limited number of job openings -- typically 100 to 150 job openings annually, the majority of them for skilled laborers and operators. Lack of education and

training inhibit employment in these jobs for the targeted communities, particularly for construction. As a result, DC Water Works prioritizes general worker readiness, training and apprenticeships in the construction trades, job placement for training graduates, and coaching. While the initiative does not specifically focus on minorities, it is designed and meant to address the City’s Wards 5, 7, and 8, where unemployment is high and African Americans comprise the majority up to 94.5 percent of the population.



DC Water Works’ hiring goals are based

on construction forecasts and the needs of project contractors. They are meaningful as well as ambitious. For DC Water construction and service contracts, a goal was established that at least 51 percent of the total contractor workforce should consist of local residents, and 60 percent of new jobs created by contracts or procurements entered into by DC Water with contractors must be filled by local residents. The definition of new jobs is comprehensive, meaning union and non-union job openings, vacancies resulting from promotions, terminations or other separations, and expansions of the contractor's workforce.

In support of these goals, DC Water Works is the first source for recruitment, referral, and placement of qualified new hires for all new jobs. If DC Water Works is unable to promptly refer qualified candidates, contractors and subcontractors can fill vacancies through other means, while still working towards achieving the local hire goals.

Taking training one step further, DC Water recognized the importance of establishing an Apprenticeship Utilization Policy on DC Water projects to achieve local hiring goals. Accordingly, on contracts over \$500,000, contractors whose workers perform an apprentice-appropriate trade must participate in an apprenticeship program registered with its home State Apprenticeship Agency or the District of Columbia Apprenticeship Registration Agency. Contractors that use apprentices must maintain a ratio of no less than one apprentice per three journeymen. Contractors are required to use DC Water Works as the first referral source for new apprenticeship candidates.

Finding the right candidates, who understand the job's requirements and want to work in water and sewer construction, are primary criterion in the referral process. Training program graduates are preferred for employment referrals with a goal that 50 percent will be placed in jobs or apprenticeships by the skills training providers that are competitively selected by, and under contract with, DC Water Works.

Local Resource Providers are Key Strategic Partners

DC Water engaged in a six-month evaluation process to identify local resource providers that could serve as Strategic Partners including government agencies, labor organizations, training providers, and high schools. The Strategic Partners are dedicated to preparing and training individuals for employment opportunities. They share a successful track record of identifying and preparing employment candidates for ready-to-fill positions, measurable placement of training graduates in jobs, and delivering follow-up services.



DC Water was keen to work with the local community in the development process and implementation of DC Water Works, engaging extensively in multiple community involvement efforts. To that end, DC Water convened over 30 stakeholder meetings. They were held at DC Water offices and, to maximize participation, many were held in priority neighborhoods.

Over 18 months, during bi-monthly briefings, DC Water informed the public and the Board of Directors' Governance Committee. In addition, DC Water conducted surveys of employers and nonprofit skills providers to understand the types of job openings, employment decision-making criteria, skills training requisites, and ways to identify appropriate training candidates. DC Water's Water Works Task Force, consisting of staff, contractors, government officials, unions, and nonprofit skills training providers, met bi-weekly for over 18 months to engage industry and community representatives, and develop and review DC Water Works components.

During the community engagement process, facing the sharp contrast between the actual jobs forecast

of 100-150 skilled jobs annually and community expectations proved to be one of the most difficult aspects of developing DC Water Works. In view of the overall magnitude of DC Water’s capital projects, many community stakeholders presumed that contractors would be creating thousands of new jobs. Transparency with the community and education about timelines and the type and number of projected jobs were crucial to engendering support and successfully working with the community.

Commitment to Community Awareness

DC Water Works invests in several efforts to ensure that local residents are aware of and can access employment opportunities. DC Water Works maintains three Job Centers citywide that provide assistance to job seekers, annually convenes the Employment Fair, and participates throughout the year in external career events that bring together staff, contractor representatives, and potential applicants. Job openings are widely posted, for instance, through print media, on DC Water’s website, the websites of Strategic Partners, at the District of Columbia’s Department of Employment Services Job Centers, the City’s public libraries, and the University of the District of Columbia.

LESSONS LEARNED

- *Transparency With the Community About Feasible Goals and Accomplishments Is Critical to the Project’s Success.*
- *Find Employment Candidates Who Understand Work Requirements and Demonstrate That They Want the Job.*
- *Strategic Partners Help to Identify Job Candidates and/or, Through the Implementation of the Skills Training Program, They Prepare Participants for Future Opportunities.*
- *Mandatory Contractor Apprenticeship Programs Help To Prepare Individuals for Employment Opportunities.*
- *Increasing Local Hiring Creates a Deeper Bond with the Community.*

More information about the DC Water Works program can be found [here](#).

LOUISVILLE & JEFFERSON COUNTY MSD

Southwestern Parkway Combined Sewer Overflow Storage Basin & Maple Street Land Use Planning Projects

While implementing two projects to upgrade aging infrastructure, Louisville & Jefferson County Metropolitan Sewer District (MSD) in Louisville, Kentucky, developed key community relationships that will ensure the success of the projects over time. The Southwestern Parkway Combined Sewer Overflow Storage Basin Project provides storage for combined stormwater and sanitary sewer overflows and was made possible only because MSD made invaluable face-to-face contact with local residents and key players in the community. This enabled the utility to counter against political pressure from outside interest groups. The ongoing Maple Street Land Use Planning Project is focused on partnering with community leaders and businesses in order to seek input on acceptable uses for a low-income area that has been historically plagued with severe flooding. Both projects require grassroots approaches in order to determine the best interests of the community and invested stakeholders.

COMMUNITY BENEFITS

- *Voluntary relocation opportunities for residents with the highest flood risk*
- *Flood mitigation*
- *Community education & engagement*
- *Public & private partnerships*
- *Deed-restricted open space*
- *Neighborhood enhancements*

MSD manages wastewater collection and treatment, stormwater drainage, and flood protection for the Louisville Metro area with a vision of achieving clean, safe waterways for a healthy and vibrant community. MSD has over 600 employees, themselves representing a broad range of neighborhoods and demographics, whose mission is to provide exceptional wastewater, drainage, and flood protection services for the community. MSD strives to be a healthy and compassionate service provider for all customers.

