The New Orleans Water Justice Fund: A Pathway to an Equitable, Transparent & Accountable Stormwater Fee

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Background & Context

The City of New Orleans faces complex challenges surrounding water. Much of the city's land is below sea level, which necessitates constant pumping to remove seeping groundwater. Continuous pumping causes land subsidence, making the job of pumping more difficult and more expensive[1]. In addition to struggling against being located in the Louisiana Delta, New Orleans is one of the nation's rainiest cities, periodically experiencing heavy rains, tropical storms, and hurricanes which inundate the City with water that exceeds existing pumping capacity. This results in flash flooding, which fills low-lying streets, cars, and structures and costs residents significantly higher insurance rates compared to surrounding communities[2]. Coastal wetlands erosion and rising sea levels interact with intensified storms in ways that increase the threat and frequency of flooding.

New Orleans' drainage system has substantial and undisputed room for improvement. The City's drainage infrastructure has been neglected for decades, due in large part to inadequate funding. A shortage of funds has led the Sewerage and Water Board to defer both regular maintenance and capital improvements.[3] The result is a grossly under-maintained drainage system with insufficient new infrastructure to serve emerging needs. Funding for drainage is drawn almost entirely from ad valorem property taxes, which falls significantly short of budgetary needs. By the Sewerage and Water Board's own estimate, the City's drainage system, inclusive of assets managed by the Department of Public Works, needs another $54.5 million per year to meet its drainage obligations.[4]

Based on two years of research, the Water Collaborative of Greater New Orleans concluded that the implementation of a stormwater fee could make a significant contribution toward closing the City's drainage funding gap. However, more than new funding and business as usual drainage services are needed to address the complex hydrologic challenges faced by the City of New Orleans. Over 200,000 trees were lost following hurricane Katrina[5], increasing subsidence

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[1] *In the New Orleans context, pumping groundwater has lowered elevation in large swathes of the city, creating the need to lift water above higher walls as the city settles.*
https://www.theatlantic.com/technology/archive/2018/02/how-humans-sank-new-orleans/552323/

[2] *https://www.wwltv.com/article/news/local/orleans/289-f5d206b6-9755-4753-bd74-cc7a56e8b8e6*

[3] *Bureau of Governmental Research, Beneath the Surface: a Primer on Stormwater Fees in New Orleans. February 2017.*

[4] *ibid*

[5] *SOUL, New Orleans' Reforestation Plan. 2022.*

and flood risk in the most low-lying areas of the city. In addition, New Orleans' development consists of small lots with little room for trees and other green infrastructure, which decreases the amount of rainfall that seeps into the ground during rain events. A more innovative approach to drainage in our city – one that incorporates green and grey infrastructure improvements, is required to position our city to live and thrive with water in the coming century.

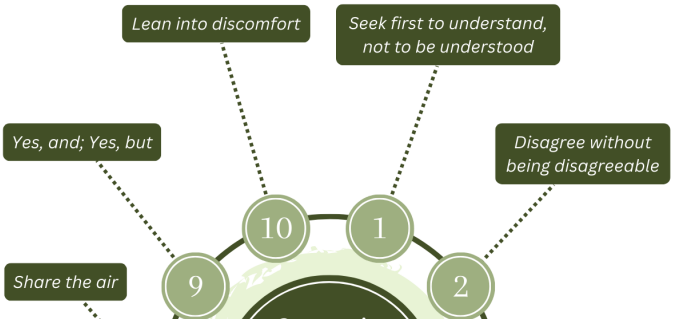
While there is an increased interest in the role stormwater fees can play in Louisiana, to date attempts to pass stormwater fees have failed. In New Orleans, in particular, a stormwater fee proposition failed to pass a public vote in 1995; and in 1998 the City Council failed to advance a proposal by the Sewerage and Water Board to implement a stormwater fee without a public vote.[6]

Acknowledging the need for our city to deeply consider the potential benefits of implementing a stormwater fee, the Water Collaborative of Greater New Orleans designed a 10-part workshop series with a dual purpose: to share what we have learned about the role a stormwater fee can play to build an innovative drainage system and to actively solicit feedback from New Orleans residents regarding what implementing an effective stormwater fee might entail. The workshops were convened weekly, March 30 – June 1, 2023, at the Tulane Tidewater Building at 1440 Canal Street.

This report reviews the key findings of this workshop series and communicates the concerns and preferences expressed by workshop participants.

