



# SEVENTH WARD

**GREEN INFRASTRUCTURE**

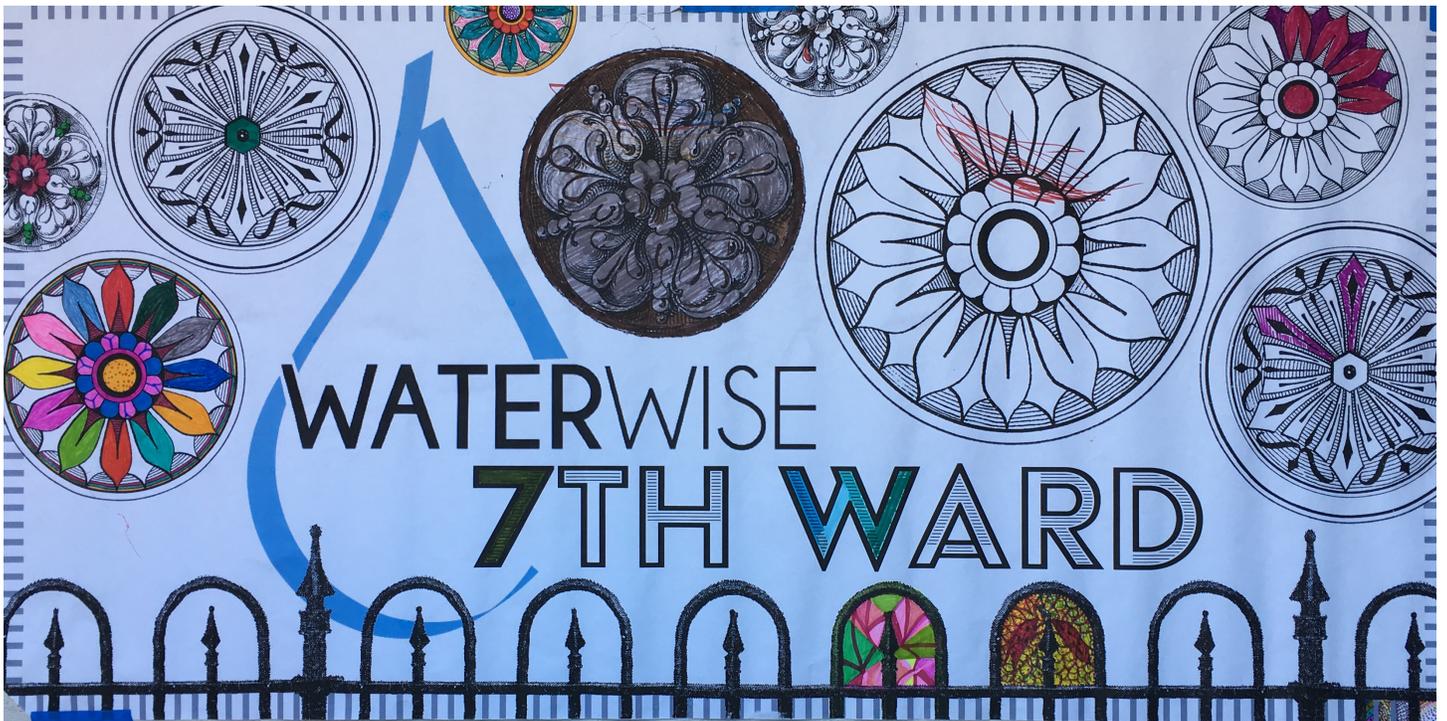
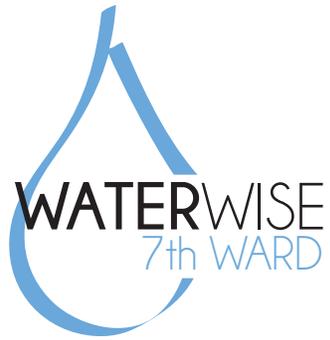
# LOOKBOOK

EXECUTIVE SUMMARY

CREATED BY RESIDENTS OF THE SEVENTH WARD







# Resiliency, Sustainability, Urban Flooding and Climate Change: My Story

## by Angela M. Chalk



Resiliency, Sustainability, Urban Flooding and Climate Change have all become words that we hear frequently. But, WHAT does that really mean to my family, relatives, neighbors, residents in urban and coastal

communities? WHAT does that mean to those of us, who, live, work, play, worship and travel through MY beloved 7th Ward of this magnificent City of New Orleans, celebrating 300 years of existence, on the banks of the mighty Mississippi River?

