Mapping Absence, Making Presence:

Hydrosocial Repair Along Proctor Creek in West Atlanta

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be electronically available to the public.

Abstract

Mapping Absence, Making Presence, analyses how ecological restoration can serve as a reparative framework for landscapes shaped by systemic neglect and forms of erasure. The Proctor Creek Watershed in Atlanta, Georgia, woven into the everyday life of Westside neighbourhoods was buried and reduced to a piped conduit, essentially severing both its ecological function and its role in community life. Its absence is materially expressed through recurrent flash flooding, water quality decline, and widespread vacancy and blight, material presence of symptoms drawn from redlining, disinvestment, and environmental injustice. This thesis argues that restoration must go beyond ecological metrics to confront histories of displacement and spatial inequalities. Through layered mapping of water, race, and land, tracing buried hydrology, redlined neighbourhoods, and demographic shifts leading to patterns of vacancy, the project indicates how systemic absences are embedded in the urban landscape. By analyzing and mapping eight past plans and visions for these neighbourhoods including the Proctor North Avenue Vision, it identifies recurring goals such as flood control, green infrastructure implementation, and community revitalization, alongside gaps in implementation, concerns about community displacement, and missed opportunities to integrate ecological restoration with neighbourhood redevelopment. This analysis informs a delicate incremental approach which is grounded in exisiting conditions and community priorities. Methodologically it brings together watershed-scale analysis, story mapping, and ecological sectioning to locate opportunities for intervention that balance hydrological performance with cultural and spatial sensitivity.

Daylighting Proctor Creek is reimagined not as a scale of infrastructural reconditioning but as a series of non-invasive, almost surgical acts that are targeted exposures of the buried creek that stitch water back into the redlined neighbourhoods of English Avenue, Vine City, and Bankhead. These interventions are not confined to vacant or blighted parcels of land but function across a range of conditions within these marginalized areas. Daylighted stream sections, bioswales, rain gardens, and micro-wetlands across the area form a distributed network of living infrastructure that performs both ecologically and socially. By making present what has long been absent, this thesis positions Proctor Creek as more than a piped stream flowing beneath but as a conduit of memory, resistance, and renewal. Through this action, based on community-identified needs, the design offers a model for reparative urbanism, advancing the role of water as a medium for justice and resilience of the Proctor Creek Watershed Community, which is grounded in care.

Keywords: reclamation, ecological time, environmental justice, belonging, creek daylighting, urban voids, community identity, ecological design, public space, urban hydrology.

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Dedication

“For my family, who gave me the lamp, the book, and the map, so I could chart my own waters and still find my way home.”

- Inspired by Adrienne Rich’s “Diving into the Wreck.”

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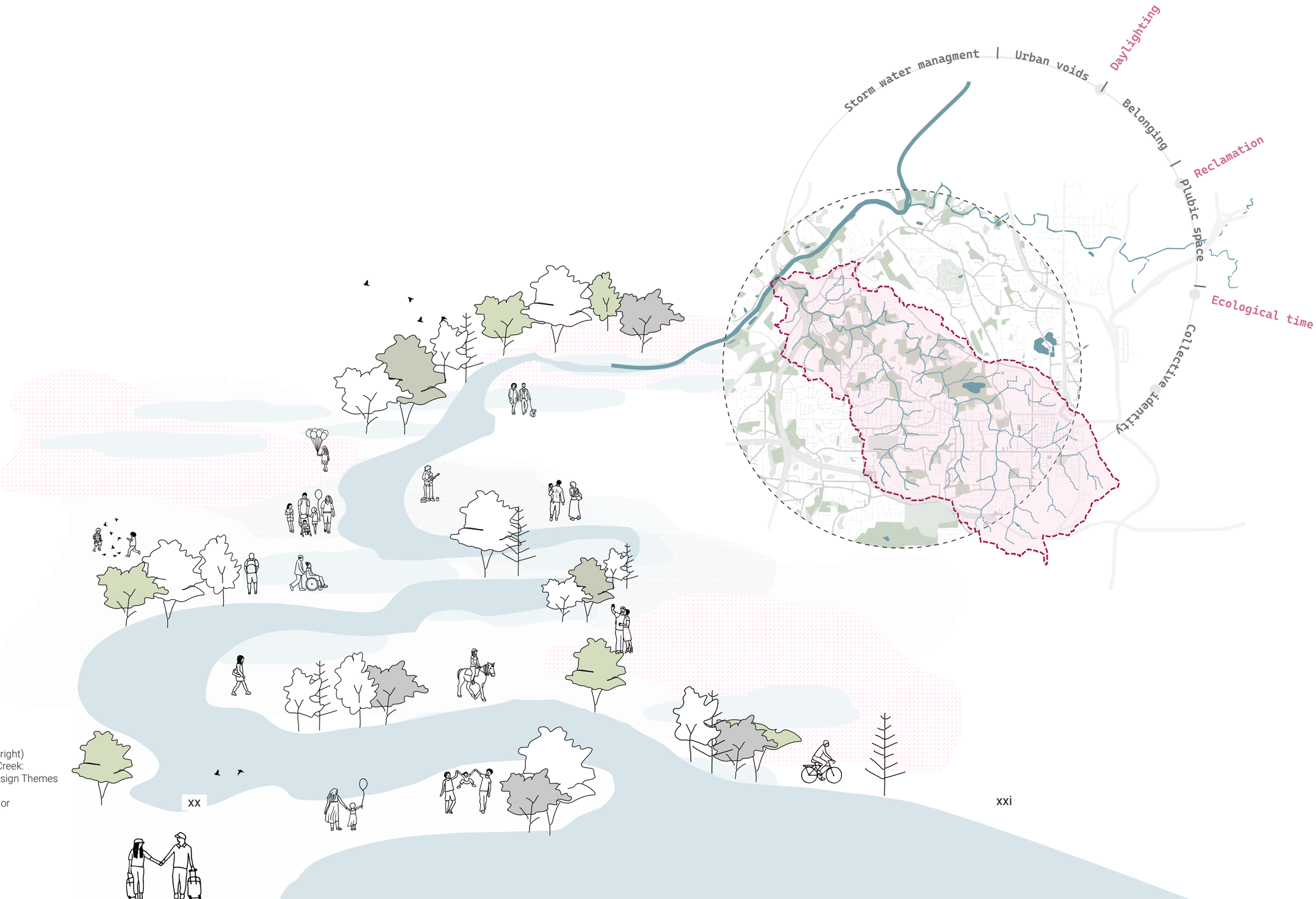


Figure 0.1 (on the right)
Situating Proctor Creek:
Watershed and Design Themes

Illustration by author

Introduction

0.1 Buried Waters: Problem and Contextualization

Ecological loss through Urbanization

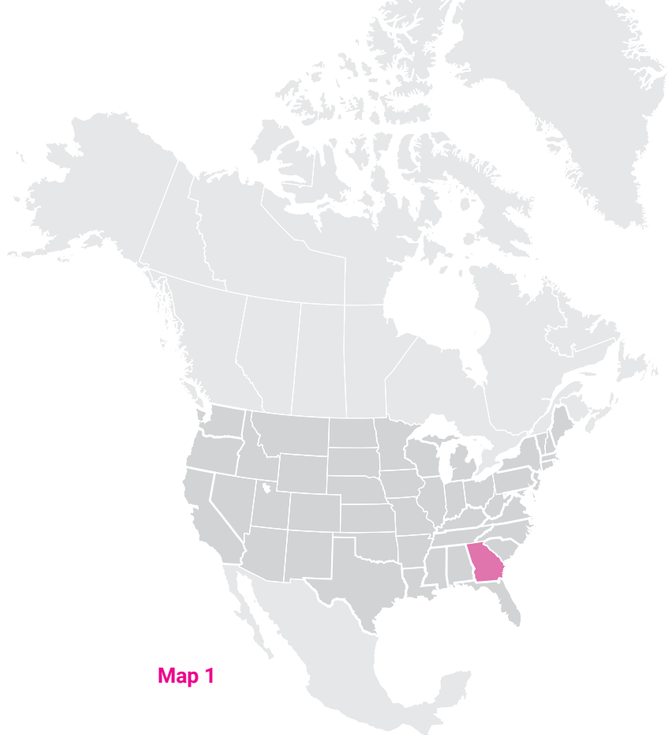
Urban development often comes at the cost of natural ecosystems, leading to their marginalization or complete erasure. In Atlanta, Georgia, this pattern is reflected in the transformation of one such waterway, Proctor Creek, a tributary of the Chattahoochee River that once flowed freely through the Westside neighbourhoods of Vine City, English Avenue, and Bankhead. The Proctor Creek was once a vital ecological and cultural asset that became increasingly polluted and neglected as the city expanded and was ultimately diverted into storm sewers, buried beneath roads, parking lots and other impervious surfaces.[1]

Racialized environmental erasure

It is evidently clear that the burial of Proctor Creek was not only an environmental consequence of industrialization but also a social and political act. In the 1930s, maps created by the Homeowner's Loan Corporation (HOLC) labeled Black majority neighbourhoods marked in red as "hazardous" or "Class D neighbourhoods," effectively cutting them off from mortgage access (FHA and VA loans) and any other public investment.[2] These neighbourhoods (Vine City, English Avenue, parts of Bankhead) are often located adjacent to creeks and flood-prone lowlands, close to industrial zones that were left to decay while development was directed elsewhere.

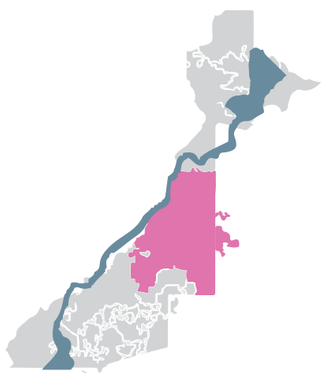
Infrastructure as racial boundary

Layered onto this were decades of barrier-building zoning policies, infrastructure disinvestment, and highway construction, all of which further alienated the Black population and funneled pollutants, runoff, and waste into their residential pockets.[3] As Proctor Creek disappeared, so too did the civic and ecological rights associate with it. Today, the creek running beneath the historically redlined neighbourhoods of Vine City, English Avenue and Bankhead mirrors a deeper story of environmental injustice: a hidden narrative of land denied, water redirected, and communities pushed back to the margins.



Map 1

Map 2



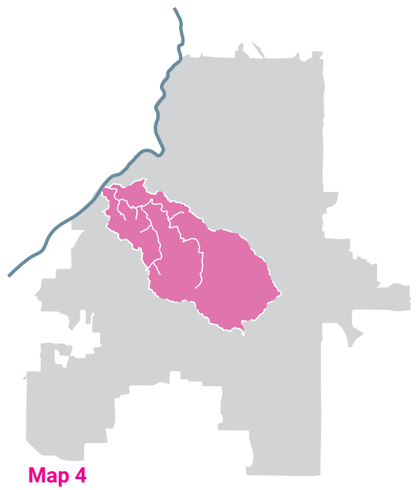
Map 3

Map 1: North America (USA Highlighted)
Location: North America – United States
Population: ~333 million (USA, 2022)
Land Area: 9.8 million sq km (USA)
Density: ~36/km²
Open Spaces: 28% forests, 17% agricultural lands
Hydrology: Major rivers include Mississippi, Missouri, and Colorado

Map 2 : State of Georgia – Chattahoochee River
Location: Southeastern United States
Population: ~10.9 million (2023)
Land Area: ~153,910 sq km
Density: ~71/km²
Open Spaces: 67 state parks,
Hydrology: Chattahoochee River forms much of Georgia's western boundary

Map 3 : Fulton
Location: Metro Atlanta region
Population: ~1.1 million
Land Area: ~1,380 sq km
Density: ~820/km²
Open Spaces: Urban forest pockets, park systems
Hydrology: Upper Chattahoochee River Basin, feeder creeks

Map 4: City of Atlanta – Proctor Creek Watershed
Location: West-central Georgia, within Fulton County
Population: ~510,000 (Atlanta)
Land Area: ~347 sq km
Density: ~1,470/km
Open Spaces: ~3,000 acres of parkland
Hydrology: Proctor Creek Watershed (~16.4 sq km)



Map 4

Figure 0.2
Mapping the Scales of Absence: Proctor Creek's position within National, State, County and Urban Watershed Systems
Source: Maps by Author

0.2 Research Question and Framing the Inquiry

This thesis asks how the daylighting of Proctor Creek can be reintroduced as an ecological function to further help reduce stormwater vulnerability and support biodiversity within an increasingly impervious and climate-stressed watershed. Unlike the large-scale, one-size-fits-all approach to waterway restoration, this thesis explores using a surgical method, which refers to precise, context-specific, and minimally invasive interventions that work with the city's existing conditions. Threaded through the flood-vulnerable parcels, some of which may be vacant or blighted, while a few others may remain occupied or well-maintained, reflecting a strategy that prioritizes ecological impact with minimal disruption to the existing community. These interventions are discreetly embedded within the urban fabric. Having a modest footprint but a profound impact on residents within the area to restore visibility to a buried creek, to mend broken ecologies and to reestablish the Creek's relationship within the community.

Surgical ecological repair

This approach recognizes the constraints of land access, urban density within the present community and inclusively works within the existing fabric, identifying opportunities in flood-prone parcels that may be vacant, blighted, or actively used. It calls for a politics of care where treating the city as a layered terrain molded by histories of redlining, infrastructural harm and environmental neglect takes importance rather than treating the landscape as a blank canvas. By reintroducing water not only as infrastructure but as a visible and connective force is crucial. The project proposes a network of parcels which are strategically picked for interventions responding to site-specific conditions and broader watershed dynamics. These interventions aim to restore ecological function, reduce flood, and heat risk while repairing the fractured relationship between people, land, and water, contributing to a more just and resilient future for the community.

Care over control



Figure 0.3

An anatomy of runoff: concrete dominates, leaving little room for the land to breathe.
Source: Cook, Stephen. Aerial photo of high-rise buildings in Atlanta. Unsplash.

0.3 Literature and Conceptual Lineage

This thesis draws from a set of conceptual frameworks that position water not simply as infrastructure, but as a spatial, social, and economic condition shaped by histories of exclusion, erasure, and potential repair. The following texts actively inform and shape the project's understanding of daylighting as both ecological strategy and civic infrastructure rather than treating literature merely as background theory.

Water as narrative infrastructure

Water, in this thesis, is read not only as neutral flow but as a symbol of power, memory and urban transformation. In Toward an Urban Ecology, Kate Orff advocates for "living infrastructure that supports both ecosystems and the civic realm," a concept that anchors the proposal for hydrological interventions that address ecological, social, and public in nature. [4] In similarity, James Corner's Recovering Landscape argues that landscape has the capability to "recover memory and project alternative futures," framing that a stream is not just a hydrological element, but as a bearer of erased urban narratives.[5] These texts inform the proposal of daylighting not simply as a technical intervention, but as a layered and interpretive act.

Restoration as spatial justice

The social and political conditions that led to the pipelining of Proctor Creek are inseparable from Atlanta's history of redlining, displacement, and infrastructural exclusion. In Right to the City, Henri Lefebvre informs urban justice as a collective claim to reshape the spaces of daily life, insisting that "to inhabit" is itself a political right.[6] This framework strengthens the thesis's premise that restoration is inseparable from questions associated with belonging and access to the city. Similarly, LeeAnn Land's The Culture of Property writes in detail of how race, ownership and class has defined specifically in Atlanta's segregated housing landscapes, recognizing how property has long operated as a mechanism of exclusion and drawing lines of division.[7] Combined, these crucial texts root the project in a recognition that any spatial intervention must address the legacies of dispossession embedded in both spatial and water boundaries.

Finally, the thesis draws on work that reconsiders vacancy and disrepair not as a failure or urbanization but as an opportunity for interventions. In From Fallow, Jill Desimini presents a series of "latent infrastructure" made possible on abandoned land; by drawing on elements of water being reintroduced to these spaces, giving rise to land that can absorb water, hold vegetation, and support new forms of use for the community within.[8]

Vacancy as latent potential

Similarly Stalking Detroit, edited by Georgia Daskalakis, Charles Waldheim, and Jason Young, explores how "leftover and fragmented" urban land can be reactivated through small, strategic design moves. These works offer a lens through which the thesis develops its own approach, not as a comprehensive redevelopment, but careful, place-specific acts to reconnect water, form and community.[9]

0.4 Methodology and Process

To examine how Proctor Creek's daylighting might serve as a reparative ecology and social strategy, this thesis adopts a layered, mixed methods methodology having a strong understanding of spatial justice, hydrological repair and community relevance.

At the foundation of this thesis lies a composite mapping methodology that cross references archival maps, currently available GIS data of the neighborhoods considered and other urban hydrological records to visualize the entanglements of buried water infrastructure, redlining boundaries.[10] On the social context, the research also needs to have grasp of socio-demographic shifts, vacant and blighted parcels and flood prone zones in this vulnerable area. These overlapping layers highlight the visible consequences of historical planning policies and infrastructural neglect that have unequally affected Atlanta's Black communities.[11]

Composite spatial mapping

This thesis draws on a multi-scalar research approach that includes site-based analysis, layered mapping, and precedent studies. Key precedents were selected to examine a spectrum of daylighting interventions from large scale restorations to smaller strategies evaluated for their hydrological performance, design approach and governance models.[12]
Case studies of different scale and levels of community engament, discplacement or inclusive help inform a framework of incremental, community-sensitive interventions applicable to the Proctor Creek watershed. Understanding spatial implications is crutial for this thesis through a micro-scale assessments of parcels in the Vine City, English Avenue and Bankhead. Through field observations over the course, photographic documentation of the current shape of the neighborhoods and further analysis through Google walk-through and other public land records, to identify flood vulnerable parcels with a need for intermediation. These plots are categorized by ownership, topography, permeability and proximity to existing hydrological infrastructure running beneath.[13]
Finally, local participatory archival study and other planning documents made for these neighborhoods particularly from the Proctor Creek Stewardship Council and Urban Waters Federal Partnership informs and builds the ethical grounding of this work.[14] These community-led efforts are not treated as supplementary data but as design foundations, shaping where and how interventions should occur.
This methodology contests a singular, master plan solution. Instead, it proposes a framework for site-specific, distributive and narrative-led design that works with complex conditions of the existing landscape its absences, presences, and traces rather than overwriting them.

0.5 Precedent Studies

The selected precedents span a range of approaches from monumental , state-led infrastructure in Seoul to modest, civic-scale integrations in Aalborg and Oslo; from symbolic daylighting in Toronto to justice-driven mapping in Detroit.

The Cheonggyecheon Stream Restoration in Seoul (2005) is often considered a benchmark daylighting project. It removed a major highway to uncover a buried stream and create a linear public space. While the project was ecologically transformative, it followed a top-down approach with limited community engagement and raised concerns of displacement.[15] By contrast, Vestre Fjordpark in Aalborg (SLA, 2017) and Jordal Sports Park in Oslo (Norconsult & Grindaker, 2020) represents a more modest, integrated model of restoration.[16] Both reintroduced buried streams into flood-resilient public landscapes, combining ecological function with recreation and neighbourhood scale.
Taddle Creek project (Public Work, ongoing) in Toronto, offers a symbolic restoration tracing the creek's historic path through landform gestures, swales and signage that embed memory in the public realm.[17]
In Detroit, the article Buried Not Dead (The Detroit River Project, 2022) maps ghost streams in historically redlined Black neighbourhoods using LiDAR, topography and racialized zoning overlays. The work reveals how buried hydrology still shapes flood risk unrecognized in FEMA maps and reinforces the racialized geography of environmental harm.[18]
Town Branch Commons in Lexington, Kentucly (SCAPE, ongoing since 2016) offers a particularly relevant precedent. Through bioswales, green corridors and connective civic spaces, it incrementally reveals parts of a buried stream, balancing narrative, ecology and public use which closes aligns with the vision this thesis intends to develop.[19]
Qunli Stormwater Park in Harbin, China (Turenscape, 2011) demonstrates a compelling sponge city model, where wetlands double as flood infrastrucutre and public space linking ecology and cultural meaning.[20]

Together, these projects inform a hydro-social framework for Proctor Creek that is distributed, layered and reparative, offering strategies to reconnect water, land and community, making sure to address both hidden infrastructures and historical erasure.

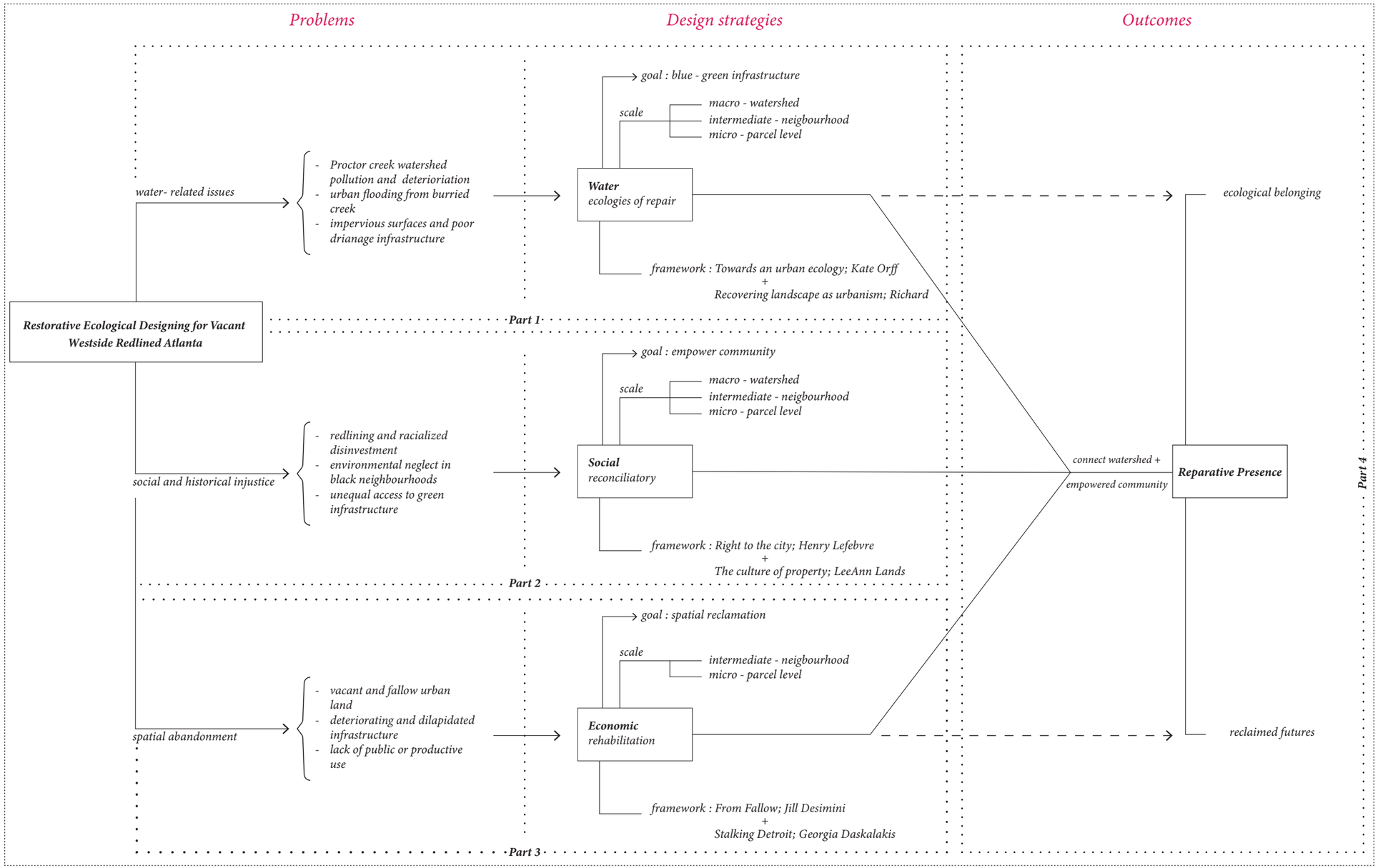


Figure 0.4
Diagram summarizing the problems addressed, the adopted design strategies and outcomes achieved, informing the thesis structure.
Source: Diagram by author

0.6 Positionality and Scope of Voice

As a researcher from Bangalore, India, I approach this project with full awareness of my outsider status. While I do not share the lived experience of the Black communities in Atlanta's Westside, I have encountered similar patterns of ecological loss and urban disconnection in my own city's development. This background informs a deep commitment to questions of environmental justice, design ethics, and hydrological memory. This project does not presume to speak for the residents of Vine City, English Avenue, or Bankhead. Instead, it builds on existing knowledge, advocacy, and participatory efforts to understand how design can function as an ally in processes of repair. Design here is not an act of authorship but one of listening, synthesis, and invitation.

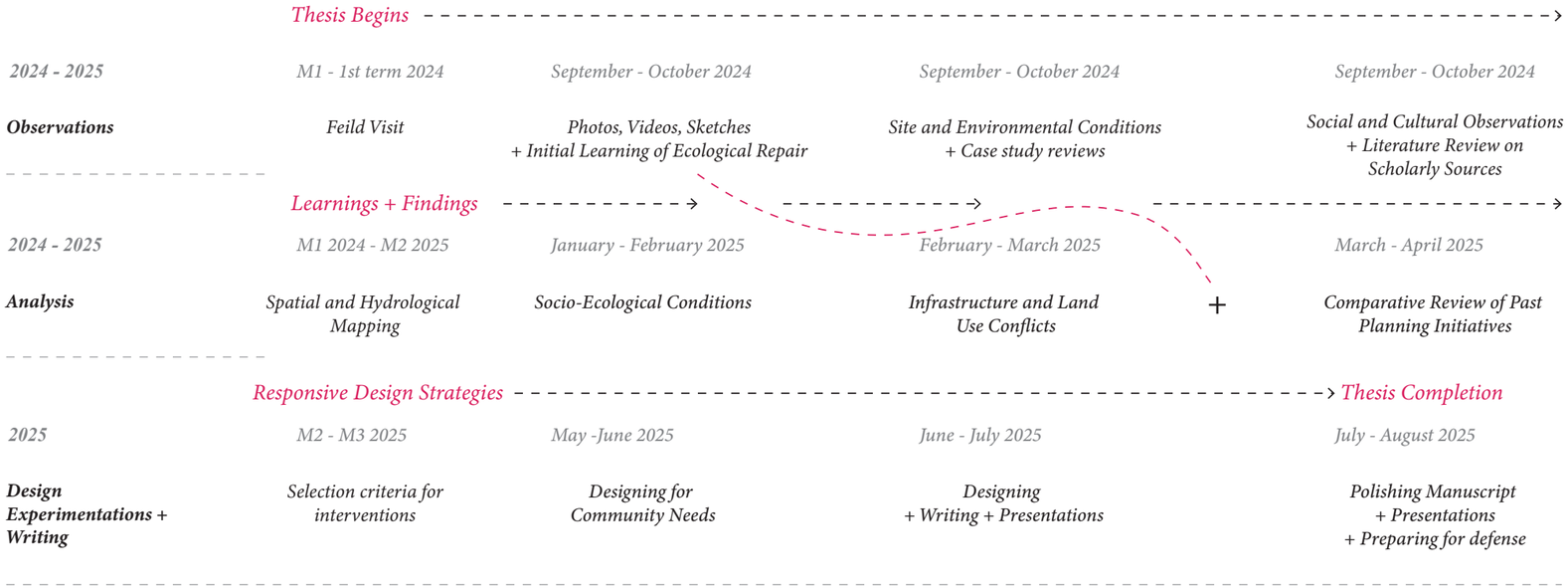


Figure 0.5
Timeline diagram of research methodology
Source: Diagram by author

0.7 Chapter Overview

Chapter 1 traces how industrialization and redlined erased Proctor Creek and destabilized Westside neighborhoods through vacancy, flooding and disinvestment. Chapter 2 maps the hydrological and ecological layers of inequality across the watershed, revealing surface impacts and demographic disparities. Chapter 3 analyzes eight past plans and stakeholder visions to build a framework for feasible, community-rooted interventions. Chapter 4 develops design strategies by mapping flood-prone parcels, property conditions and green space initiatives to identify sites for surgical small scale blue green infrastructure. The Conclusion reflects on long-term stewardship, land justice and anti-displacement tools, questioning how care, trust and ownership can shape a more equitable future.

Endnotes

01. "Urban Waters and the Proctor Creek Watershed/Atlanta (Georgia) | US EPA," accessed June 12, 2025, https://www.epa.gov/urbanwaterspartners/urban-waters-and-proctor-creek-watershedatlanta-georgia.

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18. The Detroit River Project. "Buried Not Dead." 2022. https://www.detroitriverproject.com/buried-not-dead.

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Cost of Control - Progress Against the Current

> "I've known rivers ancient as the world and older than the flow of human blood in human veins. My soul has grown deep like the rivers."
> - Langston Hughes.[21]

1.1 Damning Progress: *How industry rewrote urban hydrology*

Waterways as foundations

Cities are built on the banks of waterways. Rivers and creeks carve landscapes, make ecosystems, and dictate the placement of human settlements. Yet, as cities expand, the same waterways that have nurtured growth are increasingly treated as obstacles to the progress of a civilized society. Proctor Creek, a nine-mile tributary of the Chattahoochee River in the heart of Atlanta, Georgia, once ran untamed through dense forests, its waters weaving through the land like veins through flesh.

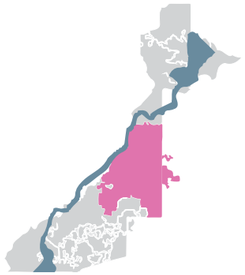
Displacement severs water bonds

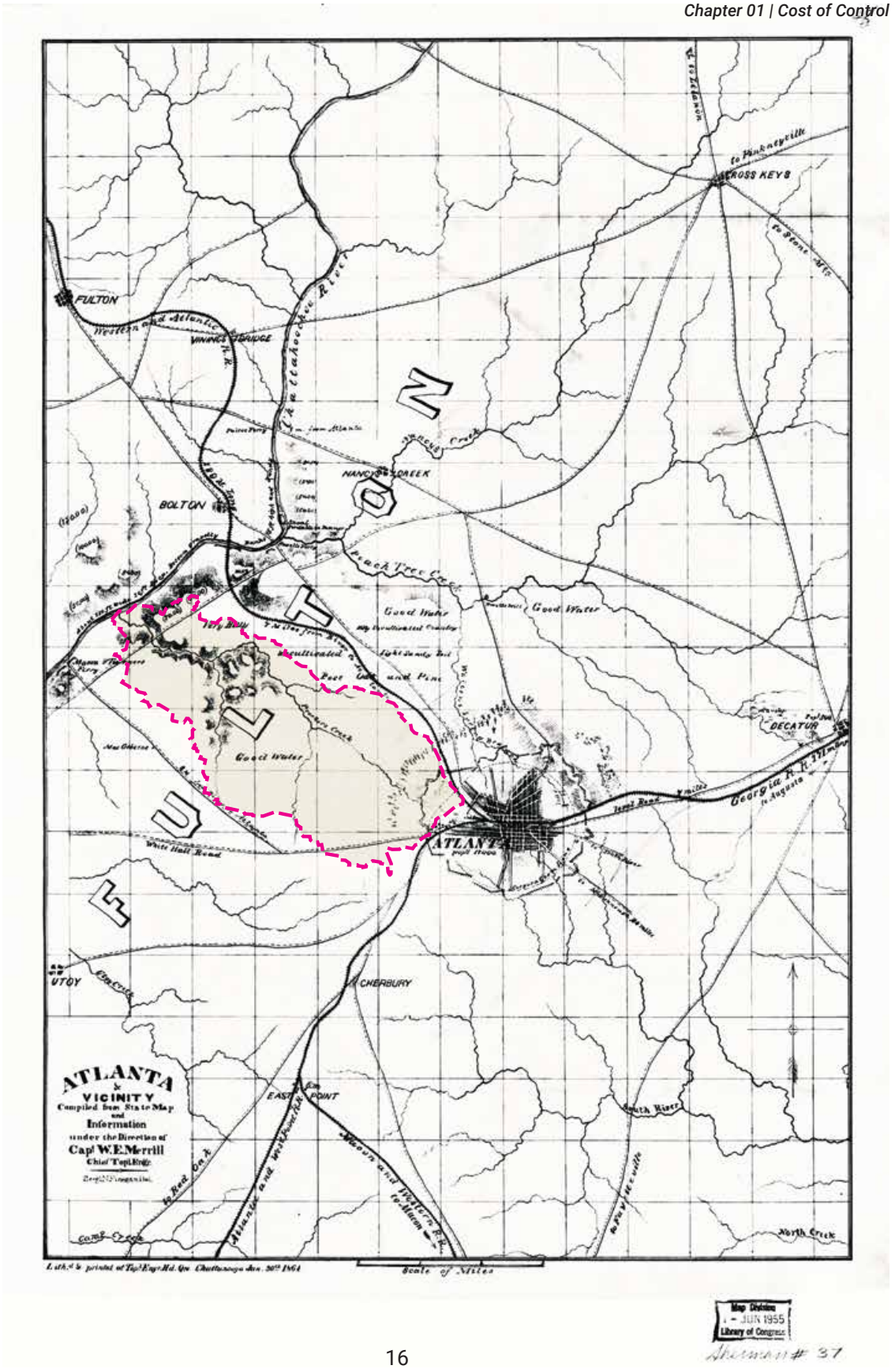
The Muscogee Creek people, who lived in the region prior to European settlement, understood water not as a simple resource but as a relationship that needs to be built and understood. Along its banks, families fished, children swam and ceremonies were held. The forced removal of the Muscogee in 1830 under the Indian Removal Act severed this relationship.[22] What followed was a new phase of development, one rooted in the confines of industrial expansion and ecological suppression.

Figure 1.1 *(on the right)*
Fulton County, 1864 –
Proctor Creek Watershed
Before Urban Erasure
Source: Library of Congress

Infrastructure over ecology

By the late 19th century, Atlanta's rapid urbanization called for modern infrastructure that prioritized drainage, sanitation, and road building. As Martin Melosi notes, nearly 70 percent of Atlanta's storm drains were linked to combined sewer systems by 1949, which led to untreated waste to be discharged into local waterways during storms.[23] Proctor Creek once a corridor of biodiversity was dramatically altered by the mid 20th century development. The U.S Army Corps of Engineers notes that within the Proctor Creek watershed, approximately 2.43 miles of the stream (about 27% of its total length) are targeted for restoration efforts, drawing attention to the extent of hydrological loss within the watershed.[24] Given the creek's total length of roughly nine miles, this suggests that over 40% of its natural, open corridor had been buried or converted to culvert over time.





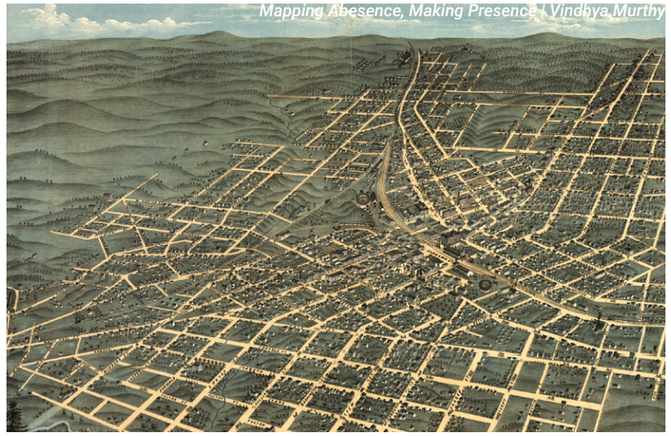


Figure 1.2
1871 Atlanta Bird's-eye view:
City within the trees
Source: Library of Congress



Figure 1.3
1892 Atlanta Bird's-eye view
Grid advancing on green
Source: Library of Congress



Figure 1.4
1919 Atlanta Bird's-eye view
Density eclipses terrain
Source: Library of Congress

1.2 Mapped for Neglect: *Redlining of the Watershed*

Redlining as hydrological harm

The erasure of Proctor Creek's ecological function was compounded by policy that erased its surrounding communities. In the 1930's, Home Owner's Loan Corporation (HOLC) redlining maps marked most of the Westside Atlanta neighbourhoods like Vine City, Ashview Heights, Bankhead and English Avenue as "hazardous" due to their majority Black population, substandard housing and closeness to wetlands and flood-prone land.[25] These ratings were made to exclude residents of these neighbourhoods from federal mortgage programs and ensured all infrastructure funding was diverted elsewhere.

Policy-driven environmental neglect

Up to 98 percent of the parcels in West Atlanta were denied access to federally backed loans, effectively excluding entire communities from the economic benefits that come with homeownership.[26] Zoning regulations enabled the concentration of high pollution land uses like junkyards, industrial storage and asphalt plants directly next to residential neighbourhoods and often directly along Proctor Creek's banks.[27] Meanwhile any necessary upgrades to existing infrastructure of water, sewer and stormwater systems lagged behind for decades. As a result of which untreated sewage regularly flowed into these neighbourhoods during heavy downpours.[28] This layered policy regime case both water and Black life as conditions to be managed, contained or avoided rather than sustained.

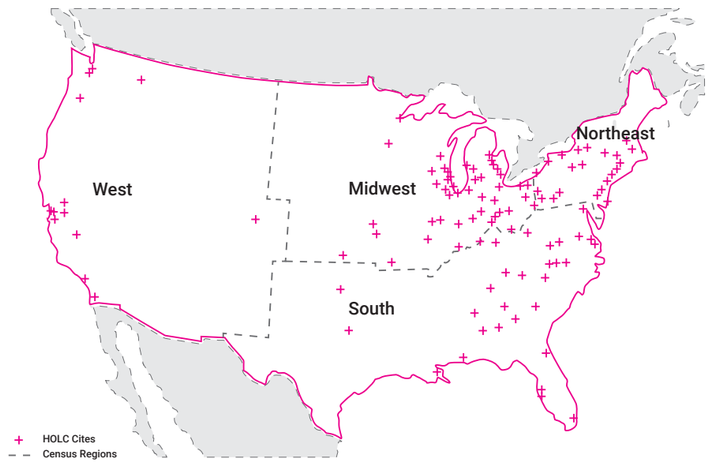


Figure 1.5
Regional Divisions of
HOLC-Coded Cities in the
United States.

Source: Image by author,
adapted from NCRC: HOLC
redlining Maps: The persistent
structure of segregation and
economic inequality

Spatial legacy of segregation leading to persistent disinvestment

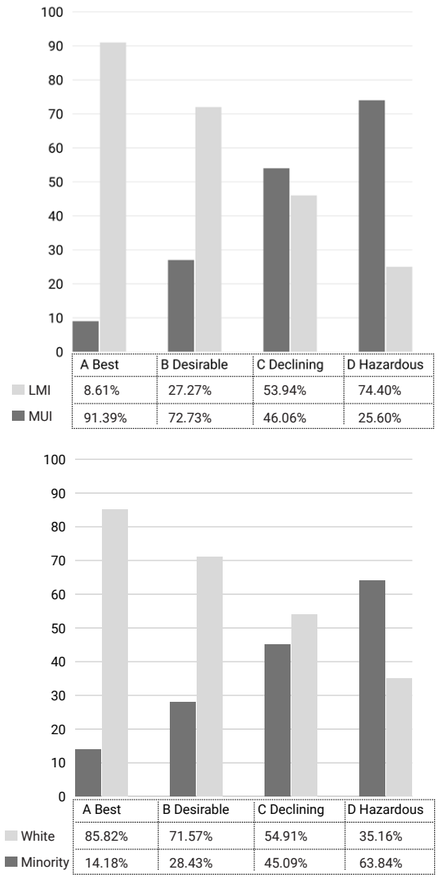


Figure 1.6
Percentage of areas with HOLC grades that are currently low-to-moderate or middle-to-upper income nationally.
Source: Original 1935-1940 HOLC maps and 2024 FFIEC Census- and ACS-derived data on income

Figure 1.7
Percentage of areas with HOLC grades that are currently majority non-Hispanic white, or majority-minority nationally.
Source: Original 1935-1940 HOLC maps and 2024 FFIEC Census data

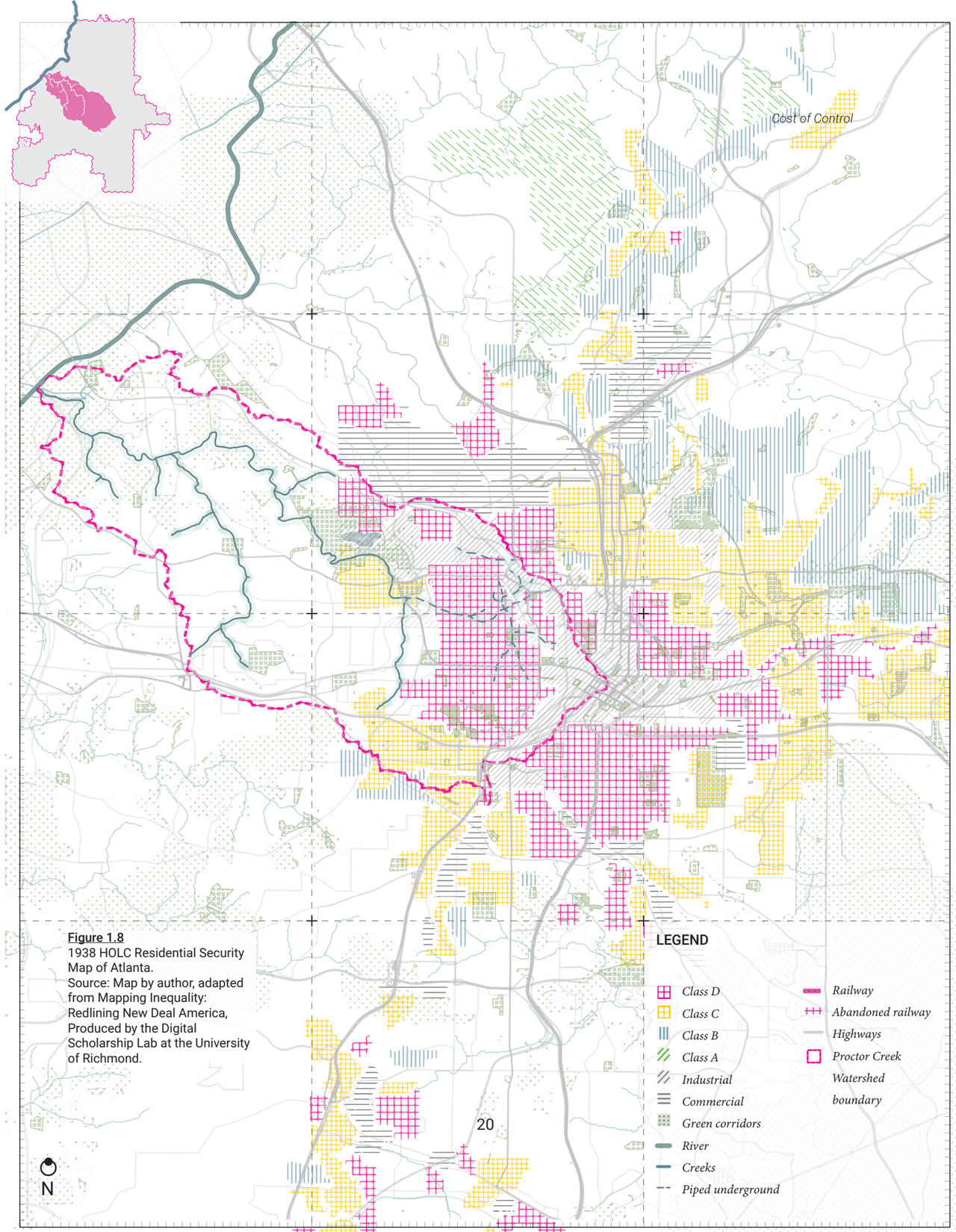


Figure 1.8
1938 HOLC Residential Security Map of Atlanta.
Source: Map by author, adapted from Mapping Inequality: Redlining New Deal America, Produced by the Digital Scholarship Lab at the University of Richmond.