The Water Justice Fund Workshop Series

[6] *Bureau of Governmental Research, Beneath the Surface: (2017.*

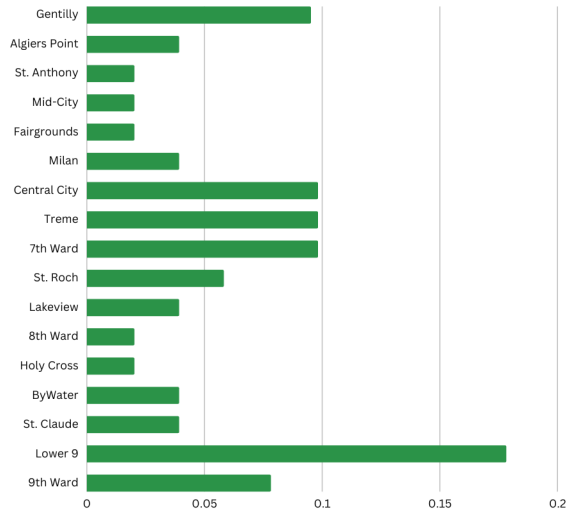


The Water Justice Fund Workshop Series was the first step in our approach to flipping the script on policy creation. Pulling together a dedicated group of New Orleans residents, the workshop series explored the current condition of the City's drainage infrastructure, the shortfall in existing funding for drainage, and the drainage challenges New Orleans must overcome to live and thrive with water.

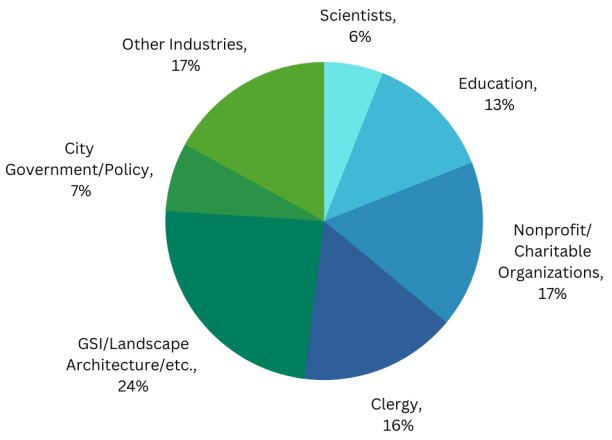
The Workshop Curriculum was broken into three sections. The first section focused on the historical context of the City's settlement and its relationship to the Mississippi River. In this section, participants explored the traumatic experiences New Orleans has faced related to flooding, the historical inequalities experienced by residents of color, and our recent past experiences with hurricanes and chronic flash flooding. The second section of the curriculum focused on the current organizations responsible for drainage, the primary approaches employed to manage stormwater in the City, the governance framework that guides decision making related to drainage, and the significant shortfalls that exist in coordinating effective stormwater management in New Orleans. Finally, the third section of the curriculum explored the role of creating a dedicated stormwater utility and the implementation of a stormwater fee could play to make New Orleans an innovative leader in stormwater management in the 21st Century. The entire Water Justice Fund Workshop Series Syllabus can be found in Appendix A.

Attendance at each workshop was capped at 40 people to allow meaningful engagement. One week after we opened pre-registration all available slots were filled. The room we used at the Tidewater Building held a maximum of 50 participants, which allowed us to handle drop-in participants who did not pre-register to attend a particular workshop. Generally, attendance at each workshop ranged from 30-50 people. Participants came from a variety of neighborhoods, with a particular emphasis on downtown neighborhoods, such as Treme, the 7th Ward, Gentilly, and both the upper and lower 9th Ward. Similar diversity was represented in the occupations of participants, represented in Figure 1 below. While 25% of participants self-identified as working in the landscape architecture and green infrastructure sectors, 16% represented local nonprofit organizations and community organizers, nearly 20% described their work as in the science and education sectors, 7% of participants worked as city employees, and a large percentage came from other industries, such as marketing, clergy, social work, real estate, and economic development. The age range and representation of racial/ethnic groups was roughly representative of the City of New Orleans demographics.

Participant Neighborhoods



Participant Occupations



Resident feedback was collected in two ways. Each workshop roughly consisted of 50 percent information sharing and presentations and 50 percent design thinking activities. Design thinking activities included collaging, open discussions, small group exercises, and small group presentations. The concerns and preferences of participants were documented by note takers, and small group exercise worksheets were collected and summarized. In addition to in-class feedback, participants were asked to complete a set of survey questions after each workshop. These surveys were designed to collect on-going demographics and the breadth of policy concerns and preferences respondents felt toward stormwater management, the governance of drainage, and a variety of specific stormwater fee features that could be adopted by the City of New Orleans. Each week, participant responses were recorded in a database. We present our survey findings below.