My story began simply with a conversation with my Great-Niece Anissa J. Hyde who at time was a middle school student. Early on a Saturday, I was awakened by this voice making a request to bring someone to work at their volunteer position at Audubon Park. It was a conversation with Anissa, on that drive to Audubon Park, that started this journey of

learning about green infrastructure. Anissa had explained that during the week her class had installed a rain garden. I was totally ignorant as to what a rain garden, was. She explained that it was a means of retaining water during rain events. “Great Teedy, it works. our playground no longer has standing water after it rains,” Anissa said.

What was occurring on her playground at school, was and continues to occur due to more frequent intense rain events. While most people may not fully understand the science of climate change, sea level rise, urban storm water management, green infrastructure versus gray infrastructure, I did know, that if kids could remedy a problem by collective learning, certainly a community impacted by repetitive flooding, could also work collectively to reduce flooding. Incrementally and collectively each of us has the power to change our small piece of the community. What Anissa didn’t know, (nor did I) was that, that conversation would spur her Great Teedy into action. That one conversation has caused me to learn more; provide a voice for those made vulnerable by environmental challenges;

advocate and influence policy changes; experience our unique water management system; understand what and how climate change affects us daily, most importantly being able to meet people where they are, by connecting and engaging with my neighbors.

And so, the journey began. My desire to learn more and to empower others in a “connected” style is what has driven the community’s participation, inclusive of everyone, around the issue of green infrastructure and building a more resilient sustainable neighborhood. Besides the community’s collective voice, seeing the interaction between old and new neighbors; sharing a meal; and driving the vision of what, the community deems important is truly empowering and inspirational.

Thank You Anissa for that conversation. Thank You Dynisha for being a great mom, to a young girl, now a college student, who will change our world! With heartfelt gratitude, each of you are personally thanked for your support and continued encouragement, on this journey, Cynthia, Michelle, Connie, Dana,

Hashawn, Elaine, Harmona, Cliff, Miriam, Greg, and Mia. To Ella Delio of Greater New Orleans Foundation and Liz Williams Russell, of Foundation for Louisiana for believing and investing in me and Healthy Community Services. To Jeff, Hilairie, Cheryl and Dana Brown thanks for creating this space.

Finally, to the 7th Ward Neighborhood Champions, never doubt your power to transform our community. My journey began with a simple conversation.

Angela M. Chalk, Executive Director,  
Healthy Community Services





*Flooding in Seventh Ward*

## Water Wise Seventh Ward

Water Wise Gulf South is an environmental outreach collaborative devoted to advancing and promoting green infrastructure and its associated benefits through education, events, tours, do-it-yourself workshops, demonstration projects, and leadership training.

Water Wise 7th Ward is a collaboration between Healthy Community Services and Water Wise Gulf South that was officially launched in 2017. The collaboration's first project was an installation of a demonstration bioswale built with assistance from Groundwork New Orleans Green Team and KIPP Central City Academy students, alongside the driveway at Angela Chalk's home. Angela Chalk is the Founding Executive Director of Healthy Community Services and fourth generation 7th Ward resident. This programming was originally supported by the Foundation for Louisiana's Together Initiative, Sewerage and Water Board of New Orleans' Green Infrastructure funding, and the EPA Urban Waters Program.

After successfully launching the Water Wise Neighborhood Champions pilot training program in Treme, Healthy Community Services and Water Wise Gulf South replicated the program in the 7th Ward. This model includes green infrastructure education and a series of visioning workshops during which residents collaborated to identify and prioritize green infrastructure interventions on public property.

In 2017 and 2018, the Greater New Orleans Foundation and the Kresge Foundation provided funding to Water Wise Gulf South and Healthy Community Services to implement the program. The three major components of the Neighborhood Champions training program include:

- **A Water Wise Neighborhood Workshop:** This is an introductory classroom-style presentation and discussion that provides an overview of stormwater management during which participants learn about the municipal drainage system, types and benefits of green



*Water Wise Seventh Ward Green infrastructure*

infrastructure, and implementing do-it-yourself green infrastructure interventions on their own property.