MSD's wastewater system includes 3,300 miles of sewer lines and five regional water quality treatment centers which clean over 153 million gallons of wastewater. The stormwater service area covers 376 square miles, including 790 miles of streams, 130 miles of hydraulically improved channels, and 38 miles of Ohio River shoreline. MSD's Ohio River Flood Protection System includes 29 miles of floodwall and earthen levees, 16 flood pumping stations, nearly 150 floodgates, and 80 floodwall closures that protect more than 200,000 people and \$24 billion in property over 110 square miles. Stormwater services cover most of Jefferson County and approximately 680,500 people.

Southwestern Parkway Combined Sewer Overflow Storage Basin Project

MSD's Southwestern Parkway Combined Sewer Overflow Storage Basin Project is one of seven combined sewer overflow storage basin projects approved by EPA as part of MSD's Integrated Overflow Abatement Plan (IOAP) designed to reduce the frequency and volume of combined and sanitary sewer overflows throughout the county and meet the requirements of a federal Consent Decree. Environmental justice was one component used to evaluate potential projects in the IOAP.

The project is located in Louisville's Shawnee Park neighborhood, a sizeable densely residential neighborhood that borders the Ohio River in West Louisville. When completed, the project will provide temporary storage for combined stormwater and sanitary sewer overflows that may otherwise eventually flow to the Ohio River during storms. Once system capacity is available after rain events have ended, the water from the basin will be released back into the sewer system for treatment.

The location of required system improvements within historic Olmstead Park, including construction of a storage facility and pumping station, sparked controversy during the design phase of the project. Opposition to the construction project was spurred by a group of activists residing outside the affected area. MSD was sensitive to the fact that the location of the overflow storage basin in Louisville's West End Shawnee Park community would mean effects of the construction project would fall on some of the poorest residents in Louisville and that these residents may not be represented by the non-resident park advocates. MSD's community outreach was targeted and purposeful, allowing valuable input from residents of these specific neighborhoods to be heard rather than outside interest groups making decisions for residents in the immediate project area.

Shawnee Park is an important and valued community asset in West Louisville. It is a central gathering place that is widely used for sports, festivals, picnics, and play with amenities that include ball fields, basketball courts, tennis courts, football fields, picnic shelters with grills, walking and biking paths, and a scenic lake. From the outset, there was a misperception that placement of the utility's construction was linked to the area's low-income, high minority status.

MSD's outreach to correct this misperception included targeted local resident engagement and education about the need to locate the project where the combined sewer overflows were occurring and the community health benefits that would result from addressing the problem. In addition, MSD found the public outreach program necessary to counter political pressure from the non-resident interest group that was determined to relocate the project in a direction unacceptable for accomplishing its public health and safety purpose.

Through MSD's engagement, and creation of the Southwestern Parkway CSO Basin Steering Committee, the affected community became a strong and outspoken voice in project planning. MSD involved the community through scheduled design review meetings and an oversight community steering committee that meets regularly with MSD staff and the project team. MSD's involvement of respected homegrown experts and opinion leaders ensures that directly affected stakeholders and interest groups contribute to and benefit from the project. Feedback from public meetings, MSD's website, online surveys and polls, and the City Council's newsletters are several more of the outreach tools in the toolkit that bolster the project's emphasis on quality participation.

Maple Street Land Use Planning Project

MSD's Maple Street Land Use Planning Project was designed to determine the best approach to planning the future use for properties that are prone to stormwater and sanitary sewer flooding. The affected community, known as the California Neighborhood, includes mostly low-income and minority property owners who experienced repetitive flood damage.



The most severe flooding to-date in Louisville occurred on August 4, 2009, when 7.5 inches of rain fell over the course of a mere 75 minutes, and the Maple Street area was hardest hit. After a Presidential disaster declaration, the Federal Emergency Management Agency (FEMA) awarded a grant, locally matched by MSD funds, to purchase and demolish homes. The grant implementation has provided residents the opportunity, on a voluntary basis, to relocate from the areas of highest risk.

Over the past four years, MSD has successfully acquired and demolished 105 of the 128 homes deemed eligible by FEMA for participation in the buyout program. The community is located in West Louisville, an area that has been economically depressed after losses of jobs, businesses, and industry, and 15 years of deteriorating home values. There is a history of public mistrust and perceptions that too many of the promises to the community in the West End are unfulfilled. MSD's approach and outreach bear this in mind.

Maple Street Community of the Future Advisory Committee and Land Use Planning

With the buyout program almost complete, and to engage idea leaders, MSD invited residents and neighbors, local advocacy groups, and partner agencies to join an advisory committee, the Community of the Future Advisory Committee. MSD has facilitated multiple advisory committee meetings and resident public meetings, encouraging input. Agency partnerships and collaboration with community leaders and businesses are strategic priorities, with the ultimate goals of seeking input on acceptable land use options from residents in the community as well as forming partnerships for ultimate ownership and long-term operation and maintenance.

MSD's targeted outreach has resulted in improved relationships and beneficial conversations with residents. This land use planning process has created an opportunity for the Advisory Committee to creatively, holistically, and sustainably address longstanding challenges in this community despite continued flooding that will remain on the deed-restricted open space. Identifying funding and long-term ownership for public use of the space is the biggest challenge in transforming the now vacant properties from green space into a true community asset. MSD is committed to responsibly utilizing ratepayer

funds for projects associated with its core functions of wastewater collection and treatment, stormwater management, and flood protection while providing a role of facilitating these discussions. Engagement through the Community of the Future Advisory Committee has generated a productive conversation with neighborhood residents on potential land use alternatives that include sports fields, passive recreation, and gardens.

LESSONS LEARNED

- *Respected members of the affected community have more influence than all the technical experts.*
- *Building trust takes a long time, but losing trust can happen with one unmet promise.*
- *Door knocking and face-to-face community outreach are necessary to boost the effectiveness of community participation*

More information about MSD's efforts to serve its community can be found [here](#).

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

30th Street Greenway Corridor Project

The Milwaukee Metropolitan Sewerage District (MMSD) in Milwaukee, Wisconsin transformed a devastating flood into an opportunity to improve an already economically depressed community. Though there is a long history of distrust between African American residents and the city, MMSD worked tirelessly to improve these relations. This effort resulted in valuable community input that guided the direction of the new drainage infrastructure, which will include features such as a greenway, gathering place, and anti-crime lighting. Ultimately, this project will bring new jobs to the community, improved drainage, a great deal of beautification, and a greater quality of life for local residents.