Workshop Participant Concerns & Preferences

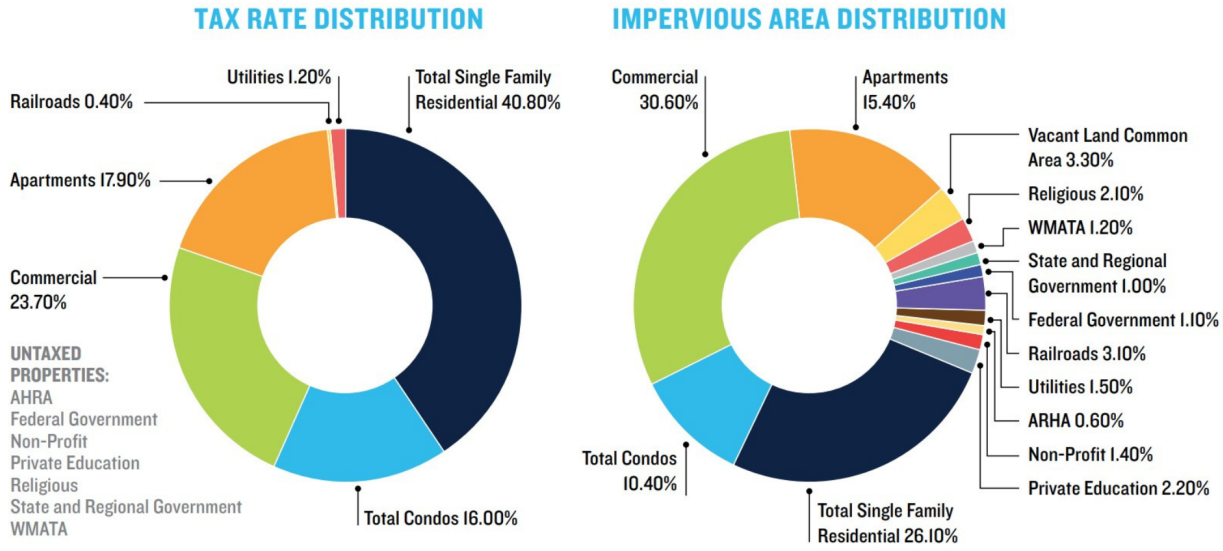
Workshop participants overwhelmingly support the introduction of a stormwater fee. Three primary outcomes were regularly cited as potential positive outcomes from implementing a stormwater fee:

- *Flood mitigation*
- *Beautification and recreation through green infrastructure*

- *Workforce development*

However, participants repeatedly demanded that three requirements be met before they will support passage of a stormwater fee. First, they want to see equity in who pays for drainage. Currently, over 40% of property owners do not pay the ad valorem taxes that are used to fund drainage in the city. Participants understand that a fee, rather than a tax, is required to ensure that ALL properties that contribute significantly to run-off with large impervious surfaces pay a share of the income needed to advance the city's drainage capacity and approach, including nonprofit organizations, for-profit firms who receive tax abatement benefits, and state-owned properties. Table 1 below illustrates the difference between actual run-off contribution per sector and tax rates, highlighting the need for a fee, rather than an additional millage, to build an equitable revenue source for stormwater management.

City of Alexandria: Tax Rate vs. Impervious Contribution



Source: NRDC & City of Alexandria, Making it Rain, 2018

Secondly, workshop participants want to see full accountability and transparency from the agencies tasked with implementing a stormwater fee. They expressed significant doubt that either the Sewerage and Water Board (SWBNO) or the Department of Public Works (DPW) will provide the public with sufficient information regarding who pays the fee, how it is calculated, who is exempt, and how the money is spent unless they are required by law to disclose that information. For that reason, our participants felt most comfortable with the creation of a new stormwater utility to administer the proposed stormwater fee, rather than delegating

responsibility for stormwater fee oversight to either existing utility that manages drainage services.

While many of our workshop participants understood the way governance and funding of drainage was coordinated in New Orleans, many others confronted the division of drainage between SWBNO and DPW for the first time during the workshops. Participants expressed concerns when they learned that SWBNO is not technically a municipal agency, recognizing that accountability is split between New Orleans and the State of Louisiana. A significant number of our workshop participants were unaware that DPW is responsible for smaller pipes and catch basins, while SWBNO is responsible for larger pipes, canals, and pump stations. When examining the budgets and revenue sources for drainage, some workshop participants were confused regarding sanitation charges that appear on their water bills.

The confusion over how existing funds are used, who pays into the drainage funding, and overall governance of drainage in New Orleans left a small number of our workshop participants unconvinced that a stormwater fee can be implemented in ways that are equitable, transparent, and accountable. Those participants are unlikely to be persuaded unless the policy calls for the creation of a new stormwater utility that is structured to directly address equity, transparency and accountability – a clean slate that charts a new relationship between residents and water management in the city. Even among those who are completely convinced that a stormwater fee is required to secure a resilient future living with water in New Orleans, there is significant skepticism that best practices in transparent, accountable, and equitable governance will characterize the implementation of a new stormwater fee. As a result, the majority of our workshop participants concluded that a Community Advisory Board should be appointed to provide stakeholder oversight of stormwater fee management.