- A Citywide Green Infrastructure Tour: Participants travel via charter bus to tour a variety of different green infrastructure sites on private and public property across the city. Experts on various topics also meet participants at each site to provide information about the project.
- Visioning Session: In these workshops participants gather to discuss green infrastructure interventions on public property in their neighborhood. To do this, residents divided into groups based on where in their neighborhood they live. The participants identify areas that frequently flood, or hotspots, and then identify appropriate green infrastructure interventions to address these problem areas. From there, Dana Brown and Associates map these projects and calculate the amount of stormwater that would be managed and other benefits using the Climate Adaptation Planning

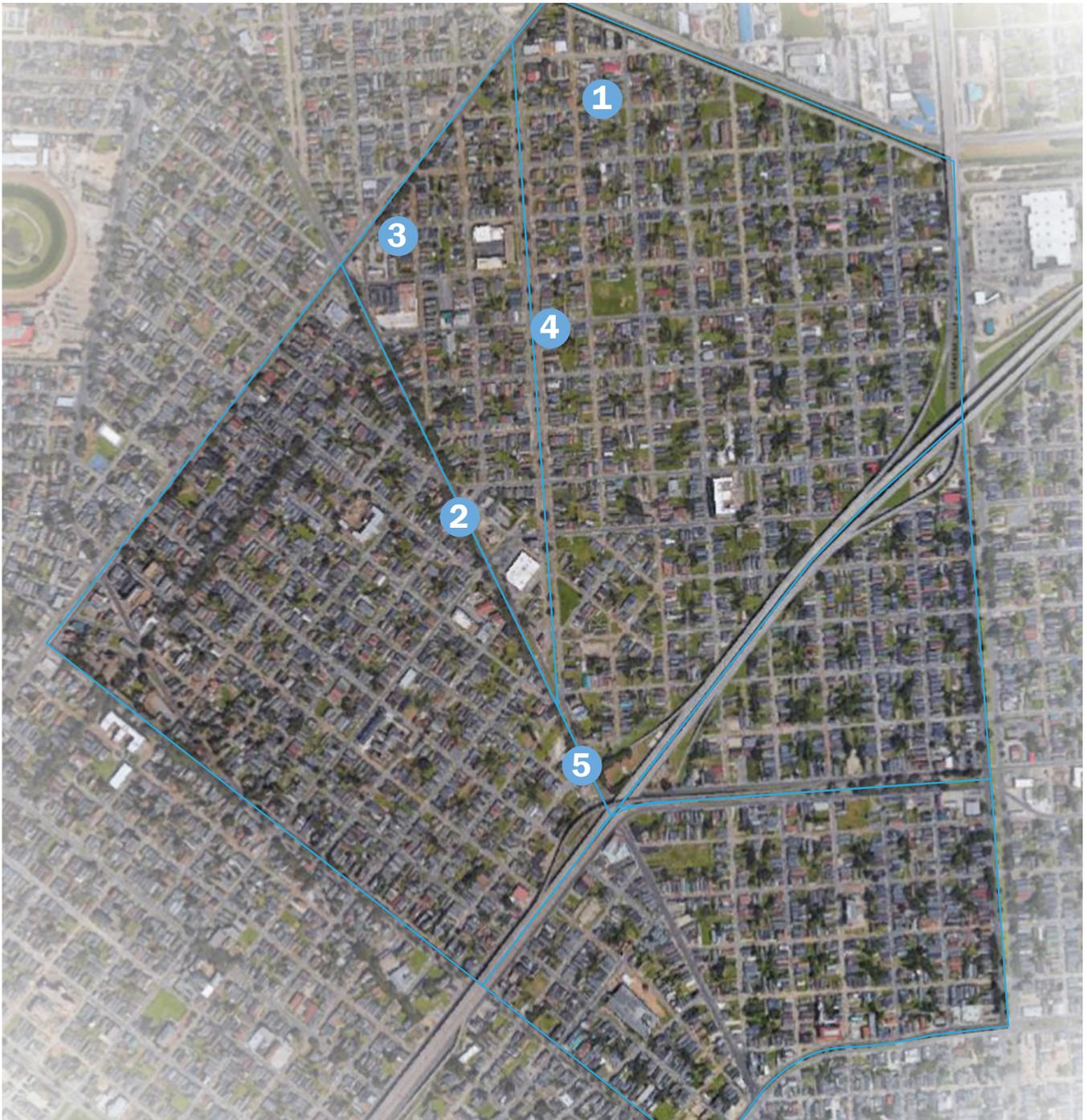
Tool developed by Deltares and Dana Brown & Associates. The participants reconvene in workshops to reassess their suggestions and collectively prioritize the listed projects