1.3 From Living Water to Infrastructure:

The Disappearance of Proctor Creek

Impaired waterbody status

By the mid-20th century, Proctor Creek had become a conduit rather than a commons. Its channeling starts beneath the Maddox Park, Joseph E. Boulevard, and other infrastructural corridors. Stormwater pipes fed directly into its remaining surface flows, increasing the pollution load. The EPA classifies the creek as an impaired water body under Section 303(d) of the Clean Water Act. E. coli levels regularly exceed 1,000 MPN/100 mL, with spikes reaching 40,000 MPN/100 mL after major rain events.[29]

Between 2002 and 2017, Atlanta's Department of Watershed Management recorded over 2 billion gallons of combined sewer overflows (CSOs) that were released into the Proctor Creek watershed. These events keep affecting the historically redlined neighbourhoods disproportionately, where basement flooding, standing water and backed- up drains were a regular occurrence.[30]

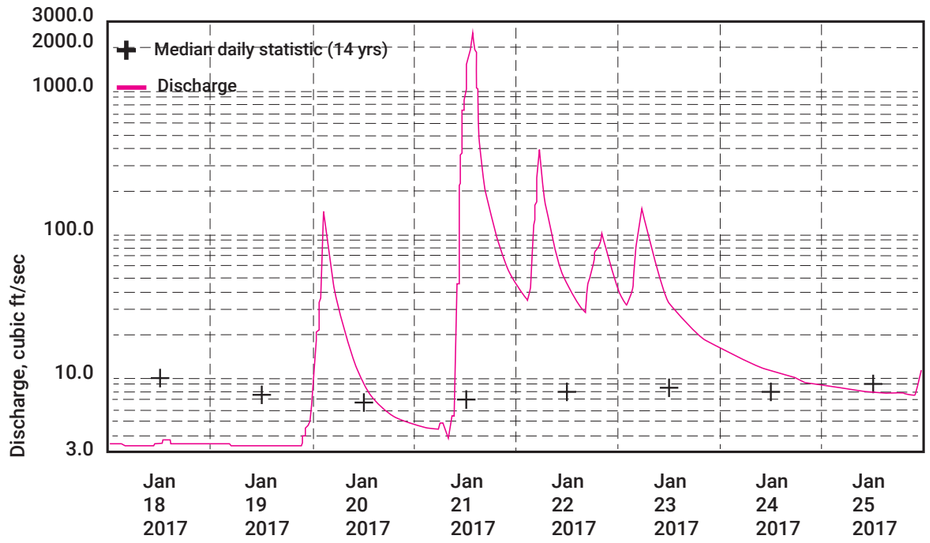


Figure 1.9
Stream discharge from January 18-25, 2017*(last recorded data)* at the USGS James Jackson Parkway gauge, located at station PC8. The 14-year median daily statistic is shown for comparison. The current sampling event occurred on January 24-25.
Source: by author
adapted from U.S EPA
project ID #17-0157

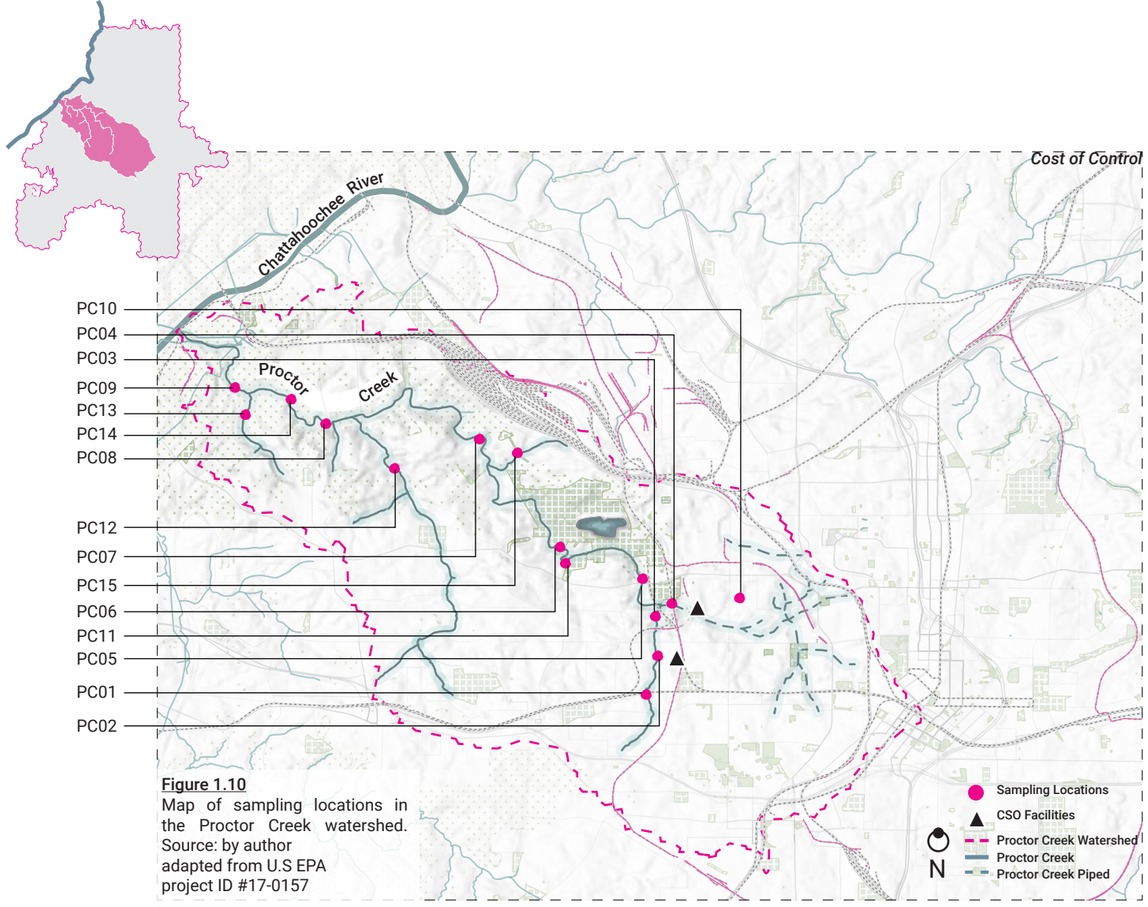


Figure 1.10
Map of sampling locations in the Proctor Creek watershed.
Source: by author
adapted from U.S EPA
project ID #17-0157

Table 1.1
Proctor Creek Water Quality by Station (Jan 2017). Displays water quality data across 15 monitoring stations, highlighting temperature, conductivity, pH, turbidity, dissolved oxygen, discharge, and E. coli levels.
Source: by author
adapted from U.S EPA
project ID #17-0157

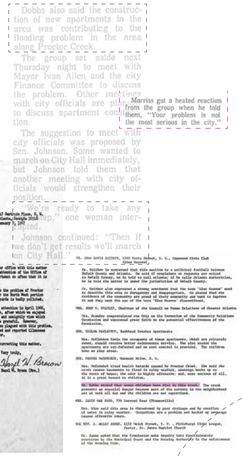
Station ID	Station Name	Date	Temp (°C)	Sp. Cond. (µS/cm)	pH (S.U.)	Turbidity (NTU)	D.O. (mg/L)	Discharge (cfs)	E. coli (MPN/100 mL)
PC01	Burbank	Jan 25, 2017	13.37	193	7.39	2.5	10.4	0.62	5,231
PC02	Greensferry	Jan 25, 2017	16.78	290	7.09	2.5	8.71	1.37	17,934
PC03	North Avenue	Jan 25, 2017	14.9	393	7.44	2.1	10.13	1.76	15,192
PC04	North CSO	Jan 25, 2017	13.19	1190	7.01	1.8	3.36	<0.1	112
PC05	Hollowell	Jan 25, 2017	11.54	274	7.13	1.5	9.99	1.79	5,037
PC06	Hortense	Jan 25, 2017	9.32	251	6.84	2.5	10.51	3	2,356
PC07	Kerry Circle	Jan 24, 2017	13.32	272	7.53	10.7	9.6	5.33	5,454
PC08	James Jackson	Jan 24, 2017	11.33	227	7.06	11.5	10.34	11	1,035
PC09	Northwest	Jan 24, 2017	10.98	232	7.55	14.1	9.9	11.06	1,571
PC10	Lindsay Street	Jan 24, 2017	16.89	427	7.06	0.8	8.82	<0.1	209
PC11	Grove Park	Jan 24, 2017	9.63	213	7.04	2.8	10.99	0.96	1,111
PC12	Spring Street	Jan 24, 2017	11.71	195	7.38	4.3	10.52	2.23	2,219
PC13	AD Williams	Jan 24, 2017	11.59	600	7.46	5.1	10.02	0.57	475
PC14	Lillian Cooper	Jan 24, 2017	11.2	128	7.73	27.5	8.77	<0.1	343
PC14	West Highlands	Jan 24, 2017	14.29	533	7.37	14.7	8.76	0.3	15,770






City's Sewer Needs for 35 Years Provided for in Survey; Plan Calls for an Expenditure of $10,814,000 for Program


Bob Brown, 6, is "for Clark and Ahern"


Dobbs also said the construction of new apartments in the area was contributing to the flooding problem in the area along Proctor Creek.

The group set aside next Thursday night to meet with Mayor Ivan Allen and the city Finance Committee to discuss the problem. Other residents with city officials are also to discuss apartment construction.

Marrin got a heated reaction from the group when he told them, "Your problem is not the most serious in the city."

The suggestion to meet with city officials was proposed by Sen. Johnson. Some wanted to march on City Hall immediately, but Johnson told them that another meeting with city officials would strengthen their position.

Johnson continued: "Then if we don't get results we'll march on City Hall."


Farris Gets $50,000 For Proctor Creek

By ALEX COFFIN

Ald. Milton Farris, chairman of the Aldermanic Finance Committee, told residents of the Proctor Creek area in metropolitan west Atlanta Friday that he has come up with $50,000 for an immediate temporary relief of flooding conditions there.

Asked if there will be any more hitches before Public Works Chief Ray Nixon starts on the project, Farris said, "No, now could tell him to get started but me. I've got the money now. He's boss, and Mayor is not his problem.

Farris explained that it may take some time, however, before Nixon has the crews and equipment to begin work on the site. The work is expected to begin in about 20 days and take about a five months to complete.

Angry residents of the area Thursday night had planned a march on City Hall for Monday. The residents were particularly incensed because neither Mayor Ivan Allen, Jr. nor any of the aldermen showed up for the meeting at Springfield Baptist Church after they were invited.

Howard Jefferson of the Northwest Priority Planners Economic Opportunity Atlanta Neighborhood Center called the absence of the invited officials "an insult. You will take a long time to smile." He said only Farris and Ald. Everett Millican had explained why they couldn't come.

Millican did attend the meeting Thursday night, and explained the funds would be used to drop Proctor Creek to alleviate the flooding conditions. A bond issue may be needed to provide permanent solutions, he told Farris said.

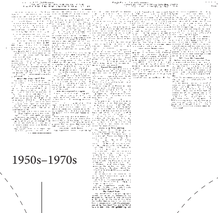
The meeting Friday to announce the appropriation of the $50,000 was held after the adoption of a $165,000 Federal flood control measure, discovered coordinator at City Hall.

Several of the citizens complained about the discrepancies of local city government and said that the red tape involved in getting information and solutions should be decreased.

The officials solicited the support on City Hall in postponed if not canceled, but added that they still intend to be at the Atlanta Board of Education's meeting Monday night to demand the let to encompassed schools.


ATLANTA WILL SOON BE IN POSITION TO TAKE CARE OF HER SEWAGE; WORK ON INTERCEPTING SEWERS AND DISPOSAL PLANTS BEING RUSHED







1830

July 1910

Jan 1967

Feb 1967

June 1968

1950s–1970s

1960s - 1990

Indigenous Dispossession

The Indian Removal Act forced Muscogee Creek communities from ancestral lands along Proctor Creek, initiating ***large-scale ecological and cultural erasure.***

Sanitary Sewer Survey & Expansion

The Atlanta Constitution reports on a ***$10.8 million municipal sewer plan****; indicative of early infrastructure investments that facilitated creek burial.*

Formal Complaints to City Mayor

Hazel H. Brown writes to Mayor Ivan Allen, describing Proctor Creek as ***"constantly visibly polluted"*** *and causing illness, a public testimony to ongoing waterborne health concerns.*

Public Hearing on Flood Risk

A Community Relations Commission meeting records a resident recounting that ***"seven children have died in this creek,"*** *highlighting both safety and environmental hazards.*

Grassroots Pressure Results in Funding

Coverage in The Atlanta Constitution details ***resident-led protests*** *and a city council response, culminating in a* ***$50,000*** *federal grant to address* ***localized flooding and sewer needs***

Stream Burial and Channelization

Over *40%* *of Proctor Creek was piped underground as Atlanta expanded roads, rail lines, and industrial zones, severing visible hydrological networks.*

Neighborhood Decline

Vine City's population plummeted by ***over 60%****, exacerbated by absentee ownership, housing deterioration, and flood vulnerability.*



Na'Taki Jelks co-founded WAWA to aggregate local voices; the group became pivotal in community-led monitoring and advocacy efforts.


Flooded Vine City residents: Sewers spewed like geysers


2013



1995

2002

2017

What's Next?

Legal Enforcement Spurs Infrastructure Reform

Chattahoochee Riverkeeper's Clean Water Act lawsuit leads to a consent decree and more than ***$112 million*** *in sewer system upgrades, reducing combined sewer overflows.*

Severe flooding in Vine City

A ***flash flood*** *in Vine City results in raw sewage backing up in homes and displacement of* ***~60 houses****;* ***the city acquires flood-prone parcels afterward.***

EPA Urban Waters Designation

Proctor Creek becomes ***one of 19*** *designated Urban Waters Federal Partnership sites,* ***opening access to federal funds*** *and restoration planning.*

Launch of Proctor Creek Project

A coalition of HUD, EPA, local nonprofits, universities, and city agencies planned a 400-acre linear park and ***7-mile greenway*** *emphasizing hydrological restoration.*

Community data collection + restoration projects

WAWA *led participatory studies, removing* ***1,500+ lbs of trash.*** *EPA/USFWS initiated feasibility studies and installed pilot green infrastructure*

1.4 Timeline of Environmental Neglect

This timeline visualizes the historical trajectory of infrastructural neglect, ecological erasure, which eventually led to the emergence of environmental justice activism in Atlanta's Proctor Creek watershed. The timeline is divided into two sections - ***The Era of Erasure*** and ***The Era of Reclamation,*** tracing the critical policy decisions, infrastructure projects, community displacements and grassroots efforts to restore the creek. Integrated with quotes and archival images which communicate the voices of residents who have fought for recognition, repair and restore their connection to the creek.

The figure aims to highlight how environmental harm has been both materially and politically constructed and how communities within the watershed have mobilized to reclaim visibility, justice and water as a shared urban right.

Figure 1.11

Timeline of Environmental Neglect and Community Resistance in the Proctor Creek Watershed. Source: Illustration by author.

1.5 **Westside Decline:** *Vacancy, Displacement and Disrepair*

As Proctor Creek disappeared underground, so too did the futures of the neighbourhoods that once thrived along its banks. Over the 20th century, Atlanta's Westside experienced a phase-wise erosion of stability within the community, driven by highway construction, public housing demolition, urban renewal clearance, redlining, and zoning restrictions that limited reinvestment. Vine City alone lost over 60% of it population between 1960 and 1990. By 2017, 43% of land parcels in Vine City were vacant, and over 75% of homes in both Vine City and English Avenue were renter-occupied reflecting a legacy of disinvestment, displacement and speculative ownership.[31] Median home values remain over 50% below the citywide average.[32]

These conditions are neither accidental nor neutral. Environmental vulnerabilities such as flooding, poor drainage and polluted waterways were repeatedly cited to justify neglect in the neighbourhoods. Risk became a rationale for retreat rather than reinvestment. FEMA flood maps continue to exclude most of Proctor Creek tributary system, leaving marginalized resisdents ineligible for mitigation or insurance assistance.[33] Properties located within 500 feet of the piped segments are nearly twice as likely to be tax deliquent or condemned.[34] "Blight" becomes both the pretext for inaction and the consequence of it.

What was lost was not just property, but access to stable housing, green space and the basic right to clean, visible water. In this system, displacement and disrepair are not anomalities, they were embedded within the watershed itself.

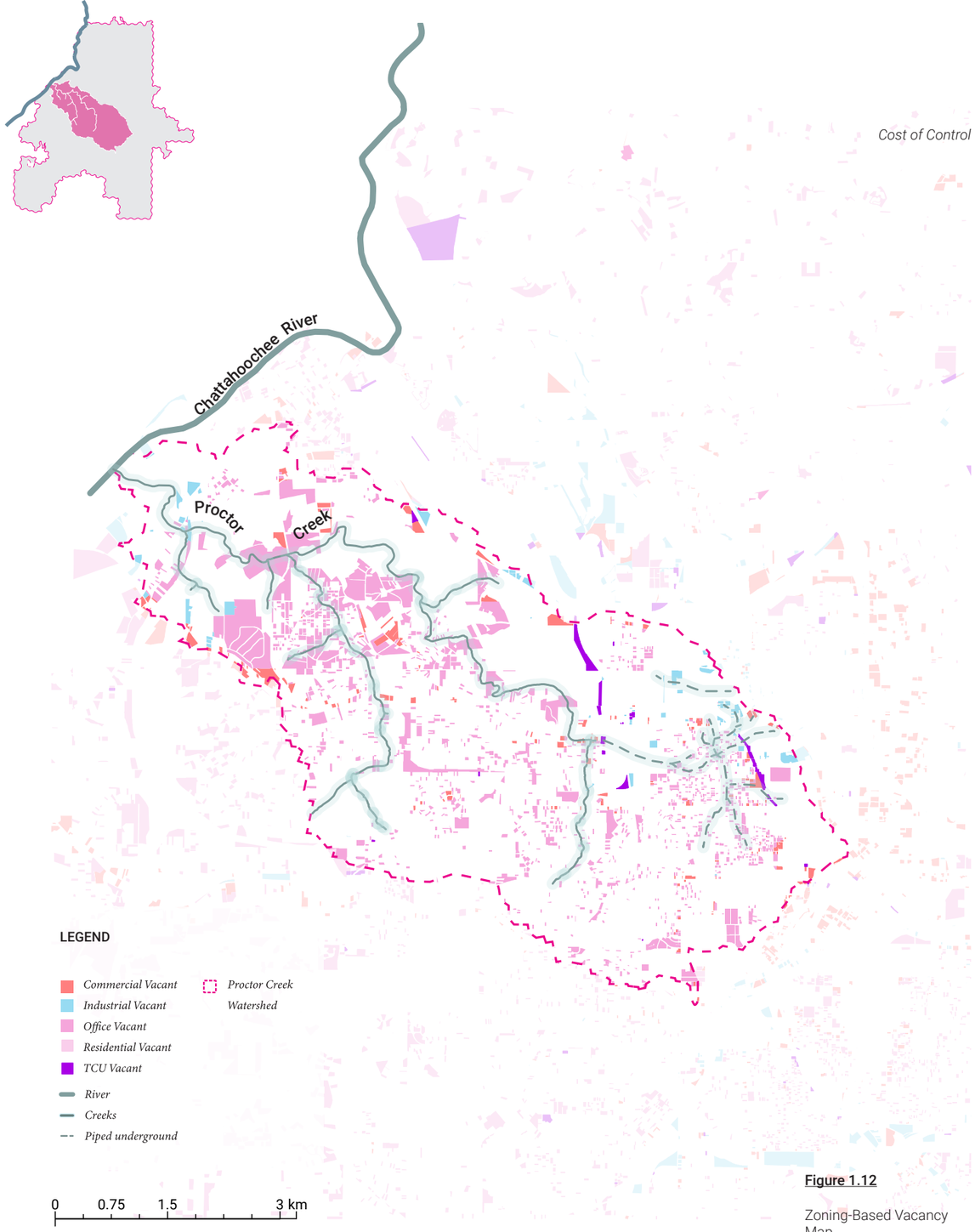


Figure 1.12

Zoning-Based Vacancy Map
Source: Map by author. GIS based open source information

1.6 Designing Absence

What led to the removal of Proctor Creek from visibility was not nature's retreat, but the city's design for willful forgetting, an accumulation of zoning decisions, infrastructurre investments and bureaucratic neglect that turned presence into absence. As Na'Taki Osborne Jelks, co-founder of the West Atlanta Watershed Alliance (WAWA), has written the marginalization of communities along Proctor Creek is not incidental but engineered through decades of racist driven policy making and environmental planning.[35] The burial of the creek mirrored the silencing of the Black neighbourhoods it once sustained. Drainage plans, flood plain maps, zoning overlays and banded together to direct waste, runoff and environmental burdens into these areas while concentrating safety and infrastructure elsewhere.

Dual logics of Provision and Exclusion

This was not mere neglect, but deliberate displacement of risk. As Jelks and other Atlanta based environmental justice advocates such as Darryl Haddock and scholars like Christina Rosan have shown, these policies spatialized racial inequity shaping who gets protected and who gets flooded.[36] While other parts of the city received green infrastructure and parks, these neighbourhoods were left with broken pipes, standing water and illegal dumping on vacant land or water.As Dan Immergluck observes in Red Hot City, Atlanta's development model has long rewarded speculation and exclusion leaving communities of color to absorb the impacts.[37]

Provision demands Exclusion

Yet water continues to resist. It speaks through storm drains, cracked sidewalks, and soaked vacant lots. At this point in the narrative, it is crucial to invoke Charles Darwin's meditation from the final lines of ***On the Origin of Species***, a quote that captures the interwoven relation of life, interdependence and slow transformation that this thesis pursues to make visible again.

> *"It is interesting to contemplate an entangled bank... Clothed with many plants of many kinds, with birds singing on the bushes, with various insects flitting about, and with worms crawling through the damp earth... So different from each other, and dependent on each other in so complex a manner... There is grandeur in this view of life."* [38]

Life is interwoven

It is time to re-imagine that entangled bank not only as a metaphor but as spatial necessity. To see Proctor Creek not as a problem to manage, but as a presence to recover. A living archive of interdependence, resistance and potential for the watershed. The cost of control has been high, perhaps it is time we learn to let go.



Figure 1.13
Proctor Creek Greenway
Source: Image by author

Endnotes

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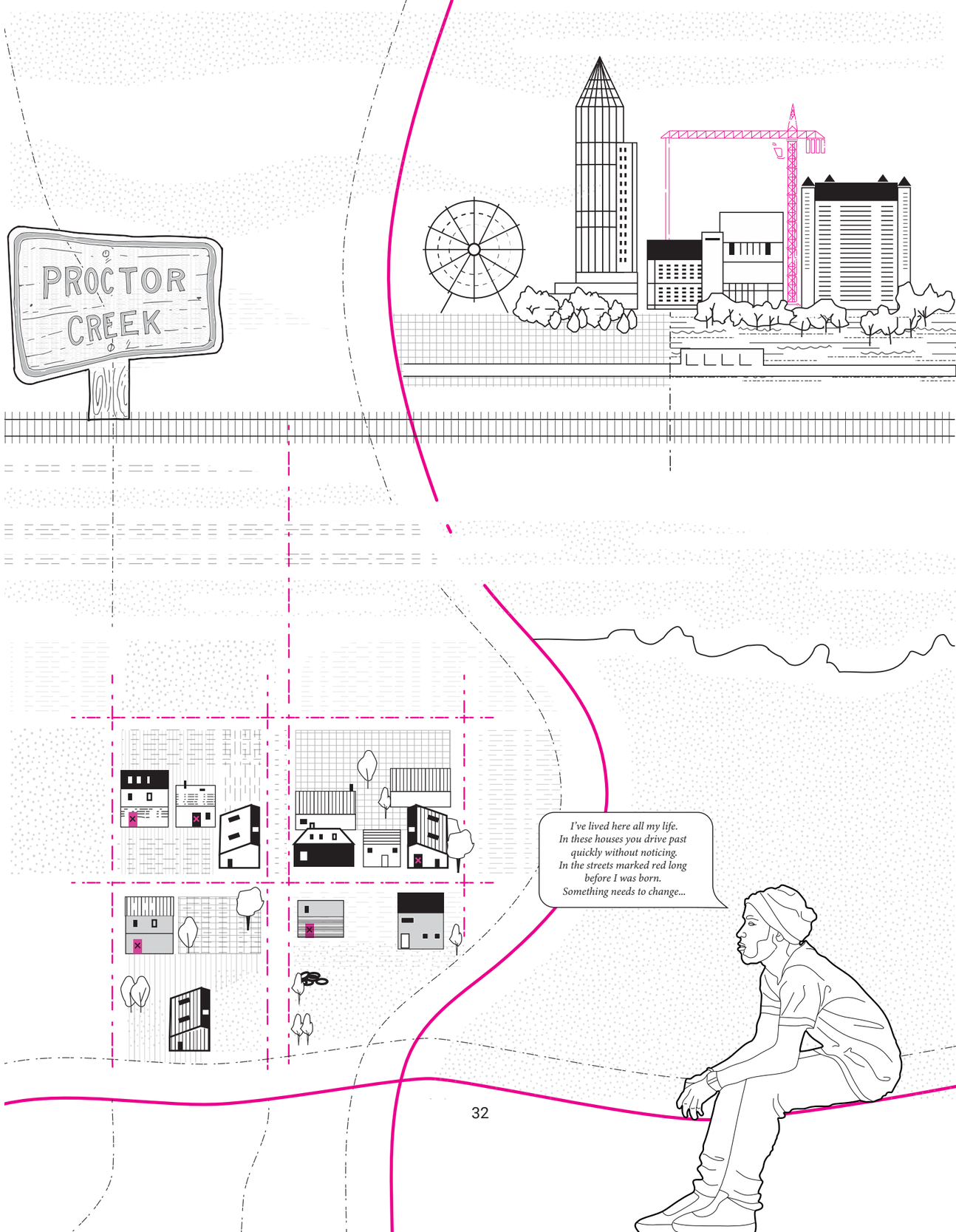
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Figure 2.1 (on the right)
Comic Strip 1

Illustration by author



Reading the Layers - *Hydrology, ecology and inequity*

2.1 Charting the Waters: *Atlanta's layered hydrology*

Statement / question

Atlanta's terrain is divided into multiple watersheds draining into larger regional systems. The Chattahoochee River forms the city's western boundary, which is joined by a branching network of creeks and tributaries, including Peachtree Creek, Camp Creek, Utoy Creek and Nancy Creek. To the south and southeast of the city of Atlanta lies the South River and Flint Rivers that collect runoff from the city's interior and feed into the Ocmulgee and Apalachicola systems respectively. These watersheds once collectively sustained riparian habitats, wetlands, and ecologies across the Piedmont.

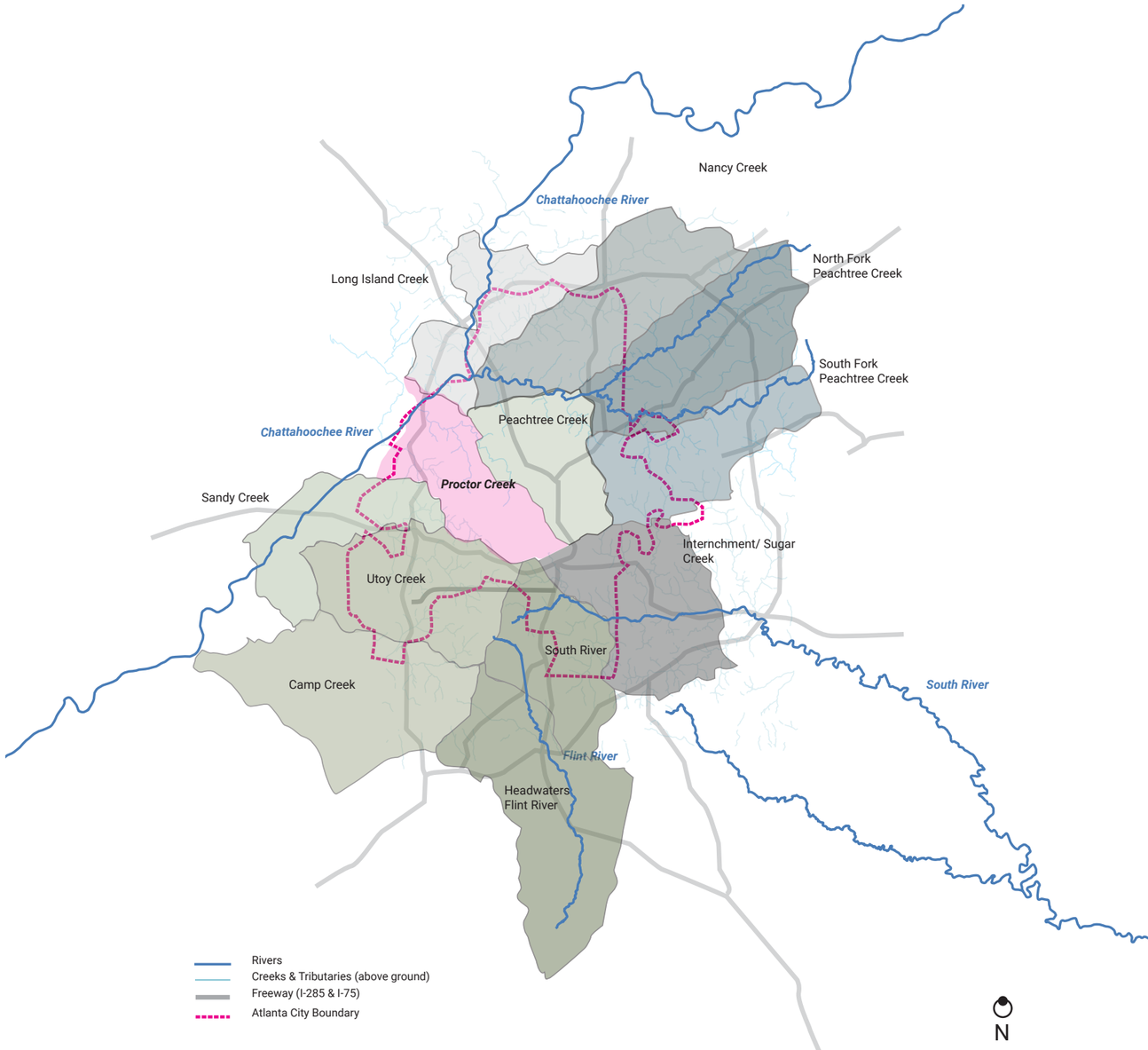
Watersheds vs. expressways

As illustrated in the map that follows, provides a spatial overview of the city's hydrological structure, highlighting the points of intersection between the watersheds and the urban grid, major expressways such as I-75 and I-285, revealing how Atlanta's infrastructure expansion has fragmented and continues to conceal natural flovws.

Proctor Creek impaired

The focus now zeros in on Proctor Creek, located in the northwest quadrant of Atlanta, one of the few remaining creeks still partially running above ground, yet among one of 19 priority impaired urban waterways within Georgia.[39] In the following sections of this chapter dissects how this watershed has been impacted by impervious cover, infrastructure stress and environmental neglect at both watershed and neighbourhood level. Particular attention is given to the historically Black neighbourhoods of Bankhead, Vine City and English Avenue, where the intersection of hydrological vulnerability and systemic disinvestment indicates patterns of spatial and environmental injustice.

Figure 2.2 (*on the right*)
Hydrological Map of Metro Atlanta
This map illustrates Atlanta's primary watersheds and their above-ground tributaries, including Proctor Creek, Peachtree Creek, Camp Creek, and others. Major freeways (I-75, I-285) are shown intersecting natural water systems, highlighting how urban infrastructure fragments and conceals the region's hydrological flows.
Source; Map by author



2.2 Surface Tension

The urban fabric of the Proctor Creek watershed is shaped by am overwhelming presence of impervious surfaces like roads, rooftop, parking lots that accelerate runoff and reduce the ground's ability to absorb rainfall. The impervious surface map shows particularly higher coverage in within the redlined neighbourhoods of Vine City, English Avenue, and Bankhead where built density combines with legacy infrastructure to overload drainage systems.[40]

Flooding is a chronic threat to these neighbourhoods. Heavy rains routinely trigger combined sewer overflows (CSOs) and residential basement backups in low lying sections near Joseph E. Boone Boulevard and Maddox Park, as the existing stormwater and sewer infrastructure that is ill-equipped to handle it.[41]

In response, residents have turned to community science to fill the gaps in public data. Through a partnership with Georgia State University, environmental advocate Na' Taki Osborne Jelks and a team of watershed residents co-developed the Proctor Creek Citizen Science App, making it easier for residents to keep a track of their neighbourhood conditions.[42] The mobile tool is used to document illegal dumping, standing water and stormwater infrastructure failure. Street level environmental data from this participatory mapping tool indicates patterns of neglect, clustering around vacant lots and buildings, alleyways, and in parcels adjacent to the creek in underprivileged neighbourhoods.[43] These risks are dispersed equally rather they are concentrated where regulatory oversight and investment have long been absent.

At the same time, the cost burden of water in Atlanta continues to rise. The city has consistently been ranked among the most expensive in the U.S for monthly water and sewer bills. In 2015, Atlanta had the second highest average bill, surpassing even drier western cities in the U.S like Pheonix and San Diego.[44] By 2023, this disparity has intensified. Reports showed that residents have been paying upwards of $150 per month for unreliable service marked by busted water mains, leaking pipes and delayed repairs, particularly in neighbourhoods which already face persistent flash flooding and sewage exposure issues. As City Council President Doug Shipman stated, people" "feel like they're paying a ton of money and not getting the quality of infrastructure they expect." [45]

In addition to visible water related hazards, soil contamination particularly lead from industrial slag has emerged as a major environmental concern within the marginalized neighbourhoods of this watershed. In March 2022, the EPA added the "Westside Lead Site" to the National Priorities List, as a Superfund site, covering around 673 acres across Vine City and English Avenue.[46] Sampling of the soil revealed elevated levels of lead in residential yards, vacant and abandoned lots. As of April 2025, a total of 606 properties in the superfund site area requires soil remediation. Clean up efforts funded through the program is expected to take up 6 years to include soil removal, site containment and a complete ecosystem restoration.

This ongoing Superfund action highlights the deep entanglement of hydrological dysfunction, industrial legacy and racialized land use fragmentation within the Proctor Creek Watershed. Rising floodwaters, displaced communities, contaminated soil collectively compound long-term ecological and public health risks within these neighbourhoods.

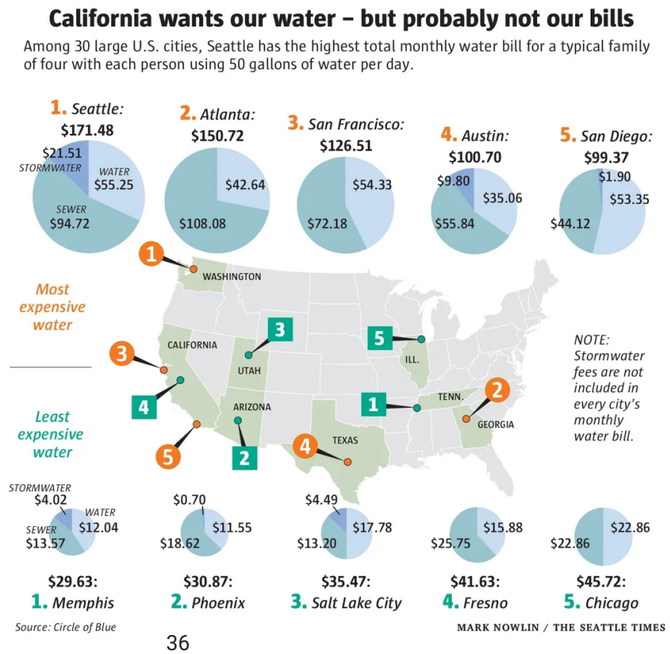


Figure 2.3
Monthly Water Bills Across U.S. Cities.
Monthly costs for water, sewer, and stormwater across major U.S. cities; Atlanta ranks second highest.
Source: Circle of Blue, via The Seattle Times (Graphic by Mark Nowlin)
https://www.seattletimes.com/seattle-news/data/rain-soaked-seattle-has-nations-highest-water-bills/

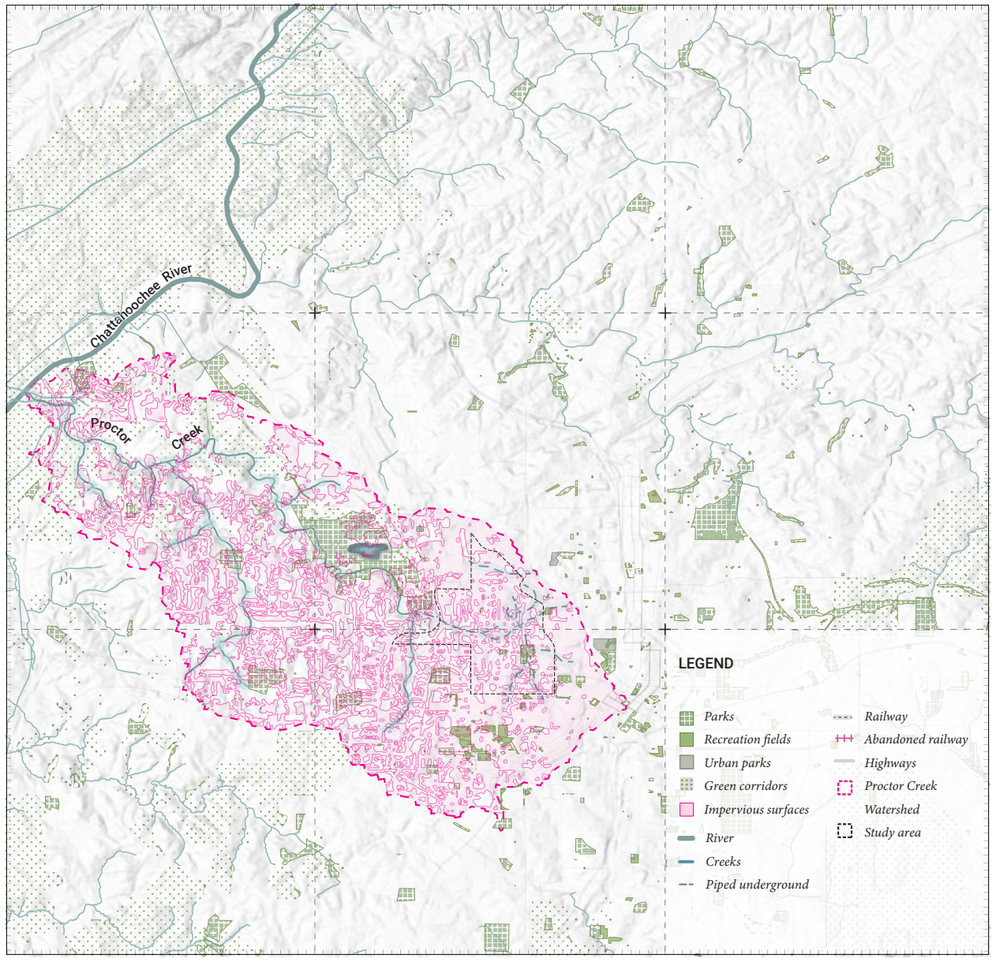


Figure 2.4
Macro: Impervious Surface Map Watershed-scale view showing impervious cover across Atlanta, highlighting runoff-prone zones.
Source: Atlanta DWM, adapted by author.

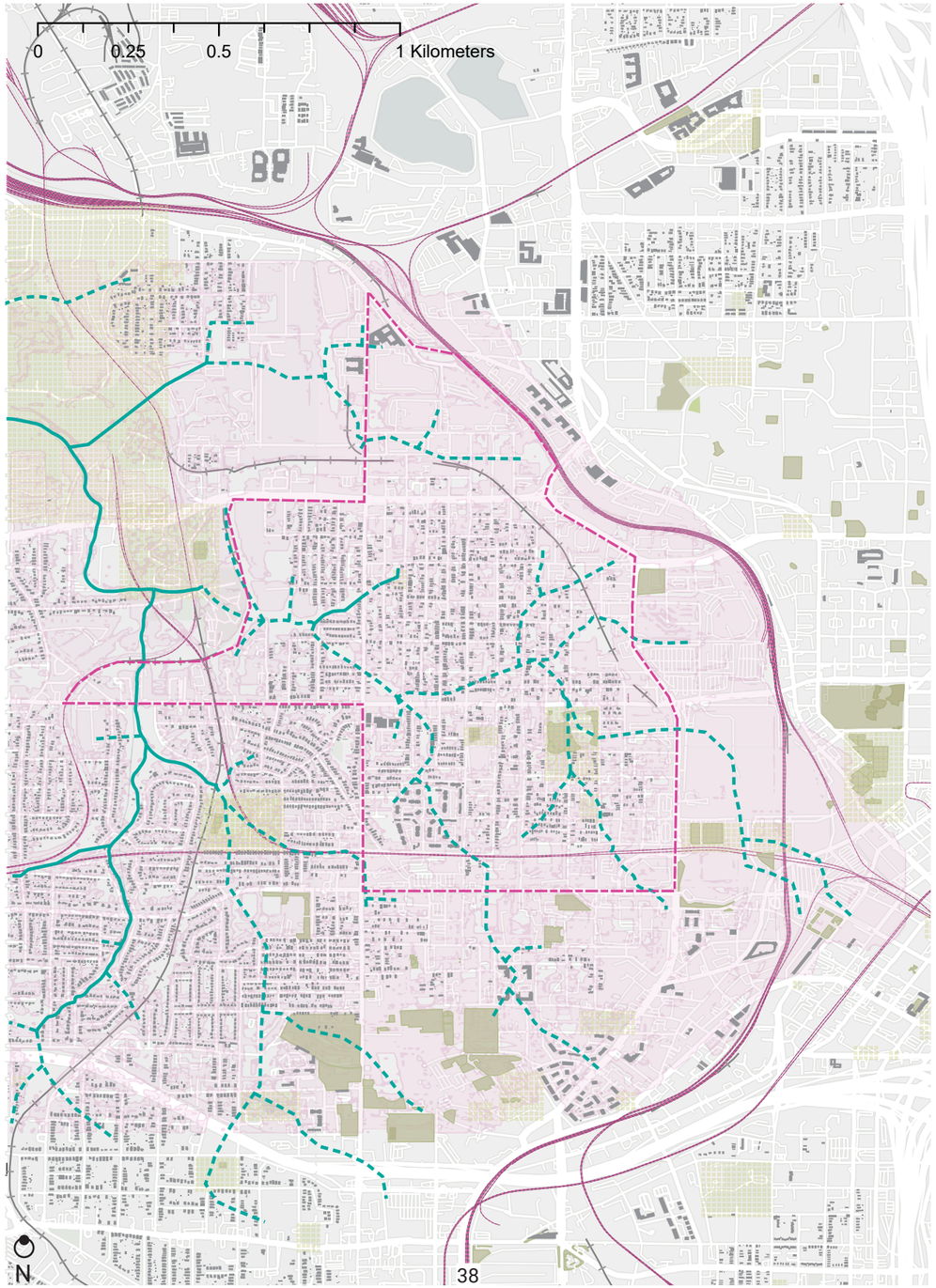


Figure 2.5
Micro Impervious Surface Map Neighbourhood-scale view showing impervious cover aross Atlanta, highlighting runoff-prone zones.
Source: Atlanta DWM, adapted by author.

2.3 Overlays of Disrepair: *Historic weight and spatial vulnerability*

Hydrological and social vulnerability

The neighbourhoods of Vine city, English Avenue and Bankhead occupy the lowest most hydrological vulnerable terrain within the Proctor Creek watershed. Their conditions today, marked by chronic vacancy, poor drainage and environmental hazard are the by product of a long arc of political and spatial abandonment.

Thriving past, sudden severance

Once thriving sections of Black civic life and cultural identity, Vine city and English Avenue flourished in the early 20th century due to their proximity to downtown Atlanta's streetcar lines, historically Black colleges and universities and a flourishing network of Black-owned businesses. Vine City was home to Dr. Martin Luther King Jr. and many other leaders of the civil rights movement, the churches and meeting halls within these neighbourhoods became central sites for political organizations in the 1950's and '60s.[47] Yet, during the same period the expansion of Northside Drive and federally urban renewal projects, which led to the demolition of homes and severed multiple blocks within the neighbourhood from the rest of the city. The Westside Land Use Framework Plan identifies this period as a turning point, when structural disinvestment set in.[48]

English Avenue experienced a parallel trajectory. Once it was termed as the "Gateway to the Westside", which has since declined sharply in the second half of the 20th century due to absentee ownership, speculative real estate practices, and crumbling infrastructure.[49] By the early 2000s the neighbourhood had one of the highest accumulations of vacant land and tax delinquent properties. The result of it is a checkerboard of disconnection, fragmented lots, impassable sidewalks, and hydrological systems that no longer function. Over time, the area became commonly known as "The Bluff" a term coined by mass media and the movie "Snow on tha Bluff (2011)" is known for its association with open-air drug markets and crime, sometimes said to be an acronym for "Better Leave, U Fucking Fool". In 2010, the area around Carter Street and Vine City MARTA station was identified as the most dangerous in Atlanta, and it ranked 5th nationally for violent crimes.[50]

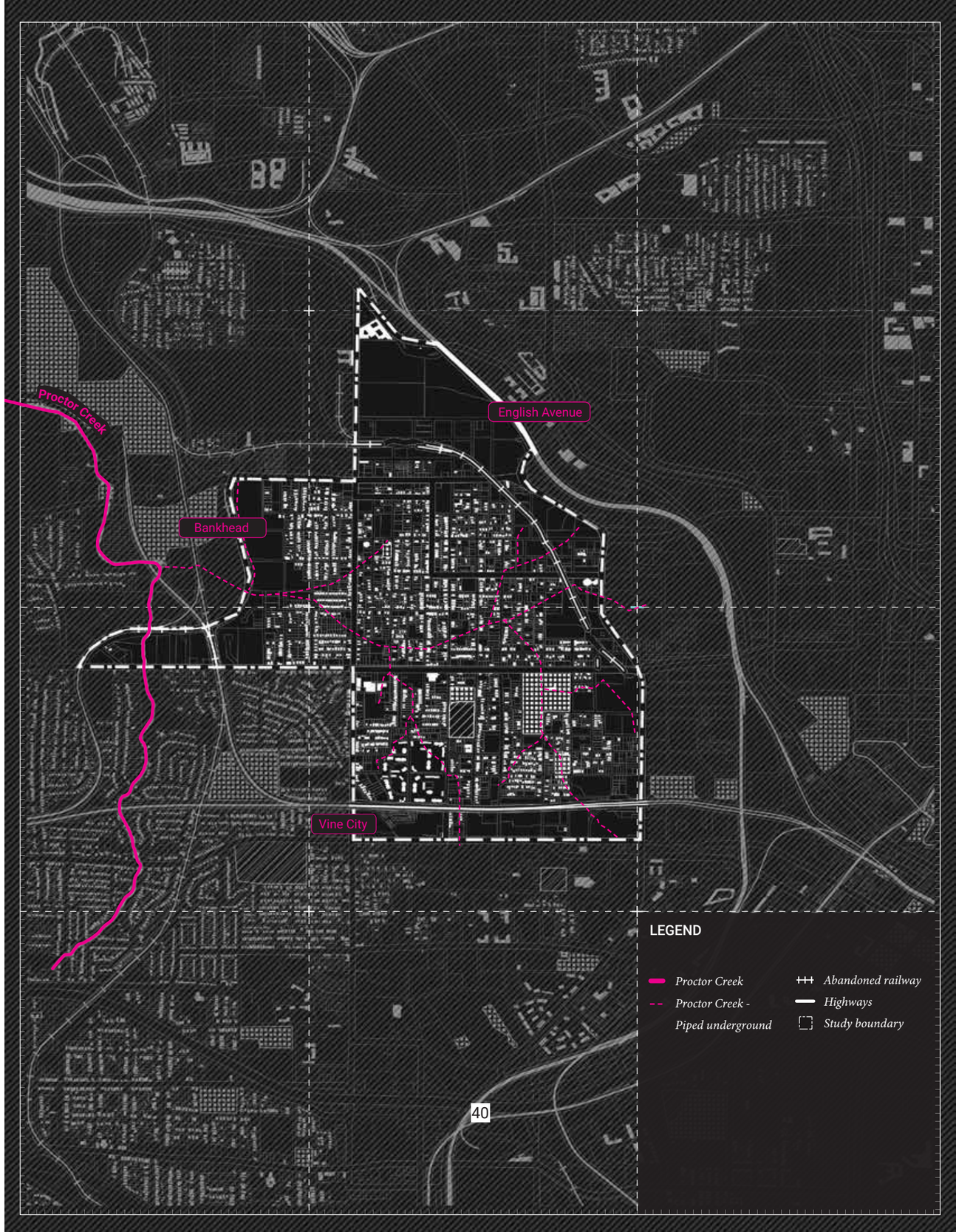


Figure 2.6 (*On the right*)
Neighborhood Focus: Proctor Creek
Map highlighting English Avenue, Vine City, and Bankhead in relation to Proctor Creek's path and watershed.
Source: Map adapted by author from Open source GIS data

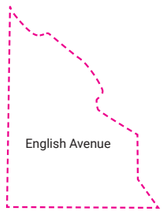


Figure 2.7
Abandoned Commercial Structure, English Avenue.
Vacant, graffiti-covered commercial building on a main road, highlighting abandonment and underuse in the neighborhood.
Photograph by author, 2025.