If these concerns are met in the ordinance or proposition presented to City Council or to the vote of residents, the majority of our workshop participants are likely to support the initiative. Their traumatic experiences with flooding – both chronic flash flooding and flooding from rapid onset storms, was consistently cited as their greatest motivation to pass a stormwater fee. Beautification and recreational opportunities that arise from expanding blue and green infrastructure in the city and workforce development follow closely as the primary reasons our workshop participants support the passage of a stormwater fee in the City of New Orleans.

A set of clearly articulated values underpins workshop participants' support of the stormwater fee. First and foremost, our workshop participants want flood protection. In addition, they want the job opportunities that a stormwater fee can provide. And, finally, the vision of a city filled with intentionally designed waterways and green spaces has captured their imagination.

The strongest through line expressed by workshop participants over the 10 weeks is that people want flooding to stop. People spoke about the traumas they have experienced with flooding in New Orleans. They spoke about a desire to live in a place where they don't have to fear the rain. They spoke about the financial and personal costs they have born due to flooding.

Participants expressed strong support for the workforce opportunities that could come if a stormwater fee is used to develop green infrastructure. The parks and green spaces, as well as bioswales and rain gardens highlighted in the Greater New Orleans Urban Water Plan[7] would offer significant job opportunities for those with green economy training. And participants were particularly supportive of programs like those offered by Thrive, which prepare Black and Brown residents of New Orleans to do this work and to build BIPOC businesses in green economy sectors. Participants expressed concerns, however, that the City of New Orleans does not have a policy that gives preference to local workers and businesses in the contracting space. They support an approach that gives priority to local workers and businesses, citing the need for work opportunities that pay BIPOC workers a living wage.

Finally, workshop participants were excited by the beautification and recreation opportunities that could come from an intentional campaign to build green stormwater infrastructure throughout the city. People had an overwhelmingly positive reaction to the existing Greater New Orleans Urban Water Plan[8]. In one exercise, participants worked in groups to produce vision boards depicting a future where residents live and thrive with water. The images were vibrant, filled with people enjoying the outdoors. Some of the themes represented on the boards include: nature and the common good, nature and its ability to nurture the human soul, green spaces that foster community, building a local circular economy, and nature as a healthy place for youth.

Building shared prosperity and resilience in a place that embraces its ecological identity captures the primary vision our workshop participants imagined a stormwater fee could produce for New Orleans; and they are poised to support the passage of a stormwater fee that is designed to bring this vision to life. However, as mentioned above, participants expressed

[7] *Greater New Orleans Urban Water Plan. 2013. Waggonner & Ball Architects.*

[8] *Greater New Orleans Urban Water Plan. 2013. Waggonner & Ball Architects.*

significant skepticism that an equitable, transparent, and accountable fee governance structure will be prioritized if a stormwater fee is passed. We review these concerns in detail below.

Centering Equity: Who Pays?

Participants in the Water Justice Fund Workshop Series placed equity in who pays for drainage above all other considerations when evaluating a stormwater fee for New Orleans. Although current data is unavailable for the percentage of property owners who pay millages for drainage, data cited in a recent BGR report suggests that "roughly 60% of the city's assessed real property value was off the tax roll due to exemptions. To better distribute cost burdens, the report recommended that local government impose carefully crafted service charges or fees to fund services, such as drainage and street maintenance, on all property owners in the city, including nonprofit and government-owned property."[9] Because millages assessed on property taxes is the primary source of funding for stormwater management, our workshop participants feel that the cost of drainage has been inequitably levied upon residents, while nonprofits, tax-exempt corporations, and government entities fail to pay their fair share.

Our workshop participants expressed a desire for a stormwater fee that "decreases exempted entities." One participant wrote: "Approximately half of taxpayers fund drainage. Everyone, including tourists and big companies and nonprofits should be paying." Another wrote "the water bill is too high already. We need a stormwater program for low-income residents." Another common sentiment was expressed by this participant, "It is important to shift the burden from homeowners to big companies and nonprofits (especially those that have large impervious structures like parking lots)."

Stormwater fees across the country have incorporated a variety of tools to increase equity in who pays for drainage. Need-based stormwater fee discounts, for example, were adopted by Jacksonville, Florida, where property owners with an income below 150% of the federal poverty level are exempt from paying the fee. Baltimore, Maryland incorporated opportunities for their residents to reduce their stormwater fees by participating in organized public events that improve stormwater management, such as tree plantings and neighborhood cleanups. Stormwater credits in Philadelphia were established well after their original stormwater charge was implemented as a method for increasing equity into who pays for drainage; however, New

[9] *Bureau of Governmental Research, Beneath the Surface: a Primer on Stormwater Fees in New Orleans. February 2017, page 8.*

Orleans has an opportunity to intentionally design a fee that recognizes the current inequities in who pays for drainage and create a system where all property owners have a shared investment in flood abatement and charting a more resilient future for our city.