MMSD is the regional clean water utility for the Greater Milwaukee Area. MMSD serves Lake Michigan and local waterways, providing water reclamation and flood management services covering 411 square miles and six watersheds. The District serves 1.1 million people in 28 communities by managing water quality protection, stormwater, green infrastructure, and wastewater treatment and reclamation.

MMSD captures 98.3 percent of water and wastewater for treatment and is focused on energy efficiency and mitigation efforts including green roofs, rain barrels, landfill methane gas power, and solar energy installation. These undertakings reduce treatment costs and carbon emissions, increase water capture and land preservation, all while providing career opportunities and strengthening the sense of community.

In July 2010, rain downpours in the Greater Milwaukee metro exceeded 8 inches in 24 hours. The 30th Street Industrial Corridor was hit especially hard, causing over 3,000 basement backups and surface flooding and legal claims for property damage in the area which totaled over \$32 million. This catastrophic storm significantly affected an area that was already economically depressed. To solve the widespread

COMMUNITY BENEFITS

- *Health & Social Connectivity*
- *Neighborhood Reimagining*
- *Recreational Opportunities*
- *Educational Opportunities*
- *Community Connectivity*
- *Workforce Development*
- *Economic Advancement*
- *Redevelopment*
- *Water Quality*
- *Cost Savings*

flooding problems, MMSD established the Integrated Regional Stormwater Management Program. However, MMSD viewed the flooding in this Corridor not just as a problem, but as an opportunity to help eliminate blight and revitalize the community.



30th St Greenway Corridor Initiative

The 30th Street Corridor is a historic area of Greater Milwaukee close to downtown and was originally developed during the late 1880s to the 1920s. The Corridor has a rich legacy as a manufacturing and industrial center. Residential housing followed the industrial development as jobs were created. The area has declined economically during the past few decades spurred by the departure of a significant number of industries. Industrial land use left a legacy of contamination and nearly 800 acres of brownfields compounded by the flooding and surface ponding that follow major rainfall. The 2009

recession and the housing market collapse also caused a wave of foreclosures and abandoned properties. Residents in one of the City’s most economically depressed areas face diminished property values, high crime, and persistent unemployment. African Americans comprise the population majority, many of whom live below the poverty level.

Once the flooding issues were fully investigated, MMSD partnered with the Wisconsin Housing and Economic Development Authority (WHEDA) to collaborate on creating the vision of a revitalized 30th Street Greenway Corridor. This vision would not only address the drainage problems and water quality, but also would serve as a platform for redevelopment and renewal that could help to tackle adverse social and economic impacts in the Corridor, leading to enhanced safety, job creation opportunities, increased property values, recreational enhancements, and neighborhood stability. MMSD’s and WHEDA’s Greenway Corridor initiative also complements the City of Milwaukee’s ambitious effort to restore economic prosperity to the area, and it is a prime component of transforming the area into a model modern employment center and financial hub for the City and the region.

By addressing flood damage to local residents, the 30th Street Greenway Corridor will make a significant contribution to growing the economy in the Corridor and improving the overall quality of life for residents and businesses.

Stakeholder Involvement Plan

The initial Greenway concept was developed over 17 months with the participation of a Stakeholder Group that MMSD and WHEDA established, representing local, state and federal agencies, businesses, and nonprofit leaders. The Stakeholder Group focused on collaboration and facilitation to identify needs and potential partnerships, funded a series of Stakeholder Group meetings, special meetings, and formed the Greenway Corridor Advisory Council (Council). The Stakeholder Involvement Plan facilitated regular interactions, and solicited input and consensus building on proposed strategies. The Stakeholder Group and the Greenway Corridor Advisory Council set the stage for dynamic community engagement during the subsequent phases of project planning.

The Corridor Advisory Council composition reflects the make-up of Milwaukee’s Corridor neighborhoods. It is comprised of 22 partners, whose work is directly engaged in or is influential to the Corridor area, including representatives from the community and the City, faith-based groups, financial agencies, nonprofits, and service organizations. The Council met regularly as detailed plans and activities were

identified. The group will facilitate forthcoming plans and the transition to funding and implementation of Corridor improvements.

Success Strategies

MMSD capitalized on municipal and business synergies and the expertise of nongovernmental organizations (NGOs) to address more than flooding. Foremost, MMSD partnered with the City, the chief project financier and right-of-way landowner, and its agencies. The Public Works Department serves as the lead planner. The Metropolitan Police Department facilitated a DOJ grant that enabled the crime prevention through environmental design review and modification of the stormwater design.



The City Development Department provided parcels for the project's three stormwater retention basins, negotiating with property owners, and acquiring parcels that were necessary to aggregate the contiguous lots necessary to achieve rainwater absorption and storage goals. The Fire Department eliminated fire safety barriers. Local businesses were involved so that the project would complement rather than disrupt employee and visitor access to properties surrounded by it. Local community groups and environmental organizations weighed in according to their skills.

Overcoming Challenges

Winning the engagement of the community was the primary challenge due to the long history of distrust between the City and its African American residents. MMSD responded to the community's criticisms to help restore trust. MMSD shelved the standard process of hosting traditionally structured public meetings. Instead, meetings were convened in tiers emphasizing tailored events and small targeted workshop style sessions organized and sequenced to maximize the communication of issues and ideas across the spectrum of people with a vested interest in the project area.

MMSD also took steps to ensure that residents and organizations from the project area were at the table and that input was incorporated in the design process. The invitation from the neighborhood's Community of Hope Block Watch to participate in monthly meetings was vital to the communications breakthrough, becoming the principal channel for updates and resident feedback.

Community benefits and opportunities are integrated with the project's drainage infrastructure. The Greenway will connect the entire Corridor to Greater Milwaukee via landscaping, trees, plants, pedestrian plazas, public gathering places, a bike trail, parks, open space, urban agriculture, anti-crime lighting, and traffic calming measures. The environmental, recreational, and safety features also establish the potential economic growth enhancements of job creation, workforce development, contracting and procurement, and increased property values.

The planned improvements will provide an influx of construction dollars, including an estimated 1,300 jobs short-term and 70 more jobs projected for operations and maintenance. MMSD's training programs parallel future Corridor work, including potential jobs and contracting opportunities in its service areas. These programs leverage existing Milwaukee entrepreneurship and workforce institutions, as well as training programs promoting the realization of the full potential of workforce development, employment, and women-owned, small and minority business contracting.