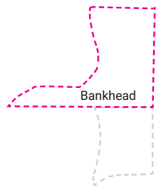


Figure 2.8
Abandoned Church, Vine City.

Dilapidated church along a main street, symbolizing the erosion of community institutions in Vine City.
Photograph by author, 2025.







English Avenue

NPU	NPU L
Neighborhood Statistical Area	L02
Neighborhood	English Avenue
Square Miles	0.8
Total 2022 Population	2,543
% Population in Poverty, 2022	25.5
% of Occupied Housing Units with No Vehicle Access, 2022	22.7
% Civilian Non-Institutionalized Population without Health Insurance, 2022	13.1
% of Population Over 25 with Bachelor's Degree or Higher, 2022	33.0
Median Household Income, 2022	53,746

Vine City

NPU	NPU L
Neighborhood Statistical Area	L01
Neighborhood	Vine City
Square Miles	0.5
Total 2022 Population	4,194
% Population in Poverty, 2022	40.0
% of Occupied Housing Units with No Vehicle Access, 2022	48.3
% Civilian Non-Institutionalized Population without Health Insurance, 2022	18.9
% of Population Over 25 with Bachelor's Degree or Higher, 2022	22.1
Median Household Income, 2022	33,365

Bankhead

NPU	NPU K
Neighborhood Statistical Area	K02
Neighborhood	Bankhead, Washington Park
Square Miles	0.9
Total 2022 Populationv	3,047
% Population in Poverty, 2022	40.5
% of Occupied Housing Units with No Vehicle Access, 2022	31.9
% Civilian Non-Institutionalized Population without Health Insurance, 2022	19.2
% of Population Over 25 with Bachelor's Degree or Higher, 2022	29.3
Median Household Income, 2022	31,131

Industrial decline, environmental hazards

Racial majority, economic erosion

Further to the west, Bankhead developed as a working-class neighbourhood tied to the industrial and railway infrastructure economies. As these industries declined, so did investment in housing, roads and water systems. Flooding, illegal dumping and brownfields conditions became a common trait of the area. Despite strong neighbourhood identity and community organizing, environmental hazards and poverty continue to be the defining presence of the landscape.[51]

Today these neighbourhoods are majority Black, 88.4% in Vine city, 90.7% in English avenue and 95% in Bankhead. Vacancy and blighted properties remain a visible symptom of disinvestment, with over a third of lots unoccupied in most blocks. Median household incomes range anywhere between $17,892 to $22,500 which is well below the city average, while vacancy rates exceed 30 percent.[52] These economic figures mirror the neighbourhood scarred by colliding loops of infrastructural decay and ecological stress - where aging, undersized stormwater systems pool beneath vacant lots; areas least equipped to manage them. Where the land is lowest, where the investment is absent, the water collects.

Table 2.1 (on the left)
Demographic Snapshot of West-side Neighborhoods (2022)

Compares poverty, vehicle access, insurance, education, and income across English Avenue, Vine City, and Bankhead.

Source: Data compiled by author using GIS tax parcels.

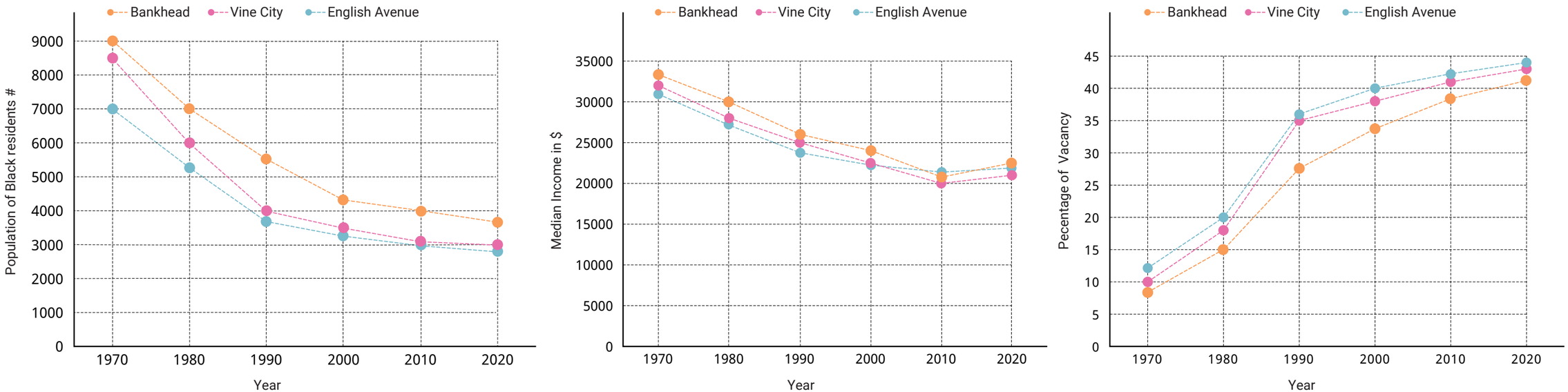


Figure 2.9
Demographics, Vacancy, and Income Trends (2000–Present)
Statistical overview of population change, housing vacancy, and median household income in Vine City, English Avenue, and Bankhead.

These graphs illustrate a trajectory where Black population declined and diversity subtly increased, incomes remained significantly below city averages, and vacancy rates rose to crisis levels particularly in English Avenue (29%) and Bankhead (43%). These trends reflect systemic disinvestment in these Black-majority communities over decades.

2.4 The BeltLine, the Greenway and the Westside

In the recent years, Atlanta has promoted green infrastructure as a strategy for both ecological resilience and economic developement. The Atlanta BeltLine, a citywide loop of parks and trails built along disused rail corridors, intersects with Westside neighbourhoods through the Westside Trail and links to the Proctor Creek Greenway, a 7-mile linear park and trail following the creek northward from the Bankhead MARTA station. [53] These projects are framed as catalysts for public space access and environmental repair, with green infrastructure elements, biking facilities and trails. While these interventions offer ecological benefits and increased connectivity, they also raise concerns of gentrification and speculative development particularly in historically disinvested communities within the scope of this thesis.[54] These projects are read critically, not only as infrastructural improvements but as contested terrains where questions of access, benefit and long-term stewardship remain unresolved.



Figure 2.10
Westside BeltLine Connector Overpass.
A key crossing point near Bankhead linking neighborhoods along the Proctor Creek corridor.

Photo by author, May 2025

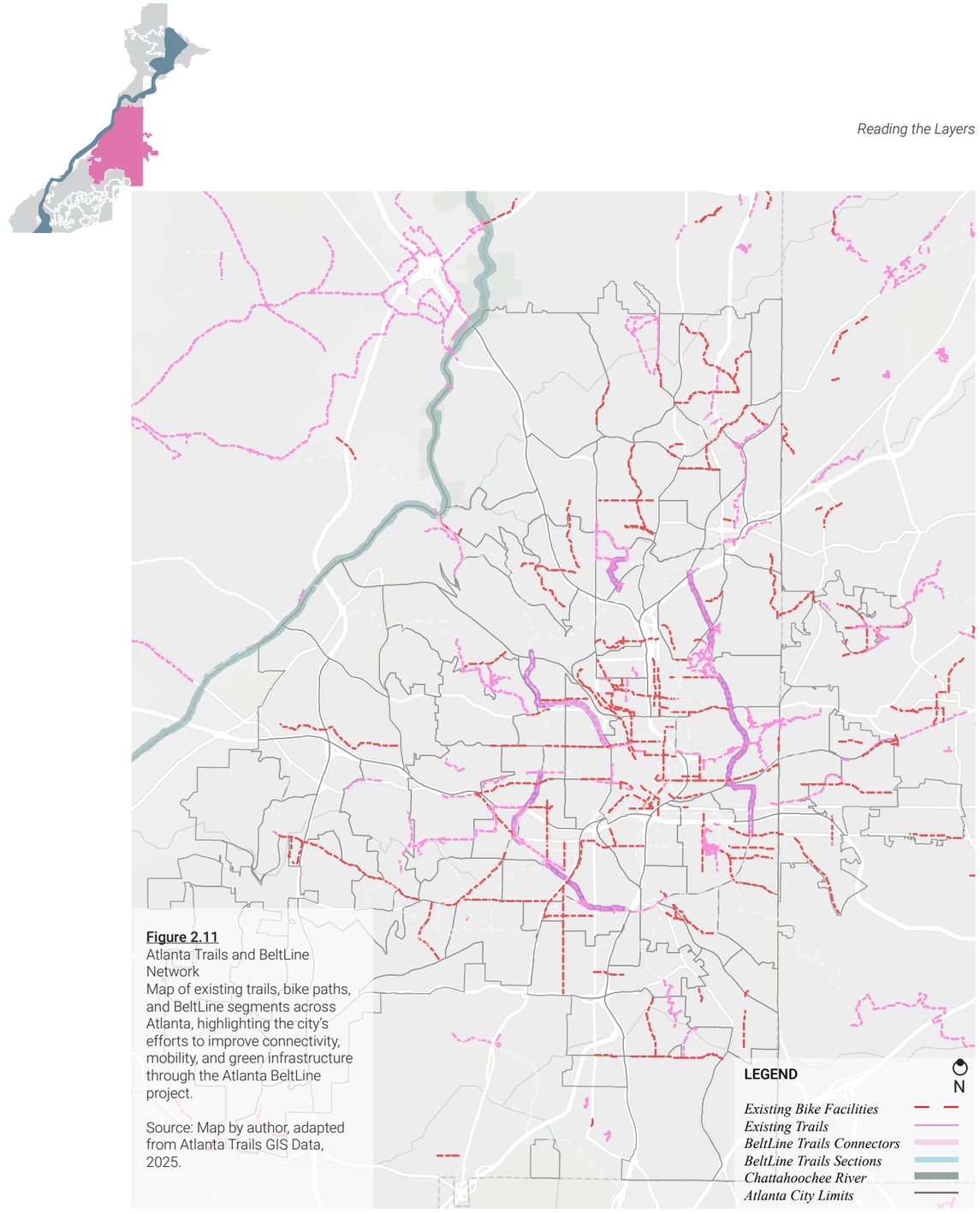


Figure 2.11
Atlanta Trails and BeltLine Network
Map of existing trails, bike paths, and BeltLine segments across Atlanta, highlighting the city's efforts to improve connectivity, mobility, and green infrastructure through the Atlanta BeltLine project.

Source: Map by author, adapted from Atlanta Trails GIS Data, 2025.

2.5 Looping the Landscape: *Ecology, Program and Movement*

Latent loops, resilient futures

Within the fractured urban landscape of the Westside, patterns of vacancy, disinvestment and disconnection are not merely the residue of history and policies, they are active conditions that continue to shape how a space is lived, moved through and imagined. Yet embedded within this fragmented geography are latent systems of ecological corridors, cultural landmarks and circulation paths that, if read together can offer the potential for a more integrated and resilient urban future. In Vine City, English Avenue and Bankhead these systems form a dispersed but overlapping network, a set of loop conditions that has the ability to tie together land, people memory and water.

Ecology through vacant land

The ecological loop begins with the land's capacity to breathe and take in water. Despite decades of urban encroachment, remnants of Proctor creek's riparian edge persist as green slivers winding between neglected infrastructure. Many of the vacant parcels mapped here lie along subtle topographies made up of low spots where water collects, soil softens, and invasive vegetation grows. These are not mere wastelands but future micro wetlands in waiting, sites with the potential to contribute to ecological repair. Within them, bioswales, rain gardens, and planted retention zones which could slow down and filter runoff, restore hydrological cycles and buffer the creek from further pollution. Some parcels already carry the memory of such conditions which have porous soil, collapsed drains or simply as backyard ditches acting as informal hydrological infrastructure. Weaving these fragments together forms an ecological loop that does not go on to replicate nature as it was but composes nature as to what it might become.[55]

Civic memory endures

Layered onto these environmental flows are the programmatic loops of civic and cultural institutions, which anchors social life within the watershed. Across the three neighbourhoods, a dispersed collection of schools, churches, museums and historic homes stay on even amidst vacancy. In English Avenue, the Greater Vine City Opportunities Program still operates next to abandoned plots. In Vine City, the legacy of the King Family and the nearby Rodney Cook Sr. Peace Park recall the neighbourhood's role in the civil rights movement.[56] In Bankhead, community centres, schools and churches maintain a sense of rhythm in gathering the residents in spite of the absence of commercial or state managed infrastructure.

Programmatic resilience

Mapping the sites of life and community is a part of a looping system of programmatic resilience, revealing how space is socially held even when physically degraded. These loops offer the scaffolds for phased renewal, where programming could expand beyond walls, into commons, green spaces that engage directly with the revived flow of the creek, inviting community, life back to the water's edge.

Circulation loop, broken access

Lastly, the circulation loop overlays both ecological and cultural systems, but with uneven visibility. While three MARTA stations at Vine City, West Lake and Ashby sit within or near the watershed, pedestrian access to and from them is frequently blocked by missing or deteriorating sidewalks and misaligned curb cuts.[57] Bike lanes appear mostly on major streets but lack continuity, making cycling unsafe and unreliable. The Atlanta BeltLine traces at the edge of English avenue, which remain underutilized, residents often avoid it due to safety concerns, and it functions more as a route rather than a connector, lacking any integration of nature, or programmed activity to bring more people to this neighbourhood, or to help build their economy.[58] Along Joseph E. Boone Blvd. the EPA and city of Atlanta have begun piloting green infrastructure treatment network such as a few meters of bioretention planters, permeable sidewalks and rain gardens to reduce some of the runoff and improve walkability.[59] These surface level interventions seem to offer a starting point towards the right direction.

Reparative urbanism

Together, these three loops; ecological, programmatic and circulatory form the groundwork for an urbanism of interdependence. Rather than imposing any form, the design proposition here is to analyse what already exists, then to further extend what is latent, additionally support what is growing and to connect what has been severed. The goal can not be housing or density for its own sake, but to forma a renewed quality of life built through layered, reparative systems.

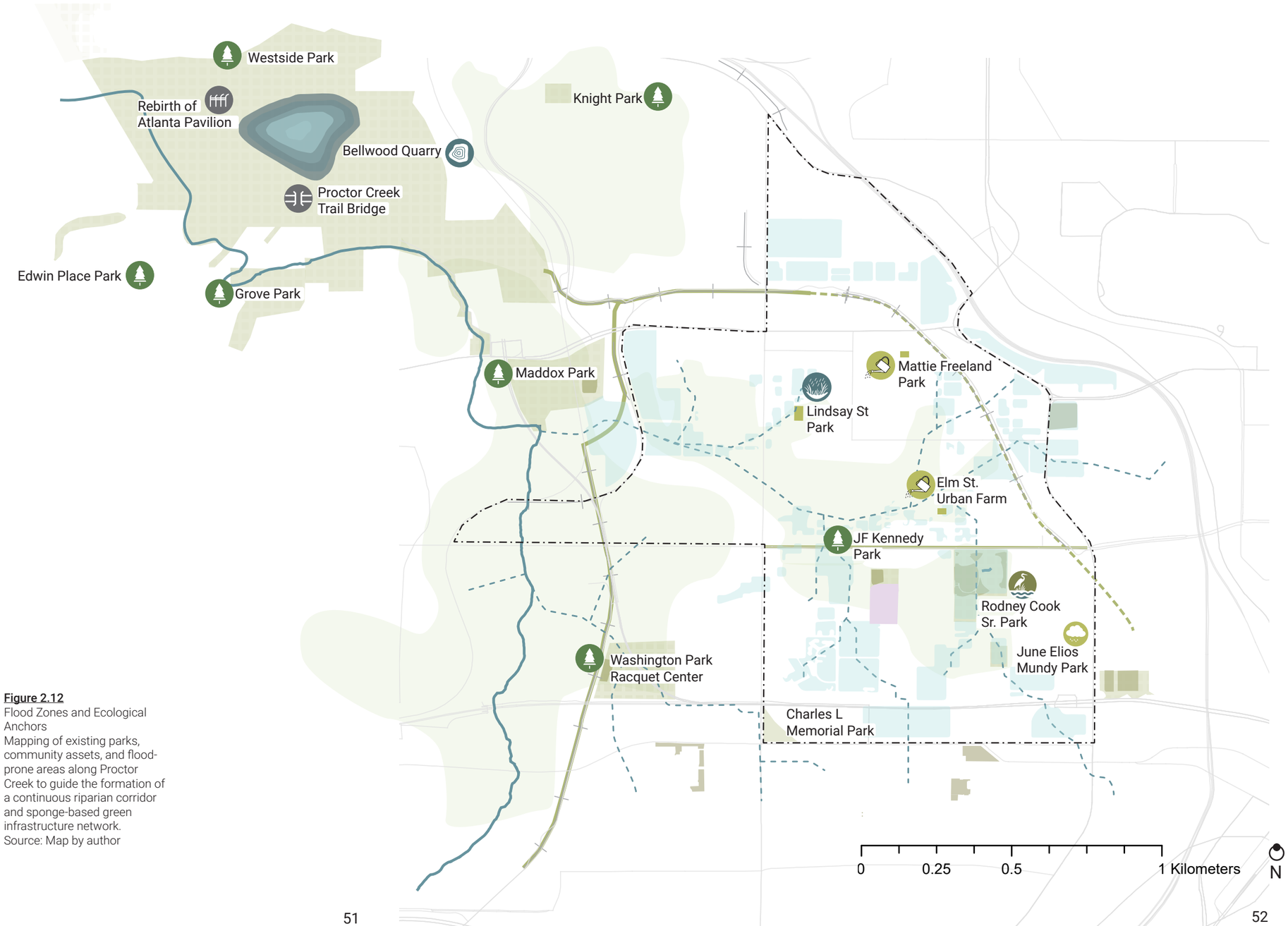
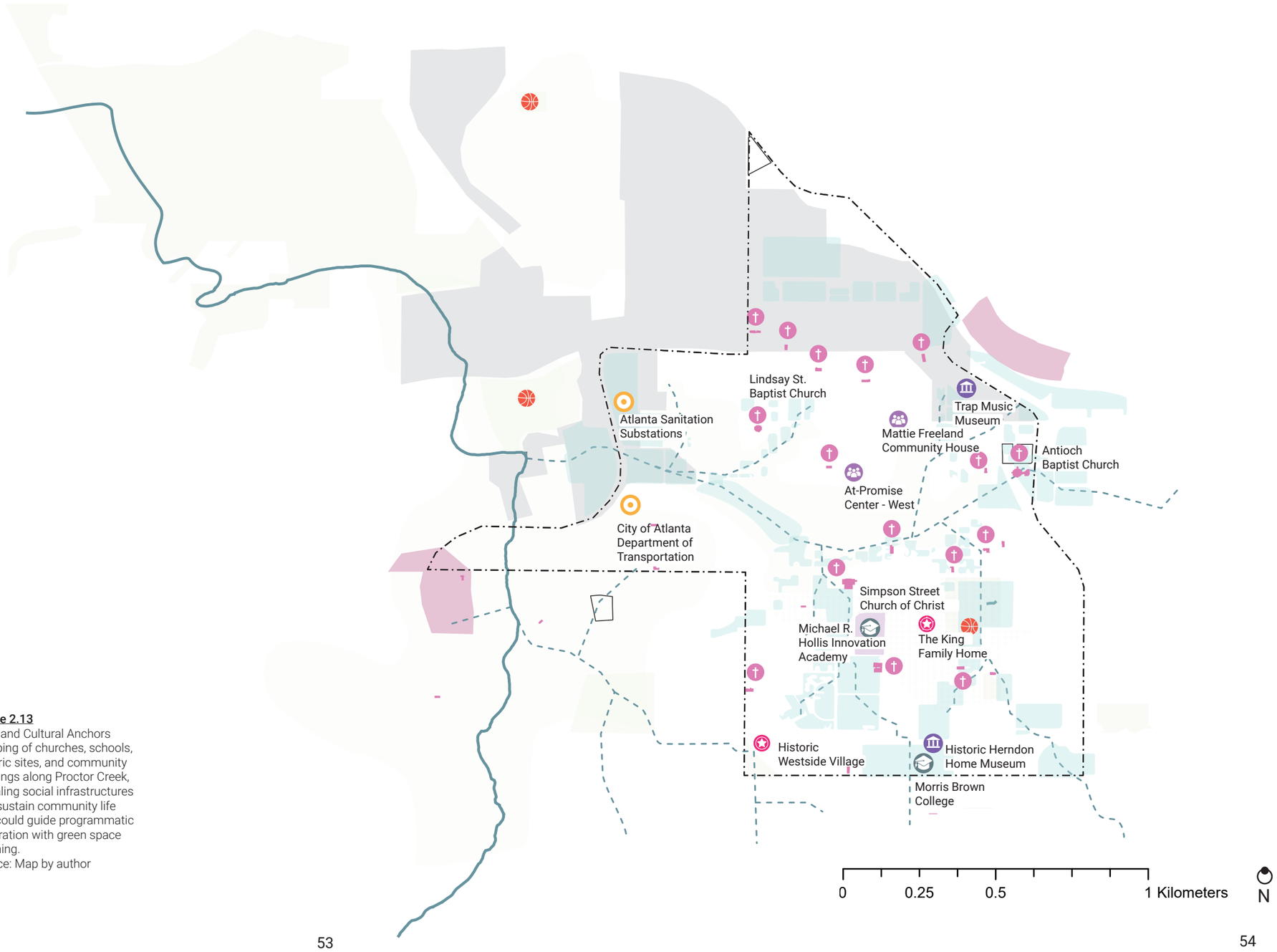


Figure 2.12
Flood Zones and Ecological Anchors
Mapping of existing parks, community assets, and flood-prone areas along Proctor Creek to guide the formation of a continuous riparian corridor and sponge-based green infrastructure network.
Source: Map by author

Larger Urban Parks (Multi-functional, Stormwater Infrastructure Included)
-Westside Park
-Rodney Cook Sr. Park
-Washington Park
-Maddox Park
-Grove Park

Mid-size Community Parks
-JF Kennedy Park
-Knight Park

Small Neighborhood-Scale Green Spaces / Pocket Parks
-Lindsay Street Park
-Mattie Freeland Park
-June Elios Mundy Park
-Elm St. Urban Farm
-Edwin Place Park
-Charles L. Harper Memorial Park



Civic & Government Facilities
-*Atlanta Sanitation Substations*
-*City of Atlanta Department of Transportation*

Religious Institutions (Prominent and relative to flood prone parcels)
-*Lindsay Street Baptist Church*
-*Antioch Baptist Church*
-*Simpson Street Church of Christ*

Community & Youth Centers
-*Mattie Freeland Community House*
-*At-Promise Center – West*

Cultural Institutions & Museums
-*Trap Music Museum*
-*Historic Herndon Home*
-*The King Family Home*

Civic & Commercial Nodes
-*Historic Westside Village*

Educational Institutions
-*Michael R. Hollis Innovation Academy*
-*Morris Brown College*

Figure 2.13
Civic and Cultural Anchors
Mapping of churches, schools, historic sites, and community buildings along Proctor Creek, revealing social infrastructures that sustain community life and could guide programmatic integration with green space planning.
Source: Map by author

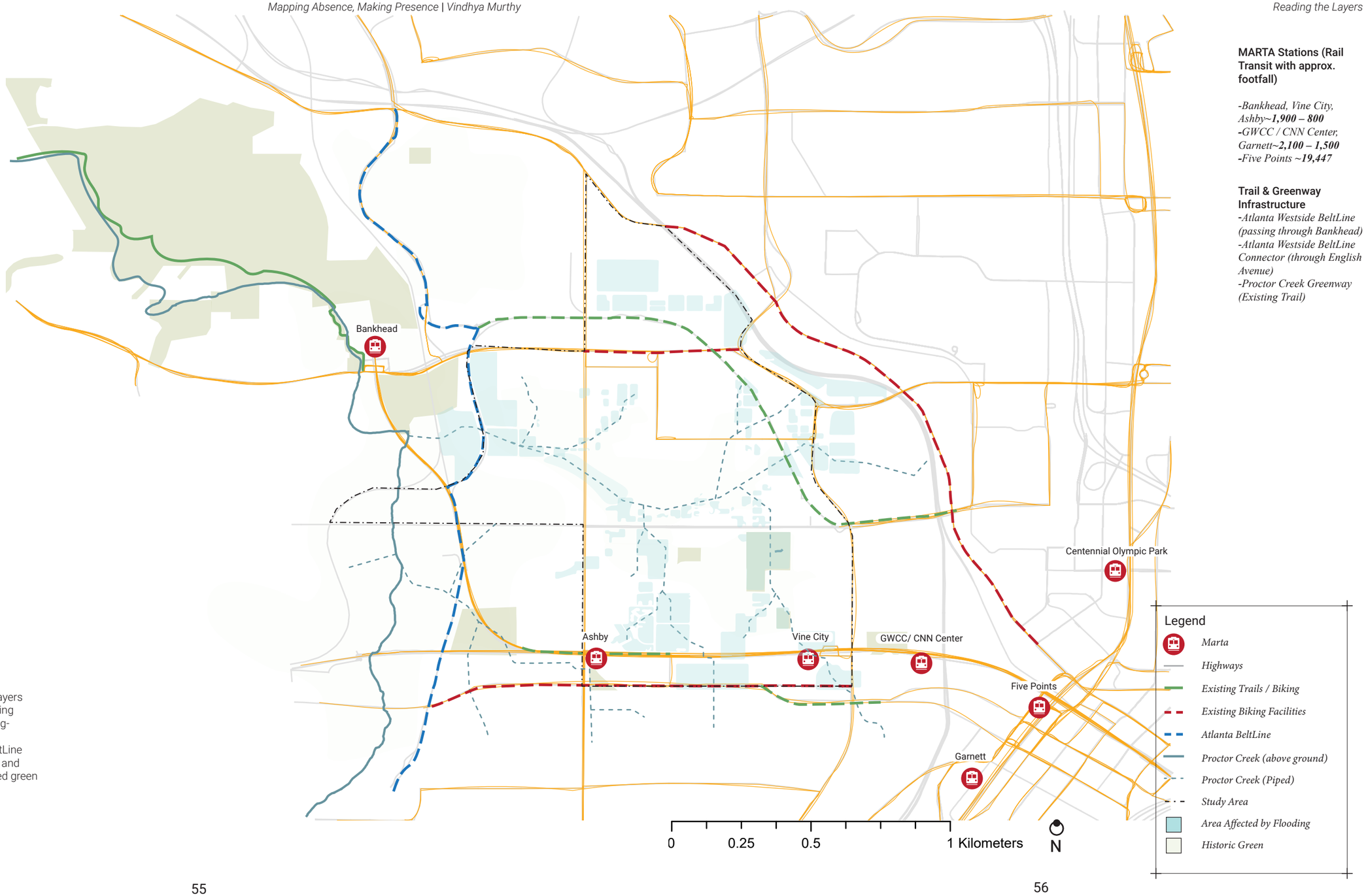


Figure 2.14

Mobility and Flood Risk Layers Map showing MARTA, biking infrastructure, and flooding-prone areas in relation to Proctor Creek and the BeltLine revealing circulation gaps and opportunities for integrated green mobility.

Source: Map by author

MARTA Stations (Rail Transit with approx. footfall)

*-Bankhead, Vine City, Ashby~**1,900 – 800***
*-GWCC / CNN Center, Garnett~**2,100 – 1,500***
*-Five Points ~**19,447***

Trail & Greenway Infrastructure

-Atlanta Westside BeltLine (passing through Bankhead)
-Atlanta Westside BeltLine Connector (through English Avenue)
-Proctor Creek Greenway (Existing Trail)

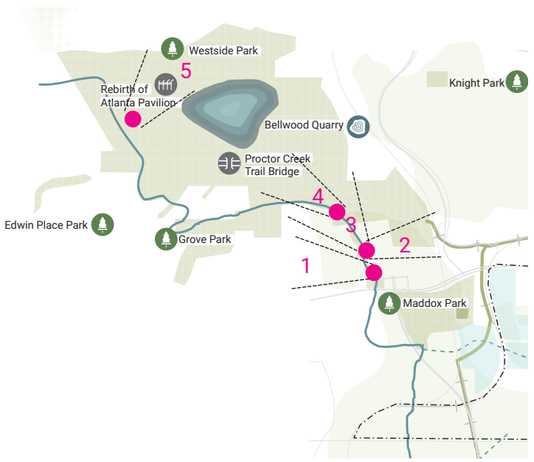




Figure 2.15
Proctor Creek Greenway Walk, Atlanta — Photographic documentation of a walking journey along the Proctor Creek Greenway Trail, from Maddox Park to the Proctor Creek Outdoor Activity Center. The images capture moments of creek adjacency, green infrastructure, industrial adjacency, and informal use of space, reflecting the layered social and ecological context of Atlanta's Westside.

Source: Photos by the author, 2024.

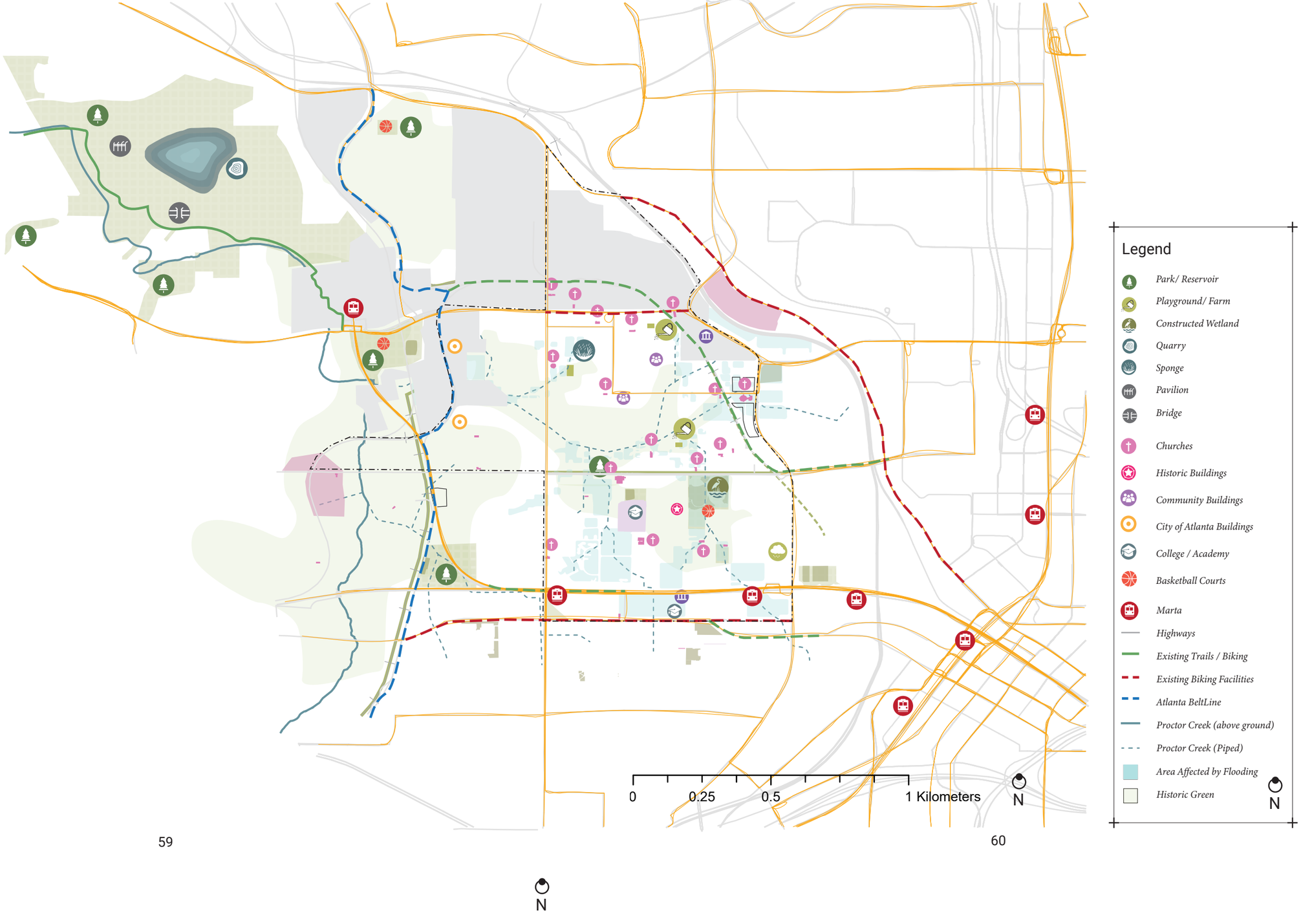


Figure 2.16
Integrated Loop Systems Map
A composite mapping of ecological, cultural, and circulation layers across the Proctor Creek watershed highlighting opportunities for connected green infrastructure, community resilience, and riparian repair.

Source: Map by author

2.6 Proctor Creek Citizen Science Application

This application serves as a community-based data collection tool that documents environmental hazards across the watershed. Developed through a collaboration between Gergia State University and local advocates, the app allows users to geotag and report issues such as standing water, stormwater infrastrucutre failure, and illegal dumping.[60] Visualizations from the app interface illustrate how resident-reported data captures conditions often missed by formal municipal assessments. Building on this dataset, four spatial maps are drawn to examin the distribution of hazards at both the macro- watershed scale and micro-neigbourhood scale. These maps indicate patterns of environmental vulnerability clustered around vacant parcels, alleyways and low-lying lots adjacent to the buried stream. Such sites frequently coincide with deteriorated infrastructure and underfunded stormwater systems.[61] The mapping highlights how cumulative environmental burdens water stagnation, dumping, and drainage failure are dispropationately concentrated in Vine City, English Avenue and Bankhead. Rather than isolated incidents, these hazards from a spatial pattern of neglect shaped by systemic disinvestment. Framed through participatory environmental justice tools, this data becomes instrumental in identifying site-specific thresholds for targeted, blue- green instrasture.

Crowdsourced Environmental Mapping

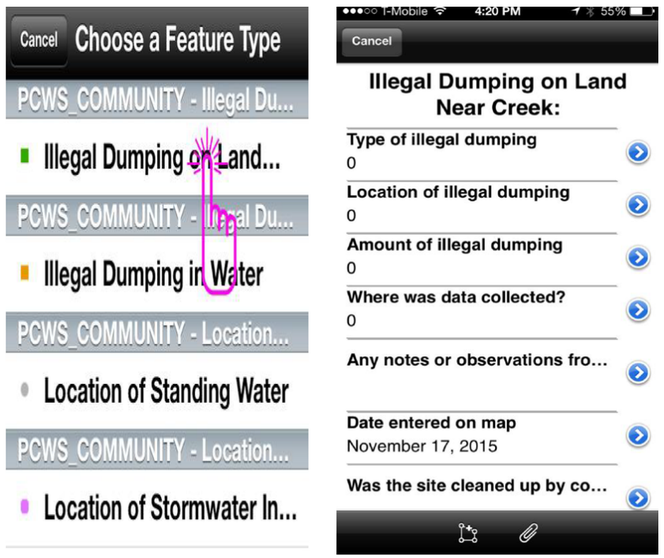


Figure 2.17
Citizen Science App Interface Mobile interface showing data entry catagories for environmental hazards in the Proctor Creek Watershed.

Source: Jelks et al., IJERPH 2022.

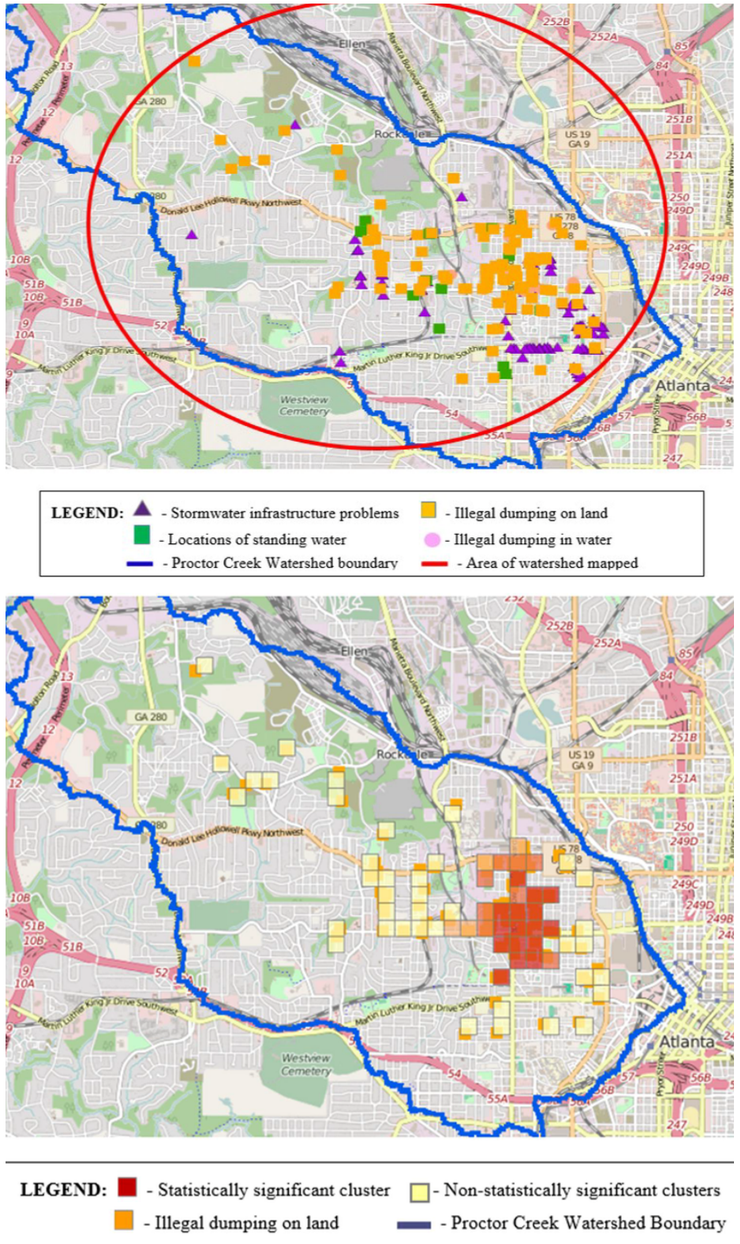


Figure 2.18
Community Mapping of Watershed Hazards. Resident-reported locations of standing water, illegal dumping, and stormwater issues within the watershed.

Source: Jelks et al., IJERPH 2022

Figure 2.19
Cluster Analysis of Illegal Dumping
Statistically significant clusters of illegal dumping across the Proctor Creek watershed.

Source: Jelks et al., IJERPH 2022



Figure 2.20
Boarded Commercial Building Along Low-Traffic Corridor. Vacant structure with heavy graffiti and fencing on a quiet, under-maintained street, reflecting long-term abandonment.
Photograph by author, 2025.



Figure 2.21
Derelict Structure with "For Sale" Sign on Sloped Edge. Fenced-off building in advanced decay on a sloped road with faded infrastructure, highlighting real estate speculation amid disuse.
Photograph by author, 2025.

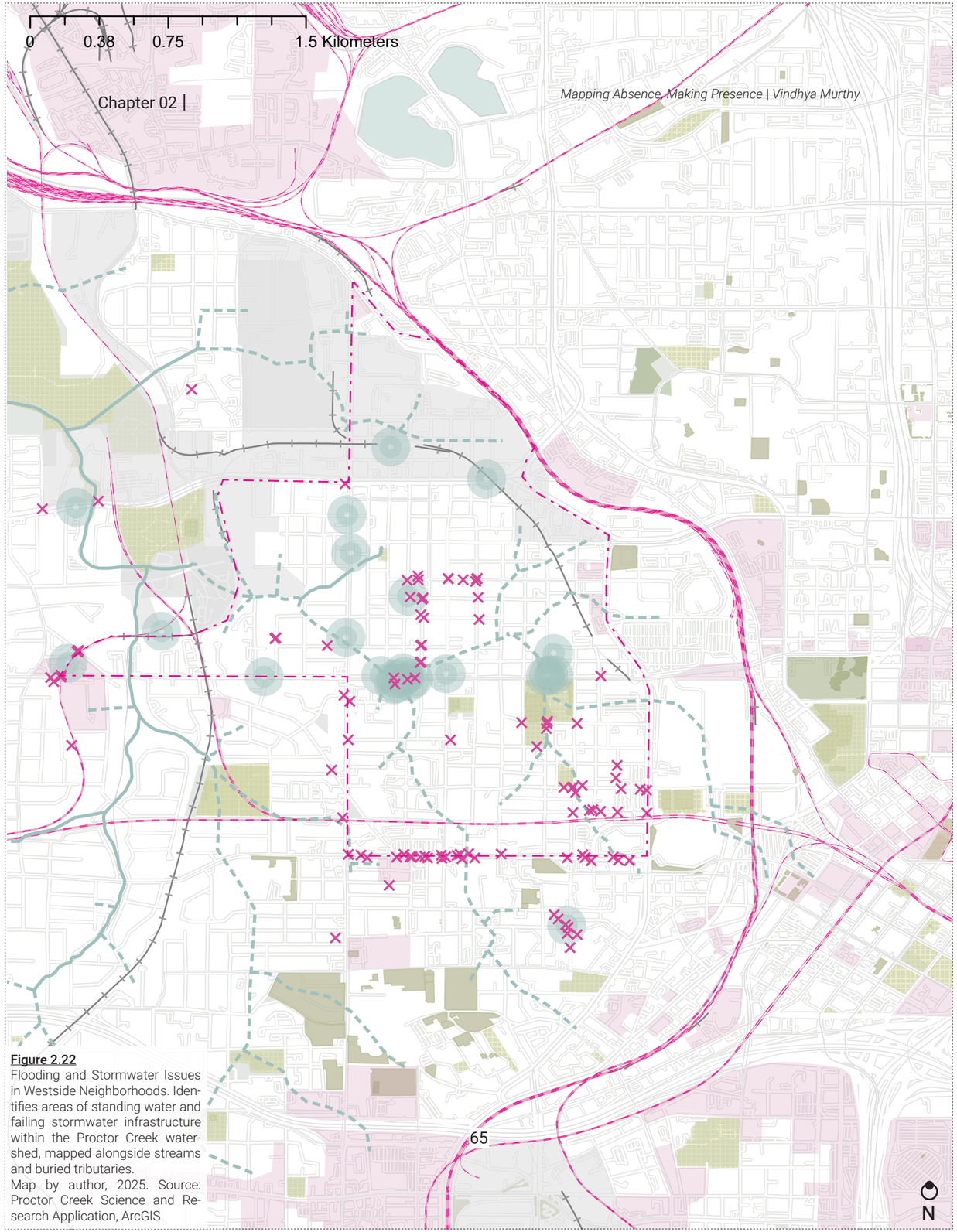


Figure 2.22
Flooding and Stormwater Issues in Westside Neighborhoods. Identifies areas of standing water and failing stormwater infrastructure within the Proctor Creek watershed, mapped alongside streams and buried tributaries.
Map by author, 2025. Source: Proctor Creek Science and Research Application, ArcGIS.



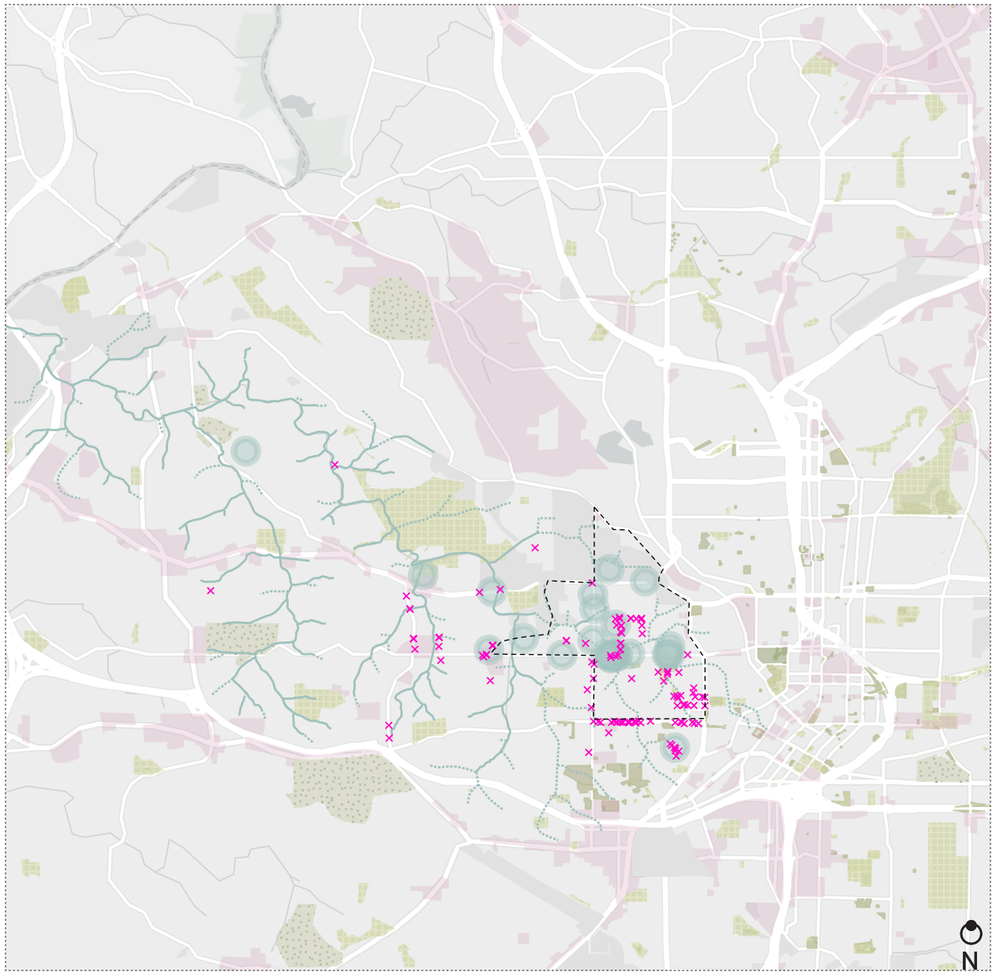


Figure 2.23
Watershed-Wide View of Hydrological Challenges. Expands the view to the full watershed, revealing clustered stormwater issues concentrated in historically disinvested Westside neighborhoods.
Map by author, 2025. Source: Proctor Creek Science and Research Application, ArcGIS.