Nonprofit organizations, tax-exempt for-profits, and government land holders can also benefit from incentives that reduce their stormwater fees. For example, in Philadelphia, there are three types of credits that reduce organizations' stormwater fees. The first credit is provided when an organization reduces the impervious surface of their property, which increases water absorption. Planting trees, installing planter boxes and rain gardens, or changing impervious parking and walking paths to pervious spaces fall under this category of credits. The second credit is provided when an organization improves existing pervious space with vegetation that increases absorption of stormwater. And the final class is for organizations that are directly adjacent to a stormwater discharge location and are in compliance with those permit requirements.

In addition to incentives, Philadelphia supports green infrastructure with grants. Philadelphia Water Department (PWD) partners with Philadelphia's Economic Development Corporation (PIDC) to offer grants to non-residential property owners, project, managers, and developers planning stormwater retrofits to keep and increase green stormwater infrastructure (GSI). This partnership allows PWD to spend money on private property and focus on outreach and review of applications, while PIDC administers and issues the grants. The grants help with the upfront costs of installing GSI, such as green roofs, subsurface basins, and permeable pavement. Those who receive the grants also qualify for reduced stormwater fees through PWD's stormwater credits program.[10]

Workshop participants were in support of designing a stormwater fee for New Orleans that incorporates credits and incentives for both residents and other organizations who pay the fee. They felt that everyone subject to the fee should have the opportunity to receive discounts if they implement actions that significantly decrease runoff from their properties. However, they were avidly opposed to organizational exemptions from paying the fee. When we hosted representatives of the Baltimore Department of Public works, they indicated that pressure from the Catholic Diocese led them to practically exempt Catholic churches from their stormwater fee, resulting in approximately $225K in lost stormwater revenue per year[11]. Workshop

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[10] "Philadelphia Water Department: Taking an Equitable Approach to Stormwater Charges." 2023. WaterNow Alliance and Tap Into Resilience.

[11] In Provision of Grace World Mission Church v. City of Philadelphia, the court dismissed the Church's complaint because it found the Church had failed to exhaust its administrative remedies, i.e., going first through the Tax

participants were adamant that everyone, including churches and hospitals, need to be included in the fee. In fact, many respondents felt the primary burden to pay a new stormwater fee should fall solely on organizations and exempt individual residents.

Some felt the approach should be to phase residents into paying the fee over time, while organizations should have to pay the full rate right away. Others felt residents should never have to pay the fee, given they have borne the burden to pay a large portion of the millages used for drainage.

Improved Transparency & Accountability

A significant concern was expressed by workshop participants regarding trust in New Orleans' government agencies, especially Sewerage and Water Board. Attendees shared their frustration over a lack of accountability for government spending post-Katrina. Some asked where all of the COVID support funding was spent, and many expressed skepticism that the City of New Orleans can create a stormwater fee that is governed in a transparent and accountable way.

Traditional ideas about government accountability focused on accounting to superiors and other government entities that provided oversight, such as legislative committees or the courts. Beginning with the participatory democracy movement in the 1960s, however, citizens began demanding government agencies to provide transparency to the public, arguing that those agencies are charged with carrying out the public good.[12] The primary values underpinning participatory democracy include, among others: citizen engagement, equality, solidarity, trust, and respecting diversity. These values have infused societies around the world and currently transcend national boundaries, placing transparency and accountability at the center of all contemporary models of good governance.[13]

Unfortunately, our workshop participants talked about transparency and accountability in government as lacking, at minimum, and this skepticism presents a considerable set of challenges when asking residents to pay a stormwater fee. First, workshop participants said that transparency in who pays a stormwater fee is a requirement for them to support the fee.

Review Board. When the Church appealed the fee to the Tax Review Board, the Board decided that the stormwater charge is a fee and not a tax and as such the Church had to pay its stormwater fee.

[12] Rimmerman, Craig A. 2001. The New Citizenship: Unconventional Politics, Activism, and Service. Westview Press.

[13] Boli, John and George M. Thomas. 1999. Constructing World Culture. Stanford University Press.

Similarly, they said that transparency in how fees are calculated and levied is necessary to build public support. This includes full transparency of any parcel data that is used to determine permeability and transparency in how factors such as raised houses plays into calculation of the fee.

Participants placed a high premium on creating a strong set of accountability mechanisms to accommodate the fee. For example, they want there to be a website where they can go to find details about the stormwater fee all in one place. They want that website to be updated regularly with a database of all addresses and property owners who pay the stormwater fee, including details regarding how those fees are calculated. They want to know which organizations are not paying the fee and which official incentives and exemptions apply to each type of property owner, residential vs. commercial. They would like this website to include an interactive list of all of the incentives, exemptions, and educational programs that are available to help property owners increase permeability on their lots and earn discounts on their fee. Finally, they want this website to fully disclose the total amount of revenue attributed to the stormwater fee, how much of that revenue is collected from commercial organizations, government entities and residents, and the specific projects the fee supports.