Included as a part of the Neighborhood Champions model, is the green infrastructure seed fund, which enables the Neighborhood Champions to implement green infrastructure projects in their neighborhood.

Currently there are 13 Water Wise 7th Ward Neighborhood Champions who have attended all three mandatory workshops. An additional 11 participants have attended two out of three of the trainings. 46 green infrastructure interventions have been identified on public property.



## Green Infrastructure Interventions Completed in the Seventh Ward



- 1 Bioswale at 1855 Duels Street
- 2 Rain Barrel at 2169 Aubry Street
- 3 French Drain and Bioswale at 1843 Law Street
- 4 Stormwater Planter Box at 2441 A.P. Tureaud Aven
- 5 De-paving and Tree Planting at 1725 Saint Bernard Avenue.



## Seventh Ward Section 1 Green Infrastructure Vision

		STORMWATER STORAGE CAPACITY	CONSTRUCTION COST	ANNUAL MAINTENANCE COST
<b>a</b>	A.P. Tureaud Avenue Curb Extensions	28,800 gal	\$ 630,000	\$ 15,400
<b>b</b>	A.P. Tureaud Avenue Street Trees	780,000 gal stormwater interception	\$ 95,000	\$ 85,500
<b>c</b>	Good Shepherd School Cistern	2,990 gal	\$4,000	\$500
<b>d</b>	North Tonti Street Pervious Pavement	21,700 gal	\$ 148,350	\$ 1,615
<b>e</b>	North Tonti Street Bioswales	5,720 gal	\$ 62,100	\$ 5,940
<b>f</b>	Law Street and Annette Street Biowales	8,300 gal	\$ 90,045	\$ 8,615
<b>g</b>	North Dorgenois Street Curb Extensions	4,100 gal	\$ 99,000	\$ 2,200



## Seventh Ward Section 2 Green Infrastructure Vision

		STORMWATER STORAGE CAPACITY	CONSTRUCTION COST	ANNUAL MAINTENANCE COST
<b>a</b>	A.P. Turead Avenue Pervious Pavement	58,900 gal	\$ 402,500	\$ 4,375
<b>b</b>	A.P. Tureaud Avenue Curb Extensions	28,800 gal	\$ 630,000	\$ 15,400
<b>c</b>	Triangle Deli Pervious Pavement	21,200 gal	\$144,900	\$1,575
<b>d</b>	A.P. Turead Avenue Street Trees	29,360 gal stormwater interception	\$ 26,875	\$ 24,190
<b>e</b>	Saint Augustine School Bioswale	5,890 gal	\$ 40,250	\$ 440
<b>f</b>	Saint Augustine School Rain Gardens	7,950 gal	\$ 86,250	\$ 8,250
<b>g</b>	Saint Augustine School Cistern	2,990 gal	\$ 4,000	\$ 500
<b>h</b>	Saint Augustine School Pervious Pavement	72,710 gal	\$ 496,800	\$ 5,400
<b>i</b>	Saint Augustine School Infiltration Recreation Field	60,590 gal	\$ 162,000	\$ 7,000
<b>j</b>	Saint Augustine School Rec Field Street Trees	32,580 gal stormwater interception	\$ 29,750	\$ 26,775
<b>k</b>	George N Connor Drive and Law Street (SW) Pervious Pavement	10,930 gal	\$ 74,750	\$ 815
<b>l</b>	George N Connor Drive Curb Extensions	24,680 gal	\$ 540,000	\$ 13,200
<b>m</b>	Life of Christ School Pervious Pavement	92,230 gal	\$ 630,200	\$ 6,850