LEGEND

Location of Standing Water
Location of Stormwater Infrastrucute Problem
Historic Streams (now piped)
Stream or Tributary

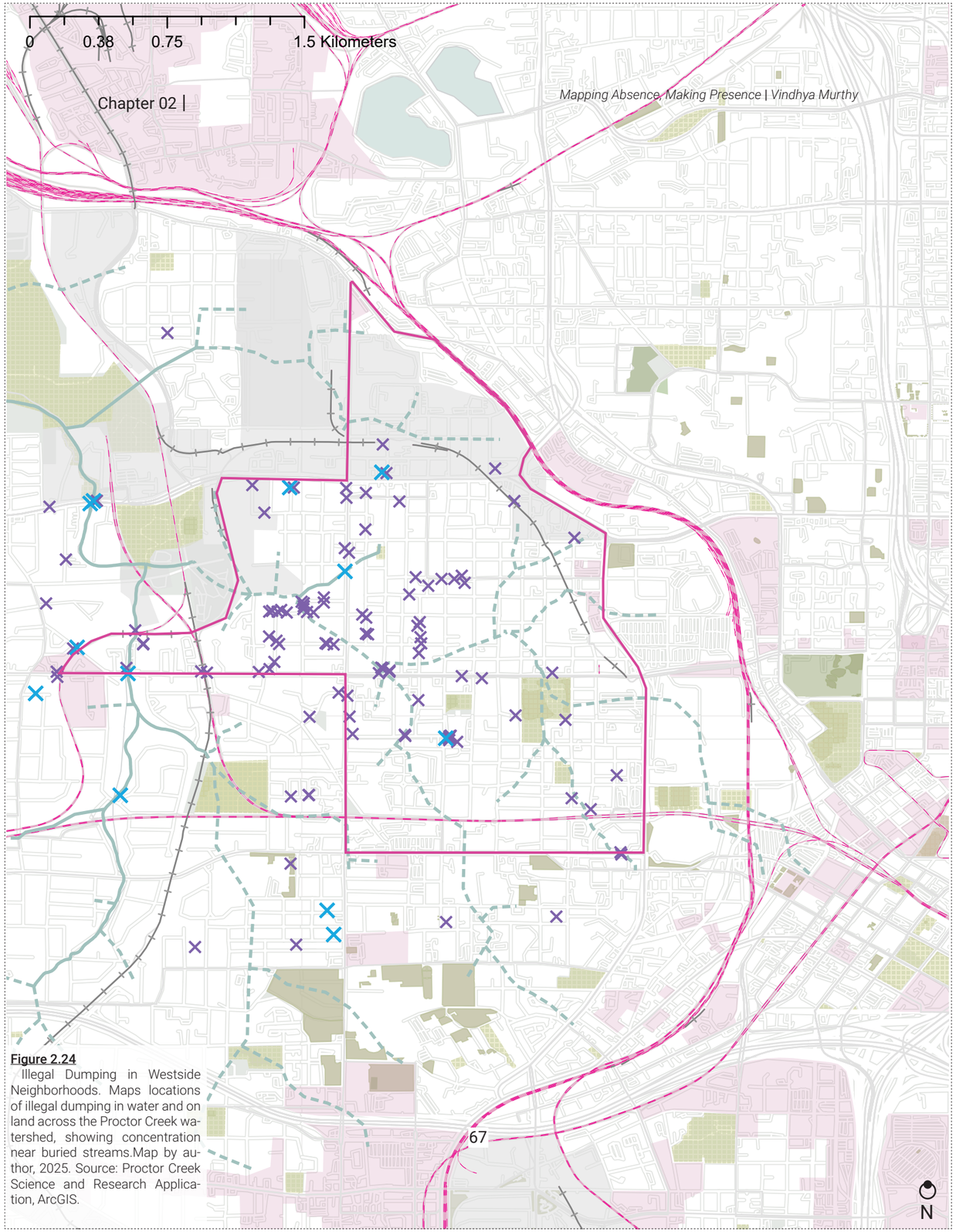


Figure 2.24
Illegal Dumping in Westside Neighborhoods. Maps locations of illegal dumping in water and on land across the Proctor Creek watershed, showing concentration near buried streams.Map by author, 2025. Source: Proctor Creek Science and Research Application, ArcGIS.



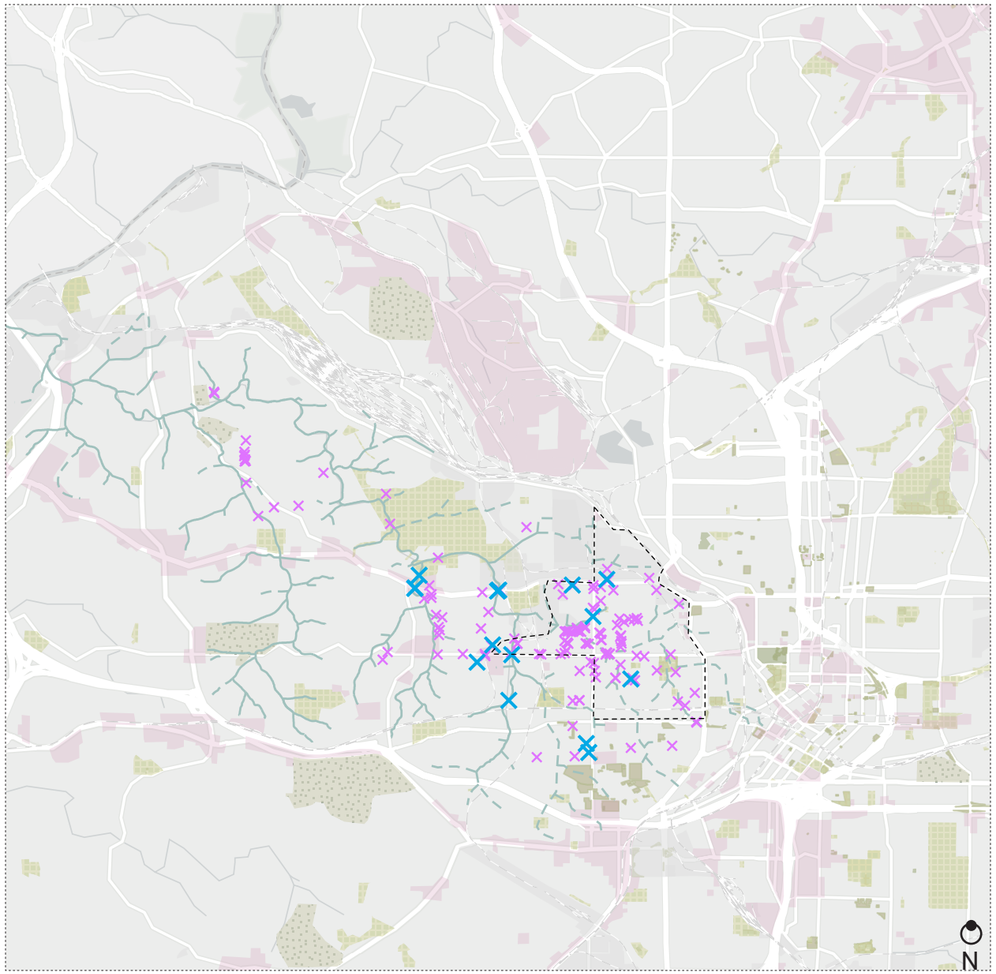


Figure 2.25
Watershed-Wide Dumping Patterns. Highlights broader dumping activity across the watershed, revealing environmental burdens disproportionately affecting Westside communities.
Map by author, 2025. Source: Proctor Creek Science and Research Application, ArcGIS.

LEGEND

Illegal Dumping in Water
Illegal Dumping on Land Near Creek

Historic Streams (now piped)
Stream or Tributary

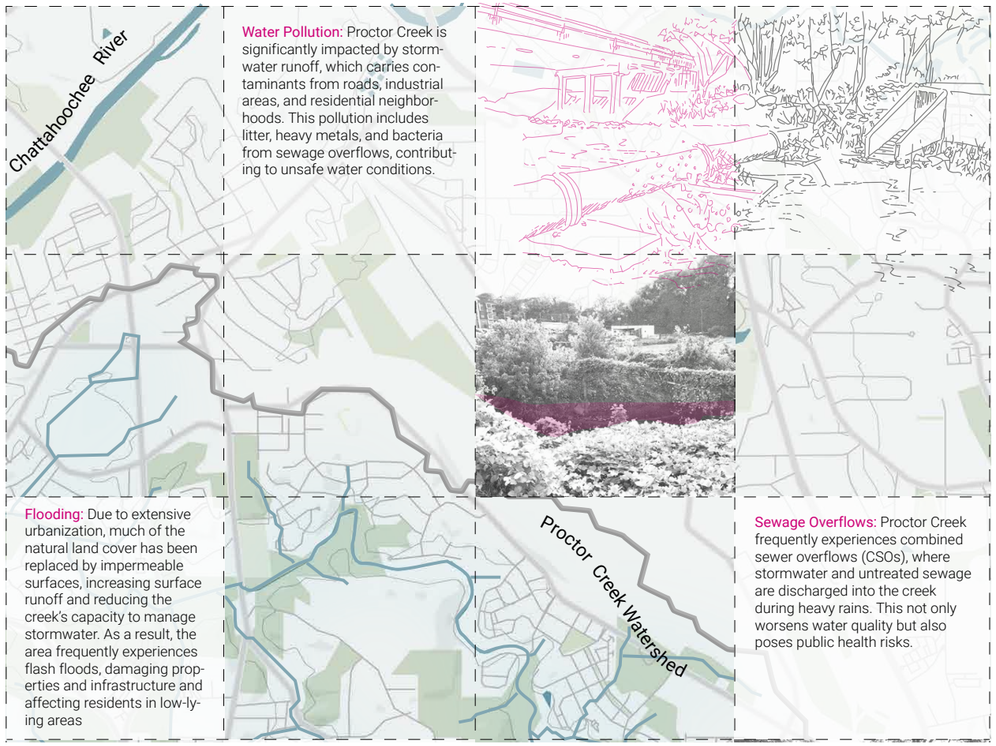
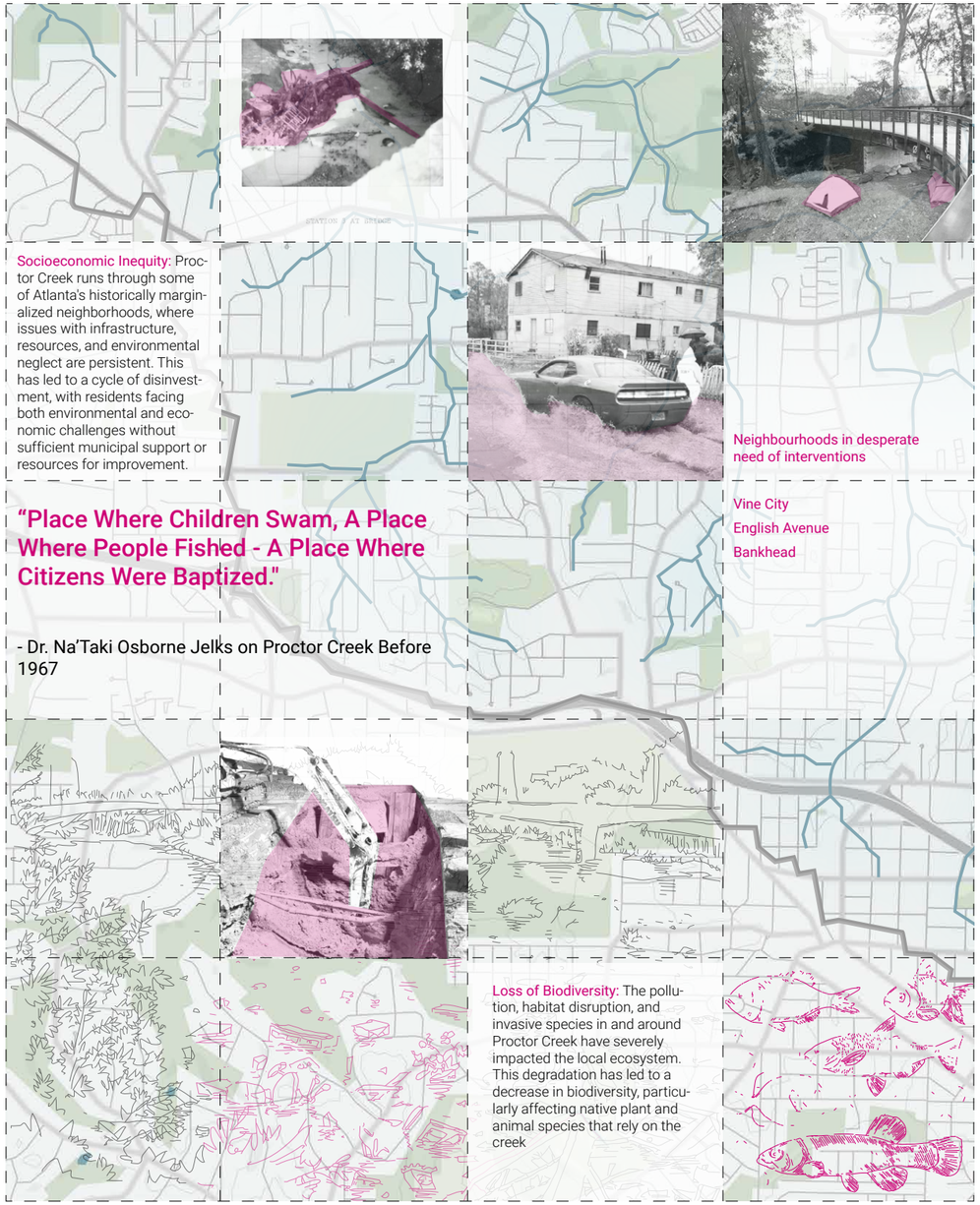


Figure 2.26 & 2.27
Figures 2.23 & 2.24
Environmental and Social Challenges in the Proctor Creek Watershed — These annotated maps visualize key issues affecting Atlanta's Westside neighborhoods, including flooding, sewage overflows, water pollution, biodiversity loss, and socioeconomic inequity. The layering of historical and present-day data illustrates the compounded vulnerabilities in Vine City, English Avenue, and Bankhead.

Source: Author's composite mapping, field photos, and public data overlays



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Tracing Community Visions - Between the archive and the street

3.1 Stakeholder Study – *Promises and Practice*

Over the past two decades, Atlanta's Westside, particularly Vine City and English Avenue has been the subject of over eighteen planning initiatives, from housing stabilization and streetscape upgrades to large-scale transit-oriented development and green stormwater infrastructure.[62] While often framed as community centred and comprehensive approach to redevelopment, these plans reveal underlying tensions between top-down logic of revitalization and the bottom-up struggle for repair, ownership and ecological justice.[63]

This section maps the diverse stakeholders shaping the Proctor Creek watershed. From federal agencies like the EPA and U.S Army Corps of Engineers,[64] to local non-profit organizations such as the West Atlanta Watershed Alliance (WAWA)[65], academic institutions like Geogia Tech[66], and city- affiliated entities like Invest Atlanta[67] and the Department of Watershed Management (DWM)[68], are some of the key actors that operate across a wide spectrum of institutional power and grassroots engagement. Their differing roles and agendas significantly contribute to how plans are conceived, negotiated and either implemented, partially realized or completely abandoned.

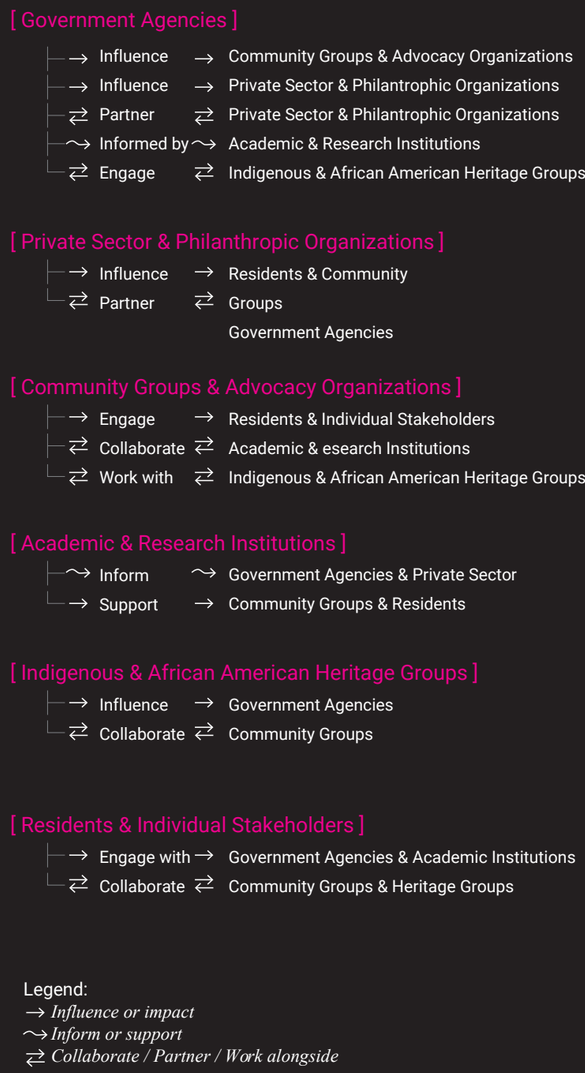
Power shapes planning outcomes

The influence flowchart helps visualize the factors driving decision making and plan adoption. Government agencies have always played a central role, influencing both community groups and private/ philanthropic sectors, while being informed by academic research and increasingly engaged by heritage groups.[69] Private and philanthropic stakeholders collaborate with the government in order to shape outcomes by making use of grants and funding through development incentives. Community groups which are formed by resident engagement often collectively collaborate with researchers while aligning themselves with heritage advocated to push for equitable outcomes. Academic institutions inform both top-down and bottom-up strategies while Indigenous and African American heritage groups assert cultural and historical claims to influence planning development. At the centre of all of this are the residents who often face the greatest stakes but the least power in determining outcomes.

Ultimately plan adoption is less about technical feasibility and more about influence, alignment and power dynamics which play out across the network. Understanding these flows of power is key to imagining a more just and inclusive planning process, which help shape communities and not just respond to an immediate situation.

Figure 3.1
(on the right)
Stakeholder Roles and Relationships.
Visualizes influence, collaboration, and support between key stakeholder groups.

Source: Diagram by author



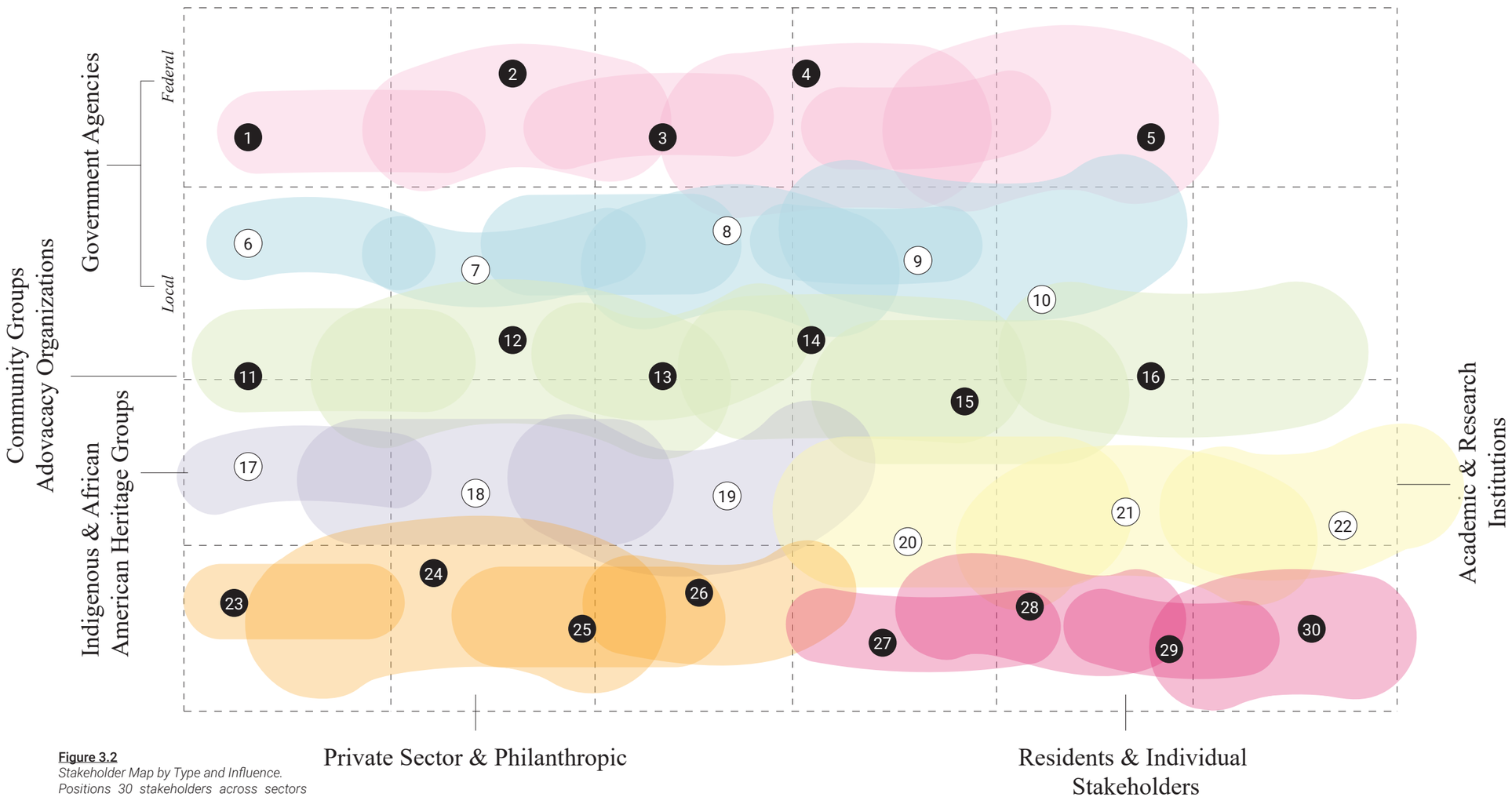


Figure 3.2
Stakeholder Map by Type and Influence. Positions 30 stakeholders across sectors based on institutional type and level of influence within the Proctor Creek watershed. Colored overlays indicate spheres of operation and potential collaboration.

Source: Diagram by author

1 *Georgia Department of Natural Resources (EPD)*
2 *Georgia Environmental Division*
3 *Environmental Protectionn Agency (EPA)*
4 *National Park Services (NPS)*
5 *U.S Army Corps of Engineers (USACE)*

6 *City of Atlanta*
7 *Office of Sustainability*
8 *Park and Recreation Department*
9 *Department of Public Works*
10 *Fulton County Government*

11 *The Conservation Fund*
12 *AgLanta*
13 *Eco-Action*
14 *Chattahoochee Riverkeeper*
15 *West Atlanta Watershed Alliance*
16 *Proctor Creek Stewardship Council*

17 *Muscogee Creek Nation*
18 *Local African American Heritage Groups*
19 *Atlanta Preservation Center &*
Historic Westside Cultural Arts Council

20 *Georgia Institute od Technology (GaTech)*
21 *Emory University*
22 *Spelman College & Morehouse College*

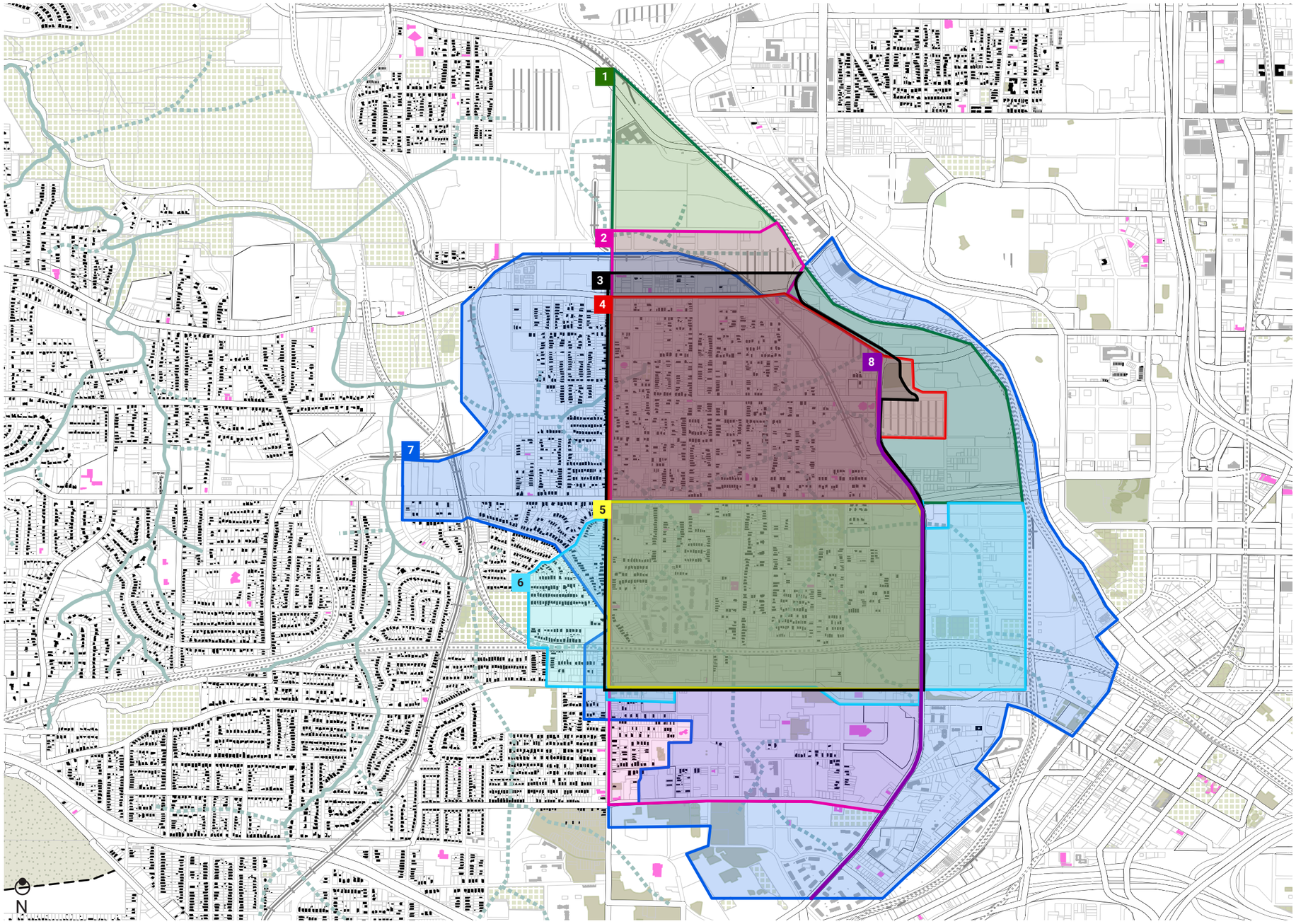
23 *The Kendeda Fund*
24 *Westside Future Fund*
25 *Coorporate Partners*
26 *Real Estate Developers*

27 *Renters*
28 *Activists & Citizen Scientists*
29 *Newcomers & Developers*
30 *Longtime / Legacy Residents*

Each quadrant represents One Stakeholder

Scale for level of impact within the watershed

Low — — — — — — — — *High*



LEGEND

- *English Avenue Redevelopment Plan (2006)*
- *The Prince's Foundation:Scoping Watershed Basin (2010)*
- *Westside Landuse Framework Plan(2017)*
- *Georgia Tech- English Avenue Study (2008)*
- *Vine City Redevelopment Plan (2004)*
- *Vine City/ Washington Park LCI (2009)*
- *Proctor Creek North Avenue Vision Plan (2010)*
- *Northside Drive Corridor Study (2005)*

Figure 3.3
Overlapping Planning Boundaries in Atlanta's Westside Shows spatial overlap of eight major plans within the Proctor Creek watershed, highlighting fragmented yet repeated focus on Vine City and English Avenue.

Source: Map by author

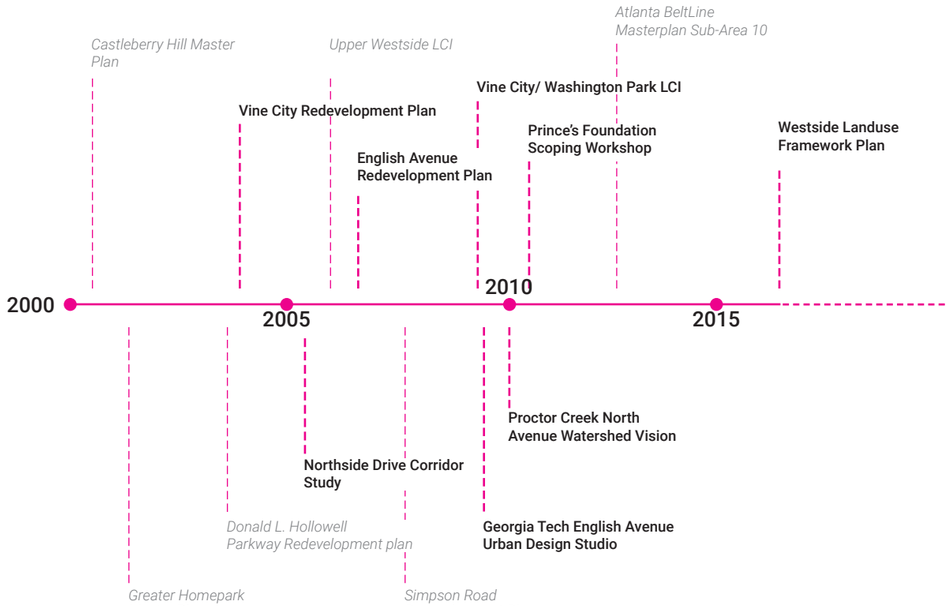


Figure 3.4
Timeline of Key Westside Planning Initiatives.
Chronological overview of major planning efforts (2000–2017) shaping Proctor Creek's neighborhoods.

Source: Timeline by author

Vine City Redevelopment Plan (2004)[70]

The Vine City Redevelopment Plan, which was commissioned in 2004 by the Civic City Association and prepared by the urban design consultancy Urban Collage, was one of the earliest formal attempts to produce an inclusive spatial strategy for reviving the Vine City. The plan was situated within a broader context of early 2000's federal and municipal efforts to revitalize inner city neighbourhoods, particularly through initiatives liked to the Empowerment Zone Program and emerging Tax Allocation District (TAD) funding mechanisms in Atlanta. Following a series of catastrophic flood events in 2002 that damaged more than 150 homes in Vine City alone, local civic leaders recognized the increasing untenability of maintaining residential uses on repeatedly inundated parcels. The redevelopment plan explicitly identifies these flood prone lots as an opportunity for public green space, representing one of the first institutional acknowledgments the area's topography and hydrology necessitated a shift in land-use strategy.

While this recognition of environmental constraints marked a significant discursive department from traditional hard-infrastructure approaches to stormwater management, the ecological framing of the plan remained limited. The proposed open spaces were not designed as integrated green infrastructure systems capable of managing stormwater through bioswales, retention basins or riparian restoration. Instead, flood prone lots were visioned as passive green zones, as aesthetic voids or buffers with no articulated hydrological functions. Furthermore, programming remained unclear, the plan did not resolve whether these new landscapes should be programmed for either active recreation or preserved as passive green spaces. This ambiguity reflected a deeper tension within the community, where some residents envisioned parks as recreational amenities, while other viewed them as potential gentrification triggers or spatial displacements of longstanding residents.

In terms of community engagement, the plan was framed as a civic-led initiative, and indeed the Vine City Civic Association played a central role in articulating local needs. However, much of the engagement was like a consultation rather than a co-productive effort. While residents voiced concerns regarding crime, disinvestment and lack of amenities, there is little evidence that ecological education, hydrological literacy or participatory design of the proposed open spaces occurred in a meaningful way. Moreover, the Plan did not conduct deep public meetings or design workshops focused on creek restoration, flood mitigation or environmental justice, some issues that would later become essential to grassroots organizing within the watershed.

Ultimately, the Vine City Redevelopment Plan constitution a foundational gesture toward recognizing the role of Proctor Creek and its buried tributaries in sculpting the urban form. Yet it falls short in proposing a transformative vision. The plan failed to translate ecological awareness into a systematic landscape strategy and was never formally adopted by the City of Atlanta. Despite its potential to reposition hydrology as an organizing framework for neighbourhood redevelopment it remained primarily a housing and streetscape stabilization strategy, reflecting the priorities of the early 2000s urban policy landscape. Its legacy however is evident in the following plans that revisited some of its land-use recommendations of particularly the conversion of flood prone land into green space though with varying degrees of ecological ambition and implementation success.

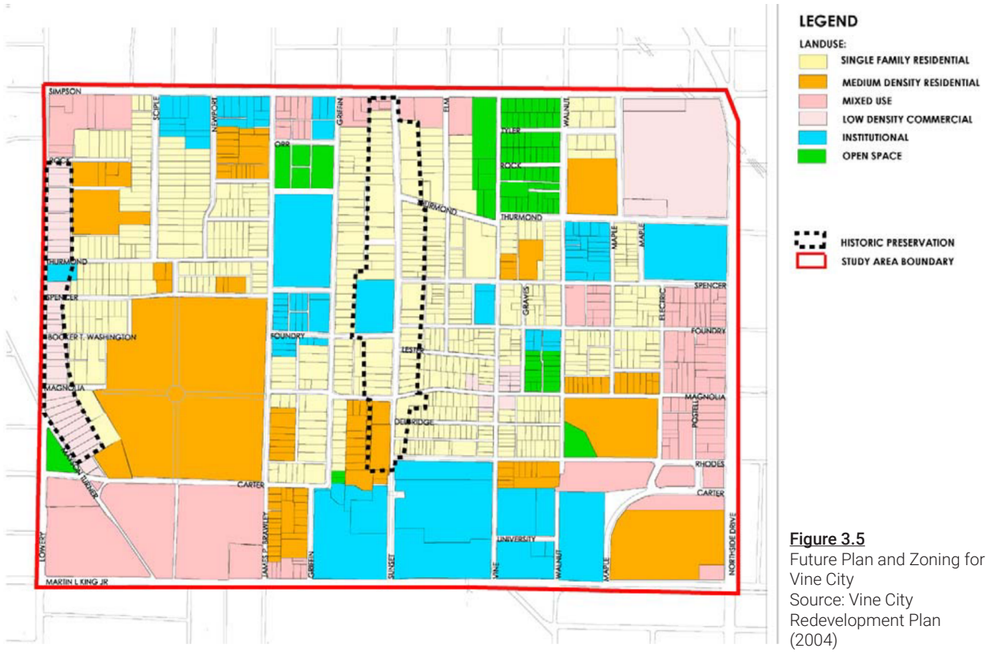


Figure 3.5
Future Plan and Zoning for Vine City
Source: Vine City Redevelopment Plan (2004)

Summary Table: Vine City Redevelopment Plan (2004)

Category	Details
Area of Study	*Vine City*
Drivers	*Vacancy, Flooding (150 homes, 2002), Public safety concerns*
Stated Objectives	*Housing stabilization, safer streets, open space aquisition*
Interventions	*Identification of flood-prone parcels for greenspace allocation*
Ecological Framing	*Acknowledged hydrological context, but lacked systemic integration*
Implementation	*Concept stage; no construction phase or programmatic detail*
Engagment	*Civic-based, yet mostly consultative rather than co-creative*

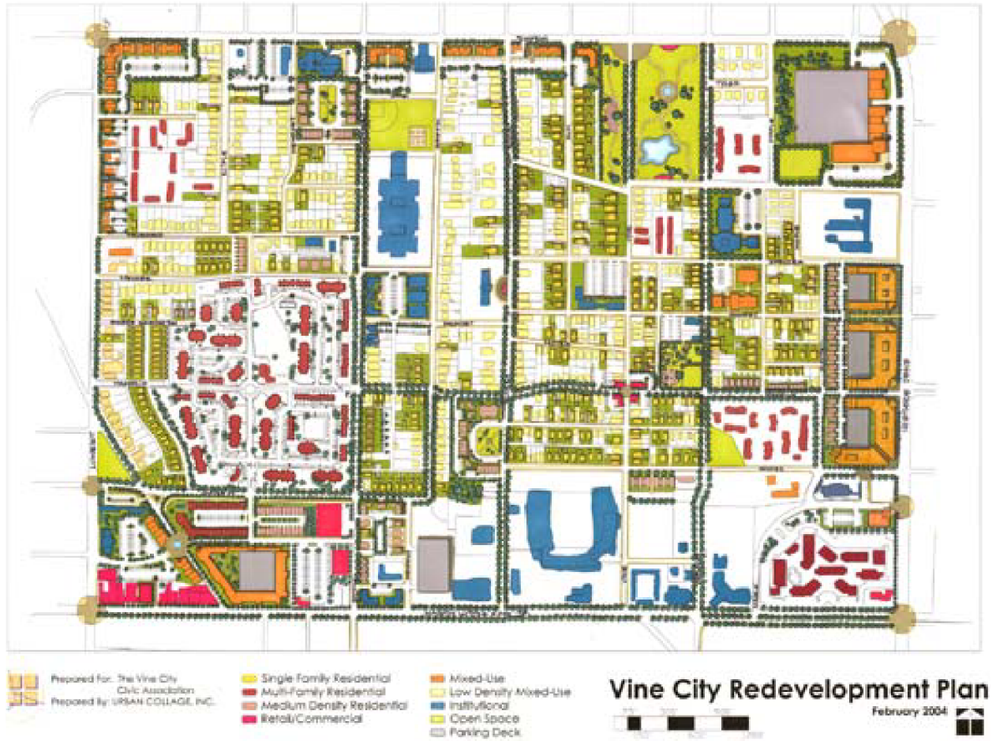


Figure 3.6
Envisioned Illustrative Plan for Vine CIty produced in 2004
Source: Vine City Redevelopment Plan (2004)

Table 3.1 (on the left)
Vine City Redevelopment Plan (2004): Summary of Goals and Gaps

Northside Drive Corridor Study (2005)[71]

The Northside Drive Corridor Study, which was completed in 2005, was developed as a part of a broader movement by the City of Atlanta and its planning partners to reimagine major infrastructure corridors as a catalyst for economic development and as multimodal connectivity. Northside Drive a wide channel linking downtown Atlanta to the city's northwest neighbourhoods, including Vine City, and English Avenue, characterized by heavy vehicular traffic, fragmented land uses, limited pedestrian infrastructure and a general disconnection from the surrounding residential fabric. The study aimed to reframe the corridor not simply as a transportation route but as a redevelopment spine capable of attracting investment, linking neighbourhoods and supporting the goals developed by Westside Tax Allocation District (TAD) which had been established in 1998 to finance such infrastructure upgrades in areas experiencing economic distress.

While the Northside Drive Corridor Study (2005) contributed significantly to transportation planning in Atlanta's Westside, advocating for widened sidewalks, dedicated bike lanes and improved transit access, its engagement with the areas ecological and hydrological systems was superficial. Although green infrastructure features such as bioswales, rain gardens and permeable paving were referenced these were treated primarily as aesthetic enhancements or stormwater compliance measures rather than components of a watershed wide strategy like the previous study. The plan notably failed to acknowledge the buried infrastructure of Proctor Creek, even though the corridor cuts through the flood prone areas directly shaped by the creek's historic flow.

Public engagement for the study was limited in scope, focusing on mobility and safety rather than ecological visioning or environmental justice. Residents were not invited to involve with the hydrological legacy of the site, and the study proceeded without collaboration from key environmental justice organizations like the West Atlanta Watershed Alliance or Park Pride. As such, the plan reflected a technocratic approach to infrastructure modernization, privileging market-driven connectivity over ecological repair. While some of its transportation goals were eventually realized, the plan's environmental ambitions remained unfulfilled, and its failure to treat hydrology as a spatial asset reflects a broader neglect of ecological systems in the mid-2000s infrastructure planning in Atlanta.

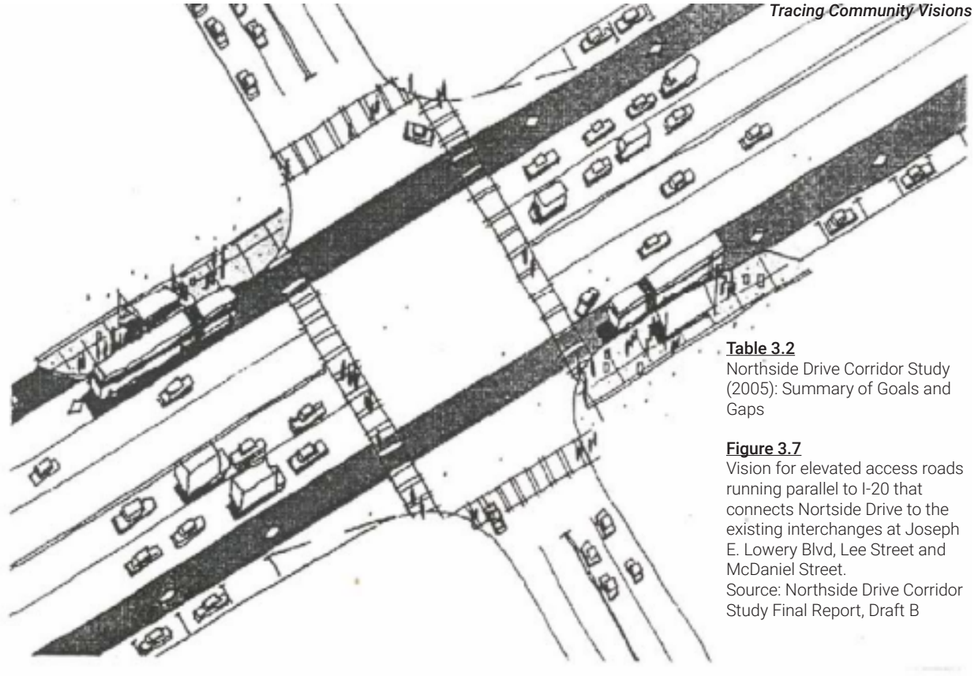


Table 3.2
Northside Drive Corridor Study (2005): Summary of Goals and Gaps

Figure 3.7
Vision for elevated access roads running parallel to I-20 that connects Nortside Drive to the existing interchanges at Joseph E. Lowery Blvd, Lee Street and McDaniel Street.
Source: Northside Drive Corridor Study Final Report, Draft B

An example sketch of BRT in exclusive lanes. This example shows four general-purpose lanes, whereas the scenario modeled six general purpose lanes, plus two dedicated to transit.

Summary Table: Northside Drive Corridor Study (2005)

Category	Details
Area of Study	*Northside Drive corridor, downtown to Westside*
Drivers	*Transit-oriented development, TAD Investments, infrastructure renewal*
Stated Objectives	*Improve multimodal access, pedestrian safety, and economic connectivity*
Interventions	*Sidewalk widening, bike lanes, transit shelters, limited GI elements*
Ecological Framing	*Surface-level; GI treated as compliance, not ecosystem integration*
Implementation	*Partial; transport upgrades delivered, green systems largely unbuilt*
Engagment	*Focused on transportation access and safety; no ecological co-design*

English Avenue Redevelopment Plan (2006)[72]

In 2006, municipal planners released the English Avenue Redevelopment Plan as a comprehensive response to chronic disinvestment, infrastructure failure and recurrent flooding. The plan meticulously documented 1072 existing structures, recommending demolition of 83 severely damaged or vacant buildings, while designating over 90 parcels within the Proctor Creek floodplain for conversion into open, green space like the previous studies presented. This study did a much higher resolution data collection represented a concrete advancement over preceding studies and acknowledged structural issues stemming from hidden hydrology.

However, while the planning team clearly recognized the value of open space as a mitigation tool, the report treated these lots as neutral public landscapes without providing yet again any hydrological or ecological function. Absent from any of these proposals for green infrastructure – no bioswales, constructed wetlands, daylighted channels or soil filtration systems highlighting a recurring theme of ecological oversight in those years.

Despite its rich empirical base, the plan approached public engagement from a top-down perspective community meetings were held to gather resident input on demolition and land-use, but there were little structured collaboration on ecological visioning or stewardship of green spaces. Public feedback largely reaffirmed concerns of crime, vacancy and flooding. Consequently, although the plan catalyzed residential cleanup and provided an updated land use blueprint, it lacked mechanisms to ensure that open space conversions would evolve into ecologically regenerative or socially vibrant environments. Hence, the English Avenue Redevelopment Plan remains a significant spatial inventory effort but a limited ecological transformation.

Table 3.3
English Aveue Redevelopment Plan(2006) : Summary of Goals and Gaps

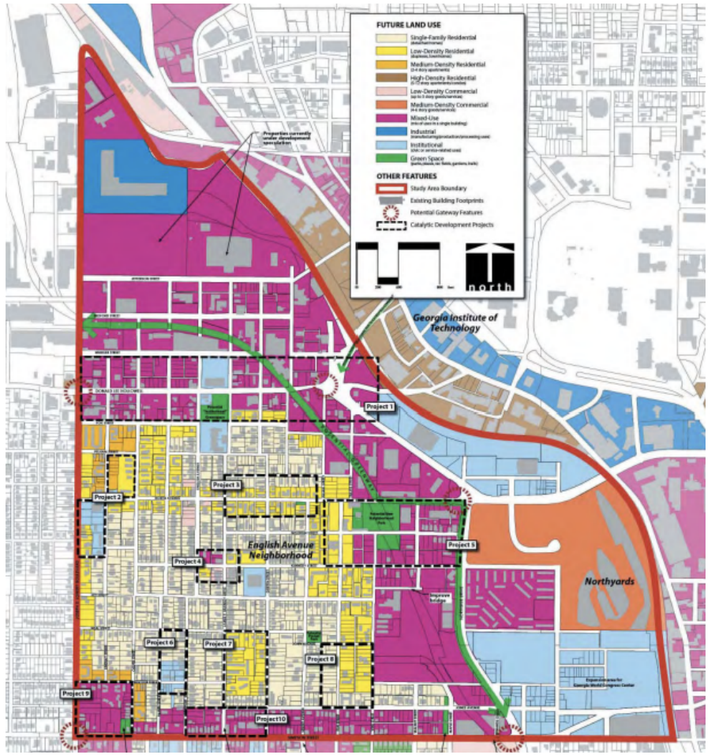




Figure 3.8
Future land use plan developed for English Avenue in 2006
Source: English Avenue Redevelopment Plan (2006)

Summary Table: English Avenue Redevelopment Plan (2006)

Category	Details
Area of Study	*English Avenue neighbourhood*
Drivers	*Vacancy, flooding, vacant blight*
Stated Objectives	*Structural stabilization, designated open-space conversion*
Interventions	*Demolition of unsafe structures; open-space allocation on flood lots*
Ecological Framing	*None; no GI or hydrology embedded in design*
Implementation	*Demolition executed; open-space remains largely unmanaged*
Engagment	*Consultative meetings; lacked co-design of ecological space*

Georgia Tech English Avenue Urban Design Studio (2008)[73]

In 2008, Georgia Tech's Urban Design Studio undertook an academic intervention, reframing English Avenue through a layered civic anchor-based design lens. Led by faculty in partnership with local stakeholders, the studio mapped corridors, nodes and civic facilities including schools and churches as opportunities around which to mobilize neighbourhood scale regeneration. Rejecting parcel level patchwork the studio prioritized civic institutions as catalysts for both social cohesion and infrastructure investments. Proposals included spatial reconfigurations that strengthened pedestrian connectivity while reinforcing cultural heritage sites and embedded green corridors as a part of public real strategy. These corridors hinted at ecological potential, pathways designed with contour awareness using passive open space linked to stormwater basins and green paths connecting anchors. However, lacking robust funding mechanisms, institutional partnerships or municipal adoption plans the proposals from the studio remained conceptual, unadopted.