Our workshop participants also expressed a desire that a Community Advisory Group be created and given authority to provide oversight of the stormwater fee. They also highlighted that the Neighborhood Engagement Office or the Office of Sustainability and Resilience, which already exist, could be given expanded authority to engage with neighborhood associations to provide periodic updates on implementation of the stormwater fee and collect feedback from residents on their concerns and preferences. Building in these mechanisms for transparency and accountability to the fee structure from the beginning will increase resident support.

Improved Stormwater Governance

Many of the concerns we heard about the governance of drainage focus on the challenges our workshop participants have faced with SWBNO's lack of transparency and accountability to ratepayers. However, at a more structural level, our workshop participants highlighted several dimensions of the official division of labor and oversight of drainage operations that characterize SWBNO and DPW. They also expressed concerns regarding SWBNO's accountability to the state legislature while serving the City of New Orleans.

Clearly, these concerns are warranted. In a recent report entitled “Waterworks in Progress: Reassessing the Sewerage & Water Board’s Governance Problems and Potential Paths to Long-Term Improvements,” the Bureau of Government Research (BGR) examined the challenging governance structure that characterizes SWBNO. The report highlighted that, while the Mayor and City Council of New Orleans hold the purse strings for SWBNO funding, the organization was founded and is governed by over 80 state laws that split its loyalty between Baton Rouge and the City. In addition to this state-city shared oversight, the BGR report cites the lack of a systematic and objective funding review process as a contributing factor in SWBNO’s financial shortfalls, since the New Orleans City Council has a “tendency to use its control of SWBNO funding to hold the utility accountable.”(cite, pg. 18). The report states that the New Orleans shared responsibility for stormwater drainage between SWBNO and DPW is an unusual one that threatens stormwater management in the City.

The majority of our workshop participants expressed a preference to create a new municipal stormwater utility responsible for all drainage in the City of New Orleans, rather than to invest further in the current drainage governance structure. They also felt that creating a new stormwater utility provides an opportunity to create a stronger partnership with residents in charting a drainage strategy that represents their needs. The BGR report notes that the creation of a new municipal stormwater utility can resolve several of the primary governance challenges that currently exist, including shifting oversight of drainage to the City Council alone, rather than splitting it between City Council and the State Legislature.

The passage of LA HB409 (Act 319) seems to further support the need to establish a municipal stormwater utility, because it appears to exclude SWBNO from instituting a stormwater fee, according to the Water Collaborative of Greater New Orleans’ stormwater legal team. Act 319 elaborates the ways stormwater fees can be established and which utilities can institute them. It states:

> *The governing authority of any parish or municipality may create, by ordinance, a stormwater management utility district, referred to in this Section as the "district", for the purpose of managing stormwater flooding, including abatement of litter and other flood-causing sediments. Any such district shall be a political subdivision of the state as defined in the Constitution of Louisiana. The boundaries of the district shall encompass all of the territory of the respective parish or municipality. The governing authority of the respective parish or municipality shall be the governing authority of the district, referred to in this Section as the "board". (LA HB409 2023 Chaptered, Section 1.A.)*

Establishing a new municipal stormwater utility also provides an opportunity to approach community engagement in more transparent, inclusive, and accountable ways. For example, our workshop participants strongly supported the concept of having a Community Advisory Committee to provide oversight of the stormwater fee. Such an advisory committee could create a group of resident, rate payer ambassadors to assist in building a less adversarial relationship between residents and New Orleans' utilities. The new municipal stormwater utility could adopt transparent public participation opportunities that follow emerging best practices, rather than providing minimum public comment requirements established by law.

Our workshop series was designed to model best practices in policy co-creation, which are being adopted by city governments around the country.[14] Traditional views of governance envision their beneficiaries of services as passive recipients. However, New Orleans residents have never fit this mold; and our workshop series stands as strong evidence that our residents can be creative partners and supporters in policy and change management. Establishing a new municipal stormwater utility provides a pathway to engaging our community in envisioning a new future where we live and thrive with water.

Charting a New Vision: Living & Thriving with Water

A bold vision for the future of New Orleans underpins our workshop participants' support for a stormwater fee. This vision casts New Orleans as a place that embraces its surrounding ecosystem and lives in harmony with the hydrology of that ecosystem by intentionally creating waterways and green spaces that make living with water beneficial for residents and businesses. The benefits our workshop participants value in this vision include significant flood abatement, which will put an end to their chronic fear that their homes or their vehicles will be flooded every time there is a heavy rain. They also envision a city where proliferating green stormwater infrastructure provides beautification, recreation, decreased blight, increased tree canopy and reduced heat island impacts. Green stormwater infrastructure also leads to opportunities for jobs that pay living wages for residents and locally- owned businesses.