LESSONS LEARNED

- *Relationship-based community engagement promotes understanding of the need for the project; builds trust and confidence that facilitates dialogue and input; imparts the sense of ownership of the benefits and opportunities; and results in enduring appreciation for the completed project.*
- *Coordination and frequent communication with City agencies, elected officials, and local nongovernmental organization experts provides partners and expertise, and speeds project development.*

More information about the 30th Street Corridor and MMSD's efforts to serve its community can be found [here](#).

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Edenwald Houses Project

The New York City Department of Environmental Protection (DEP) has partnered with several agencies to improve the City of New York by constructing green infrastructure. Specifically, DEP's partnership with the New York City Housing Authority (NYCHA) has provided enhanced living situations for those who need it most. Through this partnership, NYCHA buildings have and will continue to receive improvements that will not only reduce stormwater runoff, but will also beautify the aging buildings and provide cleaner air for residents.

DEP manages New York City's water supply and wastewater treatment. DEP provides more than one billion gallons of clean drinking water each day to over nine million residents, including eight million in New York City. Approximately 7,000 miles of water mains, tunnels, and aqueducts bring water to homes and businesses throughout the five boroughs, and 7,500 miles of sewer lines and 96 pump stations take wastewater to 14 in-city treatment plants. DEP has invested billions of dollars to improve water quality in the New York City's harbor and today water quality is better than it has been in over 100 years of testing. One of the remaining water quality challenges in local waterways is to further reduce combined sewer overflows (CSOs). Currently DEP has a \$4.2 billion commitment in capital funding for CSO projects, which includes the \$1.5 billion Green Infrastructure Program.

COMMUNITY BENEFITS

- *Increased Landscaped Areas*
- *Improved Paved Areas*
- *Aesthetic Improvements To Common Areas*
- *Improved Site Drainage*
- *Parking Lot Renovation & Improved Drainage*
- *Potential Decrease In Basement Flooding*
- *Carbon Sequestration*
- *Urban Heat Island Mitigation*



New York City's Green Infrastructure Program

New York City's Green Infrastructure Program is a multiagency effort led by the Department of Environmental Protection. DEP and agency partners design, construct, and maintain a variety of sustainable green infrastructure practices such as green roofs, permeable pavements, and rain gardens, on publicly owned property such as streets, sidewalks, schools, and public housing. Green infrastructure promotes the natural movement of water by collecting and managing stormwater runoff from impervious surfaces such as streets, sidewalks, parking lots and rooftops and directing it to engineered systems that typically feature soils, stones, and vegetation.

This process reduces the amount of storm water runoff entering the City's sewer systems. Using green infrastructure to manage runoff from impervious surfaces is a key part of DEP's plan to meet water quality obligations pursuant to the Clean Water Act and improve water quality in the City's waterways. To date the City has constructed 3,949 green infrastructure assets and 427 additional assets will be constructed over the next year. In total, the City is managing stormwater from 457 impervious acres through green infrastructure.

The New York City Housing Authority (NYCHA)

NYCHA is the largest public housing authority in North America. Currently, NYCHA's Conventional Public Housing Program manages 177,657 apartments in 326 developments throughout the City in 2,462 residential buildings. Its public housing represents 8.1 percent of the City's rental apartments, and provides housing to 4.6 percent of the City's population. Almost 600,000 New Yorkers are served by NYCHA's Public Housing and Section 8 Programs. If NYCHA was a city, it would rank 32nd in population size in the United States, with New York City ranked first (as per July, 2015 U.S. Census Estimate).



Overall, 96 percent of residents living in NYCHA are minorities with approximately 11.7 percent of all families on welfare or utilizing some form of cash assistance. Forty-three percent of all NYCHA households have at least one senior resident, presenting an aging population with a complex set of health needs. Thirteen percent of NYCHA residents are people under 65 with disabilities, which is nearly double the citywide average of 7.3 percent. NYCHA communities experience high levels of chronic diseases and health conditions such as diabetes, hypertension, and asthma. NYCHA residents face a number of significant environmental problems.



DEP and NYCHA Green Infrastructure Partnership

NYCHA was an early adopter of green infrastructure practices, with pilot projects built at three public housing sites starting in 2011. With 2,500 acres of land, NYCHA owns a substantial amount of property throughout the five boroughs, and provides DEP with a tremendous opportunity to implement green infrastructure for onsite stormwater management while also improving the grounds and

facilities for NYCHA residents. New York City’s public housing residents live in aging buildings plagued by quality of life issues, often in areas with more than their fair share of industrial, municipal and commercial pollution. The NYCHA partnership with DEP enables primarily low income and minority communities in DEP’s service areas to benefit from the improved living environment that green infrastructure provides. Recently, NYCHA and DEP have agreed to scale up their partnership to build green infrastructure on several NYCHA properties over the next few years.

Green infrastructure is a cost-effective approach to managing impacts from rain events and provides many community benefits. While traditional approaches to stormwater management are based on grey infrastructure investments —conventional piped drainage and water treatment systems— designed to move urban stormwater away from the built environment, green infrastructure reduces and treats stormwater at its source while delivering environmental, social, and economic benefits. In addition to water quality benefits, green infrastructure also beautifies NYCHA’s landscaped areas, improves air quality, and reduces temperatures in hot summer months.

The newest NYCHA green infrastructure project, expected to be completed fall 2017, is a \$10.6 million project at Edenwald Houses in the Bronx. The Edenwald Houses development consists of 41 buildings on approximately 53 acres. It is comprised of 2,036 apartments and a population of 4,984. Minorities represent 99 percent of the population, with 16 percent of all families on welfare or reliant on some form of cash assistance. Green infrastructure practices under construction at Edenwald Houses include permeable pavers in courtyard areas and pedestrian plazas, porous asphalt and pervious concrete in parking areas, rain gardens, and a system to collect and divert the rain that falls on the rooftops of the buildings. By capturing approximately 10 million gallons of stormwater that falls on the development each year, the project will reduce internal sewage backups and ease pressure on the sewer system during rainstorms, which will decrease combined sewer overflows into the nearby Hutchinson River.