Although community workshops were organized to invite residents to share their local knowledge and spatial histories, the resultant documentation did not culminate in any phased implementation plans, hydrological assessment or construction timelines. While the Georgia Tech Studio did enrich the narrative of civic centred design and spatial intelligence it refrained from hydrological praxis or policy routes for realization.



Table 3.4 (on the right)
Georgia Tech English Avenue Urban Design Studio (2008) : Summary of Goals and Gaps

Figure 3.9
Proposed Park Spaces through the study in English Avenue, model
Source: Georgia Tech English Avenue Urban Design Studio(2008)

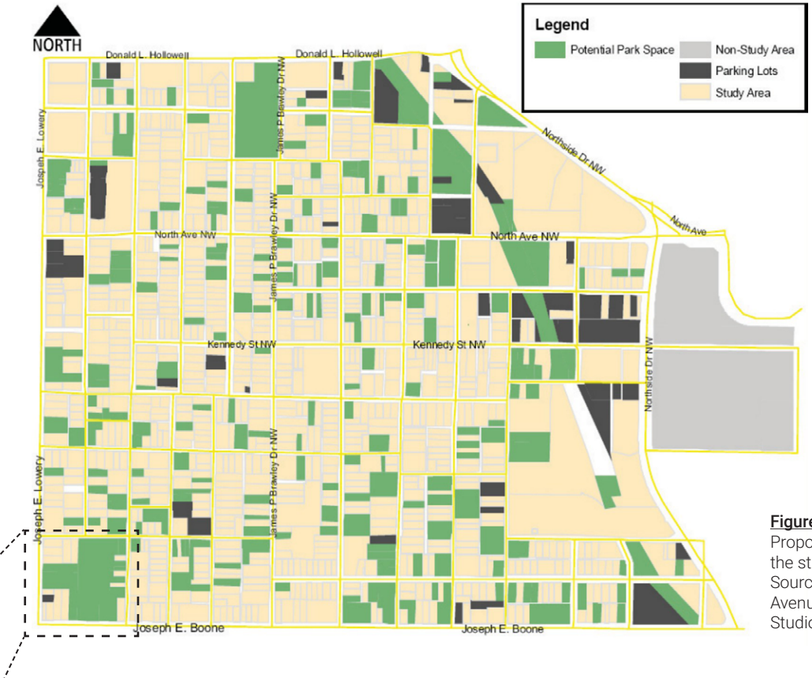


Figure 3.10
Proposed Park Spaces through the study in English Avenue
Source: Georgia Tech English Avenue Urban Design Studio(2008)

Summary Table: Georgia Tech English Avenue Urban Design Studio (2008)

Category	Details
Area of Study	*English Avenue neighbourhood*
Drivers	*Civic placemaking, institutional investment leverage*
Stated Objectives	*Spatial reconfiguration, node-based connectivity, cultural anchor activation*
Interventions	*Integrated civic and open-space corridors; speculative green-path frameworks*
Ecological Framing	*Conceptual; corridor alignments acknowledged hydrologic form*
Implementation	*Not executed; academic exercise without policy or funding pathways*
Engagment	*Studio-led community workshops; limited follow-through*

Vine City / Washington Park Liveable Centre's Initiative (LCI) plan (2009)[74]

Originally developed in 2009 through a partnership between the City of Atlanta, the Atlanta Regional Commission (ARC) and local consultants, the Vine City/ Washington Park Liveable Centres Initiative (LCI) Plan focused on land use and transportation co-ordination in neighbourhoods adjacent to downtown Atlanta.

The plan focused on promoting transit-oriented development, pedestrian accessibility and housing revitalization near the Ashby MARTA station, as a response to decade of disinvestment.While the plan included recommendations for new parks, community gardens, and plaza spaces its engagement with hydrology or flood resilience was minimal. It did not contain GIS overlays of flood-prone parcels of land or frame water as a spatial asset or ecological system. Open space was largely treated as an amenity to support new development and improve walkability not as a part of a green infrastructure network. A few recommendations to design low-impact development and for better stormwater management but these were not central to the planning vision and lacked implementation strategies.

Most of the community engagement focused on land use, connectivity and neighbourhood revitalization potential with a strong emphasis on historic preservation, housing opportunity and urban design enhancement strategies. While the LCI plan did offer useful strategies for infill development and placemaking, it did not advance a systemic ecological framework or hydrological repair strategy for the Proctor Creek Watershed.

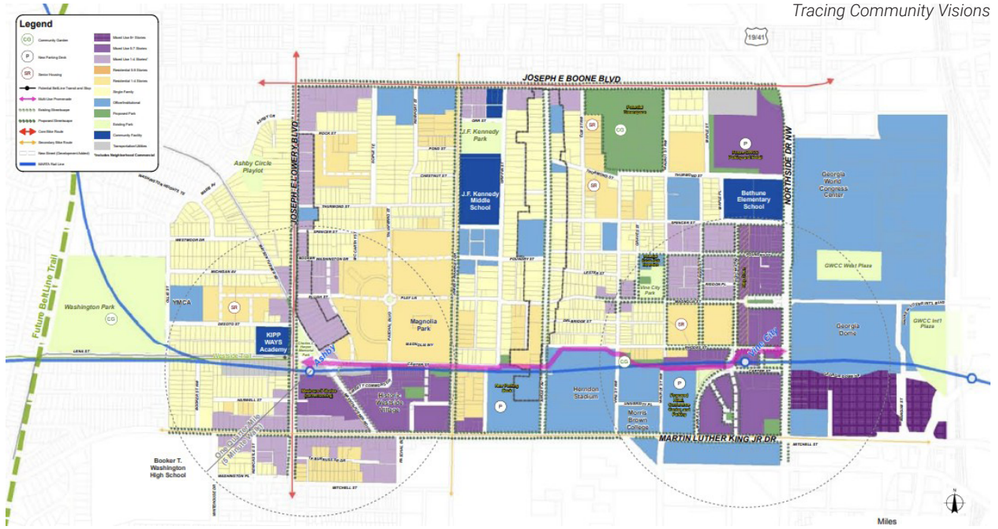


Figure 3.11
Vine City / Washington Park LCI Plan (2009): Focus Area Map
Source: Atlanta Regional Commission

Table 3.5
Vine City/ Washington park LCI (2009) : Summary of Goals and Gaps

Summary Table: Vine City / Washington Park LCI (2009)

Category	Details
Area of Study	*Vine City, Washington Park, Ashby MARTA area*
Drivers	*Transit proximity, disinvestment, housing vacancy*
Stated Objectives	*TOD development, walkability, urban revitalization*
Interventions	*Small park additions, community gardens, TOD zoning*
Ecological Framing	*Limited; no watershed or flood-prone parcel analysis*
Implementation	*Conceptual framework; partial zoning and streetscape upgrades*
Engagment	*Public meetings centred on development and transit, not ecological co-design*

Proctor Creek North Avenue Vision Plan (2010)[75]

The 2010 Proctor Creek North Avenue Vision Plan (PNA) led by Park Pride in collaboration with the West Atlanta Watershed (WAWA) American Rivers and a coalition of community members represented a chief moment in Atlanta's planning history for the westside. Unlike previous plans the PNA Plan foregrounded ecology not as a constraint but as an unifying principle. The plan proposed a transformative vision to increase the green spaces by 20%, reduce flooding, generate green jobs and restore social cohesion through ecological design. Rooted in an intensive participatory process which involved twelve steering committee meetings, seven public forums and nine additional briefings, the reflected significant community authorship and multi-organizational inputs. Central to the plan was the concept of daylighting Proctor Creek and constructing a network of bioswales, retention basins, wetlands and pedestrian greenways all integrated within neighbourhood schools, churches and MARTA stations. This vision of a continuous civic scaled green infrastructure system tied to education, recreation and labour embodied the potential of "hydrosocial" planning in the context of systemic disinvestment.

What separates the PNA Plan from other interventions is its ecological depth and social intentions. It incorporated GIS watershed modelling, engaged legacy residents place-based knowledge and emphasized both environmental repairs and economic justice through the creation of green employment pathways. Despite its community led process and ecological ambition, the Proctor Creek North Avenue Vision Plan was never implemented either. While its momentum was overshadowed by high-profile capital projects like the BeltLine's expansion in downtown Atlanta and Rodney Cook Sr. Park a deeper limitation lay in its generalized approach to land. The plan proposed converting nearly all of the flood-prone plots into green infrastructures such as retention basins, wetlands or daylighted streams without fully accounting for site-specific conditions such as current occupancy, ownership or cultural use.

It treated land as uniformly available, overlooking the social and legal complexity of working within the living urban fabric. While this may have represented an eventual vision for the watershed, it required a more incremental, adaptive approach, one that phased interventions, tested pilot sites and acknowledged the uneven realities of land tenure and neighbourhood changes. Without these mechanisms being considered, the plan remains visionary but completely unrealized.

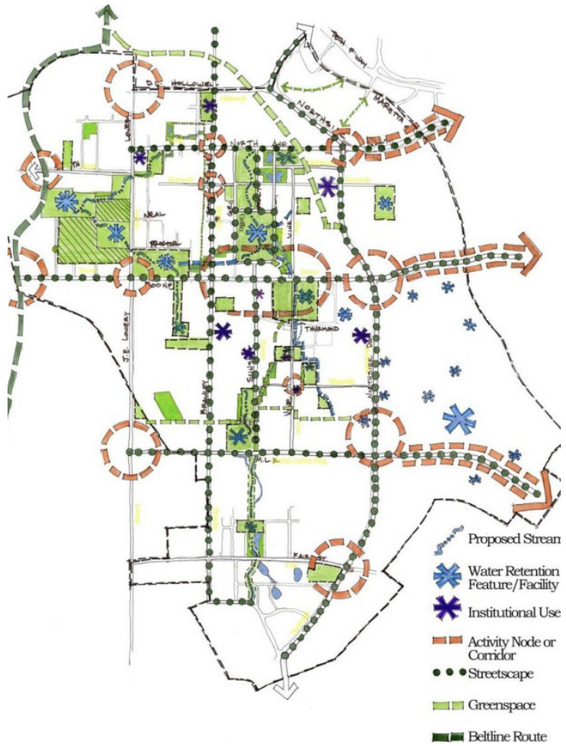


Table 3.6
Proctor Creek North Avenue (2010) : Summary of Goals and Gaps

Figure 3.12
Daylighting stream sections conceptual plan developed for English Avenue and Vine City
Source: Proctor Creek North Avenue Vision Plan (2010)

Summary Table: Proctor Creek North Avenue Vision Plan (2010)

Category	Details
Area of Study	*Proctor Creek North Avenue sub-basin*
Drivers	*Chronic flooding, vacancy, lack of green space, environmental injustice*
Stated Objectives	*Increase green space by 20%, reduce flooding, create green jobs, build watershed literacy*
Interventions	*Bioswales, wetlands, daylighting, pedestrian greenways, school and transit-linked green infrastructure*
Ecological Framing	*Highly integrated; hydrology positioned as spatial and social framework*
Implementation	*Not implemented; proposals lacked phasing and site specificity; treated all flood-prone parcels as equally available, overlooking land tenure and occupancy realities*
Engagment	*Deep co-creation: 12 steering meetings, 7 public forums, cross-sector collaboration*

Prince's Foundation Scoping Workshop (2010)[76]

The 2010 scoping workshop held by the Prince's Foundation for the Built Environment brought international design expertise into the Atlanta Westside context. Its primary focus was to test restorative urbanism strategies in areas like Vine City and English Avenue, focusing on walkability, block scale infill housing and park based redevelopment. The workshop was facilitated through design studies involving professionals, municipal actors and limited community observers and it produced a series of schematic proposals that envisioned sustainable neighbourhoods grounded in traditional urban design strategies and localized ecological repair.

While the workshop produced visually engaging ideas, such as green boulevards, walkable streets and redevelopment near creek corridors it remained a speculative exercise. It was not connected to the City of Atlanta's formal planning process and it did not involve any key local groups like the West Atlanta Watershed Alliance. As a result, it offered no clear plan for implementation or maintenance. Though it used the language of green infrastructure, the designs again focused more on aesthetics than on real hydrological or ecological systems.

Table 3.7 (on the right)
Proctor Creek North Avenue (2010) : Summary of Goals and Gaps

FLOOD PRONE AREAS THAT ALLOW FOR NATURAL AMENITIES TO BE REINTRODUCED INTO THE NEIGHBORHOOD INSTEAD OF CONTINUING TO BUILD STRUCTURES THAT WILL HAVE PERSISTENT PROBLEMS.



Figure 3.13
Study area context visual presented at a scoping stakeholder workshop
Source: Land Bank Authority







Summary Table: Prince's Foundation Scoping Workshop (2010)

Category	Details
Area of Study	*Vine City and English Avenue*
Drivers	*Urban repair, green neighbourhood design, post-disaster landscape*
Stated Objectives	*Restore neighbourhood fabric, promote walkability and sustainable infill*
Interventions	*Design charrettes, green boulevards, schematic park typologies*
Ecological Framing	*Implied; not grounded in hydrological data or watershed modelling*
Implementation	*Not pursued beyond charrette; no political or financial pathway*
Engagment	*Limited community input; largely expert-driven design vision*

Westside Land Use Framework Plan (2017) [77]

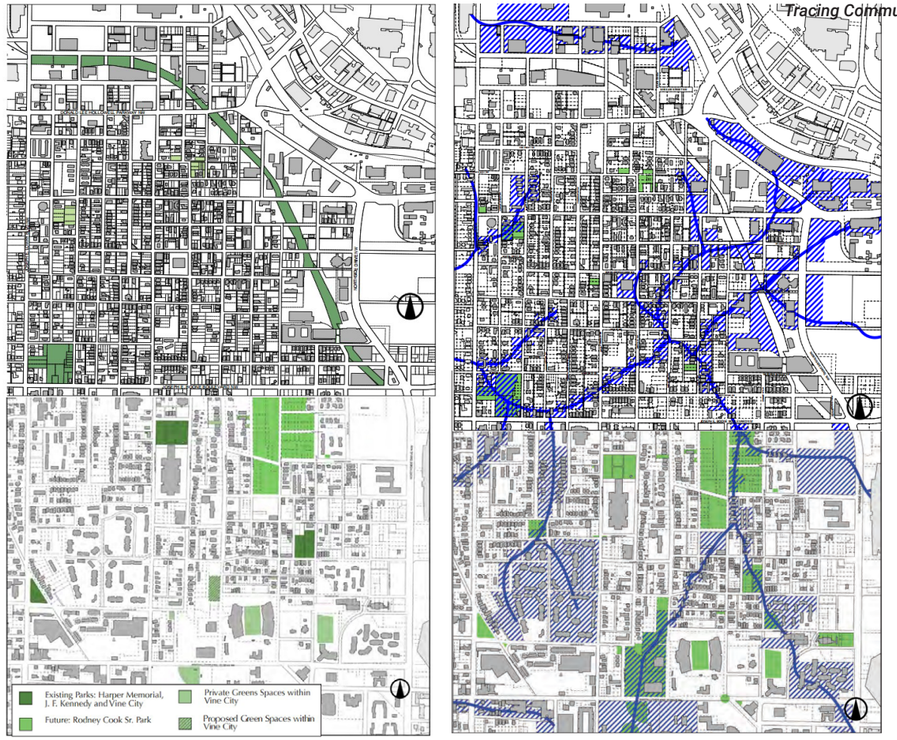
Published in December 2017 by the Westside Future Fund and master planning consultants including Kronberg Wall and TSW the westside Land Use Framework Plan (LUFP) sought to consolidate more than a decade of planning documents into a unified development strategy Vine City, English Avenue, Ashview Heights and Atlanta University Centre neighbourhoods, Drawing from previous documents such as the PNA vision plan, the Westside TAD implementation Plan, and the English Avenue Redevelopment Plan, this study acknowledged the past planning efforts and noted that they often have failed to produce tangible results. To address this, the LUFP proposed clearer zoning rules, a pause on development above buried streams and turning vacant land into public space.

The LUFP included important hydrological data, such as maps of underground waterways and flood prone areas. It introduced a five-year moratorium on development over buried streams, an uncommon move in Atlanta planning strategies. Despite this crucial mapping the LUFP largely treated water systems as problems to avoid rather than an opportunity to reimagine the landscape. While it did recommend green infrastructure such as permeable streets and park conversions, it stopped short of proposing deeper interventions like daylighting or ecological networks.

Although the plan acknowledged the ambitions of the PNA Vision Plan, it took a more cautious approach and market oriented approach. Community input was collected through town hall meetings, but there were no clear roles for local residents or environmental groups in shaping implementation. Ultimately, the LUFP served to organize past planning work into a single framework, but it remained limited in its environmental scope and did little to shift how hydrology or community power were addressed in future development.

Table 3.8 (on the right)
Westside land use framework plan (2017) : Summary of Goals and Gaps

Figure 3.14 *(on the right)*
Proposed green spaces and parcels of land prone to flooding
Source: Westside Landuse Framework Plan



Summary Table: Westside Land Use Framework Plan (2017)

Category	Details
Area of Study	*Vine City, English Avenue, Ashview Heights, AUC*
Drivers	*Planning integration, zoning reform, development pressure*
Stated Objectives	*Unify past plans, guide infill, address flooding risks*
Interventions	*Moratoriums on underground streams, permeable street design, green parcel reuse*
Ecological Framing	*Constraint-based; hydrology acknowledged but not mobilized*
Implementation	*Influenced zoning overlays and select capital projects*
Engagment	*Public forums held; ecological concerns only lightly engaged*

3.2 Implemented vs. Unfulfilled Plans – *Visual accountability*[78]

Across Vine City, English Avenue and Bankhead, planning initiatives have consistently outpaces implementation. While over a dozen major plans have promised more green spaces, flood mitigation strategies and community reinvestment, only a fraction of those proposals have materialized and even fewer reflect the community priorities.

Projects such as the Rodney Cook Sr. Park and portions of the BeltLine along with the Proctor Creek greenway offers visible signs of investment, but often at the expense of deeper, distributed systems like those proposed in the Proctor Creek North Avenue Vision Plan. Dozens of parcels which were once flagged for green infrastructure or ecological reuse remain vacant, mowed or fenced which may be maintained but is not activated.

This section presents a visual accountability map showing planned interventions parks, daylighted stream corridors, bioswales, what has been built. It also identifies where high- investment projects displaces or overshadowed community authored efforts. Plans often only mention equity or ecology but implementation follows real estate value and visibility of it.

By tracing what was delivered and what was deferred, this section reveals the unsteady ground on which the design builds. Daylighting Proctor Creek isn't a new idea, its been a promise that was mapped, endorsed by the community, which was then deserted.

Figure 3.15 *(on the right)*
Green Infrastructure Presence Map by author, using City of Atlanta GIS data.

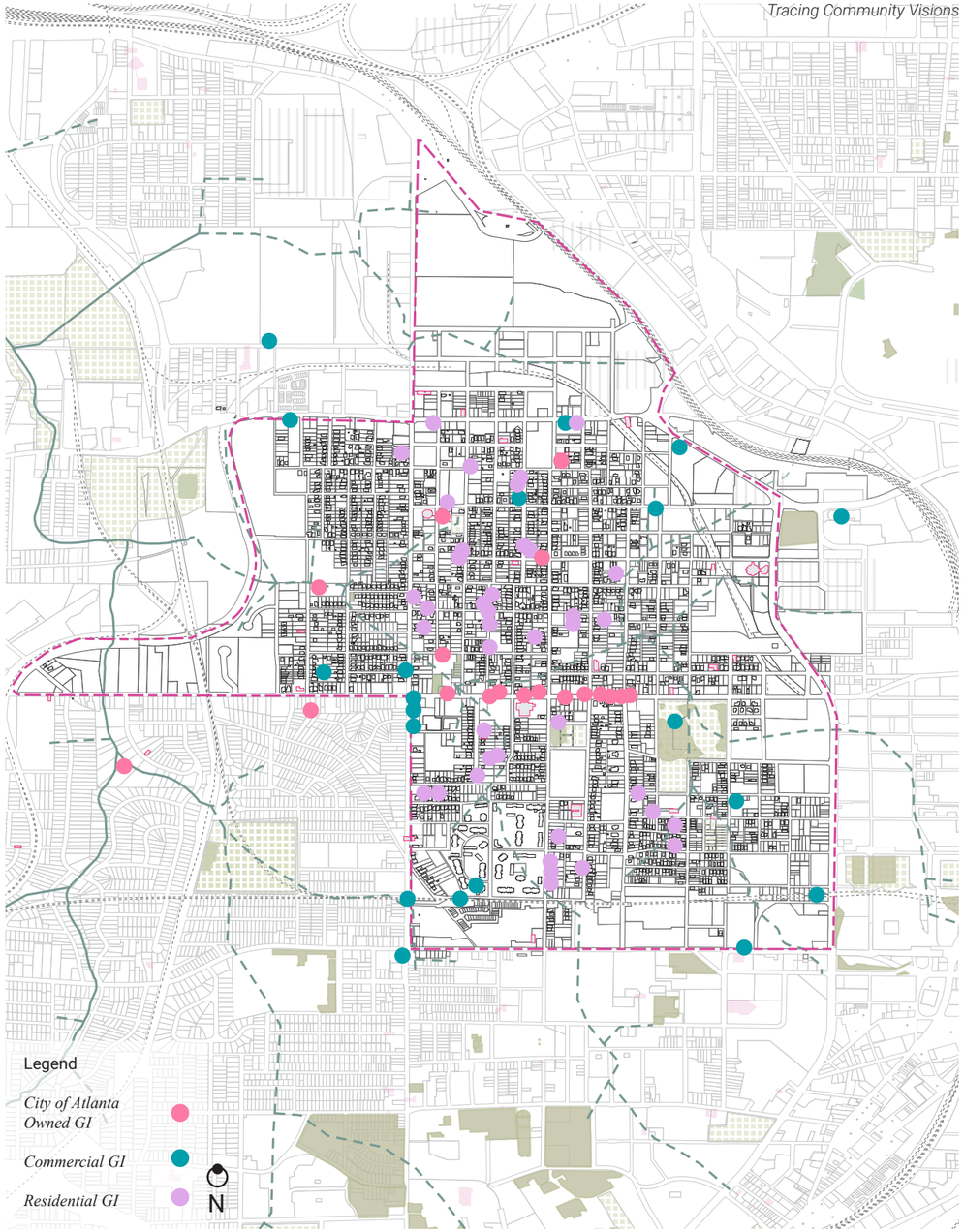
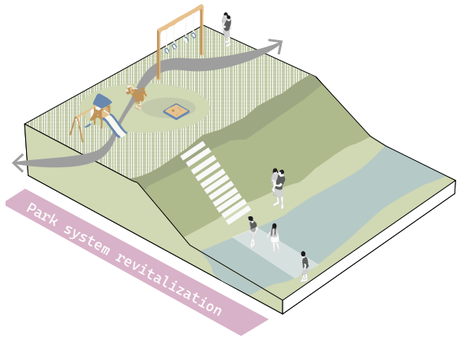
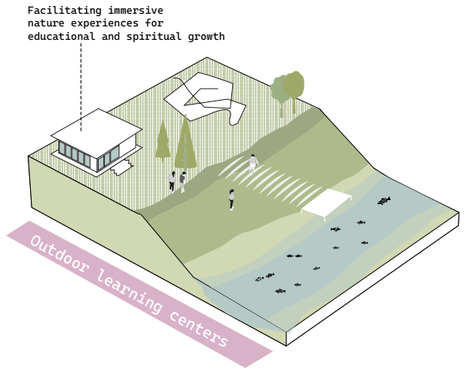
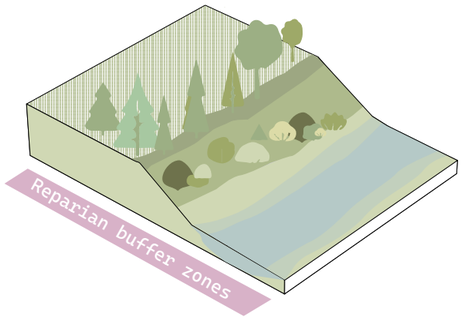


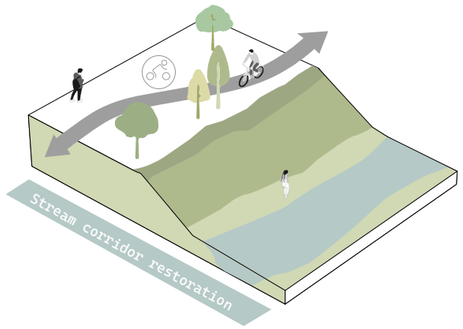
Table 3.9
Overview of Key Westside Planning Studies (2004–2017): Visions, Gaps, and Implementation Limits. Source: By author 2025

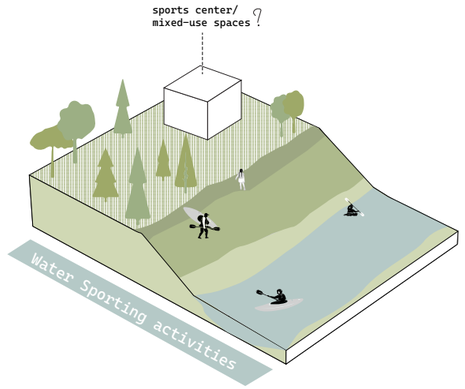
Study/ Redevelopment Plan	Area Studied	Issues/ Opportunities / Gaps	Community Engagement	Proposals	Outcomes	Implementation
Vine City Redevelopment Plan (2004)	Vine City, adjacent English Avenue	Flooding (2002), vacant parcels, early call for green space; lacked hydrological integration	Limited – civic-led, mostly consultative (Top-down)	Open space on flood lots, housing stabilization	Conceptual shift acknowledging hydrology, but vague programming	Not formally adopted, remained at concept stage
Northside Drive Corridor Study (2005)	Northside Drive from downtown to Westside	Transit/mobility gaps; ignored Proctor Creek's role	Limited – focused on transit, no EJ involvement (Top-down)	Sidewalks, bike lanes, stormwater features as aesthetics	Upgrades partially completed; no ecological integration	Transport improvements delivered; GI mostly unbuilt
English Avenue Redevelopment Plan (2006)	English Avenue	Severe vacancy, floodplain parcels, no GI	Limited – meetings on demolition only (Top-down)	Demolition, convert floodplain parcels to open space	Spatial inventory completed, but ecological vision absent	Demolitions completed; open space unmanaged
Georgia Tech Urban Design Studio (2008)	English Avenue – civic anchor network	Fragmented fabric, civic node connectivity; conceptual GI vision only	Moderate – community workshops (Academic co-design)	Green corridors, civic placemaking framework	Narrative shift to civic layering; no funding/policy path	Conceptual only, not implemented
Vine City/Washington Park LCI (2009)	Vine City, adjacent English Avenue	Transit adjacency, housing decline, minimal hydrology	Moderate – meetings on TOD/historic revitalization (Mixed)	TOD, community gardens, small parks	Useful infill ideas, lacked ecological depth	Partial zoning/ streetscape adjustments
Proctor Creek North Avenue Vision Plan (2010)	Proctor Creek North Avenue sub-basin	Flooding, vacancy, EJ, lack of green space	High – co-created w/ 12 steering meetings, 7 forums (Collaborative)	Daylighting, bioswales, retention basins, green jobs	Ambitious hydrosocial vision, overlooked land tenure	Unimplemented; lacked phasing & legal strategy
Prince's Foundation Workshop (2010)	Vine City, English Avenue	Post-disaster planning, infill potential; lacked data	Limited – expert driven, light public input (Top-down)	Green boulevards, walkability, schematic parks	Visual ideas, no implementation plan	Charrette only, not adopted
Westside Land Use Framework Plan (2017)	Vine City, English Avenue, Ashview Heights, AUC	Overlapping plans, buried streams, zoning confusion	Moderate – town halls held (Top-down with input)	Stream development moratorium, GI overlays	Mapped underground streams, limited GI vision	Some overlays implemented, few GI projects built

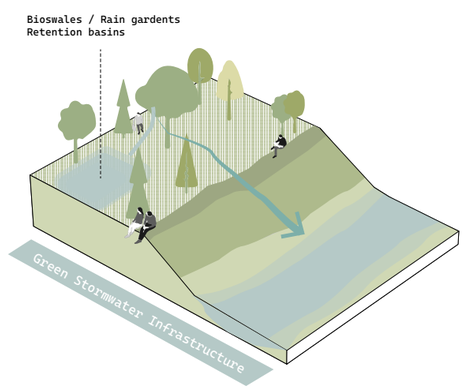












This series of axonometric illustrations show a range of creek restoration strategies both top-down and bottom-upvin terms of cost, complexity, and community impact. While large-scale interventions such as green stormwater infrastructure or water sporting facilities require institutional support and capital investment, they often risk overlooking local priorities. In contrast, community-driven actions like park revitalization, outdoor learning spaces, and riparian buffers build grassroots ownership and ecological resilience with fewer resources.

The diagrams in fig 3.16 highlight that the most equitable and enduring outcomes arise when top-down expertise meets bottom-up vision. Strategic alignment between agencies, designers, and residents can help ensure that restoration supports both environmental repair and social healing.

Figure 3.16 (on the left)
Comparing Restoration Strategies: Top-Down vs. Bottom-Up
Illustrations by author, 2025.

3.3 Ground Interventions – *Community based efforts toward ecological repair*

While many planning initiatives in Atlanta's Westside emerged from all the top-down agencies, several influential efforts have been rooted in local activism, environmental justice, and neighbourhood-based stewardship. These projects maybe smaller in scale often have a deeper impact offering important precedent for how ecological and hydrological restoration can emerge from communities within.

The West Atlanta Watershed Alliance (WAWA) has been one of the most consistent voices for environmental justice in the Proctor Creek watershed.[79] Through community science, public education and water quality monitoring, WAWA has challenged both the pollution and planning neglect. Their work reframes Proctor Creek not simply as infrastructure, but as a living system tied to legacy residents.

City supported but community facing initiatives facing initiatives like AgLanta promote urban agriculture future for Atlanta.[80] Where vacant parcels, many in historically disinvested neighbourhoods, have been transformed into food-producing green infrastructure, simultaneously addressing food insecurity, soil remediation, and community involvement. Alongside these, pocket parks like Lindsay St. Park, Mattie Freeland park and Elm St. Urban Farm initiated through partnerships between the Conservation Fund, WAWA and the City represents a tactical ecological interventions that respond both to stormwater flow and local recreation needs.[81] Though they seem to be limited in scale, they reflect the kind of distributed green spaces this thesis seeks to network through a daylighted corridor.

These grounded efforts sometimes bypassed by formal infrastructure planning, provides crucial insight into how ecological knowledge moves locally, and how it can help shape larger spatial strategies when listened to. They offer the connective tissue between the unrealized vision of past plans and the future transformative potential the land holds.

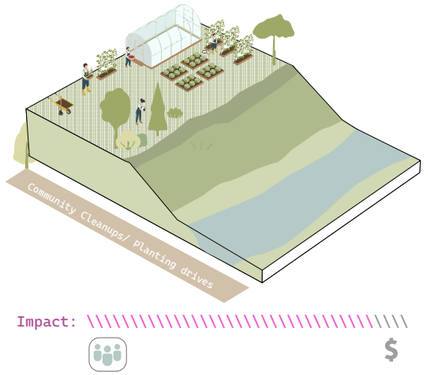


Figure 3.17
Ground Interventions: Community-Based Ecological Repair
Illustrations and research by author, 2025.

AgLanta "Grows-A-Lot" is a City of Atlanta program that invites entrepreneurs, non-profits, and residents to apply for a 5-year renewable license to adopt a vacant, city-owned property to start a new urban garden or urban farm in AgLanta.[82]

Creekside Community Festival, a Grove Park event with local art, music, education and ecology, will be held along the banks of Proctor Creek, about a mile from the Bankhead MARTA station in northwest Atlanta. Festival with focus on restoring Proctor Creek returns to Atlanta.[83]

As an ode to the waters that run underneath the city, Atlanta-based interdisciplinary artist Rachel Parish created "Emergence," a series of temporary monuments that sit atop four springheads in downtown. These unseen aquatic sources lie underneath some of Atlanta's most noted sites — the Georgia State Capitol, Grady Hospital, the Tabernacle and the Gulch.[84]

West Atlanta neighborhoods have been teaming up with Chattahoochee Riverkeeper (CRK) to test water quality in Proctor Creek since 2010. These tests help CRK trackers find pollution sources and notify the City of Atlanta. Samples that are collected is tested for turbidity, conductivity, and E.coli bacteria.[85]

3.4 Case Studies – *Toward a Hydro-social design framework*

This section analyses five daylighting projects each offering distinct strategies for ecological repair, social engagement and urban renewal. These case studies are not presented as models to replicate from but as references to extract principles, test spatial tactics and redefine what daylighting can mean in the context of Proctor Creek and the Westside marginalized neighbourhoods.

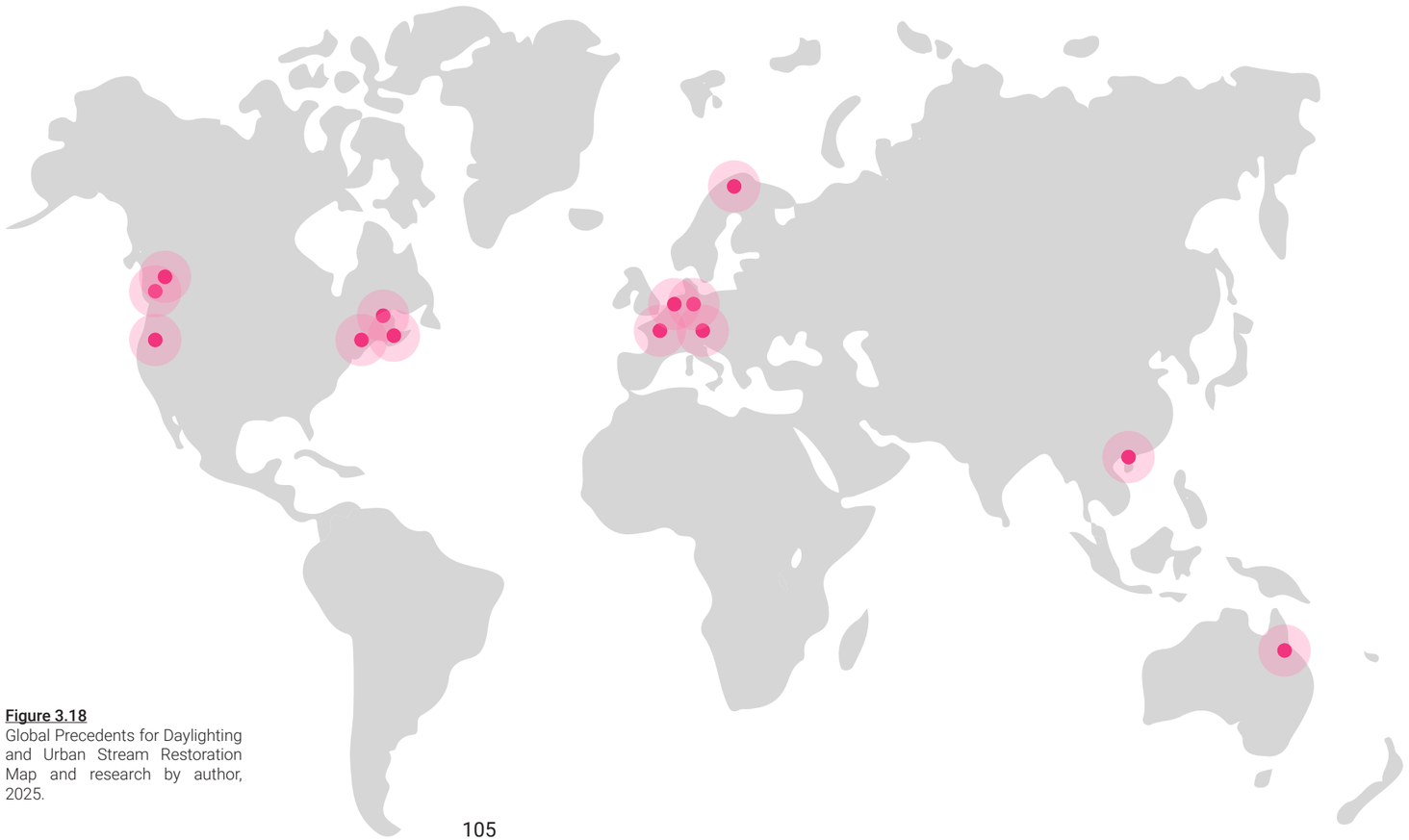


Figure 3.18
Global Precedents for Daylighting and Urban Stream Restoration Map and research by author, 2025.

The selected precedents span a wide spectrum of approaches, from monumental, state-initiated infrastructure in Seoul[86] to modest, civic-scale integrations in Aalborg and Oslo,[87] from symbolic, narrative-based daylighting in Toronto[88] to Justice driven hydrological mapping in Detroit.[89] These are complemented by the work of SCAPE Studio, whose Living Breakwaters and Toward an Urban Ecology advocate for participatory, adaptive, and ecologically performative urban landscapes.[90] Added to this is the precedent of Turenscape, whose sponge city strategies and wetland urbanism seen in projects like Qunli Stormwater Park offer a compelling model of flood-adaptive design that merges ecological function with cultural meaning.[91] Together, these practices form a diverse field of interventions technical, social, ecological, and symbolic that inform a hydrosocial framework for Proctor Creek: one that is distributed, layered, and reparative, capable of addressing both buried waters and erased histories on Atlanta's Westside.

A few of the stream and river daylighting projects across the world :

South Korea : Cheonggyecheon Stream in Seoul

United States :
Saw Mill River (Yonkers, NY), Thornton Creek (Seattle, WA).
Streams in Portland, OR; daylighting projects in Berkeley, CA, like Strawberry Creek

Canada:
Large-scale: Hastings Creek in Vancouver.
Smaller-scale: Bowker Creek (Victoria, BC), St. George Rainway project (Vancouver, in planning)

United Kingdom:
Large-scale: Porter Brook in Sheffield.
Smaller-scale: Efforts in London to reveal portions of the River Fleet

France:
Large-scale: Bièvre River daylighting in Paris.
Smaller-scale: Sections in Arcueil and Gentilly
Revitalization of the Limmat (Zurich) and Aare Rivers (Bern)

Norway:
Small-scale projects in Oslo, with waterways like Akerselva being partially restored

Netherlands:
Urban planning initiatives for smaller waterways as part of flood resilience and public space design

Cheonggyecheon Stream Restoration – *Seoul, South Korea*

Between 2003 and 2005, the Seoul Metropolitan Government undertook a bold infrastructural and ecological project which removed a 5.8 km long elevated highway and restored the buried Cheonggyecheon stream at a cost of approximately $281 to $380 million USD.[92] Originally a tributary of the Han River, Cheonggyecheon had been channelized and paved over by the 1970's, transforming it into an open sewer running beneath concrete decking. By the late 1900's the overpass had structurally deteriorated, prompting public outcry and presenting an opportunity to rethink urban water infrastructure and city identity. Mayor Lee Myung-bak's administration at the time framed the project as both ecological restoration and civic rebranding, aimed at transforming the dense central district into a green spine.

Historically, the Cheonggyecheon watershed experienced monsoon rains averaging 1,270 mm annually. Yet decades of impervious surface expansion had led to sever flooding, urban island heat effects and water pollution. The daylighting project addressed both infrastructural degradation and increasing hydrological risk. The restored streambed now spans 5.84 km and is supplied with a continous flow averaging 48,000 cubic meters of water daily, primarily flowing from the Han river and supplemented by groundwater, through adjacent subway streams. Engineered to handle 200 year flood event, the stream system can accomodate rainfall intensisties up to 118 mm/hr.

The ecological outcomes have been dramatic, in terms of increase dspecies count, specifically plan species from 62 to 308, fish species from 4 to 25, insects from 15 to 192, birds from 6 to 36, and amphibians from 4 to 8 representing a complete biodiversity increase of more than 600% over the years since daylighting. Urban temperatures along the stream corridor are recorded at 3.3 to 5.9 degree celsius cooler than adjacent asphalt and concrete roads, and particulate air pollution (PM10) levels have dropped from 74 to 48 micrograms per cubic meter. The stream thus functions not only as a public infrastructure but also as an ecological and climatic moderator within the urban core.

Socially and economically, the restoration has drawn an average of 64,000 visitors daily, including approximately 1,400 foreign tourists, with increased use of public transportation. Property values within 50 meters of the stream rose between 30% and 50% significantly higher than city wide average. These metrics suggest strong economic returns and shifts in urban mobility behaviour.



Before



After

Figure 3.19
Cheonggyecheon Stream Before and After Restoration
(Left) Before restoration: elevated freeway obscures the buried stream. (Right) After restoration: open waterway with vegetation and pedestrian space.
Source: Yeon-Hee Kim (2008), adapted by author

How ever the project is not without critique. While initially estimated to a have a benefit cost ratio of 1.89, an ex-post analysis revised this to a 0.75 due to underestimated traffic congestion and an overprojected ecological returns. The restrored stream is often critized for its lack of ecological authenticity, as it maintains a year round flow in a historically seasonal streambed and relies on heavily on artificial pumping of water,. The water corridor also became a catalyst for land speculation and gentrification, raising concrens of displacement and unequal access to benefits.

For the Proctor creek context, Cheonggyecheon offers both caution and inspiration. It provides quantifiable evidence of how urban water restoration can improve biodiversity, mitigate flooding, reduce heat, and reshape public space. Yet it also exemplifies the risks of large-scale, top-down projects that prioritize image over inclusion. A hydro-social framework for Proctor Creek should borrow Cheonggyecheon's technical and ecological rigor while grounding interventions in community-led processes and cultural specificity. Unlike Seoul's monumental, continuous restoration, Proctor Creek may benefit more from distributed, participatory, and incremental daylighting strategies that reconnect water with land, history, and the people most affected by its erasure.



Figure 3.20
3.20 – Cheonggyecheon Stream Plaza and Waterfall Feature, Seoul
Source: [Likely Wikimedia Commons] - need to check.

Vinstra Park – *Aalborg, Denmark*

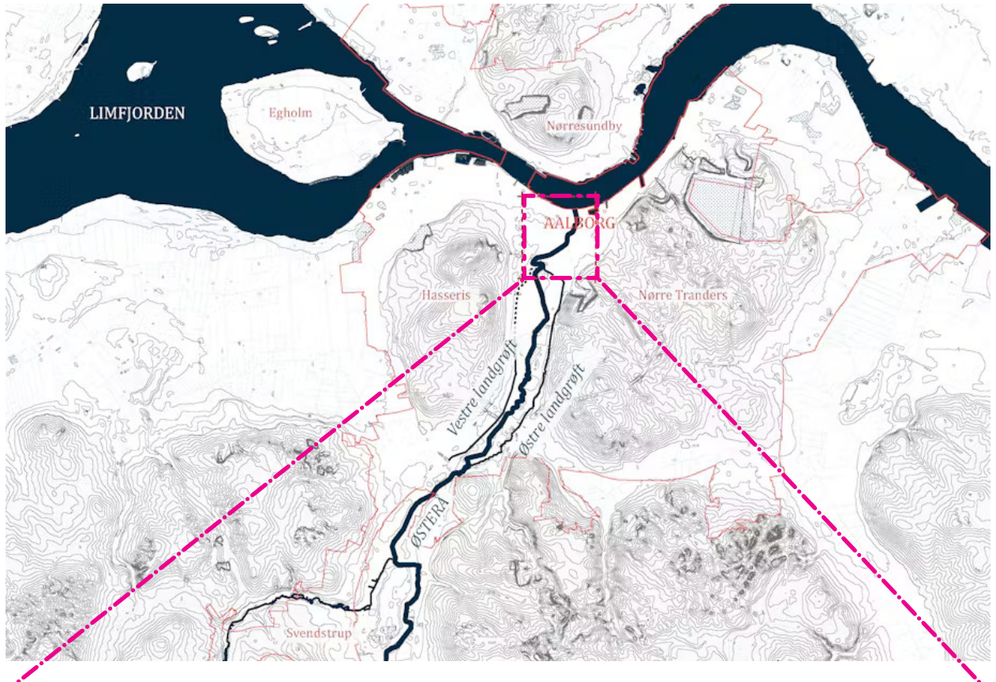
In Aalborg, Denmark, the Østerå River once flowed visibly through the city, forming part of its everyday landscape. However, as in many mid-century European cities, the stream was gradually buried in culverts and overlaid with roads and parking structures, particularly during the 1960s–80s, when urban growth prioritized vehicular infrastructure. In the 2010s, a growing local awareness of flooding, urban heat, and ecological fragmentation led the City of Aalborg to initiate a modest daylighting project in the Vinstra district, focused on a 500-meter stretch of the buried Østerå.[93]

The project, designed by SLA (Schønhardt-Larsen Architecture), transformed a previously underused corridor into a public park that integrates the restored stream with soft landscaping, pedestrian infrastructure, and community-oriented green space. The design emphasizes the stream's social visibility rather than technical spectacle. A gently meandering streambed is embedded into a park-like setting, bordered by native riparian vegetation and shaded seating areas. Pedestrian bridges and informal crossings create a rhythmic relationship between people and water, inviting interaction without overprogramming the space.

While the ecological footprint is relatively light, the stream restoration has had meaningful hydrological and environmental effects. Prior to the project, over 80% of the local catchment was paved, leading to frequent flash flooding and combined sewer overflow (CSO) events during rainfall exceeding 20 mm/hr. Although detailed retention figures are not publicly documented, municipal estimates suggest the system now retains between 1,500 and 2,000 cubic meters of water during moderate storms, buffering peaks and reducing pressure on downstream infrastructure. The newly introduced vegetation also supports over 30 new species of aquatic insects and birds, enhancing micro-biodiversity within an otherwise fragmented urban core.