Our workshop participants overwhelmingly expressed hope that a stormwater fee can play a significant role in bringing this vision to life. Examinations to date suggest that implementation of a stormwater fee can make a significant dent in the revenue shortfalls that currently exist in

[14] *Gouillart, Francis and Tina Hallett. 2015. "Co-Creation in Government." Stanford Social Innovation Review.*

our city's drainage funding[15,16]. Such funding is necessary to maintain and update our aging pumps and other grey infrastructure through capital improvement projects. A well-designed stormwater fee can also provide revenue for expansion of green stormwater infrastructure throughout New Orleans, which can increase absorption of stormwater, decrease subsidence, and decrease the impacts of flash flooding during heavy rains[17].

In addition, if carefully crafted and implemented, the creation of a new municipal stormwater utility, funded in part by a stormwater fee, can help to overcome multiple challenges confronting New Orleans' stormwater management. Residents have lost trust in our city's ability to manage stormwater in ways that are equitable, transparent, and accountable. Whether implementing a fee via existing utilities or through a new municipal stormwater utility, doing so in an open, transparent way that engages and educates residents provides an opportunity to improve trust and spark innovation through policy co-creation. Transparency and accountability in government is not currently a trait attributed to the City of New Orleans, but the City can turn this reputation around by embracing these best practices throughout the process of crafting and implementing a municipal stormwater fee.

Centering equity in the stormwater fee is also paramount to the success of this initiative. The fact that tax-payers have borne the burden of drainage costs is not lost on our workshop participants. Some of them do not want to pay an additional fee at all, but most of them are willing to pay a fee if the burden is equitably distributed among those who contribute to stormwater run-off. For that reason, it is advisable to design credits and incentives in ways that provide hardship exemptions and incentives for residents and small businesses and provide very few exemptions for large business, nonprofit, and government entities. Everyone experiences the costs of flooding in our city, but to date residents have borne an unequal amount of the burden to provide revenue for stormwater management. Acknowledging this inequity and correcting it in the design and implementation of a stormwater fee will enhance the likelihood that residents will vote to implement the fee.

A stormwater fee alone is unlikely to result in the bold vision set out by our workshop participants. However, it is a necessary first step toward changing New Orleans' outdated paradigm of stormwater management, which is focused on pumping as the central means of

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[15] *The Water Collaborative of Greater New Orleans,* Using a Stormwater Fee to Finance More Equitable, Sustainable, and Innovative Urban Water Management*. January 2019.*

[16] *Bureau of Governmental Research, Beneath the Surface: a Primer on Stormwater Fees in New Orleans. February 2017.*

[17] *Greater New Orleans Urban Water Plan. 2013. Waggonner & Ball Architects.*

addressing drainage. Our experience through this 10-part workshop series highlights the productive and collaborative role residents can play in policy co-creation. Their contributions throughout the workshop series were creative, intelligent, heart-felt, and generous. We are grateful for their inputs and look forward to their on-going feedback as we continue our efforts to pass a stormwater fee for the city.

Appendix A: Workshop Syllabus

Building Equitable Stormwater Management in New Orleans:

The Role of A Water Justice Fund

Tulane Tidewater Building

1440 Canal Street, Room 1206

6 – 7:30pm

Workshop Overview: *In this 10-part workshop series, we will explore stormwater management tools, ranging from gray to green infrastructure, and the role a stormwater fee-generated Water Justice Fund could play to enhance stormwater management and build equitable resilience in New Orleans. We will review the science behind the risks climate change poses to our existing stormwater management infrastructure and the ways these risks are unequally distributed in New Orleans neighborhoods. Participants will learn about the ways stormwater fees have been used in cities like Philadelphia and Baltimore to lower flood risks through improved drainage and absorption. Armed with information shared in the workshops, we will work together to explore which stormwater fee frameworks best situate New Orleans residents to equitably live and thrive with water for the next century.*

Childcare: *Childcare will be provided by certified childcare professionals*

Dinner & $50 gift certificate will be provided to attendees

Workshop Audience: *Do you wonder how the pumps work in New Orleans? Do you worry that flooding in your neighborhood is getting constantly worse instead of better? Do you believe New Orleans can and must do better managing stormwater? Then, this workshop series is for you. We invite all concerned residents of New Orleans to join us for this workshop series. In addition, we welcome professionals in the fields of emergency management, stormwater management, water utilities, landscape architecture, parks and parkways, and other blue-green infrastructure fields to participate for continuing education credits.*

Workshop Learning Objectives: *Participants will develop the following understanding and skills:*