LESSONS LEARNED

- *Relationship-based community engagement promotes understanding of the need for the project; builds trust and confidence that facilitates dialogue and input; imparts the sense of ownership of the benefits and opportunities; and results in enduring appreciation for the completed project.*
- *Coordination and frequent communication with City agencies, elected officials, and local nongovernmental organization experts provides partners and expertise, and speeds project development.*

More information about DEP’s Green Infrastructure Program and efforts to serve its community can be found [here](#).

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Environmental Justice and Community Benefits Policies and Program

The San Francisco Public Utilities Commission (SFPUC) has built trust in the community through broad and ongoing community outreach, and has developed robust Environmental Justice and Community Service programs. The decision to define “community benefits” and convey this to the surrounding community has proved critical for SFPUC. The utility has both an Environmental Justice Policy and a Community Benefits Policy that have allowed the utility to serve as a catalyst for expanding economic opportunity for all.

COMMUNITY BENEFITS

- *Stakeholder Involvement*
- *Workforce Development*
- *Economic Development*
- *Environmental Programs*
- *Land Use*
- *Arts & Culture*
- *Education*
- *Diversity and Inclusion*
- *Community Health*
- *Staff Volunteerism & In-Kind Contributions*

SFPUC is the 3rd largest municipal utility in California with an annual operating budget over \$700 million and 2,300 employees, serving 2.6 million residential, commercial, and industrial customers and 26 suburban agencies in six counties. The community service mission is to provide all customers with high quality, around-the-clock, efficient and reliable water supply, sewer services, and municipal green hydroelectric and solar power in a manner that is inclusive of environmental and community interests, and that sustains the resources entrusted to its care.

Environmental Justice and Community Benefits Policies

SFPUC is the first public utility in the nation to adopt an Environmental Justice Policy and a Community Benefits Policy. Originally implemented in 2009 and 2011, they jointly provide the framework for SFPUC's Environmental Justice & Community Benefits Program. This innovative "good neighbor" initiative is integral to the SFPUC's business strategy, guiding interactions that directly affect people's lives and neighborhoods, and redefining what it means to be a public utility in the 21st century.

The Environmental Justice & Community Benefits Program builds capacity to identify and address important local impacts and issues, and support community involvement in ongoing and future work across SFPUC's service areas, core operations, programs, and projects. Critical investments in regional and local infrastructure are targeted, focused on community benefits and a sustainable future for the people and places that make San Francisco and the Bay Area region distinctive. This programmatic approach to shared public benefits institutionalizes the environmental justice principles of fair treatment of low income and minority populations, and meaningful community engagement. By balancing triple bottom line economic, environmental, and social equity goals, SFPUC is a good neighbor and a catalyst for expanding economic opportunity for all, creating job opportunities, revitalizing low income neighborhoods, and promoting community health.

The 10 areas in SFPUC's definition of community benefits result from a robust collaborative community engagement process. Equitable Engagement Guidelines direct SFPUC's project managers to track community engagement in connection with planning, design, and construction of capital projects and in other arenas of work to ensure that the Agency's outreach is reflective of diverse service areas. The community benefits project website, built from the ground up, keeps stakeholders informed and generates qualitative information from the public.

Adoption of the Environmental Justice & Community Benefits Policies and Program stems from teamwork and collaboration between SFPUC senior leaders and two SFPUC entities, the Agency's five member governing body (the Commission) and the Citizen Advisory Committee, which is comprised of representatives from throughout the service area. Development of the program was done at a time when the Agency was in the preliminary stages of scoping out and planning the city-wide Sewer System Improvement Program, a 20-year multi-billion dollar investment in upgrading aging sewer infrastructure to ensure current and future reliability, and a seismically safe system.

The Citizen Advisory Committee (CAC) alerted the Commission about the potentially significant and negative impacts of the Sewer System Improvement Program, and urged agency-wide mitigation and prevention of disproportionate impacts in low income and minority communities that could result from all of SFPUC's policies, programs, and projects. The CAC further advised SFPUC to commit to employment opportunities, shared economic benefits, and culturally appropriate communications and engagement

strategies.

The Commission adopted the Environmental Justice Policy the following year. In 2011, the Commission followed up with the Community Benefits Policy, expanding beyond addressing disproportionate impacts to ensure that as a good neighbor, the Agency is leveraging infrastructure investments for tangible and lasting economic, social and environmental benefits for all communities in service areas. In 2012, the Commission established the Community Benefits Program, designating budget resources, and an initial staff team of five to implement both the Environmental Justice and Community Benefits Policies.

Recognizing that the viability of environmental justice and community benefits strategies involves balancing many competing interests across a vast and diverse service territory, and to promote meaningful community engagement, SFPUC implemented a variety of outreach strategies with a high degree of transparency from face-to-face interviews and facilitated meetings, to focus groups and online surveys. A team of Agency staff and expert consultants engaged a broad group of stakeholders consisting of staff, Commissioners, ratepayers, and community and advisory groups as well as local workers, labor unions, contractors, vendors and authorities in equity, inclusion and economic development. In addition, SFPUC inventoried community benefits practices of nine other municipal utilities, including three of the largest in the United States and one overseas.

Bay View Hunters Point Pilot Project

SFPUC's Environmental Justice and Community Benefits Program pilot project was initiated to assess the potential impacts and opportunities posed by sewer system improvement in the San Francisco community of Bay View Hunters Point. This community hosts the Agency's timeworn Southeast Plant, which is the largest wastewater treatment facility, processing 80 percent of all wastewater and stormwater flows for the entire city.

Rich in diversity but low in economic opportunity, nearly 93 percent of the neighborhood's population is minority, comprised of Black or African Americans, Latinos, Asians, and Pacific Islanders. Median household income is low with 19 percent of families and 21 percent of the residents living on incomes below the poverty level. The neighborhood is also home to many locally unwelcome public facilities (e.g., highways, power plants) while, simultaneously, gentrification is sharply increasing the cost of living, displacing many longstanding African American residents.

Reaching out, involving local partners and the CAC, SFPUC conducted an environmental justice analysis, examining 62 specific indicators of concern that were identified by community stakeholders. More than half of the indicators were identified as existing disproportionate adverse conditions in the neighborhood when compared to San Francisco as a whole. Participants prioritized unemployment, poverty status, cost of living, displacement/gentrification, diesel particulate concentrations, cancer risk for toxic air contaminants, toxic releases from facilities, groundwater threats, and nuisance odors.