Figure 3.21
Map of the Restored Østerå Stream through Vinstra Park, Aalborg
Source: Adapted by author from Aalborg Municipality Planning Office base map.

Figure 3.22
Community Interaction at Vinstra Park Stream Edge
Source: SLA Architects, https://www.sla.dk/projects/vinstra-park





Importantly, Vinstra Park is not a major flood basin, nor does it operate as critical grey-green infrastructure. Its strength lies in reframing a stream as a neighborhood-scale commons. By offering a quiet, legible presence of water in daily life rather than an engineered monument the project promotes water literacy and ecological sensitivity at the intimate scale of the pedestrian. However, it falls short in several key areas. The intervention does not include any interpretive signage, historical markers, or cultural storytelling about the Østerå's burial. It is also not tied to a larger network of public stewardship or citizen science, and the engagement process during design was limited to consultation, not co-production. These absences limit the project's ability to perform socially as a site of memory or activism.

Still, for Proctor Creek and Atlanta's Westside neighborhoods, Vinstra Park offers a compelling precedent for incremental, distributed hydrological repair. It shows that daylighting can occur not as a grand public works project, but as a layered, civic-scale intervention that reconnects people with water through everyday landscapes vacant lots, park edges, alleyways, and street crossings. Such micro-daylighting strategies could operate as a distributed sponge system across vacant and fallow land in Vine City, English Avenue, and Bankhead, attenuating runoff while creating connective tissue for community interaction, biodiversity, and storytelling. In this model, the stream becomes both ecological infrastructure and social interface.

Moreover, the modest cost of the project (under €2 million for 500 linear meters) suggests a feasible model for cities with constrained budgets and fragmented land ownership. What it lacks in technical ambition, Vinstra Park compensates for with spatial sensitivity and the potential to scale outward connecting to other green corridors, stormwater basins, and community spaces. If tied to a larger network of narrative, memory, and stewardship as would be essential in Atlanta's racialized hydrological history it could serve as a node in a hydro-social corridor that is polycentric, place-based, and reparative.



Figure 3.23
Aerial View of Vinstra Park and Restored Østerå Stream Corridor, Aalborg
Source: SLA Architects, https://www.sla.dk/projects/vinstra-park

Jordal Sports Park – *Oslo, Norway*

From 2017 to 2020, the City of Oslo reclaimed a former industrial and buried-stream landscape in the Jordal district by integrating a daylighted watercourse into a vibrant multi-sports and public park. With a total investment of approximately NOK 694 million (about EUR 66.6 million), the project included both a new open-air amphitheater-style ice arena ("Jordal Amfi") and the ecological restoration of a buried section of the Hovinbekken stream.[94]

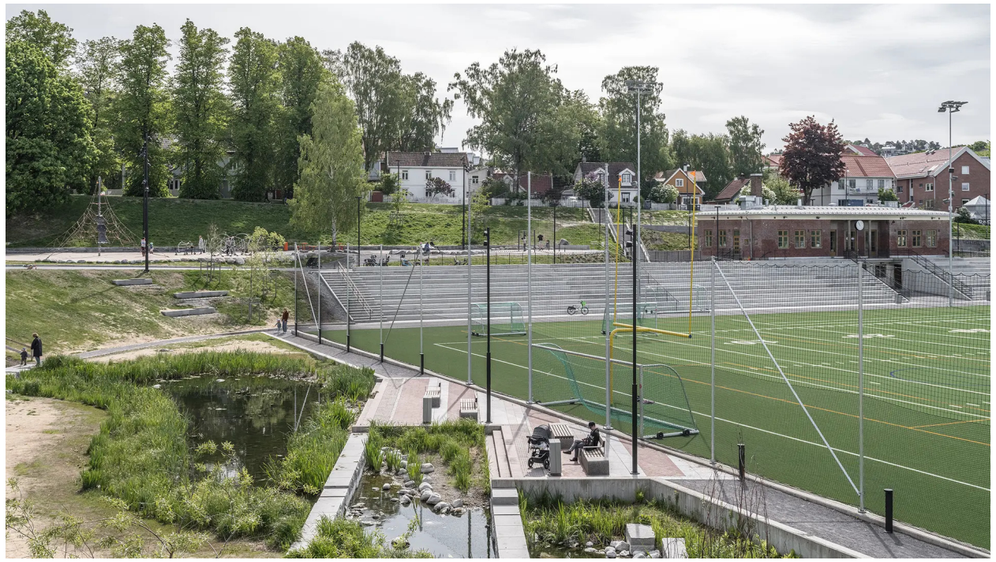
The Hovinbekken, once flowing openly through Oslo until the early 1900s, had been entirely piped under urban infrastructure. Its resurfacing in the Jordal Sports Park represents a conscious reintroduction of "blue" alongside "green" in the cityscape. Henning Larsen and Bjørbekk & Lindheim Landscape Architects sculpted a 600-meter stretch of the streambed through gently contoured lawns and recreation zones.Approximately four meters wide, the daylighted channel follows a naturalistic meander, defined by stone-lined banks and substrate systems engineered to mimic ecological flow dynamics.

Flood control and stormwater management are subtly embedded in the design. The open stream is flanked by permeable paving, bioswales, and rain gardens that absorb runoff from adjacent fields, play areas, and pathways. A municipal review indicates that the park's combined green–blue infrastructure is capable of attenuating roughly 2,500 cubic meters of surface water during moderate rainfall events, thereby reducing combined sewer overflow risk downstream.

Ecological outcomes have been encouraging: within a year of opening, plantings of native riparian species established robust root systems supporting bank stabilization. Early surveys report the presence of small fish, amphibians, and biotic communities typical of Hovinbekken's historical condition. Bench seating, pedestrian bridges, and fish ladders—installed to facilitate aquatic continuity, invite public engagement with the ecological function of the watercourse.

Figure 3.24
View of daylighted Hovinbekken adjacent to multi-sport field and public infrastructure at Jordal Park.
Source: Henning Larsen & Bjørbekk & Lindheim Landscape Architects.

Figure 3.25
Children engaging with restored stream ecosystem as part of the park's educational design Source for Figures 3.24–3.27: All images © Henning Larsen & Bjørbekk & Lindheim Landscape Architects. Accessed from project materials and visual press kits via henninglarsen.com. Used under fair dealing for educational commentary.



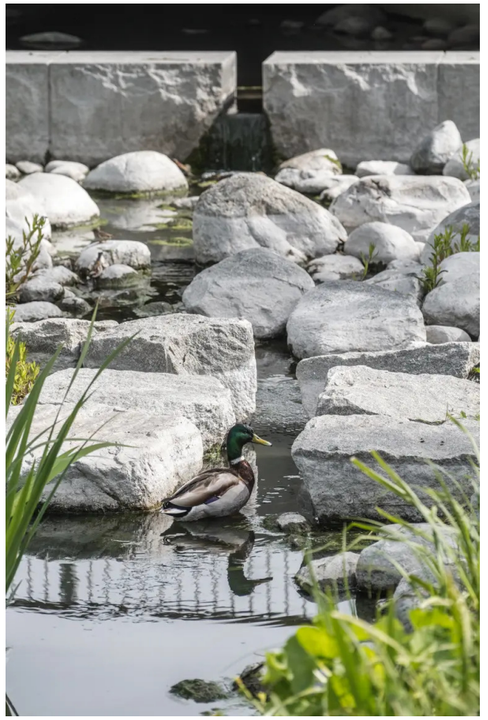


Socially, the restored creek segment doubles as a civic amenity. The landscape design oriented terraces and pathways toward the water, creating terraces for lounging, skating, social events, and play. The ice arena abuts the daylighted stream, symbolically and spatially knitting together sports, culture, and ecology. When the amphitheater was inaugurated in October 2020, it was celebrated as a model of urban integration, where infrastructure, sport, and daylighted hydrology coexist in a shared public realm. Yet the design is not without limitations. Though the park creates a powerful visual and recreational presence, stewardship has remained largely municipal. There is no formalized community governance of the waterway, and interpretive or heritage signage is minimal. The ecological ambition is primarily aesthetic and recreational, with minimal active biodiversity programming or water-quality monitoring.

Jordal Sports Park illustrates how stream daylighting can be woven into civic infrastructure, in this case, a sports complex, without demanding large-scale disinvestment. It offers a blueprint for reintegrating piped streams into active public landscapes, creating accessible water corridors that serve multiple social and ecological functions. The installation of fish passage structures and naturalistic substrates demonstrates that even modest daylighting can support aquatic life.

In the Proctor Creek watershed, similar projects might include transforming vacant lots, school grounds, or small civic parcels into daylighted micro-creeks not as isolated monuments, but as nodes within a network of green corridors. Equally important is the symbolic proximity: at Jordal, the creek runs beside community infrastructure, enabling everyday encounters with water. A Proctor Creek approach should similarly aim to place daylighted channels adjacent to civic anchors-community centers, libraries, parks, so that the water becomes part of daily life, not hidden or sidelined.

To strengthen this model for a truly hydro-social framework, Proctor Creek interventions should include community stewardship structures, interpretive programming, and hydrological monitoring, complementing the physical daylighting with narrative and agency. The Oslo project shows how infrastructure can serve as the staging ground; in Atlanta, the social and reparative dimensions can be more explicitly embedded.



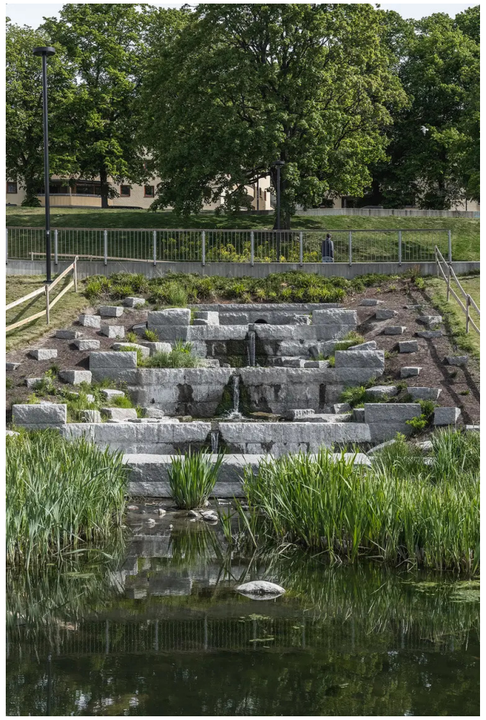


Figure 3.26
Stone-lined stream with aquatic habitat restoration—detail showing duck at water's edge.Source: Henning Larsen & Bjørbekk & Lindheim Landscape Architects.

Figure 3.27
Stepped channel and planted wetland terraces supporting urban stormwater management.Source: Henning Larsen & Bjørbekk & Lindheim Landscape Architects.

Taddle Creek – *Toronto (Symbolic & Narrative Daylighting)*

Taddle Creek once meandered through central Toronto, flowing approximately 6 km from near St. Clair and Bathurst to Lake Ontario. By the mid-1800s, it was buried and repurposed as a combined sewer, as urban expansion and sanitary concerns took precedence. Over time, the ravine carved by the creek evolved into Philosopher's Walk on the University of Toronto campus, preserving a physical memory of its passage.

The Taddle Creek initiative, led by a grassroots alliance of residents, institutions, and environmental groups, aims to symbolically "daylight" the creek through interpretive markers, sculptures, and park installations.Taddle Creek Park, established in 1976 and refurbished in 2011, features Ilan Sandler's stainless-steel "Vessel" sculpture alongside plaques and native plantings to evoke the once-visible watercourse.[95] The project does not involve hydraulic engineering or water conveyance, but instead leverages narration and landscape to restore cultural memory and foster ecological awareness.

Symbolic restoration has community-building effects: the initiative established partnerships between local schools, heritage groups, and municipal parks, leading to public events like guided walks, art installations, and educational programs. While technical analyses estimate that only a fraction of Taddle's original water could ever be reintroduced (given the effort and infrastructure constraints), the initiative frames this as a narrative gesture creating spaces for reflection rather than physical flow.

Taddle Creek represents a distinct category of daylighting, one that operates primarily in the symbolic and narrative realm rather than through physical hydrological intervention. It exemplifies how some cities have approached the legacy of buried streams not through restoration or stormwater infrastructure, but through commemorative gestures, cultural memory, and interpretive landscapes. These projects use markers, sculptures, naming practices, and spatial storytelling to surface the absence of water as a way to reflect on urban change and loss. While such symbolic work does not address environmental risk or perform ecological repair, it highlights a growing recognition that buried waterways hold cultural, historical, and psychological significance in addition to ecological value. This approach broadens the scope of what "daylighting" can mean demonstrating that, for some contexts, memory and meaning are central modes of engagement with lost urban waters.

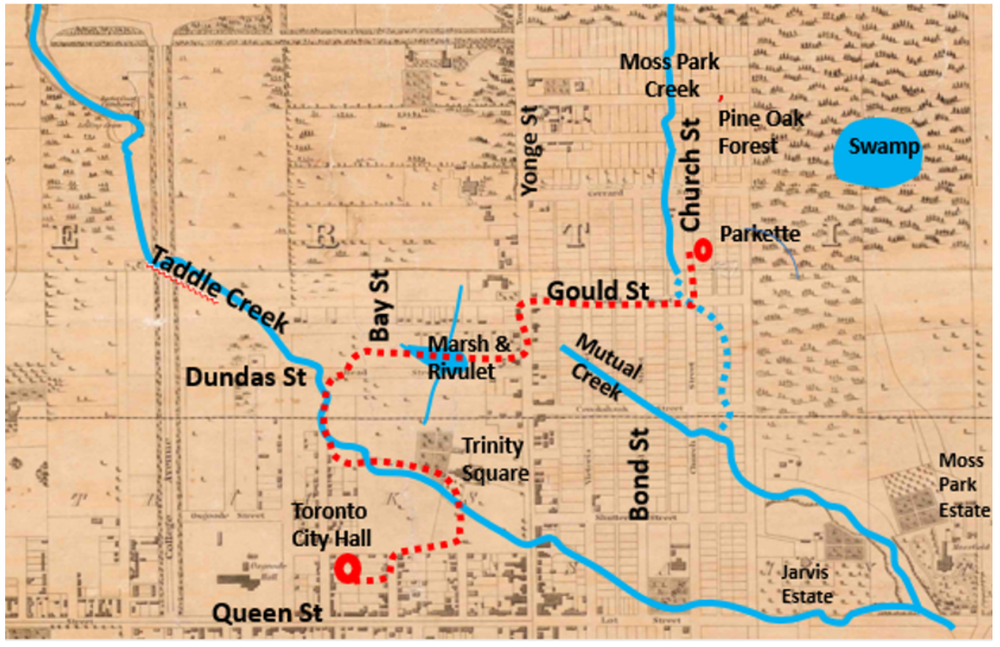


Figure 3.28
Historical map of Taddle Creek's path through central Toronto
Source: Lost Rivers of Toronto Project, "Route of the Walk relative to the original course of Taddle Creek," CC0/public domain; adapted by author.

Detroit Ghost Streams Mapping – *Analytical & Justice-Based Daylighting*

Detroit has lost approximately 85% of its original waterways since 1905, as streams and wetlands were buried during industrial expansion and urban renewal. A groundbreaking study led by the University of Michigan Dearborn and researchers like Jacob Napieralski revealed that these "ghost streams" continue to influence flood patterns when heavy rainfall occurs. The researchers overlaid historical waterways mapped via early USGS records and LiDAR—with contemporary flood-risk indices and 1939 Home Owners' Loan Corporation redlining maps to demonstrate a disproportionate burden on historically marginalized communities.[96]

The study estimates that buried stream corridors contribute significantly to basement flooding, street ponding, and property damage.In areas with low vegetation and proximity to former stream valleys, flooding risk during intense storms is amplified, despite official FEMA floodplain maps showing otherwise. A key finding is that ZIP codes with high social vulnerability and redlining history often suffer the worst flooding impacts.

This project's strength lies in its data-driven justice orientation: it does not propose engineered interventions but rather exposes how historical racist land policies have hydrologically and physically endangered communities of color. By visualizing buried streams and linking them to present injustice, the mapping work calls planners to reimagine water infrastructure through a reparative lens.

The Detroit ghost stream mapping project stands as a powerful example of how historical hydrology, urban development, and racialized geographies intersect. It does not aim to physically restore waterways but instead to make visible the structural erasures and environmental risks that persist in historically marginalized neighborhoods. By overlaying historical watercourses with redlining maps and contemporary flood data, this work reframes buried streams as evidence of systemic inequality rather than neutral infrastructure. While this form of daylighting is primarily analytical, it underscores how mapping and data visualization can be used to expose uneven vulnerability and inform future planning. Though not directly applicable in every context, such work expands the definition of daylighting to include acts of documentation, critique, and historical recovery, offering an important counterpoint to more design-focused or performative approaches.

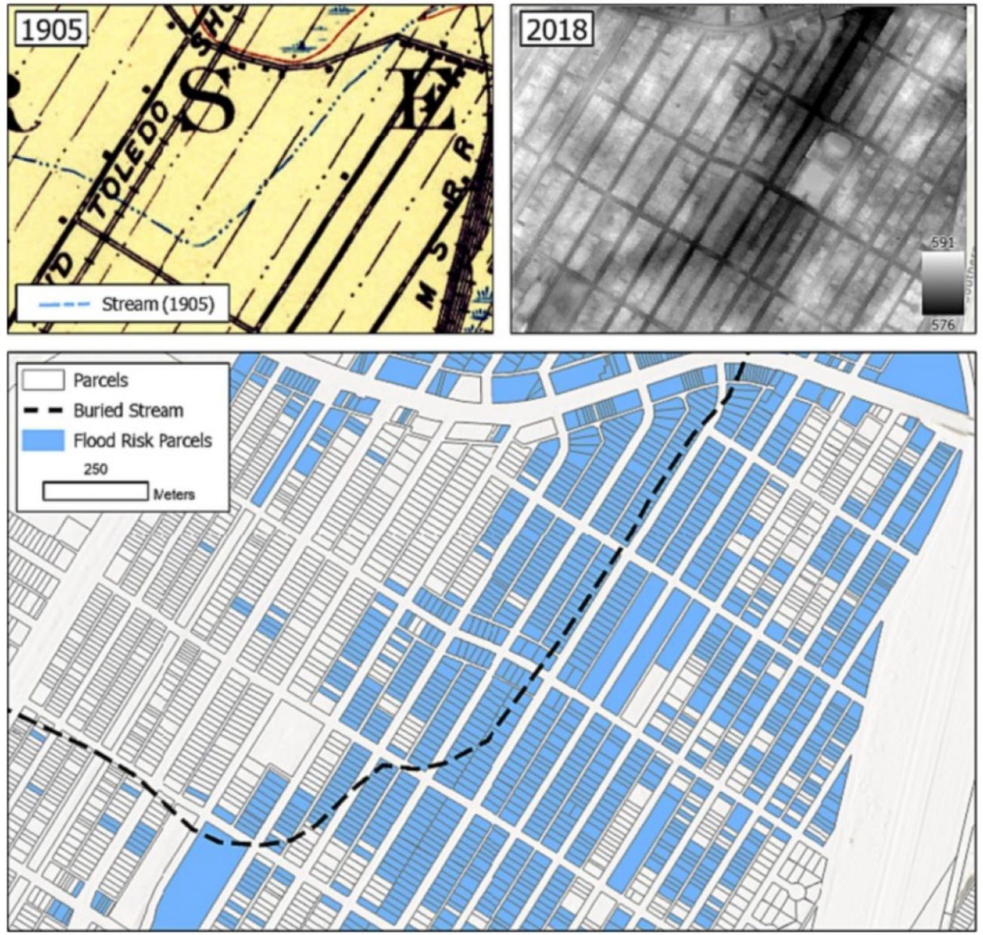


Figure 3.29
Overlay of historical stream alignments, LiDAR topography, and contemporary flood risk in Detroit
Source: Bridge Michigan, "Detroit's 'ghost' streams can be a threat in the present," image from City and Environment Interactions study—showing 1905 USGS stream routes, modern buried-valley topography, and parcel-scale flood-risk shading

SCAPE Studio – *Living Breakwaters & Participatory Ecological Urbanism*

SCAPE Studio's Town Branch Commons is a landmark green infrastructure and civic space project in downtown Lexington, Kentucky, that reimagines the city's buried hydrology as a connective, performative, and inclusive urban landscape.[97] Located along the historic path of the now-subterranean Town Branch Creek, the 2.5-mile linear corridor weaves together public space, pedestrian and cycling infrastructure, and stormwater management into a continuous urban experience. Rather than fully daylighting the creek, SCAPE's approach strategically surfaces water ecologies through infrastructural gestures through bioswales, permeable pavements, rain gardens, and native plantings embedded within the city's street and public space fabric.

The Commons operates as a hybrid system, simultaneously addressing flooding, urban heat, disconnection, and lack of civic space. It links two major green zones Town Branch Trail and the Legacy Trail through a walkable and bikeable spine, stitching together downtown neighborhoods, civic institutions, and cultural landmarks. Through layered ecological performance and bold civic design, Town Branch Commons serves both as a visible expression of Lexington's hidden water systems and as a model for integrated, climate-responsive infrastructure. This reflects SCAPE's broader commitment to "living infrastructure," where urban design activates ecological systems in service of public life and repair.

SCAPE's strategy avoids monumental restoration in favor of embedded, incremental intervention what Jill Desimini describes as working with the "fallow" conditions of post-industrial urban land to reimagine latent infrastructures for the public good. Water becomes legible not only through full exposure, but through form, material, planting, and collective rituals. Community involvemen including walking tours, educational programming, and public workshops helped shape priorities around access, equity, and local identity.

For Proctor Creek, the relevance of Town Branch Commons lies not in its coastal context or full creek daylighting, but in its distributive and layered logic. The project exemplifies how buried hydrology can be engaged through modest, site-specific interventions that prioritize both ecological function and cultural reconnection. It aligns with Dilip da Cunha's challenge to the river-as-line paradigm, embracing a design language of "wetness" that is diffuse, adaptive, and responsive to seasonal and spatial variations.

This precedent supports a vision for Proctor Creek grounded in local engagement one that imagines sponge lots, rain gardens, micro-wetlands, and civic greenways as tools not just for stormwater retention, but for social cohesion and design justice. Rather than responding solely to technical needs, it encourages a spatial politics of restoration: one that values care, memory, and stewardship across both landscape and community.



Figure 3.30
Morning light on Town Branch Commons' limestone-lined greenway in downtown Lexington, KY.
Source: Ty Cole / SCAPE Studio, Town Branch Commons greenway opens in downtown Lexington, Kentucky, The Architect's Newspaper, October 17, 2022. Image © SCAPE and Ty Cole. Used under Creative Commons license.

Turenscape – *Qunli Stormwater Park*

Qunli Stormwater Park is located in the Qunli New District of Harbin, a rapidly urbanizing city in northeast China. Designed by Turenscape under the leadership of landscape architect Kongjian Yu, the project was completed in 2011 as part of a broader effort to implement sponge-city principles across China.[98] Large in scale and ambition, the park functions as an adaptive ecological infrastructure embedded within a dense urban matrix. It transforms a 34-hectare low-lying floodplain -previously a seasonal wetland degraded by high-rise development, into a functioning stormwater retention and public space system. Rather than relying on traditional grey infrastructure, the design embraces water's presence through ecological reprogramming, creating a layered urban wetland that simultaneously manages floods, restores biodiversity, and serves thousands of nearby residents. Qunli exemplifies Turenscape's approach to urbanism: performative, ecologically grounded, and culturally resonant.

The 34-hectare park is engineered to retain up to 400,000 cubic meters of stormwater during peak monsoon events. This is achieved through a system of layered wetlands, sunken basins, sponge soils, and vegetated embankments. The landscape is organized into concentric ecological zones of riparian wetland, forested upland, reed fields, and a central detention lake, each providing habitat variation, filtration, and seasonal hydrological performance. The project responds to Harbin's annual rainfall of approximately 650 mm, the majority of which falls in intense summer storms, and to the absence of conventional grey stormwater infrastructure in this rapidly built district.

Public access is delicately overlaid onto the ecological system. Elevated wooden walkways, bird-watching towers, and seating decks allow users to circulate through the site without damaging planted zones. Educational signage introduces residents to wetland ecology, flood control, and sponge-city principles. The park has become an environmental education hub and recreational destination for thousands of residents from nearby towers many of whom lacked prior access to open space.

Turenscape's work at Qunli embodies a model of urbanism where vacancy, low topography, and marginality are transformed into assets. be spatially inclusive.

While its implementation depends on scale, political support, and land availability, the core logic designing with hydrological flows, embracing wetness, and layering function and meaning offers critical insights for storm-prone urban areas worldwide.

For Proctor Creek, Qunli Park reinforces the design potential of Atlanta's underutilized, flood-prone vacant land. It suggests that such parcels can serve as micro-infrastructures of urban resilience not only to hold and filter water but to generate new social ecologies. The project models how hydrological performance, ecological repair, and public amenity can be spatially integrated without relying on heavy engineering. Translating this into the Westside context would mean adapting Qunli's layered wetland logic to a patchwork of sponge lots, bioswales, and retention areas, each scaled to neighborhood needs and embedded in community landscapes.



Figure 3.31(on the right)
Qunli Stormwater Park, Harbin — Elevated boardwalks allow visitors to traverse and observe the layered wetland ecosystem designed by Turenscape, integrating ecological function with public amenity.

Source: © Turenscape / Kongjian Yu. Image via ArchDaily, licensed under CC BY 2.0.
Original: "Qunli Stormwater Wetland Park / Turenscape"

Case study comparison table - Modes of daylighting and hydro- social design features

Table 3.10
Case Study Comparison: Typologies of Daylighting and Hydrosocial Design Strategies.
Source: By author 2025

Project	Location	Daylighting Type	Scale	Key Features	Limitations	Relevance to Proctor Creek
Cheonggyecheon Stream Restoration	Seoul, South Korea	Full physical daylighting (infrastructural removal)	Large, top-down	Removal of freeway; constructed streambed; ecological + tourism benefits	Gentrification; loss of original ecology; limited community input	Highlights both the ecological potential and social risks of large-scale, top-down stream restorations.
Vinstra Park (Østerå River)	Aalborg, Denmark	Partial daylighting (integrated into park)	Medium, civic-led	Stream embedded in park; public space activation; local hydrology	Limited flood capacity; less symbolic visibility	Offers a scalable model for small site interventions on vacant lots with basic ecological and civic value.
Jordal Sports Park	Oslo, Norway	Strategic surface reconnection	Medium-small	Water reintroduced through public park; supports recreation and ecology	Not framed as justice work; may lack historical depth	Demonstrates how water can be integrated with recreational infrastructure on repurposed civic parcels.
Taddle Creek (Narrative Daylighting)	Toronto, Canada	Symbolic (memory-based)	Small, cultural	Interpretive signage, markers, storytelling; surfaces buried hydrology as cultural memory	No hydrological function; non-performative	Illustrates alternative approaches to commemorating water histories where physical daylighting is not feasible.
Detroit Ghost Streams Mapping	Detroit, USA	Analytical / Justice-based	City-wide	GIS overlay of redlining and flood risk; exposes racialized hydrology	No physical intervention; primarily diagnostic	Highlights how buried streams can reveal systemic injustices and inform site selection or public education strategies.
SCAPE Studio – Town Branch Commons	Lexington, Kentucky	Urban stream corridor re-integration	Medium to large	Daylit tributaries integrated with greenway; multi-modal paths; layered hydrology and social space	High design complexity; reliant on large funding coalitions	Demonstrates how stream corridors can shape multimodal green infrastructure with layered program and incremental phasing.
Turenscape – Qunli Stormwater Park	Harbin, China	Sponge-city logic; full ecological reworking	Large, adaptive	Urban wetland; flood control; public access; ecological urbanism	Requires available land; replicability challenges	Reinforces the potential of transforming vacant, flood-prone land into multifunctional stormwater parks.

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From Absence to Presence - Design Strategies for Hydrosocial Repair

4.1 Watershed as Framework : *Situating Daylighting in Hydrological Logics*

The framework is grounded in watershed-scale hydrological reasoning and informed by theoretical and applied planning literature, including Robert L. France's Wetland Design (2003), the U.S. EPA's Urban Watershed Framework (2013), and Jill Desimini's exploration of vacant land as latent infrastructure in From Fallow (2022). It draws from the premise that ecological and infrastructural restoration must not be attempted through piecemeal interventions, an approach that often treats degraded sites as isolated design opportunities without considering their systemic relationships. As France asserts, "mitigation works best when it is based on functional analysis and not as a piecemeal approach which will remain ineffective". This framework adopts that position, emphasizing that the reintegration of urban creeks and wetlands must unfold through the organizing logic of the watershed rather than according to land availability or aesthetic potential alone.

Atlanta's recent green infrastructure projects along Proctor Creek illustrate the limitations of this piecemeal logic. Rodney Cook Sr. Park, completed in 2021 in Vine City, is a 16-acre stormwater detention and recreation space designed to capture over 10 million gallons of stormwater annually from the surrounding combined sewer overflow (CSO) basin. While the park represents a significant hydrological intervention, it remains functionally isolated from upstream and downstream flood-prone parcels. The surrounding neighborhood continues to experience chronic surface flooding, standing water, and runoff pooling in vacant lots, especially during heavy rainfall. This reveals the insufficiency of relying on a single "anchor" park to address watershed-scale water dynamics in a terrain where the buried Proctor Creek still channels subsurface flow through historic corridors. In short, Cook Park provides retention capacity but lacks relational connectivity to other degraded or underperforming areas in the watershed.

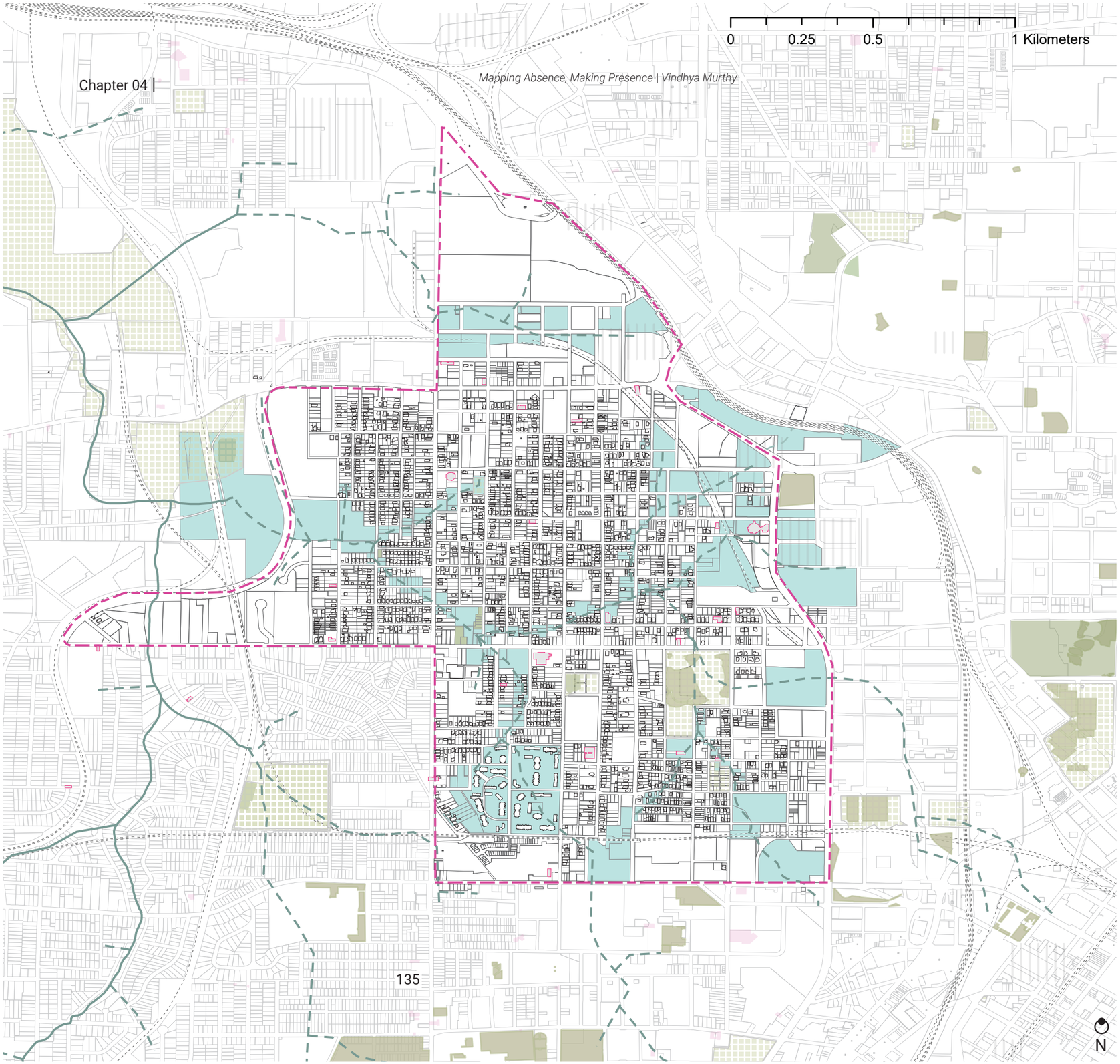
Similarly, the Boone Boulevard rain gardens, installed along Joseph E. Boone Boulevard as part of a corridor-wide green infrastructure plan, were intended to provide street-level stormwater management and neighborhood beautification. However, these interventions operate at too small a scale and lack upstream detention to meaningfully alleviate cumulative runoff. Local residents have reported that flooding and standing water persist in adjacent lots and sidewalks, and that the rain gardens often overflow or remain saturated.

These outcomes illustrate France's warning: without being embedded in a systemic restoration framework, even well-designed GI projects risk functioning more as isolated fixes than as integrated solutions. They do not solve the problem they simply displace or delay it.

By contrast, the framework proposed in this thesis seeks to identify and activate a network of smaller, hydrologically coordinated sites which are distributed micro-wetlands, sponge lots, and partial daylighting segments that function collectively to restore ecological performance. Rather than relying on one major intervention to carry the weight of the watershed, this approach builds resilience by reweaving degraded, vacant, and underused land into a living stormwater infrastructure. This shift from isolated GI to layered hydrosocial corridors is central to repairing the fragmented ecological systems of Atlanta's Westside.

The Proctor Creek watershed has been subjected to decades of infrastructural erasure, redlining, and zoning-based segregation, resulting in the burial of surface water, loss of ecological function, and chronic flooding in Black neighborhoods. This thesis responds to those conditions by treating vacant and flood-prone parcels not as residual leftovers of decline, but as sites of opportunity for reintroducing hydrological flow, ecological activity, and civic engagement through distributed, low-cost, and scalable interventions. The goal is not to fully restore Proctor Creek to a pre-urban condition, a fantasy in dense urban terrain but to incrementally reassemble ecological function across fragmented land using daylighting, micro-wetlands, and green infrastructure logic. This requires a methodology that connects discrete sites through water logic, not through surface aesthetics or parcel-based ownership.

The following map series establish a layered framework for identifying both risk and opportunity within the Proctor Creek watershed. Starting with flood-prone parcels across Vine City, English Avenue, and Bankhead, the analysis overlays buried streams, poor infrastructure, and property conditions to expose zones of vulnerability often missing from official flood maps. Additional layers highlight parcels slated for demolition or restoration, reframing vacancy as ecological potential. Existing green spaces are mapped to assess connectivity, while community-reported hazard data, such as standing water and broken drains, grounds the framework in lived experience. Together, these maps guide site selection for equitable, hydrologically sound interventions.



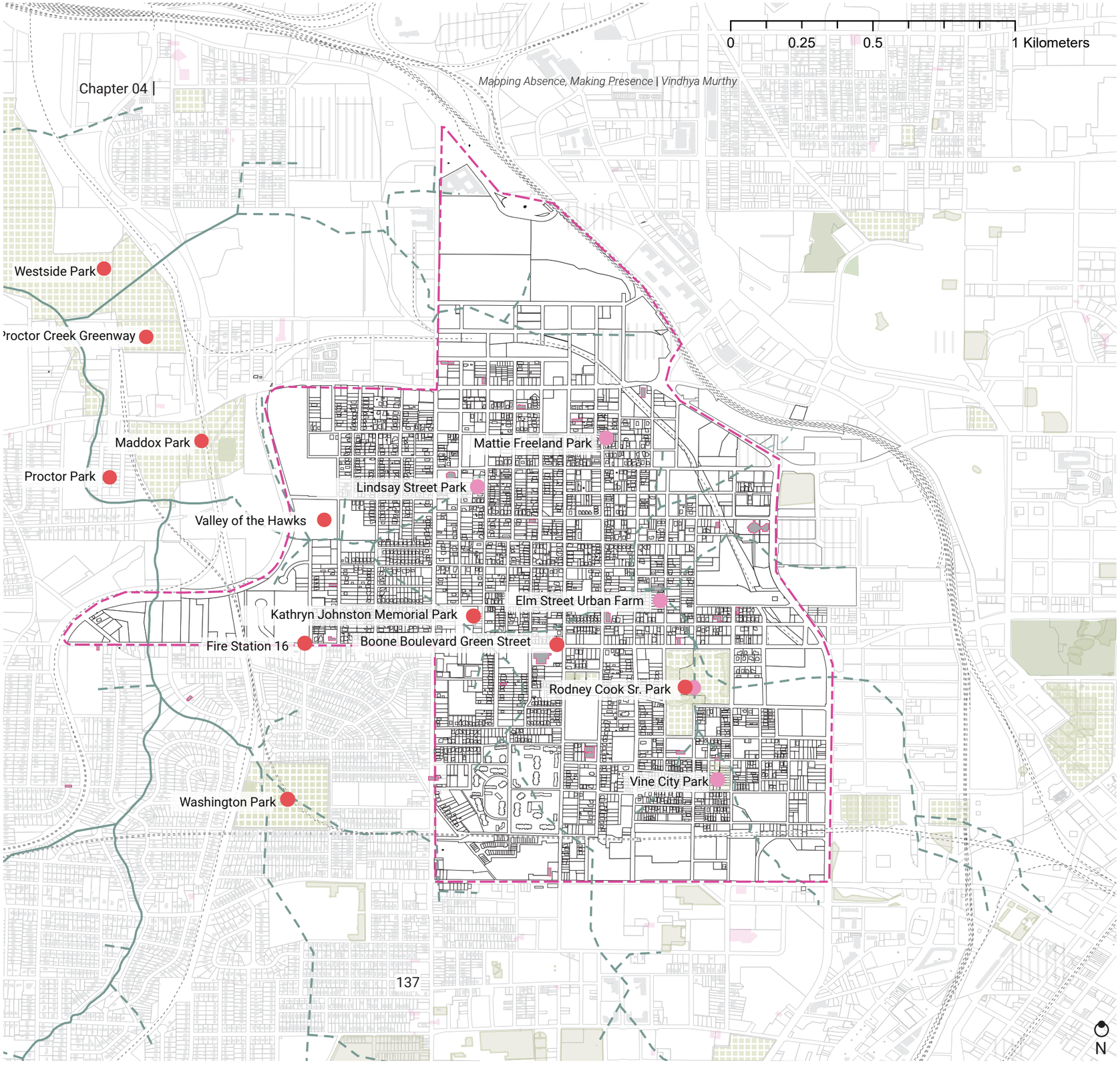
4.2 Identifying Vulnerability: *Parcel Condition and Flood Risk*

The first stage of the framework involves the identification of flood-prone parcels across Vine City, English Avenue, and Bankhead areas known to experience flash flooding due to buried streams, degraded stormwater infrastructure, and historical low-lying topography as show in ***figure 4.1***. Notably, many of these parcels do not appear on FEMA's official flood maps, exposing the limitations of federal risk assessments and reinforcing the need for localized, community-driven hydrological mapping. Using GIS and terrain data, flood-prone parcels were identified and overlaid with classifications of property condition ranging from "Good" to "Vacant." Further layers were added to indicate parcels approved for demolition and those already designated for restoration by local government or nonprofit partners. This multi-criteria mapping provided a base inventory of underutilized, at-risk, and transitional parcels, spaces where physical change is either already underway or possible with limited policy or material resistance.

Preliminary spatial analysis indicates that over 60% of the parcels affected by subsurface flooding are classified as either deteriorated, dilapidated, or vacant, highlighting both the vulnerability and the opportunity embedded in these zones. Vacant parcels alone account for a significant portion of the at-risk land, suggesting a strategic opening for low-barrier ecological interventions that do not require displacement or demolition. Conversely, a smaller but notable number of Good or Fair condition parcels are also affectedunderscoring that flooding cuts across multiple land conditions and is not solely confined to visibly blighted zones. This layered condition map disrupts the binary of "developable vs. derelict" and instead reveals a continuum of vulnerability that must be addressed holistically.

Figure 4.1 (on the left)

Flood-Prone Parcels and Property Conditions in Atlanta's Westside
Mapped by author



The second stage of the framework moves from identifying risk to understanding opportunity mapping as represented in ***figure 4.2*** where green infrastructure and public green space currently exist, and how they might be connected or expanded to support watershed-scale repair. A spatial inventory of parks and stormwater interventions across the Proctor Creek watershed reveals a landscape of scattered assets implemented through city, institutional, and community-led efforts. These include Lindsay Street Park, Kathryn Johnston Memorial Park, Vine City Park, Washington Park, Boone Boulevard Green Street, and the Spelman College Rain Garden, among others. Each space operates at a different scale of ecological and social interaction: from linear bioswales and rain gardens with modest stormwater capacity to neighborhood-scale parks that offer passive recreation or detention potential.

While important individually, many of these green interventions remain functionally disconnected, with limited capacity to address systemic flooding or to re-establish the ecological performance of the buried Proctor Creek. For this thesis, these spaces are not viewed as endpoints, but as anchors or edges of a more integrated hydrosocial system. Through spatial analysis, the framework identifies one site suitable for full daylighting, where a continuous segment of the historic creek can be reconnected to the free-flowing main stem. In addition, three further sites are identified for partial daylighting and sponge corridor interventions, using a combination of bioswales, ephemeral wetlands, infiltration beds, and native riparian vegetation.

These proposed interventions aim to stitch together underperforming and fallow parcels, creating a layered system of small-scale ecological infrastructure that supports both stormwater mitigation and habitat regeneration. Informed by France's insistence on watershed logic and Desimini's framing of vacancy as latent ecological potential, the strategy moves beyond aesthetics or symbolic greening toward a networked green infrastructure that is distributed, responsive, and functionally hydrologic.

Figure 4.2 (on the left)

Network of Existing Green Infrastructure and Opportunity Parcels in the Proctor Creek Watershed

Mapped by author

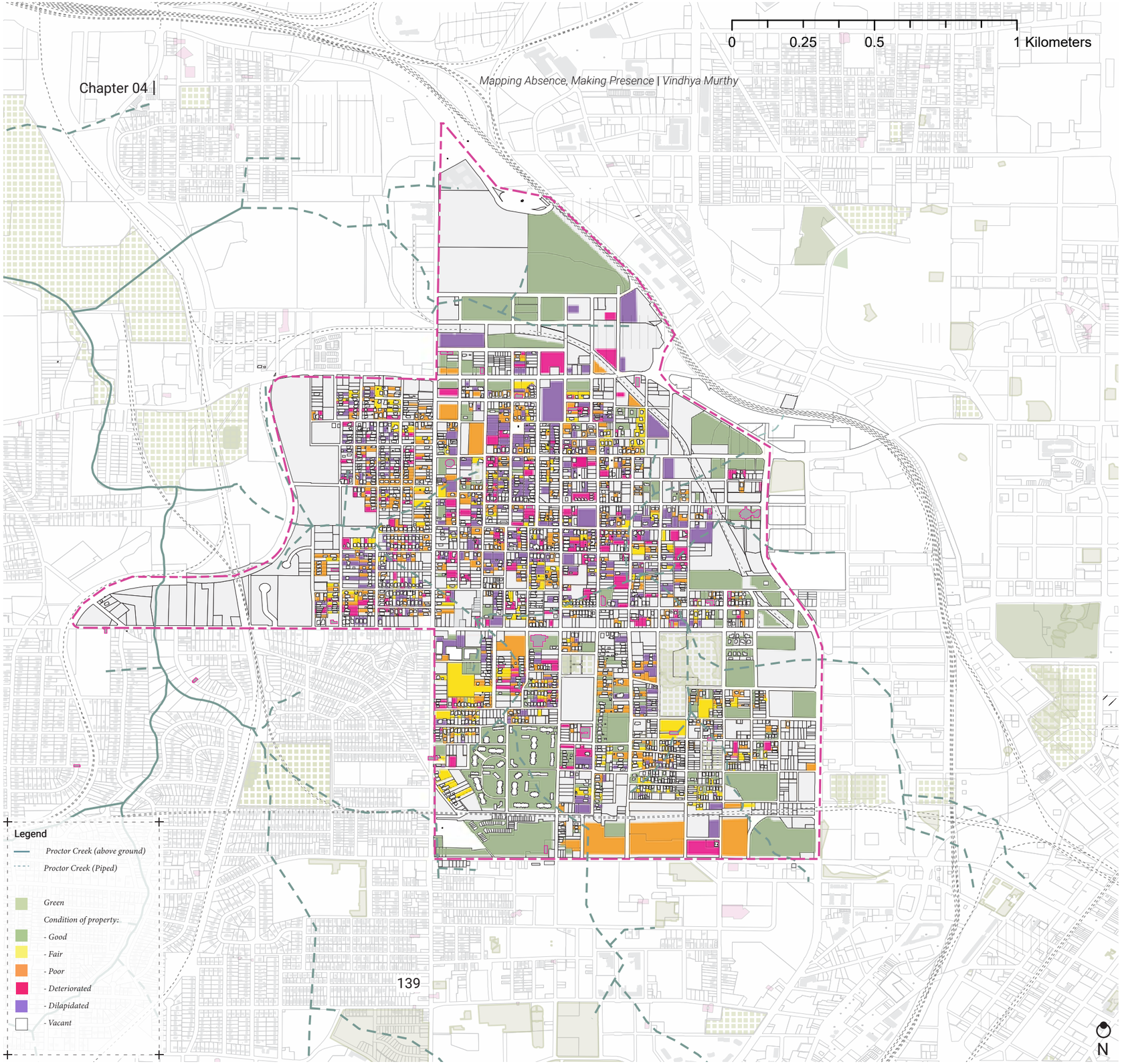


Figure 4.3 indicates a critical stage in the site selection framework is the evaluation of land parcel conditions across Vine City, English Avenue, and Bankhead. This analysis extends beyond environmental suitability to address the social and ethical implications of restoration, particularly the risks of displacement and speculative redevelopment. Parcels are classified as Dilapidated, Deteriorated, Poor, Fair, Good, or Vacant. When overlaid with flooding data, it becomes clear that a majority of flood-prone and hydrologically strategic parcels fall within the Deteriorated, Dilapidated, or Vacant categories, with only a small share rated as Fair or Good. This suggests a high potential for ecological intervention without displacing existing stable housing.