- *How does stormwater drainage work in New Orleans?*
- *What role do gray and green infrastructure play in stormwater management in our city?*
- *What inequities exist in our current system and which communities are most vulnerable?*
- *What climate change processes are impacting flooding and stormwater management?*
- *What is a stormwater fee and how have stormwater fees been used in other communities to enhance resilience for residents, utilities, and emergency management professionals?*
- *How can a stormwater fee support enhanced resilience to climate change, while building equity and a strong green economy in New Orleans?*

Tentative Agenda

Date	***Topic/Presenters***	***Recommended/Further Readings***
3/30	***Defining Equity; Trauma Informed Policy*** *Presenters & Panelists:* *Archbishop Marcia Dinkins, Executive Director, Women for Change* *Beth Schaefer Caniglia, The Water Collaborative; Holly Laviolette, the Water Collaborative; Jessica Dandridge, the Water Collaborative*	*This workshop will set the tone for the workshop series. It will 1. Introduce our team 2. Review the process we will use, 3. Provide a history and overview of stormwater fees and our goals for creating an opportunity to democratize infrastructure management in New Orleans, 4. Acknowledge the trauma we have experienced with flooding, both by hurricane, but also by chronic flooding and the inequitable distribution of burden in some parts of the city vs. others, 5. Introduce our definition and framework of water justice, and 6. Begin the interactive dialogue with participants.*
4/6	***How Drainage Works in New Orleans*** *Presenters & Panelists:* *Aron Chang, Civic Studio*	*This workshop will review the stormwater management system in New Orleans, including gray and green infrastructure. How and when do the pumps work? What are the costs and benefits of pumping? We will discuss the history of pumping and the changing landscape of New Orleans flora.*
4/13	***Governance and Design Thinking*** *Presenters & Panelists:* *Jessica Dandridge, Executive Director, The Water Collaborative; Holly Laviolette, The Water Collaborative; Beth Caniglia, The Water Collaborative*	*This workshop will introduce design thinking as a tool for transforming the way drainage is governed in New Orleans.*

4/20	***Systems Change and Afro Futurism*** *Presenters & Panelists:* *Chris Daemmrich, Tulane Taylor Center for Social Innovation and Design Thinking* *Bryan Bradshaw, Tulane School of Architecture* *Annicia Streete, LSU College of Art & Design*	*This workshop will guide us in implementing design thinking tools that can be used to co-create a vision for the New Orleans we want and the role a stormwater fee can play to help us achieve those goals.*
4/26	***Lessons from the Philadelphia Stormwater Fee: Who's in Charge of the Charge and Incentivizing GSI*** *Presenters & Panelists:* *Marc Cammarata, Philadelphia Water Department* *Caroline Koch, WaterNow Alliance*	*In this workshop we will take a deep dive into the Philadelphia Stormwater Fee policy and discuss which dimensions might work for our city.*
5/3	***Lessons from Baltimore: Who Pays, Who Doesn't Pay, and Creative Approaches to Incentives*** *Presenters & Panelists:* *Mark Cameron, Baltimore Department of Public Works* *Caroline Koch, WaterNow Alliance*	*In this workshop we will take a deep dive into the Baltimore Stormwater Fee policy and discuss which dimensions might work for our city.*
5/11	***Powering Drainage and Exploring Renewables*** *Presenters & Panelists:* *Usayd Casewit, National Academies of Science* *Logan Atkinson Burke, Alliance for Affordable Energy*	*In this workshop, we will discover how drainage is powered in New Orleans. What role does renewable energy have to increase the resilience of our pumping system during extreme weather events?*
5/17	***Getting to Scale: Investing in Long-term Infrastructure Improvements***	*This workshop will explore the range of options New Orleans may have to use revenues from a water justice fee to invest in long-term stormwater infrastructure improvements, including gray and*

	Presenters & Panelists: *Caroline Koch, WaterNow Alliance* *Ed Harrington, Water Now Alliance* *Hilary Chen, WaterNow Alliance*	*green improvements. These options include municipal bonds, State Revolving Fund loans, and federal programs from FEMA and other agencies. We will discuss the benefits of matching long-term investments with long-term payments, ways to navigate legal and accounting questions when financing improvements located on private property, and frameworks for creating community-driven capital budgets.*
5/25	***Economy & Workforce Development (DBE), Green Economy Benefits*** *Presenters & Panelists:* *Chuck Morris, Thrive* *Dr. Eugene Wilkerson, National University*	*What role does a stormwater fee play in advancing equitable workforce opportunities and the growth of a green economy sector for New Orleans?*
6/1	***Transparency and Accountability*** *Presenters & Panelists:* *Chris Ard, City of New Orleans Enterprise Data Manager* *Beth Schaefer Caniglia, The Water Collaborative; Holly Loviolette, the Water Collaborative; Jessica Dandridge, the Water Collaborative*	*What are the best ways to ensure a stormwater fee is implemented equitably? What mechanisms can be put in place to provide community oversight and ensure transparency and accountability?*