The results of this proactive environmental justice analysis inform the ongoing implementation efforts for the EJ and Community Benefits policies and program. For example, one way the SFPUC is investing in Bayview Hunters Point is by locating the Contractors Assistance Center there, providing technical assistance and capacity to local small businesses, increasing their ability to compete for public contracts. In another, SFPUC is a major landowner in the region, and is using some of those spaces to sponsor urban agriculture give-away centers in Bayview Hunters Point and two other communities.

The SFPUC believes that the agency's capital projects are not only investments in its facilities but also investments in the future of its communities. In fact, across SFPUC's entire service area, the Environmental Justice & Community Benefits Program and policies shape how the agency provides its

water, power and sewer services.

This allows the utility to leverage its more than \$700 million annual combined operating budget into communities through operations, partnerships with philanthropy, and a network of programs including summer internship and career exploration opportunities for high school youth; education scholarships; workforce development; technical assistance to local business enterprises; commitments to local vendor sourcing; community benefits commitments in all professional services contracts over \$5 million; installation of solar panels for low income households; sustainable urban farming and food systems; conservation and habitat restoration initiatives; arts enrichment; and, promotion of corporate social responsibility and volunteerism throughout their companies. It's simply how the SFPUC does business.

LESSONS LEARNED

- *Ensure Leadership at Governing and Senior Management Levels*
- *Recognize Community Need for Employment Through Continuation and Expansion of Workforce Development Strategies.*
- *Develop Administrative Policies that Define Outcomes and Guide Staff Implementation*
- *Understand that Neighborhoods, Issues and Impacts are Complex*
- *Embed Community Benefits in Contracting Mechanisms*
- *Invest in Targeted Strategies in Impacted Places*
- *Leverage Public/Private Partnerships*
- *Budget Staff, Resources and Employee Training for Success*

More information about SFPUC's Community Benefits Program, along with copies of its Environmental Justice and Community Benefits policies can be found [here](#).

IV. CASE SUMMARIES

The shorter case summaries that follow demonstrate that utilities can become community assets and partners regardless of size or budget, and regardless of whether a given project addresses traditional environmental justice concerns. Utilities of every size can find ways both large and small to move beyond the traditional clean water utility model to become Utilities of the Future, as well as become more visible and integral partners in their communities.

SEWAGE AND WATER BOARD OF NEW ORLEANS

Army Corps of Engineers Flood Control Project

After a disastrous flood in 1995 caused an estimated \$1 billion in property damage across New Orleans and surrounding parishes, Congress authorized the Southeast Louisiana Urban Flood Control Project (SELA). Since then, over \$2 billion has been spent to design and construct state-of-the-art flood control and drainage systems to enhance the safety and security of the over one million residents in South Louisiana.

To minimize flooding in New Orleans East along Dwyer Road, the Sewerage and Water Board of New Orleans designed and the U.S. Army Corps of Engineers constructed an intake canal, drainage pumping station and pump station outfall canals, totaling over \$88 million. Coordinated community outreach was conducted to address residents' concerns throughout construction, including hosting regular community meetings and establishing a 24/7 hotline. SELA projects are still being constructed today and the public engagement process for Dwyer Road has proven to be a successful model to keep residents informed. More information about the flood control project, and Sewerage and Water Board of New Orleans' efforts to serve its community, can be found [here](#).

AVON LAKE REGIONAL WATER

Emergency Bill Pay Assistance

Because its local community has been significantly affected by the closing of nearby factories, Avon Lake Regional Water in Avon Lake, Ohio has developed a program to provide emergency assistance to customers unable to pay their water/wastewater bill. Knowing that the utility did not have the resources/expertise to determine eligibility, the utility is working with the local community assistance agency to identify qualified recipients. The utility provides the funding, and the community assistance agency administers the program. As a result of this partnership, residents and customers experiencing short-term emergencies are given assistance in paying their water bill and Avon Lake's reputation as a good neighbor within the community is enhanced.

More information about Avon Lake Regional Water's efforts to serve its community can be found [here](#).



NORTHEAST OHIO REGIONAL SEWER DISTRICT

Affordability Program for Renters/Tenants

The Northeast Ohio Regional Sewer District (NEORS), in Cleveland, Ohio has developed four programs to ease the burden of sewer rates on its low-income customers, including programs targeting the elderly and to assist customers



experiencing a crisis.

NEORSD recognized that it serves many households that are at 200% of the federal poverty level, but are tenants. Because water and sewer bills are often paid by landlords, the costs of increasing sewer rates are passed down to tenants through increased rents. In addition, landlords themselves may not qualify for any sort of reduced sewer rate based on their income. In order to ensure that tenants receive the benefit of low-income rate reductions, NEORSD's affordability program fills the gap by providing discounts to qualified tenants. The program provides a 40% reduction on water and sewer service for qualifying households with income at or below 200% of the federal poverty guidelines.

More information about NEORSD's cost saving programs can be found [here](#).

NORTHEAST OHIO REGIONAL SEWER DISTRICT

Good Neighbor Ambassador Program

The Good Neighbor Ambassador Program was established in 2013 by NEORSD for the purpose of: (1) Providing a positive supportive presence in the communities where NEORSD has major construction activity; (2) Gaining support and trust for utility projects among community residents and leaders; and (3) Providing unemployed and underemployed community residents with employment, job readiness, and job seeking skills. Project Clean Lake, NEORSD's \$3 billion, 25 year Long Term Control Overflow Program, was intended to demonstrate that NEORSD was operating as a Good Neighbor in the community.

More information about NEORSD's Good Neighbor Ambassador Program can be found [here](#).



NORTHEAST OHIO REGIONAL SEWER DISTRICT

Small Business Assistance Program

NEORSD's small business assistance program is a great benefit to the local community. The goal is to keep as much of the spending as local as possible. This is accomplished by certifying small, minority and women owned firms to do business with NEORSD. Once the certified firms are working on NEORSD projects, the utility tracks the progress of the firms, which helps guarantee that firms will be successful at bidding time. Not only does the program create economic benefits to the business owners, but it helps build the local workforce and establish NEORSD's commitment to its local neighborhoods.

More information about NEORSD's Small Business Assistance Program can be found [here](#).