City-level data supports this pattern. The 2021 City of Atlanta Housing Conditions Survey and Georgia Tech's Westside parcel audit (2019) indicate that over 30% of homes in NPU-L are substandard, with vacant parcels making up more than 20% of total land in some blocks. These conditions reflect decades of disinvestment and demolition without reinvestment, which has left behind a fragmented and underperforming landscape. However, these same conditions present an opportunity: restoration interventions on deteriorated or vacant land offer a chance to mitigate flooding while minimizing disruption to residents.

Careful land condition analysis also helps prevent green gentrification the process by which environmental upgrades increase land value and drive out long-standing communities. This framework therefore prioritizes underutilized and publicly owned or demolition-approved parcels, where daylighting, sponge lots, or micro-wetlands can serve both hydrological and social functions. By aligning ecological repair with housing justice, the strategy ensures that water is welcomed back into the city without forcing people out.

Figure 4.3 (on the left)

Land Parcel Condition and Restoration Suitability in the Proctor Creek Watershed

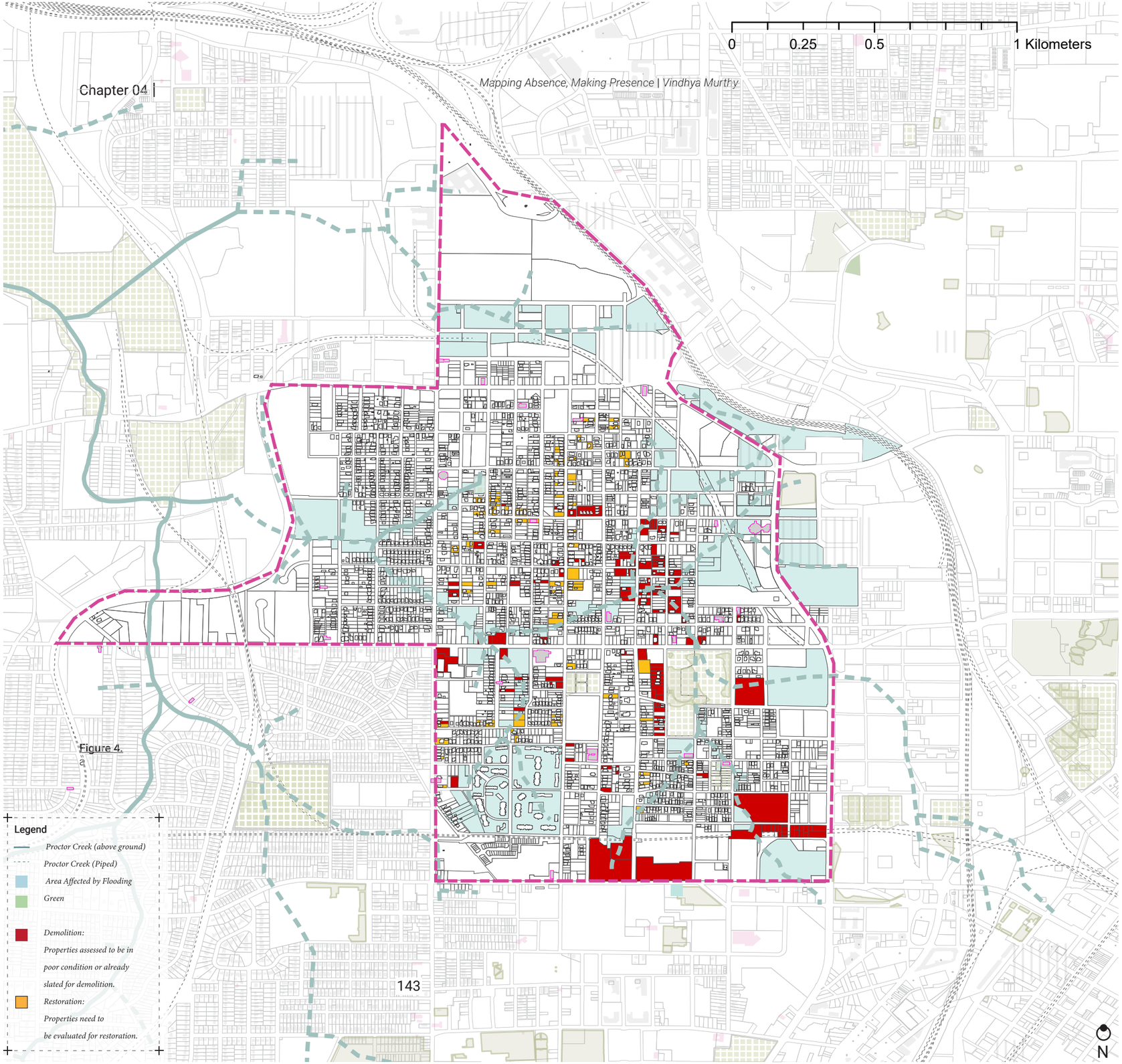
Mapped by author



Figure 4.4
Abandoned duplex overtaken by vegetation in Vine City. Vacant structures like this signal disinvestment but also offer opportunity for ecological reintegration without displacement.
Photograph by author



Figure 4.5
Boarded-up housing in English Avenue marked for demolition. Such properties highlight both the fragility and potential of underused land within the Proctor Creek watershed.
Photograph by author



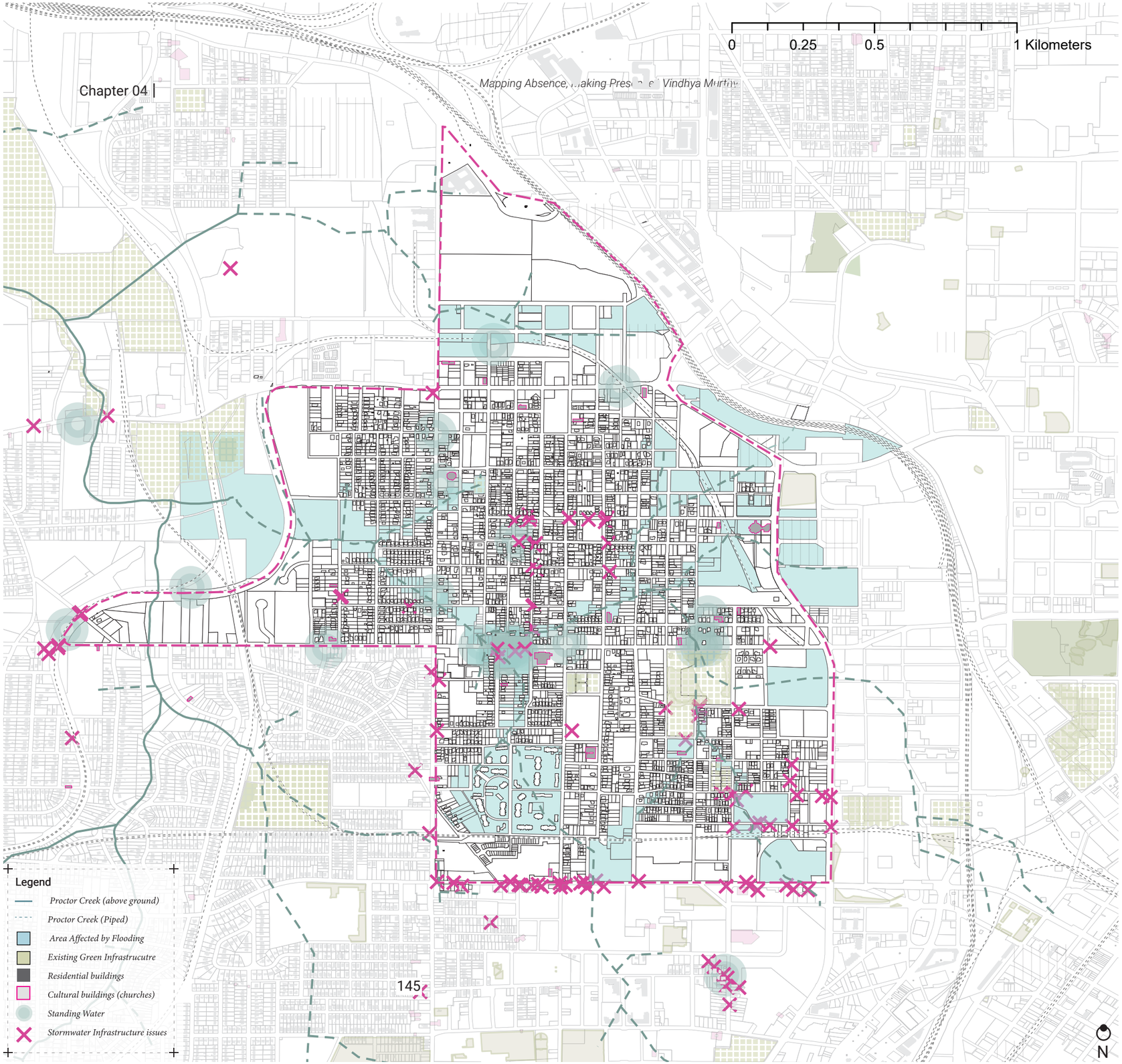
Alongside condition-based analysis, this thesis incorporates a spatial layer focused on parcels approved for demolition or targeted for restoration as mapped in ***figure 4.6*** . These transitional parcels offer strategic openings for ecological intervention, where change is either already initiated or imminent. Mapped across Vine City, English Avenue, and Bankhead, many of these sites fall within low-lying, flood-prone zones and often overlap with deteriorated or vacant parcels highlighting their potential as low-barrier sites for daylighting or micro-wetland implementation.

Demolition-approved parcels reflect formal recognition of structural decline or repeated environmental failure. Rather than viewing them solely as losses, this thesis treats them as opportunity spaces—sites where failed infrastructure can be replaced by absorptive, ecologically functional land uses such as sponge lots or rain gardens. Similarly, restoration-targeted parcels identified through city and nonprofit initiatives can serve as complementary partners in layered green infrastructure strategies, particularly where housing goals align with ecological resilience.

Many of these transitional parcels reflect planned or ongoing municipal action whether through demolition, environmental remediation, or neighborhood redevelopment. Rather than treating them as passive gaps or cleared sites awaiting future development, this thesis frames them as active sites for permanent ecological infrastructure. Their availability offers a critical opportunity to implement daylighting, sponge lots, or micro-wetlands in ways that are structurally integrated with broader watershed repair efforts. These interventions are not placeholders, but enduring components of a reconnected hydrological and ecological system, positioned to reduce flood risk, restore habitat, and support community resilience in neighborhoods historically excluded from such investments.

Figure 4.6 (on the left)
Transitional parcels approved for demolition or restoration, showing potential sites for daylighting and micro-wetlands.

Mapped by author



4.3 Grounding in the Present: *Participatory and Green Infrastructure Mapping*

This map (figure 4.7) plays a critical role in shaping the design framework by grounding it in real-time, community-reported environmental data. Through a mobile platform developed with Georgia state and other prominent local partners, residents have documented recurring hazards such as standing water, infrastructure failure, illegal dumping across the Proctor Creek watershed. When layered with hydrological data and parcel conditions, these reports reveal systemic patterns of vulnerability, particularly in the neighbourhoods within the scope if thus study. The clustering of hazards around vacant lots, alleyways and burried streams which highlights how infrstructural neglect intersects with spatial inequality.

Rather than relying solely on top-down strategies, this participatory mapping method elevates lived experience as a form of expertise, capturing conditions often missed in official reports. It is essential in developing a framework that is both just and effective, one that responds to specific, localized thresholds of stressors. The pink “X”s indentifies sites of concerns which include clogged drains, broken culverts, standing water and ferequent localized flooding, failures which are often invisible to top-down municipal assessments. The spatial distribution of such issues are not random, instead are often concentrated in areas where burried streams intersect with vulnerable conditions of vacant lots, deteriorating roadways and underfunded drainage systems.

By using this map as a diagnostic tool, the design process becomes more grounded, place-specific, and socially accountable, advancing an infrastructural justice approach rooted in community knowledge and spatial equity.

Figure 4.7 (on the left)
Community-Reported Stormwater Infrastructure Issues Across the Proctor Creek Watershed

Mapped by author

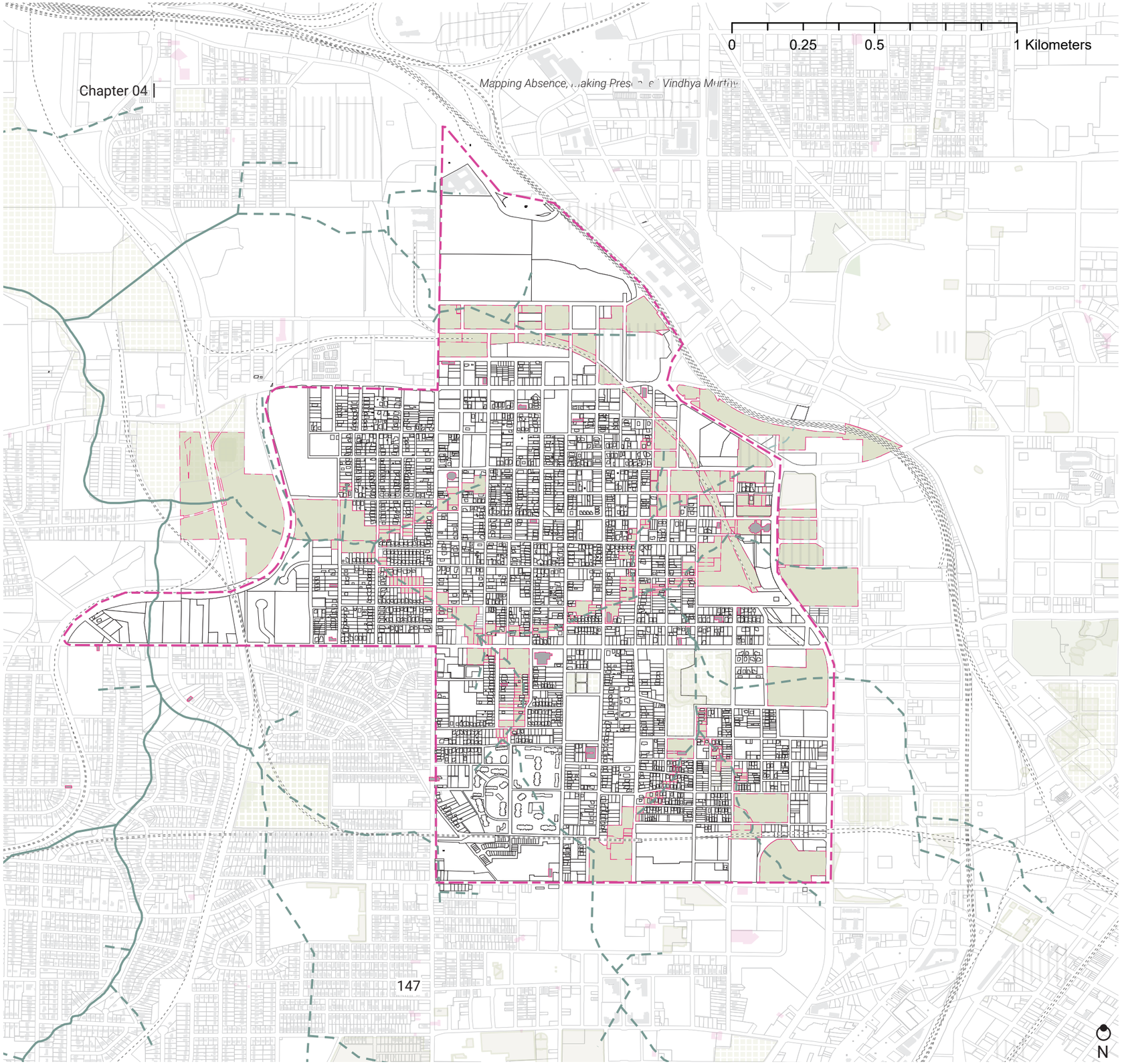


Figure 4.8
Proctor North Avenue vision plan: Proposed creek corridor and green space strategy

Map by author

The Proctor North Avenue (PNA) Vision Plan sets an ambitious goal of increasing green space by 20% through acquiring vacant, dilapidated, and deteriorated parcels. In principle, this aligns with ecological restoration and community well-being transforming flood-prone, underused land into public green space. However, as illustrated in Figure 4.8, the plan's vision for a continuous, daylighted section of Proctor Creek appears to extend beyond distressed lots, potentially requiring the removal of homes in fair or good condition. This raises serious concerns about displacement and the erosion of community stability.

While the plan recognizes the value of strategic land transfers, its execution risks privileging spatial efficiency over social care, favoring a linear green corridor at the expense of intact residential fabric. Even if informed by community input, such visionary planning may fall short of delivering just outcomes without careful mediation between environmental goals and housing security. In a neighborhood already under speculative pressure, removing viable homes for restoration could accelerate gentrification and displace long-term residents.

This reading of the PNA Plan underscores a critical tension in urban ecological design: the need to balance environmental urgency with the lived realities of vulnerable communities. It suggests that strategies rooted in large-scale clearance, even if well-intentioned, can undermine the very resilience they aim to foster. Figure 4.8 thus serves as a cautionary reference—revealing how a singular focus on spatial continuity in creek restoration may conflict with the principles of equity, care, and social sustainability that such plans claim to uphold.

The following Flood-Prone Parcel Space Matrix builds on the preceding spatial analyses and maps, translating broader patterns of risk and opportunity into a more detailed framework for intervention. While earlier diagrams identify where ecological and social repair is most needed, this matrix disaggregates parcel types by condition, occupancy, legal status, and suitability for green infrastructure (GI) or daylighting. It enables a more nuanced, site-specific strategy prioritizing actions that minimize displacement, target underutilized or high-risk land, and align intervention types with existing land use and ownership conditions.

4.4 Space Matrix and Typologies for Intervention

Flood-Prone Parcel Space Matrix for GI/ Daylighting Interventions

Parcel Condition	Definition	Occupancy	Tax/ Legal Status	Recommended Intervention Strategy
Good Residential	Occupied, flood-prone home in good condition	Occupied	Taxes paid, active owner	Stormwater upgrades (culverts, swales). Avoid displacement. Encourage backyard rain gardens, permeable walkways.
Fair Residential	Occupied, moderately maintained home	Occupied	Likely paid	Offer choice: stormwater improvements or voluntary relocation in same neighborhood with value-matched housing.
Poor Residential	Occupied or unoccupied, deteriorated structure	Mixed	Often ambiguous	Assess infrastructure. If unviable, relocate and repurpose for buffer zones or community GI.
Dilapidated / Vacant	Unlivable/abandoned structure or empty lot	Unoccupied	Taxes unpaid / no clear owner	High-priority for daylighting, sponge lots, wetlands. Transfer via land bank.
Assessed Poor / Demo-Slated	Designated by city for demolition or already condemned	Likely Unoccupied	On record	Highest-priority daylighting or blue-green corridor integration. May support stream expansion or public parks.
Industrial Parcels	Warehousing, logistics, or heavy industry. Usually 100% impervious cover and fenced	Active or inactive	Likely active	Encourage stormwater retention retrofits (bioswales, permeable surfaces). If defunct and near creek, consider GI conversion or buffer.
Commercial Lots	Small businesses, storefronts, corner stores	Active or vacant	Likely active	Focus on permeable parking, rainwater capture, or public-private partnerships for GI elements on lots or sidewalks.
Parking Lots	Surface lots with high impervious coverage. Privately or publicly owned	Vacant or active use	Varies	High-impact opportunity for stormwater infiltration, tree planting, or green cover retrofits. May act as GI nodes or stormwater catchment sites.
Commercial Lots	Churches, schools, community centers (many present in Vine City, Bankhead)	Active, mostly occupied	Likely active or nonprofit-held	Partner for community-based GI—e.g., bioswales, rain gardens, community gardens. Can double as educational tools and visibility for GI.

Table 4.1
Flood-Prone Parcel Space Matrix for Green Infrastructure (GI) and Daylighting Interventions
Table by author

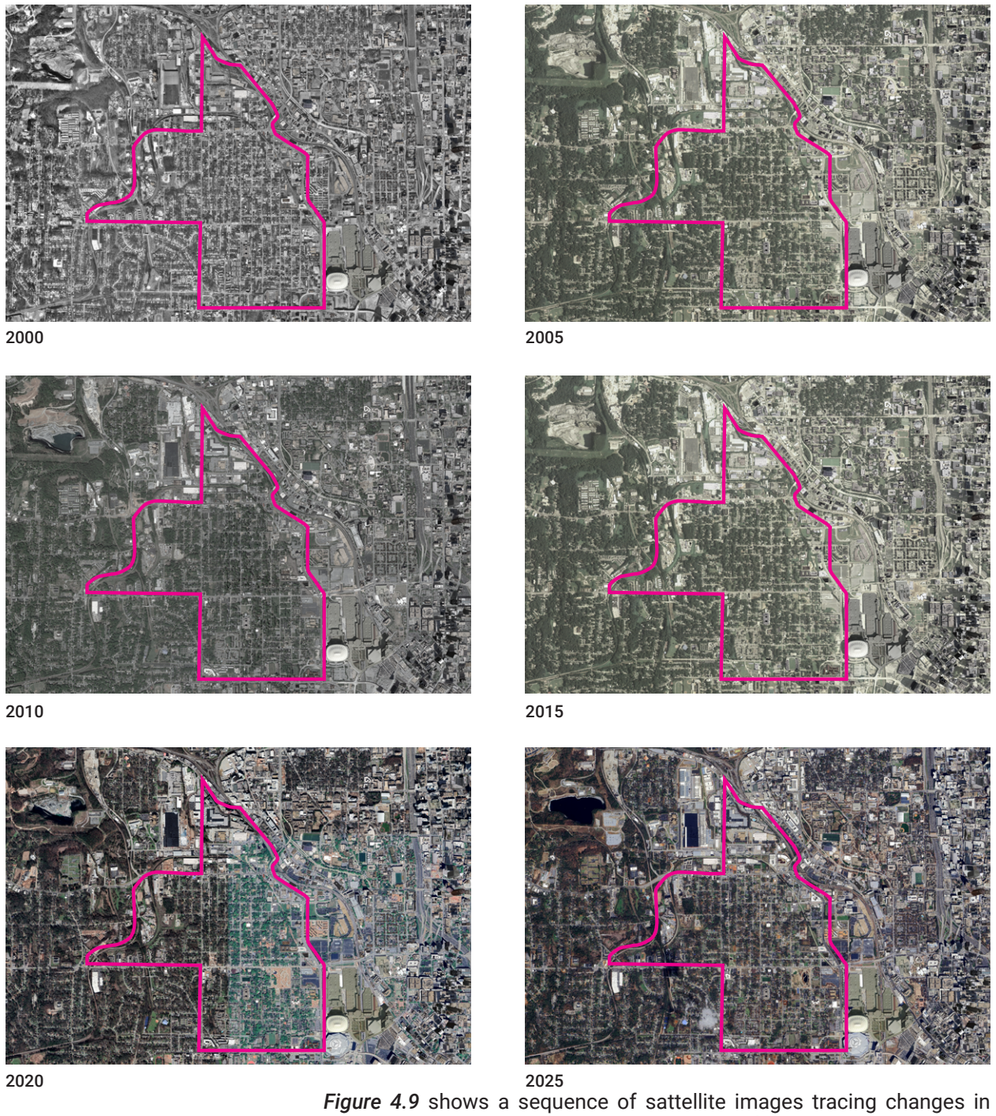


Figure 4.9 shows a sequence of sattellite images tracing changes in the three neighbourhoods within the scope of study, Vine City, English Avenue and Bankhead between 2000 and 2025. Over time, there has been visible shifts in land cover, revealing a gradual infill development, street grid alterations and increased vegetation loss. The expansion of major infrastructure and institutional footprints is also clear, particularly around the southern and eastern edges of the boundary. Despite some vacancy and underutilized land across the Westside.

Figure 4.9
Sattellite Images of the area of study.
Source: Google Earth, Adapted by author

The Blue-Green Infrastructure Strategy Matrix outlines a typology of scalable interventions tailored to the fragmented, flood-prone parcels of the Proctor Creek watershed. Designed to work with a diverse range of site conditions, the matrix pairs types of ecological infrastructure such as bioswales, micro-wetlands, sponge lots, and urban farms with their respective size requirements, parcel configurations, and hydrological or community functions.

Each intervention is calibrated not only for ecological performance but also for spatial and social compatibility. For instance, bioswales are suited to roadside or edge lots with gentle slopes, while micro-wetlands are targeted at slightly depressed parcels with poor drainage. Rain gardens and sponge lots provide stormwater capture on smaller, single-lot sites, while daylighted creek segments and urban farms require multi-lot consolidation. Typologies are matched with appropriate vegetation palettes from riparian species in daylighted corridors to native pollinator plants in community meadows and are graded according to watershed impact, maintenance intensity, and community engagement potential.

This matrix serves as a design decision tool that connects hydrological suitability with socio-spatial sensitivity. It allows for strategic pairing between underutilized parcels and feasible intervention types, emphasizing small-scale, replicable systems that can be distributed across the watershed. Rather than relying on a single solution, the matrix enables a mosaic of interventions that collectively restore ecological function while reinforcing local stewardship and neighborhood identity.

The following multi-part framework presents a structured approach to blue-green infrastructure design tailored to the Proctor Creek watershed. It begins with a Blue-Green Infrastructure Strategy Matrix, categorizing typologies by size, parcel need, lot suitability, and plant palette. A Comparative Guide follows, contrasting bioswales, sponge lots, rain gardens, and micro-wetlands by hydrological function, form, and community integration. Finally, the Fallow Land Strategies Table overlays design typologies onto specific parcel conditions, inspired by Jill Desimini's fallow land logic and USACE precedents. Together, these tools support site-responsive interventions by linking hydrological function, social engagement, and ecological repair across various lot conditions and scales.

Blue - Green Infrastructure Strategy Matrix

Type of Infrastructure	Size Needed	Parcels Needed (avg 16*36 = 576m^2)	Sustability & Lot Type	Requirements / Vegetation / Engagement
Daylighted Creek Segment	L – Min: 50–100m length Width: 8–15m	3–6 connected lots	Flat-to-slope lots on historic buried stream corridor	- Slope ~1% min, hydrologic reconnection possible - Native riparian vegetation: *Salix spp., Carex spp., Juncus effusus* - Trails, Recreational Area - High watershed impact
Bioswale	M – Length: 20–40m Width: 3–5m	1–2 narrow lots (side edge or corner)	Alley lots, roadsides, side-yard parcels	- Gentle slope, 2% - Plants: *Panicum virgatum, Echinacea purpurea, Scirpus spp.* - Low engagement, med-high watershed impact
Sponge Lot	M – 15–25m length 15–20m width	1 lot (576 m²)	Mid-block or corner parcels with poor infiltration	- Flat site, pervious layers, native grasses - Plants: *Andropogon virginicus, Solidago rugosa* - Interpretive signage, possible art - Med watershed, high visual/social impact
Rain Garden	S – 8–12m dia. (circular/depressed)	<1 lot (can share with another use)	Backyard-scale, church/ school yards	- Water catchment from roof/street - Plants: *Rudbeckia hirta, Iris versicolor* - School engagement, low-maintenance stewardship
Micro-Wetland	M-L – 20–40m length 15–20m width	2–3 lots	Slightly sloped lots where ponding occurs	- Shallow basin + clay liner - Plants: *Typha spp., Sagittaria latifolia, Carex lurida* - Habitat education, occasional maintenance - High ecological impact
Urban Meadow / Pollinator Patch	M-L – Flexible size 20–60m length	1–3 lots	Sunny, open parcels not suitable for water detention	- Well-drained soils - Plants: *Asclepias tuberosa, Echinacea pallida, Schizachyrium scoparium* - Stewardship programs (pollinator, youth clubs)
AgLanta Urban Farm	L – 40–80m length 20m+ width	4–6 lots	Consolidated flat parcels with sun exposure	- Raised beds, rain catchment systems - Plants: food crops + rain garden edge - Heavy community engagement, local food economy
Community Apiary + Garden	S-M – 20–30m area + buffer	1–2 lots	Quiet parcels near meadows/parks	- Pollinator garden surround - Plants: *Monarda, Liatris, Lavandula* - High educational/social impact, low hydrological

Table 4.2
Typology Toolkit for Blue-Green Infrastructure
Table by author

Comparative Guide To Small-Scale Blue-Green Infrastructure

Feature / Typology	Bioswale	Sponge Lot	Rain Garden	Micro-Wetland
Primary Function	Convey and filter runoff	Absorb and infiltrate stormwater onsite	Infiltrate small volumes of runoff	Retain and purify stormwater with semi-permanent water
Water Behavior	Flows through the site	Soaks into the ground	Held briefly, then slowly infiltrates	Held for longer, partially standing water
Design Form	Shallow, linear swale with gentle slope	Depressed lot with absorbent layers	Small bowl-shaped depression	Excavated basin with marshy conditions
Designed for	Streetside runoff, alley flow	Vacant land with poor drainage	Roof/gutter runoff, small sites	Sites with low elevation or ponding
Soil Requirement	Well-draining with gravel trench below	Amended/permeable, often sandy or loamy	Amended native soil with compost mix	Low-permeability or clay soil with planting shelves
Vegetation Zone	Dense native grasses, rushes, some shrubs	Mixed meadow plants, sedges, some small trees	Ornamental and native perennials	Wetland plants: sedges, reeds, emergent species
Hydrological Impact	Medium – Filters and slows water	Medium – Stores and infiltrates water	Low-medium – Handles roof/surface runoff	High – Retains, stores, and supports ecological flows
Maintenance	Seasonal mowing, trash removal	Low once established, some reseeding	Minimal, annual pruning and replanting	Higher – periodic dredging, mosquito control
Lot Suitability	Long, narrow, linear edges	Mid-sized lots, especially on flat or sloped land	Small parcels, park edges, backyards	Medium parcels with low points or flow convergence
Example Lot Size	5 × 20 m	20 × 20 m or full 16 × 36 m lot	5–10 m diameter; can fit within 1 lot	15 × 30 m; 2–3 adjacent lots preferable
Community Integration	Often unnoticed unless paired with paths	Can include seating, trails, planting zones	Great near schools, homes, libraries	Excellent for signage, habitat, or education

Table 4.3
Design Logics of Small-Scale Hydrosocial Interventions
Table by author

Fallow land Blue-Green Infrastructure Strategies - Proctor Creek Framework

Strategy	GI Typology	Source Inspiration	Primary Function	Lot/ Parcel Condition	Community / Ecological Impact
Pharmacy Garden	Productive Rain Garden + Healing Lot	Jill Desimini + Community Wellness Gardens	Pollinator and medicinal planting with shallow infiltration	Sunny, small parcel near school or health center	High social, moderate hydrologic
Stormwater Impoundment	Sponge Lot / Bio-retention Basin	Jill Desimini (Sink Lot) + USACE BMPs	Store and infiltrate excess runoff; vegetated edge	1–2 joined parcels, mid-block or corner	Medium to high hydrological impact
Snaking Pond	Linear Biopond/ Constructed Channel	USACE urban creek daylighting precedents	Create meandering flow for slowed water and sediment control	Large, stitched lots along historic flowline	High ecological + spatial impact
Algae Pools	Phyto-remediation Pools	Desimini (Algae Farm Lot) + USACE pilot examples	Treat greywater or stormwater with algae & floating plants	Edge parcels near industrial or highly polluted zones	Medium remediation potential
Rock-Ramp Fishway	In-channel Habitat Reconnection	USACE creek restoration practice	Allow aquatic species passage across grade changes	Only in daylighted creek sites with grade variation	High ecological flow impact
J-Hook Configuration	In-stream Flow Re-direction	USACE natural stream channel design	Control erosion, stabilize creekbanks, deepen thalweg	Embedded within re-exposed creek channel	High stream stability value
Riparian Buffer Strip	Reforestation + Vegetated Corridor	Jill Desimini (Forested Lot) + USACE Riparian BMPs	Stabilize creekbanks, intercept runoff, provide canopy cover	Edge lots parallel to piped/daylighted creek channel	High ecological and heat-mitigation value
Swale Amphitheater	Bioswale + Social Space	Desimini (Common Fire Lot) + GI performance landscapes	Captures runoff in stepped swale while providing gathering space	Sloped or graded parcel near school, park, or church	High community use + moderate stormwater impact

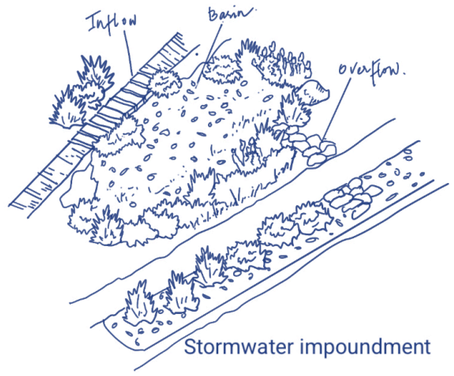
Table 4.4
Fallow Lot Strategies for Hydro-Social Repair
Table by author

Figure 4.10 (on the left) Typologies of Vacant Land Interventions for Ecological and Hydrological Repair
Sketch by author, adapted from Jill Desimini and USACE

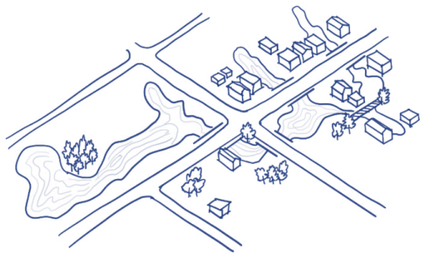
Vacant Land Opportunities



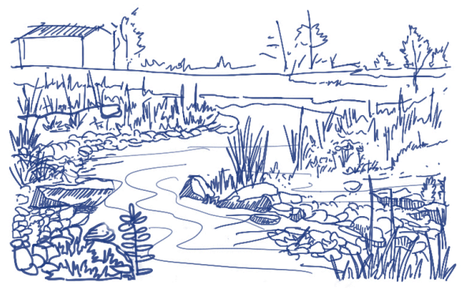
Pharmacy Garden



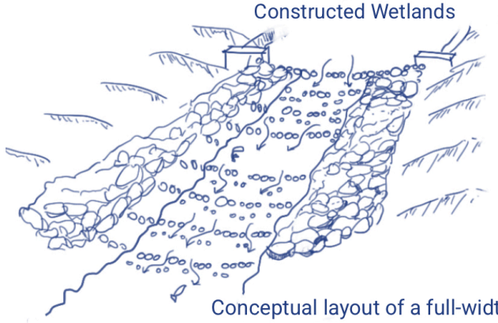
Stormwater impoundment



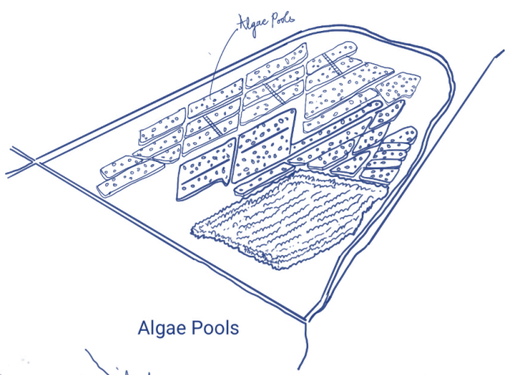
Snaking Pond



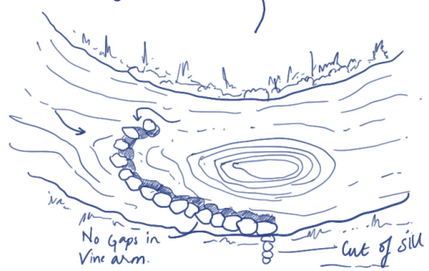
Constructed Wetlands



Conceptual layout of a full-width rock-ramp fishway



Algae Pools



J-Hook Configuration

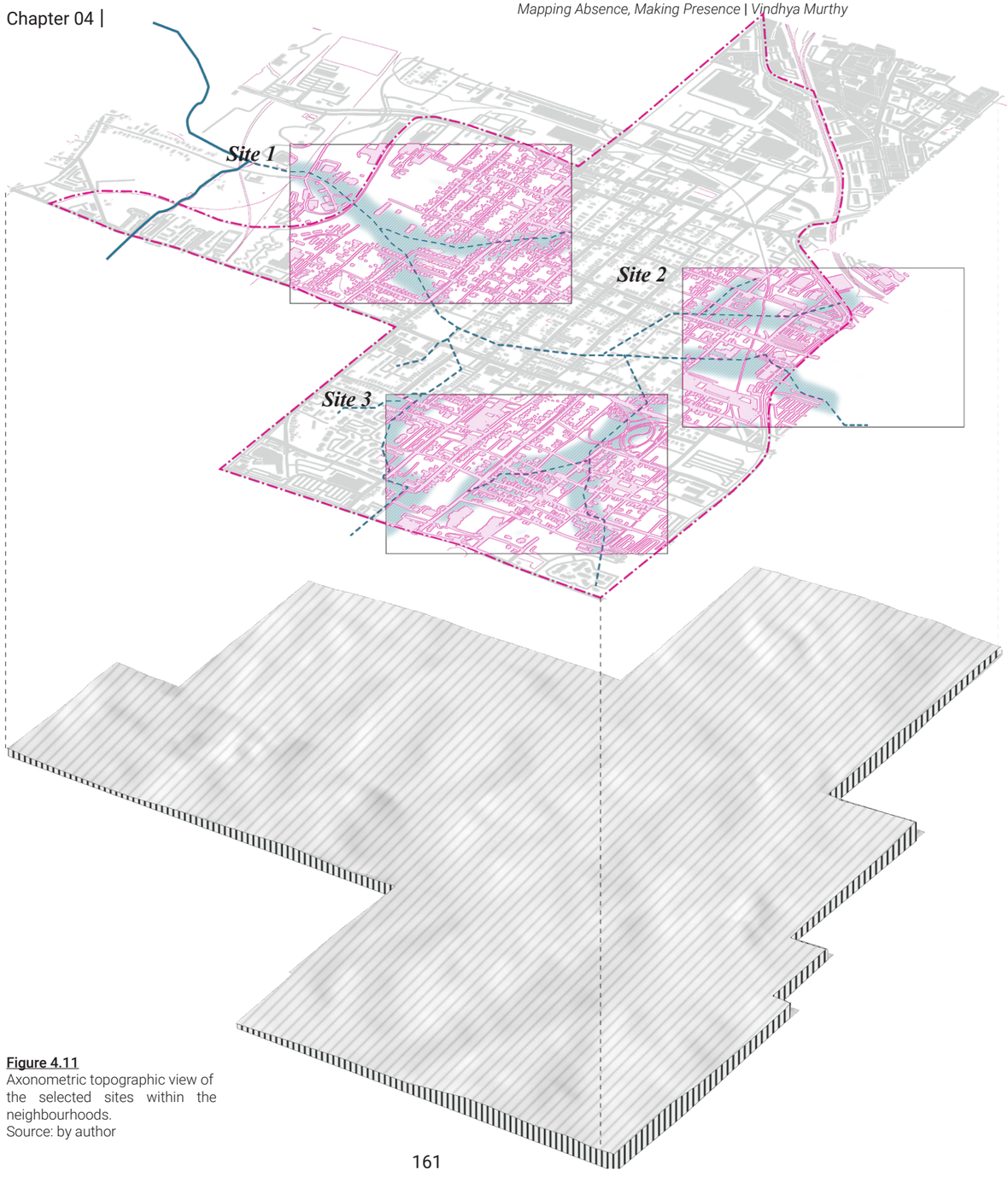


Figure 4.11
Axonometric topographic view of the selected sites within the neighbourhoods.
Source: by author

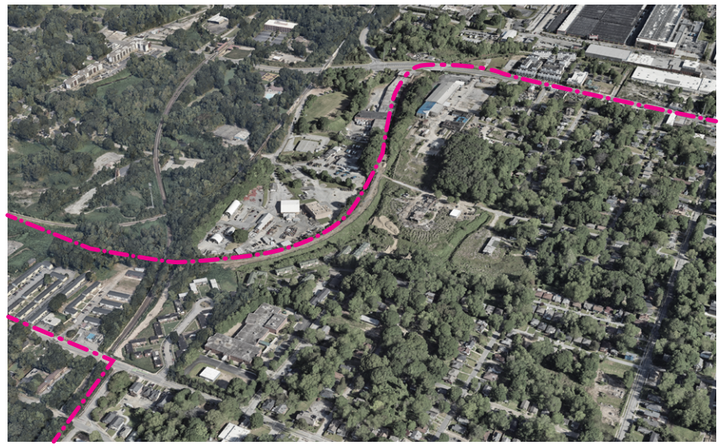


Figure 4.12
Satellite view of Site 1 (Bankhead)
Source: Google Earth,
Adapted by author

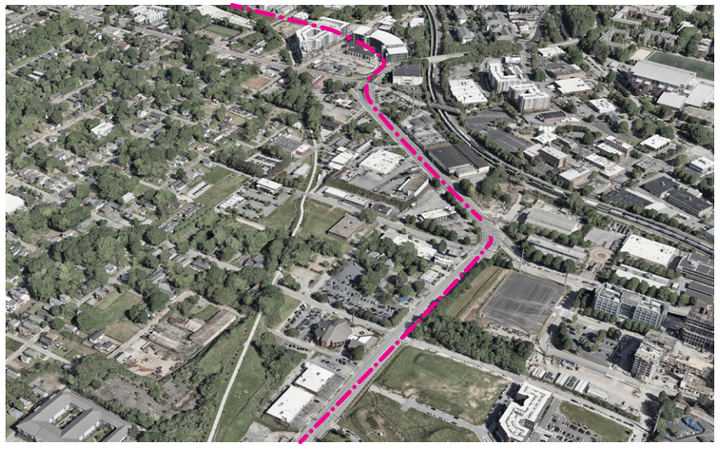


Figure 4.13
Satellite View of Site 2 (English Avenue)
Source: Google Earth,
Adapted by author



Figure 4.14
Satellite view of Site 3 (Vine City)
Source: Google Earth,
Adapted by author

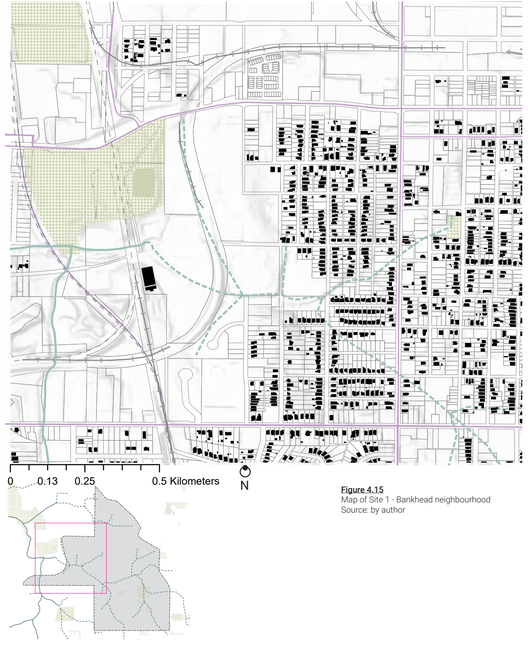


Figure 4.15
Map of Site 1 - Bankhead neighbourhood
Source: by author

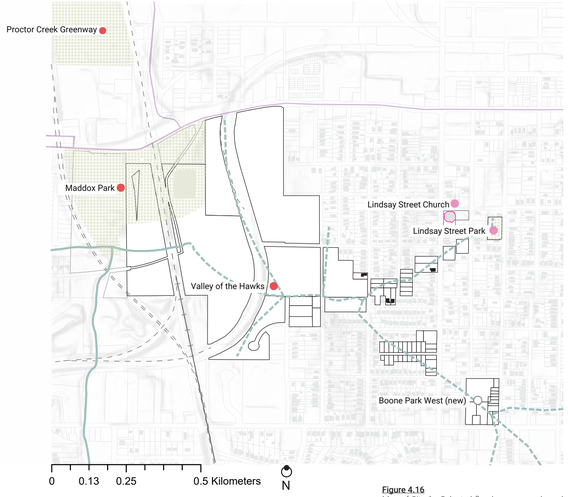


Figure 4.16
Map of Site 1 - Selected flood prone parcels and locating community anchors, exisiting green spaces
Source: by author

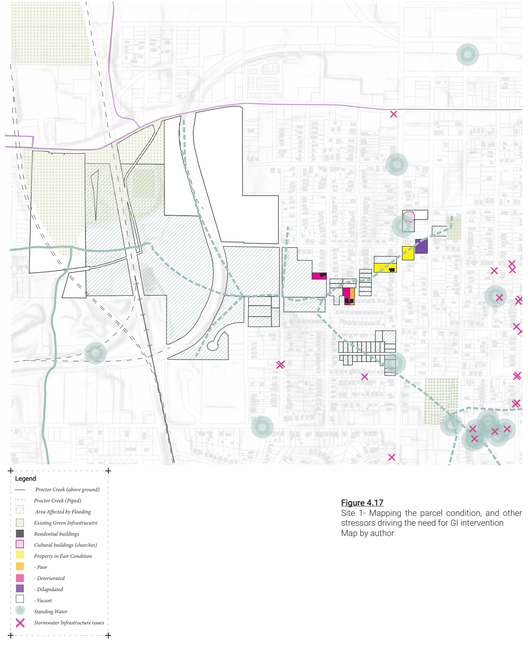


Figure 4.17
Site 1- Mapping the parcel condition, and other stressors driving the need for GI intervention
Map by author

4.5 From Mapping to Making: *Sites of Design Synthesis*

Mapping Sequence: Site Context, Anchors, and Parcel Conditions - Bankhead
From left to right:

Figure 4.15 Site Context – Bankhead Neighborhood This map identifies the selected site in the Bankhead neighborhood, showing residential fabric, existing green spaces, and the buried Proctor Creek, which begins to be piped near Maddox Park at the start of the railway corridor.

Figure 4.16 Existing Anchors and Opportunities Key existing community anchors and ecologically relevant sites are mapped, including Proctor Creek Greenway, Maddox Park, Valley of the Hawks, Lindsay Street Park and Church, Boone Park West, and parcels identified as flood-prone or adjacent to open space.