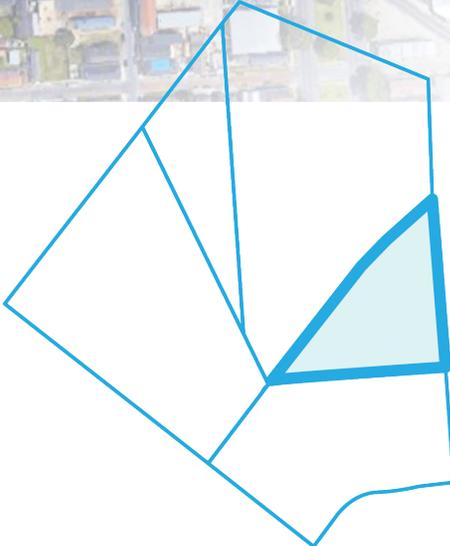
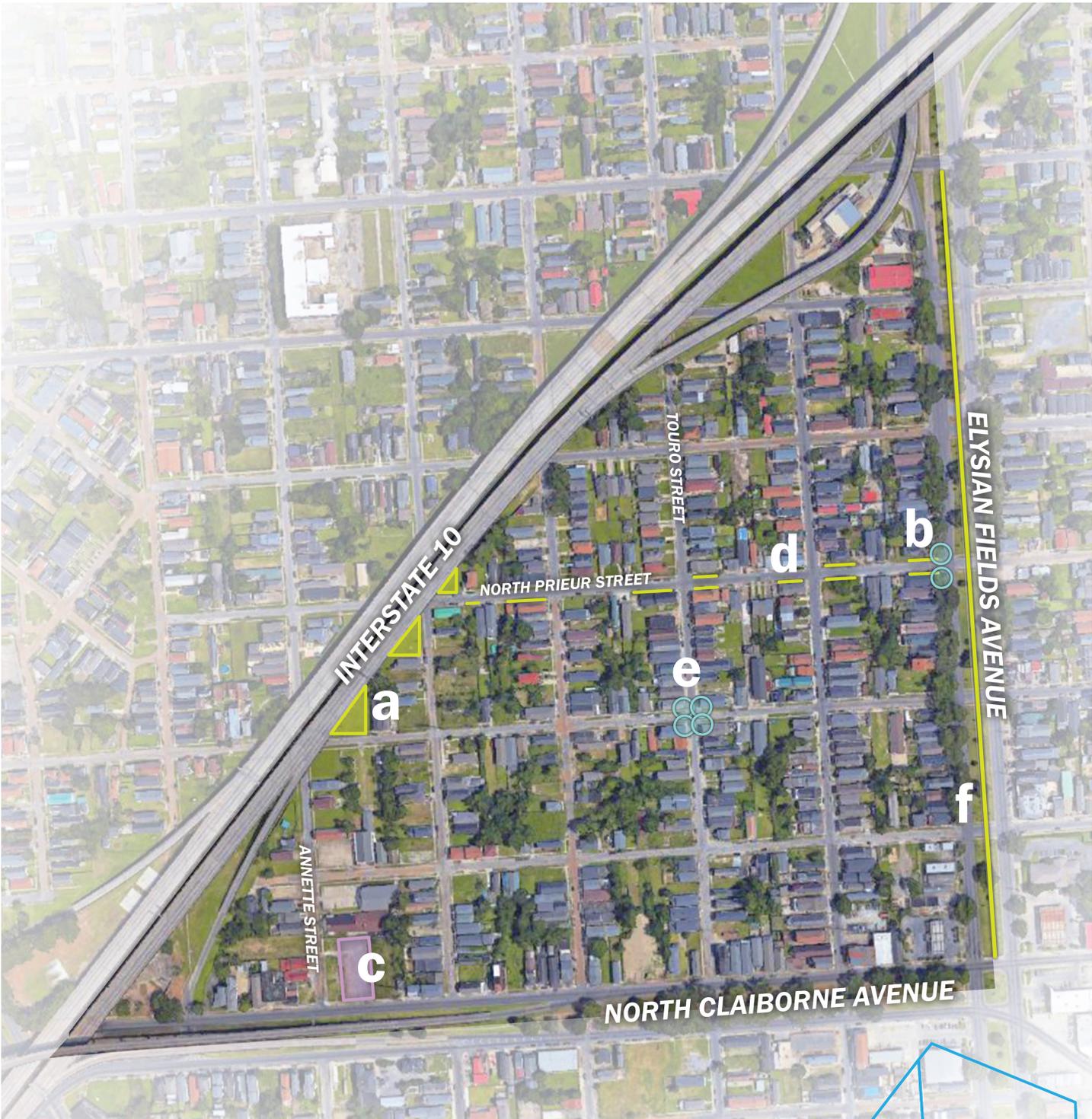
## Seventh Ward Section 3 Green Infrastructure Vision