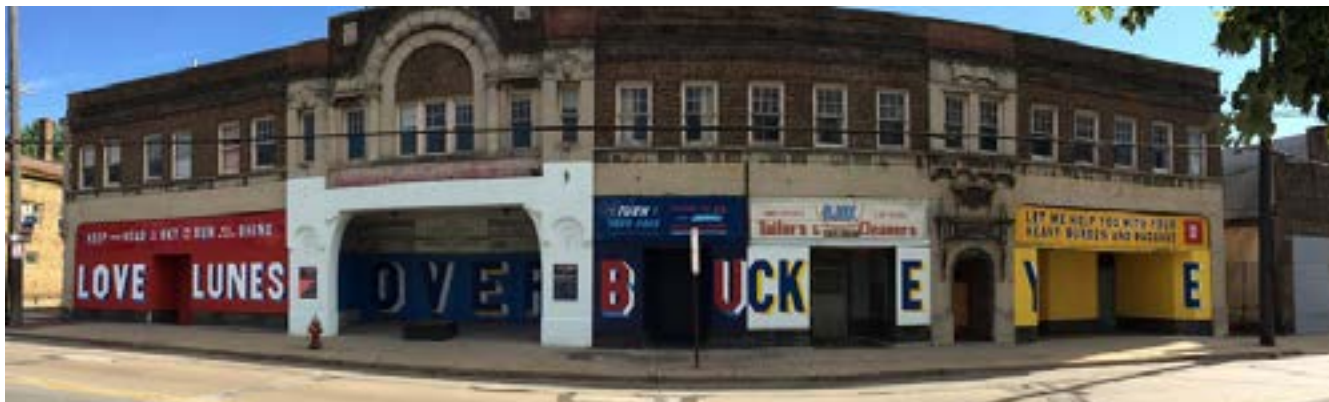
NORTHEAST OHIO REGIONAL SEWER DISTRICT

Public Art to Improve Water Quality

In 2015, LAND Studio, a Public Art agency in Cleveland, came to NEORSD with a funding opportunity from St. Luke's Foundation and the National Endowment for the Arts (NEA). The proposal was to bring a Public Art component to an already-in-design NEORSD



Green Infrastructure (GI) construction project in the Buckeye-Woodhill neighborhood. The GI project includes four stormwater detention basins and a plaza “triangle,” under which sits an additional stormwater detention chamber. These installations are designed to keep large volumes of stormwater out of the combined-sewer system. The Public Art elements are intended to better integrate the GI into the neighborhood and educate residents about how GI works and how individuals can impact water quality through good water stewardship.



The goal is to further District educational outreach, explaining how Green Infrastructure and CSO-reduction projects benefit neighborhoods and the region. LAND’s proposal (with accompanying grant opportunities) came at an ideal time, and the LAND-NEORS D partnership serves as a pilot project for the District’s future Public Art plans.

More information about NEORS D’s Green Infrastructure program can be found [here](#).

METROPOLITAN ST. LOUIS SEWER DISTRICT

Cityshed Mitigation Program

In response to the Metropolitan St. Louis Sewer District’s (MSD’s) commitment to spend \$230 million to address sewer overflows and combined sewer flooding, the agency’s Cityshed Mitigation Program is being designed and implemented by examining customer complaint data, utilizing existing watershed studies and performing computer hydraulic modeling of the existing combined sewer system to evaluate the system’s level-of-service.

In areas with chronic customer complaints and a decreased level-of-service, projects to address these concerns are being identified. These projects are given a conceptual budget and scope, and then taken through preliminary design, final design, and construction. Projects include buyouts of homes subject to chronic flooding, combined sewer relief sewers, stormwater detention, and green infrastructure technologies. Significant community engagement is utilized throughout the investigation, planning, and design process.

More information about the Cityshed Mitigation Program can be found [here](#).

PHILADELPHIA WATER DEPARTMENT

Green City, Clean Waters

Green City, Clean Waters is PWD’s plan to reduce stormwater pollution currently entering the Combined Sewer System through the use of green infrastructure. This program presents a major shift in the way the community thinks about and deals with stormwater in Philadelphia. The program seeks to recreate the living landscapes that once slowed, filtered, and consumed rainfall by adding them to the streets, sidewalks, roofs, schools,



parks, parking lots and more. By the close of the program in 2036, more than one-third of the city's impervious cover within the combined sewer area of the city will be managed using green stormwater infrastructure.

More information about the Green City, Clean Waters program can be found [here](#).

PHILADELPHIA WATER DEPARTMENT

Rain Check

Rain Check is a residential stormwater program that helps residents manage stormwater at their homes by providing free rain barrels, downspout planters, rain gardens, or permeable paving at a reduced price. Participation requires attendance at an educational workshop about storm management where attendees are instructed on the best tools for their property. After the workshop, each participant is connected with a Rain Check contractor who can plan the installation of the stormwater tools. This program is a win-win because participants help PWD reduce stormwater in the city's sewers and participants then increase the curb appeal of their property.



More information about the Rain Check program can be found [here](#).

V. FINDINGS AND RECOMMENDATIONS

Based on the various case studies and summaries outlined above, as well as responses to the project Survey Questionnaire, it is clear that most clean water utilities are focused on providing positive community impacts alongside their operational activities to meet their Clean Water Act obligations. Only one utility reported the existence of a formal environmental justice program, while others have simply incorporated these concepts into their programs and organizational structure in other ways. All respondents were active in efforts to provide outreach to their local community or find ways to address the needs of disadvantaged households within their service area.

Typically, in the clean water utility sector, community benefits and community service projects are created in response to a broad array of environmental and economic community or stakeholder concerns. While mostly case-specific, the majority of programs focus on addressing environmental and economic problems through green infrastructure, community revitalization, workforce development, greenspace development, and community health. Service projects almost always start with a robust community awareness campaign and become reality through strong partnerships with the local community resource providers. These efforts can be expensive and time-intensive but pay huge dividends in fostering community ownership and continuing stewardship. Garnering resources is a primary and on-going challenge. Without question, success is based on commitment of utility management and staff.

The following recommendations come from lessons learned and shared through the creation of this Report.

1. *Develop Replicable Models*

Creating a model that can be tailored and replicated prevents reinventing the wheel. Most of the case studies revealed a similar pattern— identifying and addressing local impacts in the context of utility operations or building utility infrastructure. Whether a physical, social or economic characteristic of the community, a natural disaster, or a perception problem, clean water utilities embracing the Utility of the Future model are seeking creative ways to provide environmentally sustainable services while enhancing quality of life for local communities.