Figure 4.17 Parcel Condition and GI Design Opportunities This analytical map assesses the condition of individual parcels good, fair, deteriorated, dilapidated or vacant and highlights potential for green infrastructure strategies, informed by the presence of standing water, infrastructural issues, and adjacency to hydrological systems.

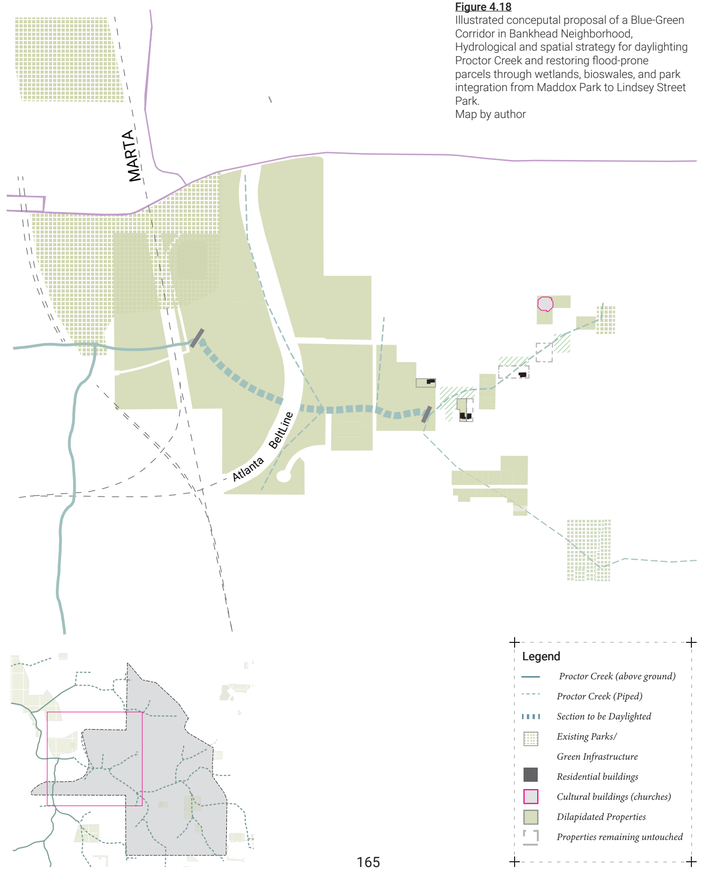


Figure 4.18
Illustrated conceptual proposal of a Blue-Green Corridor in Bankhead Neighborhood, Hydrological and spatial strategy for daylighting Proctor Creek and restoring flood-prone parcels through wetlands, bioswales, and park integration from Maddox Park to Lindsey Street Park.
Map by author

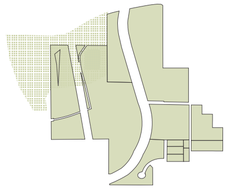
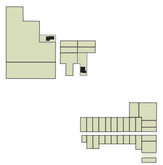
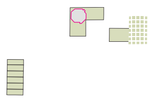
Parcel Selected	Current Land Use/ Condition	Proposed GI Typology	Design Intervention Description	Temporal Framing	Justification
	- Existing Green Space - Maddox park - Valley of Hawks- overgrown, neglected ravine, invasive species and Illegal dumping - Impervious parking lots, - Industrial (Government owned) and residential dilapidated structures, uderutilized vacant edges	Daylighted Creek + Wetland Park Loop Bioswales along the edges Connected ecological corridor	Creek segment exposed, riparian buffer, Valley of Hawks - clearing of invasive species with adjacent micro - wetlands, bioswales, and seating areas Atlanta Westside BeltLine running across	Long- term / Permanent	Anchors a hydrological corridor from Bankhead to English Avenue, transforming impervious land into sponge infrastructure and linking Proctor Greenway, Maddox Park, and Lindsey Street Park into a connected ecological and community spine.
	- Valley of Hawks- overgrown, neglected ravine, invasive species and Illegal dumping along with two dilapidated single family housing units and vacant lots - Vacant residential cluster and standing water present	Daylighted Creek + Micro-Wetland	Creek segment exposed, riparian buffer in larger continuous corridor Multiple vacant residential parcels prone to flooding which can be made into a Micro-Wetland	Long-term / Permanent	Transforms a neglected ravine with dilapidated housing into a continuous daylighted creek corridor with micro-wetlands and riparian buffers, while adapting adjacent flood-prone vacant parcels into decentralized sponge infrastructure balancing long-term ecological repair with distributed, site-responsive interventions.
	- Continuous stretch of residential vacant parcels - Lindsey St. Park with adjacent vancant land, st. Baptist Church	Sponge Lot stitched to Lindsey St. Park + AgLanta Urban Farmland	Vacant land next to park used as sponge lot connected to church with rain garden, turf block parking and AgLanta farming to provide for farmers market	Combination of long-term + Temporary	Reinforces civic gathering spaces while leaving room for future reconfiguration.
	- Couple of residential vacant parcel with Fairly good condition properties	Community Apiary + Gardent or Rain garden potential	Vacant land in close proximity to connected sponge lot corridor and AgLanta urban farm, perfect for Community Apiary, leaving good condition house untouched	Temporary	Leverages nearby GI to create a community apiary and rain garden, enhancing ecology while preserving existing homes.

Table 4.5
Design Strategy Matrix – Site 1: Bankhead Blue-Green Corridor
Table by author



Green Infrastructure Corridor Proposal: Bankhead to English Avenue

The proposal envisions a connected hydrosocial corridor that begins at Maddox Park and the Valley of the Hawks in Bankhead, extending eastward through a sequence of daylighted Proctor Creek segments, micro-wetlands, bioswales, sponge lots, and rain gardens. This network transforms flood-prone, vacant, and dilapidated parcels into decentralized green infrastructure, linking key civic spaces such as Lindsay Street Park, St. Baptist Church, and AgLanta Urban Farm. The intervention stitches together ecological and community assets to form a continuous, site-responsive spine of environmental repair, water management, and civic engagement across historically disinvested neighborhoods.

Figure 4.19 (on the left)
Proposed Blue-Green Corridor in Bankhead Neighborhood
Site map by author

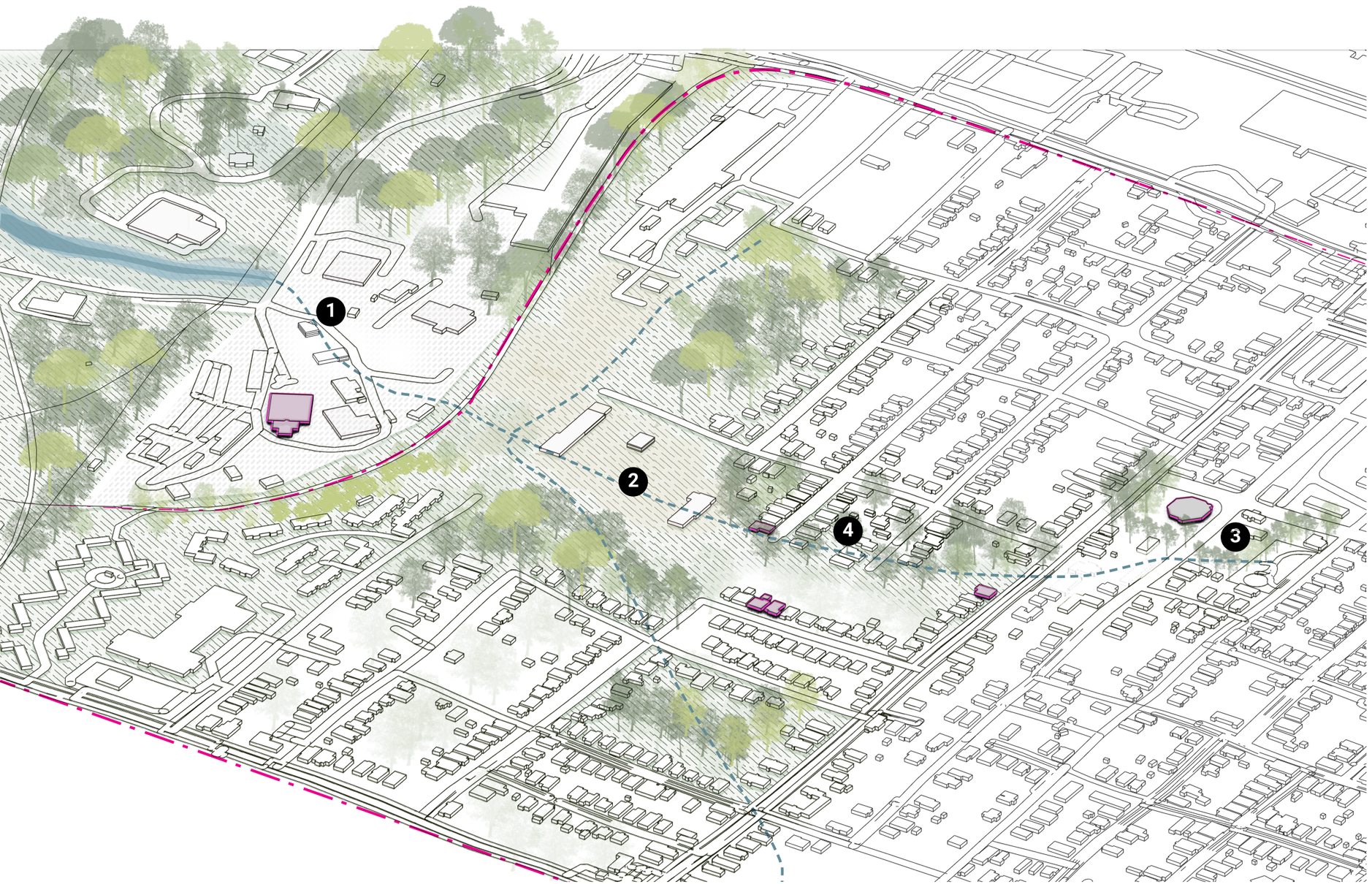


Figure 4.20
Axonometric view of the present Site
1- Banhead location, (1) representing government owned industri al sites, (2) valley of hawks (3) Lindsey St. Park (4) single family homes
Source by author



Figure 4.21
Axonometric view of the proposed Site 1- Banhead location
Source by author

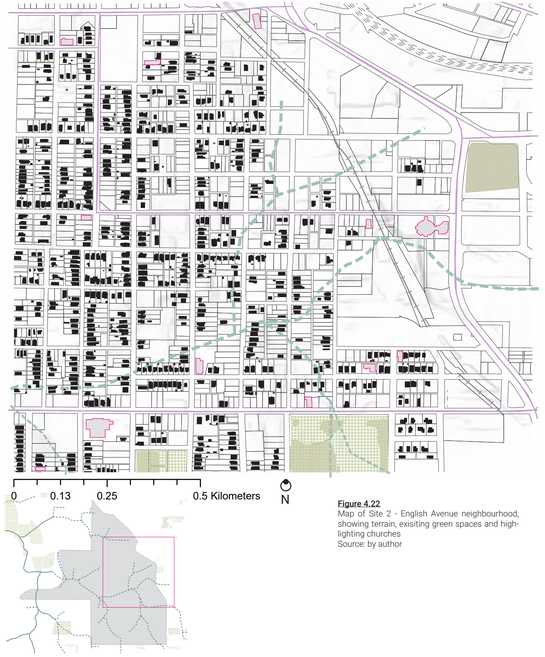


Figure 4.22
Map of Site 2 - English Avenue neighbourhood, showing terrain, exisiting green spaces and high-lighting churches
Source: by author

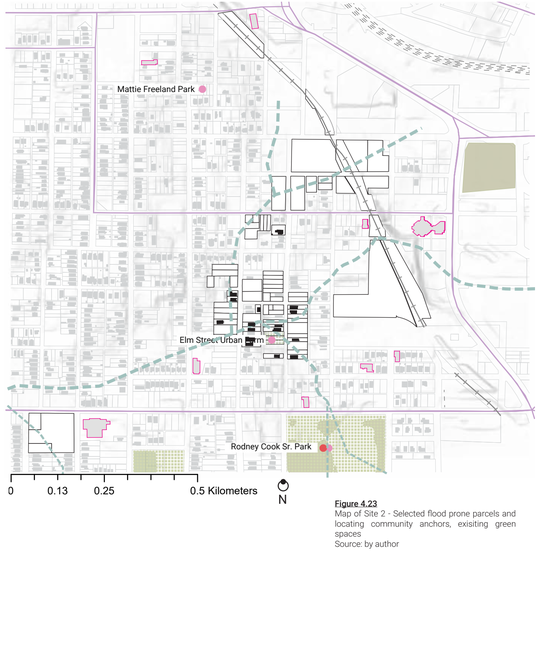


Figure 4.23
Map of Site 2 - Selected flood prone parcels and locating community anchors, exisiting green spaces
Source: by author

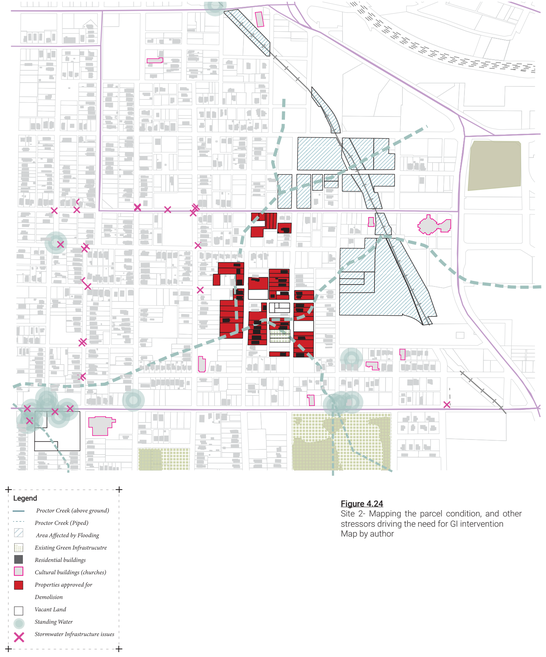


Figure 4.24
Site 2- Mapping the parcel condition, and other stressors driving the need for GI intervention
Map by author

Mapping Sequence: Site Context, Anchors, and Parcel Conditions - English Avenue
From left to right:

Figure 4.22 Site Context – English Avenue Neighborhood
The map highlights the selected site in English Avenue, showing residential blocks, existing green spaces, terrain, and churches, with the piped Proctor Creek running beneath and an abandoned railway corridor crossing through the neighborhood.

Figure 4.23 Key Sites and Vacant Parcels
Selected parcels identify anchors such as Elm Street Urban Farm, Rodney Cook Sr. Park, Antioch Baptist Church, and vacant or underused commercial and industrial parcels, including several dilapidated structures.

Figure 4.24 Demolition and Risk Mapping
This map displays parcels approved for demolition, locations of standing water, and areas facing stormwater infrastructure issues offering a risk-informed basis for targeted green infrastructure interventions



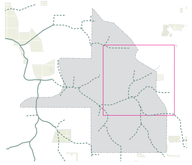


Figure 4.26
Illustrated conceptual proposal of a Blue-Green Corridor in English Avenue Neighborhood, Hydrological and spatial strategy for daylighting Proctor Creek
Map by author



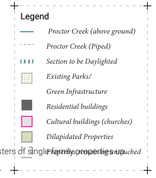
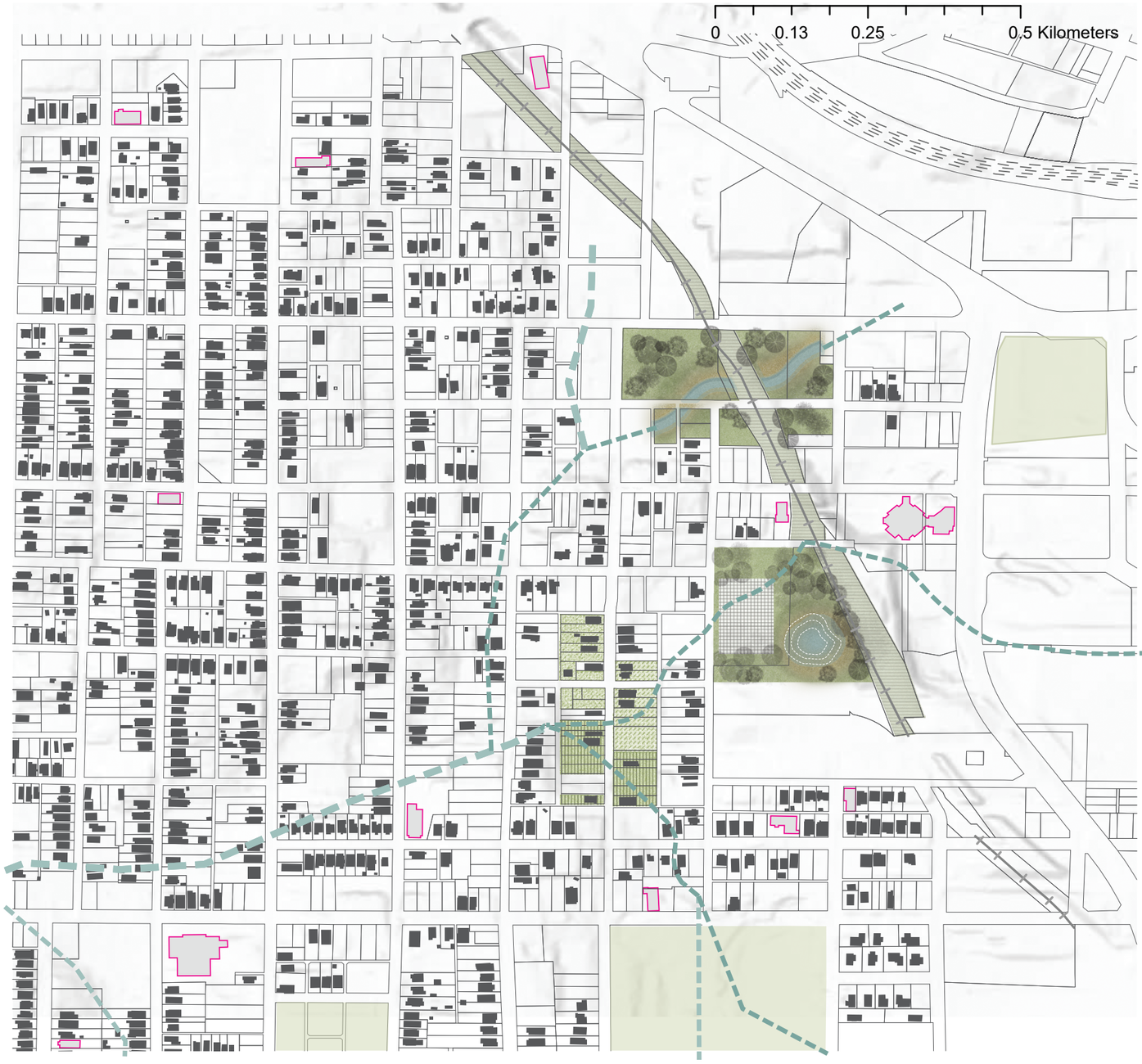


Figure 4.25
Illustrated clusters of single-family properties slated for demolition
Map by author

Parcel Selected	Current Land Use/ Condition	Proposed GI Typology	Design Intervention Description	Temporal Framing	Justification
	- Industrial and commercial vacant edge corridor - Adjacent to abandoned railway line turned into multi-modal track (Atlanta BeltLine Connector - joining Atlanta Westside BeltLine)	Daylighted Creek + Bioswale edges Permeable trail infrastructure	Creek segment exposed, riparian buffer, Permeable trail which manages runoff while enabling connectivity through walkable, flood-resilient surfaces.	Long- term / Permanent	Reclaims industrial edge as a daylighted creek corridor with bioswales and a permeable trail, managing runoff while linking to the BeltLine for flood-resilient, active mobility.
	-Parking lots and dilapidated (abandoned) commercial structures - Adjacent to abandoned railway line turned into multi-modal track (Atlanta BeltLine Connector - joining Atlanta Westside BeltLine)	Turf parking lot + Micro-wetland	Close to Antioch Baptist church and Mattie Freeland Community House, which need parking space, but terrian in low laying area with high potential for a micro-wetland.	Long- term	Converts underused lots into dual-purpose turf parking and micro-wetland, balancing community parking needs with flood management near key civic institutions.
	- Mix of vacant parcels and single-family homes approved for demolition, alongside Elm Street Urban Farm	Combination of Sponge lot - Rain Garden + Pollinator Patch	Implements rain gardens and pollinator patches on vacant and demolition-approved parcels next to Elm Street Urban Farm, enhancing stormwater absorption and ecological support for the farm in a flexible, low-impact manner.	Long-term/ Temporary depending on community needs	Temporarily strengthens existing urban agriculture through layered GI, improving runoff management and biodiversity while allowing for future land-use change.

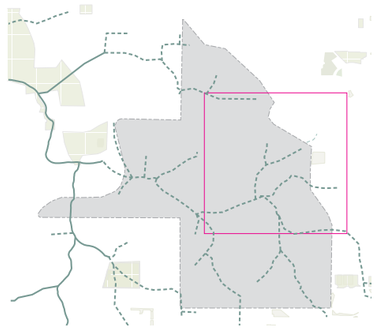
Table 4.6
Design Strategy Matrix – Site 2: English Avenue Blue-Green Corridor
Table by author



Green Infrastructure Corridor Proposal: English Avenue

The design synthesis for Site 2 envisions a layered blue-green corridor connecting community, ecology, and infrastructure along the Atlanta BeltLine Connector. By reactivating underused industrial and commercial edges through daylighted creek segments and bioswale-lined trails, the proposal links flood mitigation with active mobility. Adjacent parcels near civic institutions are reimagined as dual-purpose turf parking and micro-wetlands, addressing both infrastructural vulnerability and community needs. Finally, demolition-approved residential lots around Elm Street Urban Farm support low-impact rain gardens and pollinator patches that reinforce local food systems while remaining adaptable. Together, these interventions form a modular, hydrosocial fabric that balances permanence with flexibility.

Figure 4.27
Proposed Blue-Green Corridor in English Avenue neighborhood
Site map by author



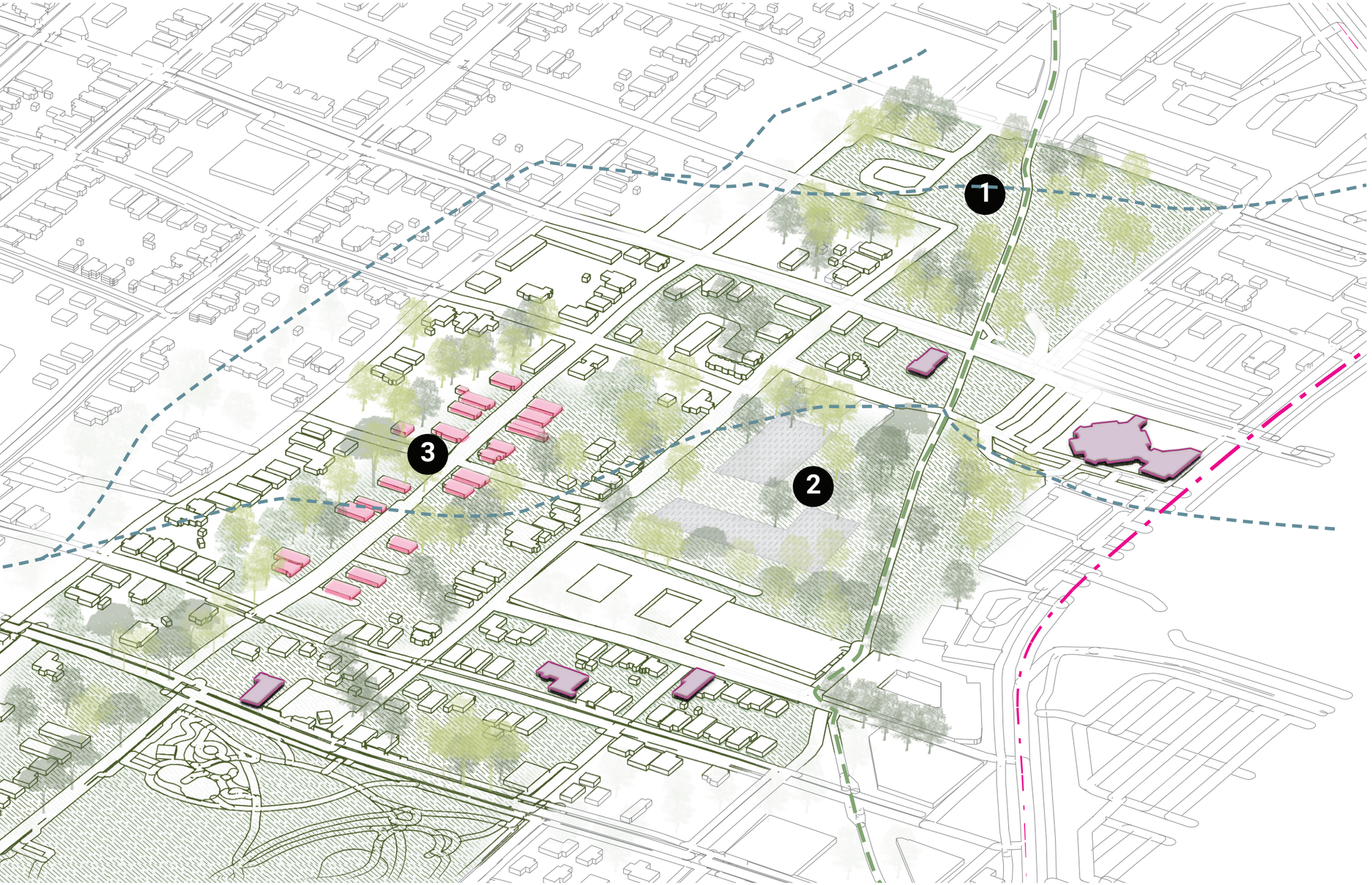
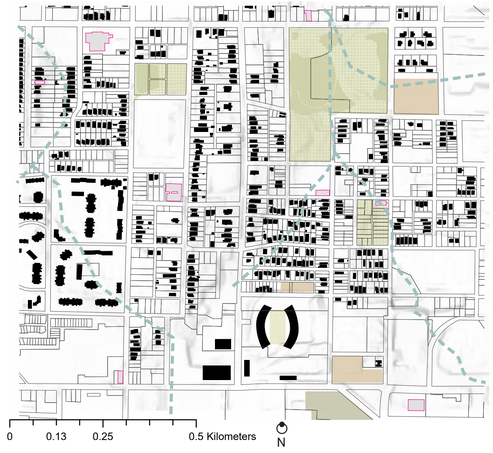


Figure 4.28
Axonometric view of the present Site 2- English Avenue location, (1) representing abandoned industria/ commercial sites (2) Parking and other grey infrastrucutre (3) single family homes slated for demolition
Source by author



Figure 4.29
Axonometric view of the proposed Site 2- English Avenue location
Source by author



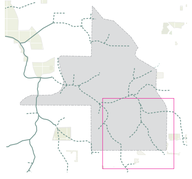


Figure 4.30
Axonometric view of the proposed Site 3- Vine City location
Source by author

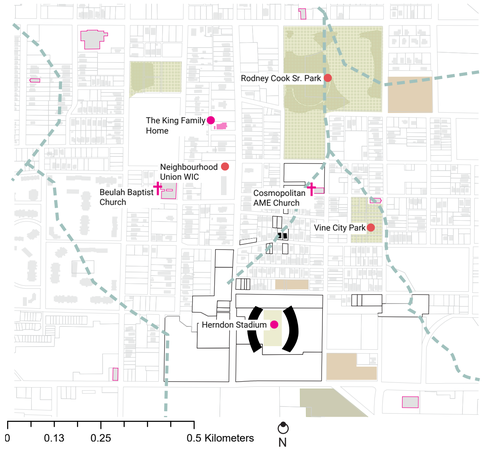


Figure 4.31
Axonometric view of the proposed Site 3- Vine City location
Source by author

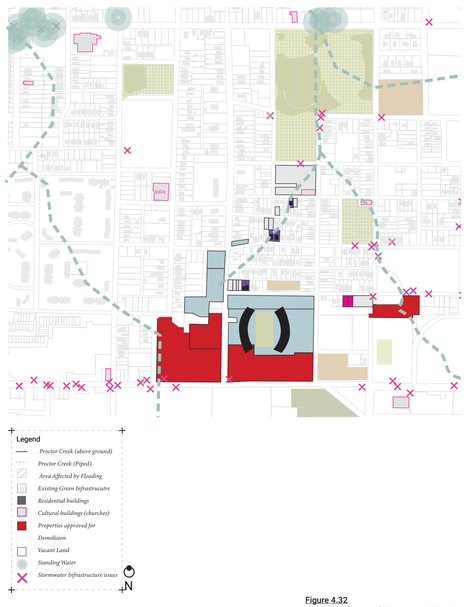


Figure 4.32
Axonometric view of the proposed Site 3- Vine City location
Source by author

Mapping Sequence: Site Context, Anchors, and Parcel Conditions - Vine City
From left to right:

Figure 4.30 Site Context – Vine City Neighborhood
This map presents the selected site in Vine City, highlighting residential fabric, large open spaces, terrain, Proctor Creek's buried path, and major infrastructure such as Herndon Stadium and existing institutional buildings.

Figure 4.31 Key Sites and Vacant Parcels
Selected parcels emphasize community landmarks like The King Family Home, Neighborhood Union Hall, Beulah Baptist Church, Rodney Cook Sr. Park, and Vine City Park, alongside several vacant and underutilized properties.

Figure 4.32 Demolition and Risk Mapping
The final map shows parcels approved for demolition, key stormwater infrastructure issues, and standing water zones, with high-priority parcels identified for potential green infrastructure interventions and ecological reconnection.

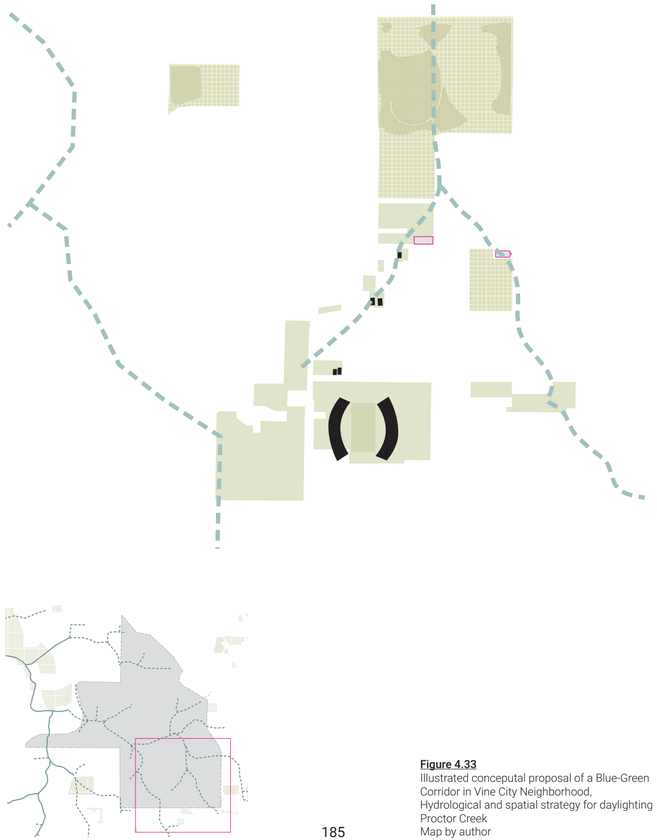


Figure 4.33
Illustrated conceptual proposal of a Blue-Green Corridor in Vine City Neighborhood. Hydrological and spatial strategy for daylighting Proctor Creek
Map by author

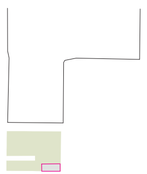
Parcel Selected	Current Land Use/ Condition	Proposed GI Typology	Design Intervention Description	Temporal Framing	Justification
	Abandoned institutional site (Herndon Stadium) with adjacent deteriorated structures and a continuous stretch of vacant, medium-density residential parcels.	Daylighted Creek + Urban forest sponge lots + Terraced Wetland at Stadium Site	Daylighted creek with terraced wetland at plot adjacent to stadium ; parcels become urban forest sponge lots using existing tree canopy.	Long-term anchor with flexible, adaptive residential interventions.	Restores buried hydrology and reclaims vacancy through Desimini's productive fallows, layering GI into existing tree cover for runoff control and future reuse.
	Scattered single-family lots mostly vacant, with two deteriorated homes and a few demolition-approved non-residential parcels within the flood prone area.	Infiltration Groves	Clusters of native trees planted in shallow basins across scattered lots to absorb runoff and create dispersed mini-forests.	Mid- to long-term; low-maintenance and adaptable.	Applies Desimini's productive fallow concept—converting fragmented vacancy into an ecological network that manages stormwater while preserving future land-use flexibility.
	Large vacant parcel near Rodney Cook Park's wetland; adjacent to active civic institutions including a church, park, WIC center, and sports court.	Community Wet Meadow + Shaded Gathering Grove	Extends the adjacent wetland edge into a flexible, shaded meadow space with tree cover, native grasses, informal paths, and space for community events or rest.	Mid- to long-term; adaptable civic-ecological anchor.	Builds on existing investment in constructed wetlands to expand flood resilience and public access, offering a layered green space that supports community life while preserving institutional development potential.

Table 4.7
Design Strategy Matrix – Site 3: Vine City Blue-Green Corridor
Table by author



Green Infrastructure Corridor Proposal: Vine City

The Vine City design strategy proposes a multi-layered ecological framework that reclaims fragmented vacancy through adaptive, community-integrated interventions. Anchored by the Herndon Stadium site, the plan introduces a daylighted creek segment flanked by terraced wetland and sponge lots beneath the existing tree canopy—transforming the site into a forested hydrosocial system. Scattered vacant lots across the floodplain host infiltration groves, forming a dispersed network of stormwater-absorbing mini-forests. Adjacent to Rodney Cook Park, a large parcel evolves into a shaded wet meadow and gathering grove, extending ecological performance while offering flexible public space. Together, these interventions merge Desimini's productive fallow logic with civic resiliency, emphasizing low-maintenance, socially embedded green infrastructure that accommodates future shifts in land use and community need.

Figure 4.34
Proposed Blue-Green Corridor in Vine city neighborhood
Site map by author

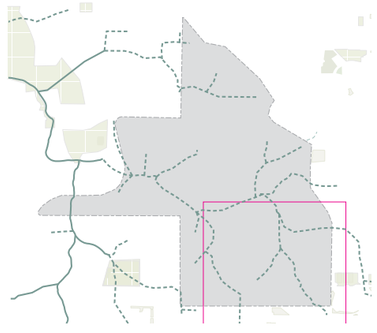




Figure 4.35
Axonometric view of the present Site 3- English Avenue location, (1) Deteriorated and slated for demolision - Herndron Stadium(2)Vacant parcels / dilapidated imfrastructue (3) Rodney Sr. Cook park
Source by author

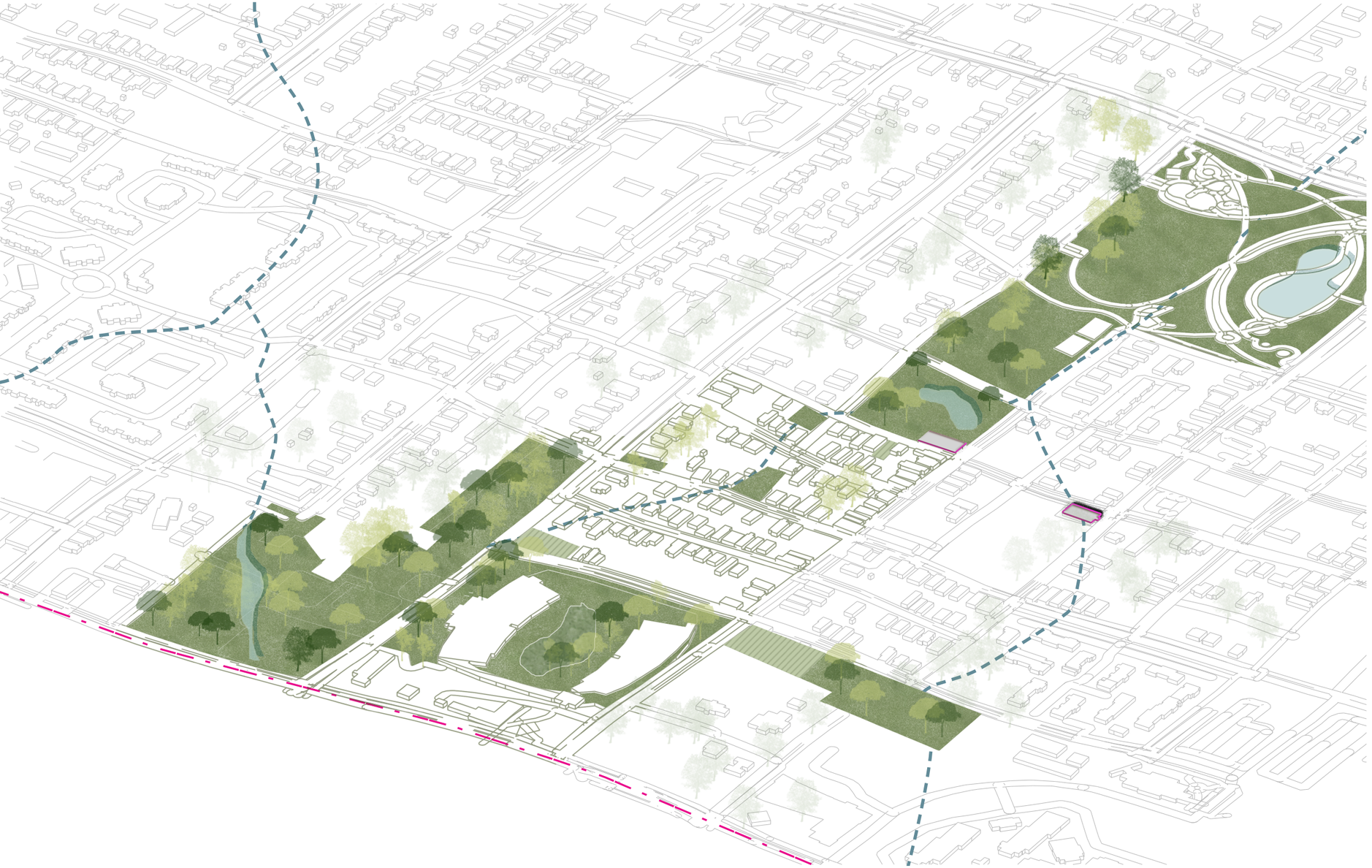


Figure 4.36
Axonometric view of the proposed Site 3- English Avenue location, (1) Deteriorated and slated for demolision - Herndron Stadium(2)Vacant parcels / dilapidated imfrastructue (3) Rodney Sr. Cook park
Source by author





Figure 4.37
Toward a hydrosocial future illustration
Source by author

4.6 Toward a Hydrosocial Future

This thesis proposes a decentralized, hydrosocial design framework that reimagines vacant, flood-prone, and underutilized parcels in Atlanta's Westside as key sites for layered ecological repair. By integrating stream daylighting, sponge lots, bioswales, and micro-wetlands into a distributed network, the design resists the conventional logic of large-scale, aesthetic-driven green infrastructure in favor of flexible, place-based interventions rooted in community need and watershed logic. Through a multi-scalar approach mapping flood risk, parcel condition, community reports, and existing green infrastructure each intervention is carefully calibrated to both environmental urgency and social reality.

The three proposed sites in Bankhead, English Avenue, and Vine City demonstrate how design can weave together fragmented land, buried water systems, and neglected civic spaces into inclusive corridors of ecological function and community identity. Rather than pursuing full creek restoration, the strategy works incrementally, reclaiming moments of absence through context-sensitive interventions. Drawing from Desimini's productive fallows and France's watershed design principles, the framework positions design not as a fixed solution but as a dynamic tool for resilience, reparation, and presence. It offers a replicable model for climate-adaptive infrastructure that honors lived experience while restoring the lost relationship between water, land, and people.

Conclusion

This chapter revisits the design approach developed throughout the thesis, drawing together its spatial, ecological, and social dimensions to reflect on how restoration can function as a reparative act. Building on the watershed-based analysis, site selection criteria, and precedent-informed typologies discussed in earlier sections, it consolidates a set of interventions already proposed daylighted creek segments, sponge lots, symbolic water traces situated within the lived geographies of Vine City, English Avenue, and Bankhead. Rather than advancing a singular, fixed strategy, the chapter underscores the importance of incremental, place-specific actions that respond to existing conditions, community priorities, and long-standing histories of neglect. The aim is not to overwrite what exists, but to suggest how water, memory, and land might be interwoven into a more just and resilient civic landscape.

Rather than aiming to erase what is deteriorated or dilapidated, this proposal embraces the complexity of existing conditions. It argues for reinvestment, not removal but for keeping memory, structure, and land in place where possible, and reweaving these elements into a renewed civic and ecological system. The design approach resists tabula rasa thinking, instead layering green infrastructure, public space, and symbolic water gestures over a terrain already marked by history, vacancy, and informal use. This chapter moves beyond critique to offer an applied spatial vision, one that is deeply informed by local precedent, ecological urgency, and a refusal to repeat the mistakes of prior top-down plans that displaced more than they repaired.

The design proposal begins at the watershed scale, identifying where the buried branches of Proctor Creek intersect with vacant or public land, flood-prone parcels, and institutional anchors. These alignments are not seen as constraints, but as opportunities to surface new relationships between water, land, and life. A drawing overlays buried stream alignments, land condition, and parcel ownership to locate nodes for potential intervention including areas of feasible daylighting, sponge lot opportunity, civic anchor connection, and symbolic stream expression. What emerges is not a singular linear corridor, but a patchwork of hydrosocial spaces, embedded within the everyday patterns of the Westside.

Strategic lessons drawn from the Proctor North Avenue Vision Plan and Westside TAD studies directly inform this shift. Previous efforts often failed due to overambitious scope, fragmented leadership, and the lack of parcel-level implementation mechanisms. This design framework instead works with what is available prioritizing incremental implementation on publicly owned land or parcels under Land Bank control, while establishing partnerships that allow community groups to co-develop and co-steward these interventions.

This proposal does not offer a comprehensive solution to the deep structural challenges facing the Westside. It does not fully resolve the complexities of parcel acquisition, nor does it pretend to solve the entrenched political tensions, uneven development histories, and institutional fragmentation that have constrained previous plans. While the design framework offers clear, grounded, and actionable strategies, a series of important gaps remain — not only in implementation logistics, but also in the ethical and political frameworks through which this work must be interpreted and advanced.

Perhaps the most immediate and unresolved challenge lies in the question of land: how to reclaim, repurpose, and reinvest in land in a way that benefits existing residents without displacing them, and that affirms local histories instead of overwriting them. Many of the vacant or deteriorated parcels identified through condition mapping remain in private hands or are entangled in legal, bureaucratic, or speculative limbo. Even where the Fulton County/City of Atlanta Land Bank Authority offers pathways to acquisition, the processes are slow, opaque, and difficult for community organizations to access without legal and administrative support.

This raises fundamental questions: How can land be transitioned into collective or civic ownership in a system designed to reward private accumulation? How can trust be built in neighborhoods historically targeted by predatory development and broken promises? Can tools like community land trusts, neighborhood conservancies, or limited-equity cooperatives provide an anti-displacement mechanism while also enabling long-term stewardship? And how can these models avoid becoming technocratic solutions, detached from the very communities they are meant to empower?

Closely tied to land is the issue of governance and coordination. The PNA Vision Plan calls for the unification of neighborhood voices into a singular, representative entity one that can negotiate with city agencies, attract investment, and steer long-term implementation. But this goal raises its own tensions. How do we form a "single voice" in communities with legitimate differences in priorities, histories, and relationships to power? How do we center consensus-building without erasing internal disagreement or marginalizing those not already at the table? Who gets to speak, and who is expected to listen?

This question of voice and leadership is especially pressing given the historical adversarial relationships between neighborhoods and institutions including local government, developers, and planning bodies. Many Westside residents have witnessed decades of planning efforts that promised inclusion but delivered exclusion. As such, how do external actors including designers, funders, and academic collaborators avoid re-inscribing these patterns? What does meaningful co-design look like beyond workshops and stakeholder meetings? How can continuity be ensured in a city where political agendas and funding priorities shift every few years?

The problem of funding also looms large. While agencies like the Atlanta Department of Watershed Management, Park Pride, and Invest Atlanta offer potential support for green infrastructure, their priorities often align with large-scale, highly visible, capital-intensive projects. Yet the interventions proposed in this thesis daylighted creek sections, sponge lots, civic green spaces are intentionally small, distributed, and grounded in community needs. How can these proposals compete for resources in a funding landscape that still values spectacle, quantification, and market return? What metrics must be developed to measure not just ecological function, but social value, memory, and presence?

There are also maintenance questions: Who will care for these spaces once built? If sponge lots are adopted by neighborhood groups, what support systems legal, financial, infrastructural — are needed to ensure their success? How do we ensure that "community stewardship" does not become a euphemism for underfunded, under-resourced responsibility passed onto those already stretched thin? Can cities co-author maintenance plans that pay community members for care work treating maintenance as labor, not as volunteerism?

Ecologically, the hydrological and soil conditions of the proposed sites must be studied in greater detail. While this thesis outlines intervention types appropriate for flood-prone and vacant land, more technical work is needed to model water flow, infiltration rates, pollution loads, and soil toxicity across each location. Without this information, interventions risk being symbolically rich but functionally limited. How can technical expertise be embedded into the design process without sidelining community knowledge or values?

Culturally, this work must also confront the invisibility of water as a historical and spiritual element in many Black communities , buried not only in infrastructure, but in memory. Restoring the creek is not simply about digging it up; it is about making space for stories, rituals, and relationships that were severed or never allowed to form. How do you design for memory when the records are partial, contested, or erased? How can interventions create room for grief, pride, and storytelling without aestheticizing trauma?

Finally, a broader philosophical question remains: Can a hydrological system help reassemble a fractured civic one? Can creeks become catalysts for reimagining public life in communities where public trust has been deeply eroded? Can water offer a vocabulary for relationality and reciprocity in a city shaped by extraction and abandonment?

These questions are not rhetorical, nor are they fully answerable within the scope of this thesis. They are, instead, the beginning of a longer inquiry one that extends beyond design and into politics, governance, ethics, and everyday life. What this thesis hopes to offer is not a conclusion, but an orientation: one that holds space for uncertainty, for collaboration, and for the slow, collective work of making water and justice present again.

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