		STORMWATER STORAGE CAPACITY	CONSTRUCTION COST	ANNUAL MAINTENANCE COST
<b>a</b>	North Claiborne Avenue Detention Basin	242,145 gal	\$ 124,500	\$ 8,217
<b>b</b>	North Broad Street Curb Extensions	31,270 gal	\$ 684,000	\$ 12,100
<b>c</b>	Street Tree Grid	156,400 gal stormwater intercepted	\$ 142,500	\$ 128,250
<b>d</b>	Bayou Road Curb Extension	23,860 gal	\$ 522,000	\$ 1,100
<b>e</b>	St. Bernard Lot Detention Basin	106,970 gal	\$ 187,000	\$ 3,630
<b>f</b>	St. Bernard Lot Cistern	2,990 gal	\$ 4,000	\$ 500
<b>g</b>	McDonogh 42 Perious Pavement	71,530 gal	\$ 488,750	\$ 5,315
<b>h</b>	McDonogh 42 Green Roofs	12,240 gal	\$ 68,425	\$ 20,825



## Seventh Ward Section 4 Green Infrastructure Vision

		STORMWATER STORAGE CAPACITY	CONSTRUCTION COST	ANNUAL MAINTENANCE COST
<b>a</b>	St. Claude Avenue Pervious Pavement	70,700 gal	\$ 483,000	\$ 5,250
<b>b</b>	St. Claude Avenue Curb Extensions	23,865 gal	\$ 522,000	\$ 12,100
<b>c</b>	Saint Bernard Avenue Curb Extensions	30,035 gal	\$ 657,000	\$ 9,900
<b>d</b>	Saint Bernard Avenue Bioretention Cells	18,000 gal	\$ 396,000	\$ 2,200
<b>e</b>	A.P. Tureaud School Pervious Pavement	32,800 gal	\$ 224,250	\$ 2,440
<b>f</b>	A.P. Tureaud School Green Open Space	.561 cfs runoff reduction	\$ 24,600	\$ 1,395
<b>g</b>	A.P. Tureaud School Bioswale	2,380 gal	\$ 25,875	\$ 2,475
<b>h</b>	McDonogh 35 Pervious Pavement	143,065 gal	\$ 977,500	\$ 10,625
<b>i</b>	McDonogh 35 Bioswales	7,140 gal	\$ 77,625	\$ 7,425
<b>j</b>	McDonogh 35 Rain Gardens	22,600 gal	\$ 11,625-51,150	\$ 770
<b>k</b>	McDonogh 35 Green Open Space	.797 cfs runoff reduction	\$ 34,950	\$ 1,980
<b>l</b>	Elysian Fields Pervious Pavement	40,400 gal	\$ 276,000	\$ 3,000



## Seventh Ward Section 5 Green Infrastructure Vision

		STORMWATER STORAGE CAPACITY	CONSTRUCTION COST	ANNUAL MAINTENANCE COST
<b>a</b>	Interstate-10 Detention Basins	117,180 gal	\$ 60,250	\$ 3,975
<b>b</b>	North Prieur Street Curb Extensions	4,115 gal	\$ 90,000	\$ 2,200
<b>c</b>	Saint Paul's Church Pervious Pavement	104,520 gal	\$ 714,150	\$7,760
<b>d</b>	North Prieur Street Bioswales	17,165 gal	\$ 186,300	\$ 17,820
<b>e</b>	North Roman and Touro Streets Curb Extensions	6,360 gal	\$ 69,000	\$ 4,400
<b>f</b>	Elysian Fields Avenue Rain Gardens	220,990 gal	\$ 113,625	\$ 7,500