Though the problems vary, this model of addressing local situations through developing much-needed clean water utility projects will reap great benefits for utilities, communities, and local governments. For example, LASAN transformed a deteriorated and dangerous neighborhood alley into a livable greenspace that captures, cleans, and infiltrates stormwater runoff while also providing a safer route for pedestrians.

Similarly, DC Water addressed the high unemployment rate in its community by using its resources to help change this statistic. DC Water recognized that lack of training and skills barriers posed significant challenges to successfully employing those in the community who need jobs the most, so it implemented a Skills Training and Placement Program.

In another case, MMSD in Milwaukee addressed flooding that devastated an already economically depressed location by implementing the 30th Street Greenway Corridor to address not only drainage problems and water quality, but to also serve as a platform for redevelopment and renewal that could help tackle adverse social and economic impacts of the area. These models not only solved a problem, but turned them into benefits to the community while providing the utility with a repeatable formula for success.

2. *Develop Objectives that Align with both Community and Utility Goals*

Though all programs are unique, aligning development goals with local government objectives is one way to

increase the likelihood of success. In addition, gaining support from key players in the community can be equally important.

The surveys revealed that many clean water utilities formed “citizen advisory committees,” “work groups,” and “tasks forces” to tap into the community’s vision and concerns. Louisville and Jefferson County MSD’s CSO Storage Basin Project is a great example of a project that became much easier once the surrounding community became engaged and their voices were heard. Because this project entailed disturbing a historic park, the park’s advocacy group became very disgruntled, but many members of this group were not residents of the neighborhood impacted by the project. MSD conducted targeted outreach to the local community to better understand their needs and concerns, and to garner their support. Through this engagement, it allowed the project to become truly representative of what the affected community wanted. Once locals in the community became involved and felt they were invested, MSD was better able to work in partnership with the community to complete the project.

AlexRenew’s H2O Fund is another example of aligning the utility’s goals with local government needs. In this case, H2O came into fruition once the Alexandria City Council and two community nonprofits requested that AlexRenew look into a payment assistance program to help the pockets of poverty in the community receive clean water. Coming up with the funding is much easier when community entities are partnering together and equally invested.

New York City DEP’s Green Infrastructure Program not only improves water quality, but it also beautifies city streets and neighborhoods, improves air quality, and reduces temperatures in hot summer months. In a congested and busy city like New York, these results align perfectly with the objectives of residents and government officials.

Though still in its early stages, St. Louis MSD’s Cityshed Mitigation Program is tapping into customer complaints to figure out how to steer the program. This data is valuable and can provide a great deal of feedback and help align utility interests with the community and local government goals.

3. Partner with Local Community Resource Providers and Technical Experts

Success often turns on collaboration with other entities. Local colleges, universities, and government agencies can all contribute their expertise to reach a positive solution. For instance, the Sewage and Water Board of New Orleans capitalized on its partnership with the U.S. Army Corps of Engineers and Coastal Protection and Restoration Authority to utilize federal funding in the aftermath of Hurricane Katrina. In Los Angeles, LASAN’s project was completed with the help of the Trust for Public Land, Council for Watershed Health, and several agencies and organizations.

The Northeast Ohio Regional Sewer District partnered with an art agency and a foundation to incorporate art into its green infrastructure project. This collaboration helped educate residents of the benefits of green infrastructure and beautified the area.

Partnering with local non-profits and groups who share similar visions can greatly increase awareness, build acceptance, provide needed funding, and ultimately, improve results.

4. Explore Creative Ways to Collaborate with Foundations and Local Businesses for Resources and On-going Support

One of the primary challenges utilities face is obtaining adequate funding for responding to the needs of the community and continuing to fund community benefits once they are established. CCMUA in New Jersey collaborated with Rutgers University, a local non-profit, and other foundations and agencies to capitalize resources that were essential to the project—funding, environmental knowledge, and community contacts. AlexRenew’s H2O Fund would not be possible without support from the United Way, who collaborates to help manage the Fund.

Similar to the H2O Fund, Avon Lake Regional Water partnered with Community Resource Services in order to provide emergency assistance to customers unable to pay their water bills. Because the utility does not have the resources or expertise to qualify people to participate, Community Resources Services actually runs the program. Without this partnership, it would be much more difficult for people in need in the community to receive help with their water bills.

Lastly, Capital Region Water found great success from its partnership with the local school district, YMCA, and Latino American Community Center. These partners allowed Capital Region Water access to their facilities and audiences that they would not otherwise be able to reach.

5. Develop Consistent Means for Informing the Public About Successes

Publicizing successes and informing the community of ongoing initiatives is an important component of revamping a utility's reputation from just the wastewater treatment plant down the road, to an active and engaged community partner. Some successes may be easy for the community to see, such as parks, revamped alley ways, and decreased flooding. But other victories and initiatives can go unnoticed by a majority of the community unless they are publicized. One way to showcase the benefits to the community is by publishing this information and explaining it in detail. As an example, SFPUC was the first public utility in the nation to adopt a Community Benefits Policy, which guides the Agency's efforts on how to be a good neighbor. SFPUC's Community Benefits Report contains an approachable definition of "community benefits," which is critical for the community's understanding and endorsement of the work.

No matter what medium is used to convey the successes of clean water facilities, this information must reach local residents, so they are aware that utilities are not only treating their water, but are also working to increase their quality of life.

VI. CONCLUSION

The development of this Report is part of NACWA's effort to highlight the excellent work already being done by clean water utilities to address environmental justice and provide community service, advance UOTF concepts, and create a national dialogue on the intersection of environmental justice/community service issues and affordability concerns.

As pressure builds on utilities to address aging water and sewer infrastructure and respond to increasing population demands, an opportunity is created for clean water utilities to formalize and integrate community benefit programs into project planning, while at the same time raising awareness of affordability challenges. The case studies and summaries in this document demonstrate that clean water utilities are engaging their service communities and seeking creative ways to address environmental and infrastructure needs while limiting the negative impacts. But this Report also brings to light the many community needs that clean water utilities are working to address, and also highlights the fact that clean water utilities provide essential community services, often to needy populations.

As municipal clean water agencies look to provide even greater benefit to their communities and value to their ratepayers, NACWA and its members look forward to continued discussions between the clean water utility community and other key stakeholders on these important issues.

