

Making it Rain: Maximizing Stormwater Benefits to your Community



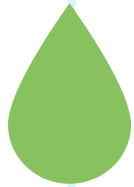
19th Annual SESWA Regional Stormwater Seminar
April 19, 2024



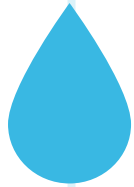
Where are the stormwater
funding dollars coming from?



Funding: it's not just for
water quality anymore!



It's all about the benefits!



Let's talk project specifics

Presentation Highlights

Traditional Programs Mitigation Programs Niche Programs Programs to watch

FEMA
BRIC

USDA –
Emergency
Watershed
Protection

FEMA
HMGP

CWSRF

National Fish
& Wildlife
Foundation

Golden
LEAF

NCDEQ-
DWI LASII

SCOR –
ASIP

Corps Water
Infrastructure
Financing
Program

TDEC
ARPA

Local
ARPA

NC Emergency
Management
Division

EPA Section
319 Grant

A map of Tennessee is shown in dark gray against a light gray background of surrounding states. Numerous green circular markers with white dollar signs (\$) are scattered across the state, representing various locations. A green line with a right-angle bend points from a marker in the northwest to a green rectangular callout box. The callout box contains the text "Sweetwater, TN".

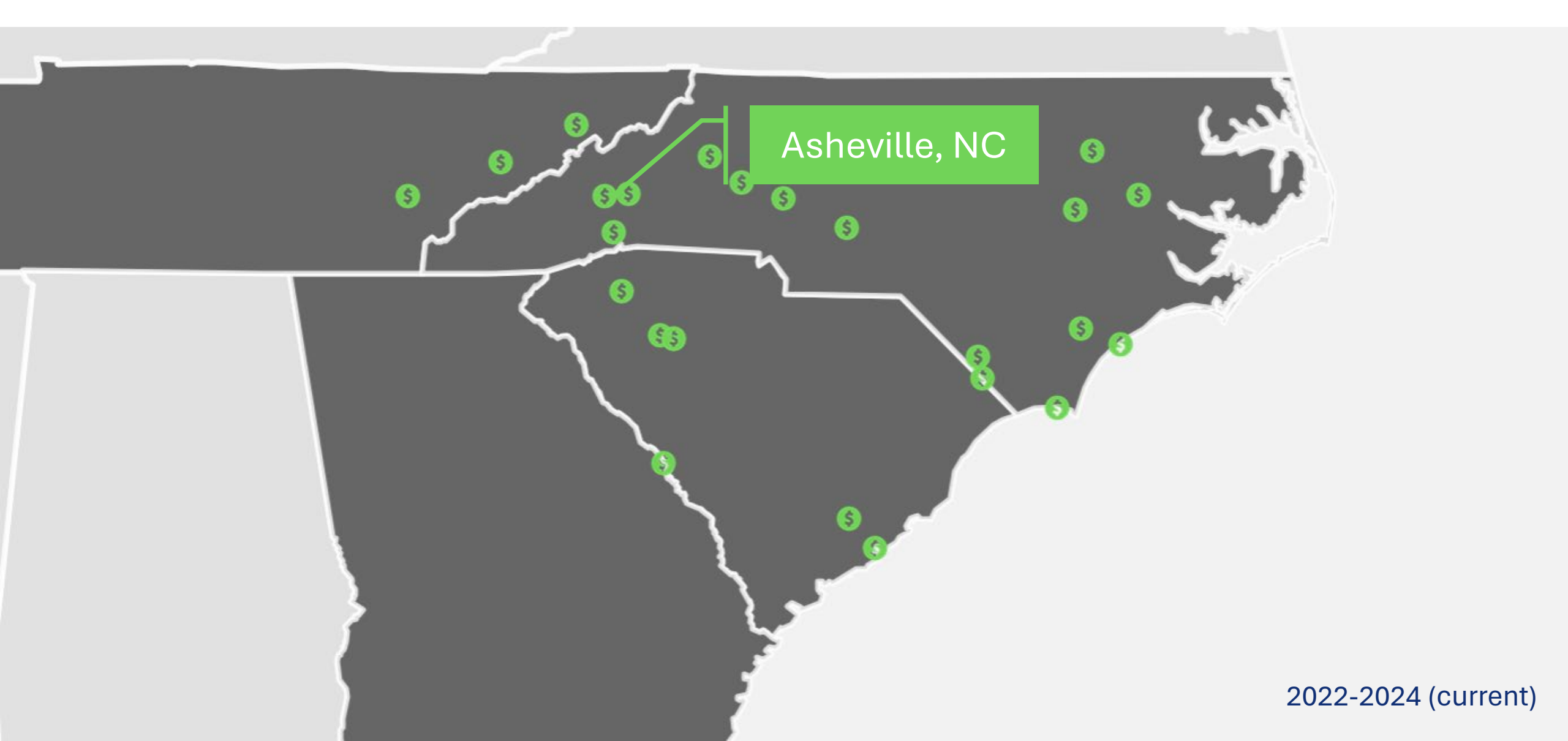
Sweetwater, TN

2022-2024 (current)

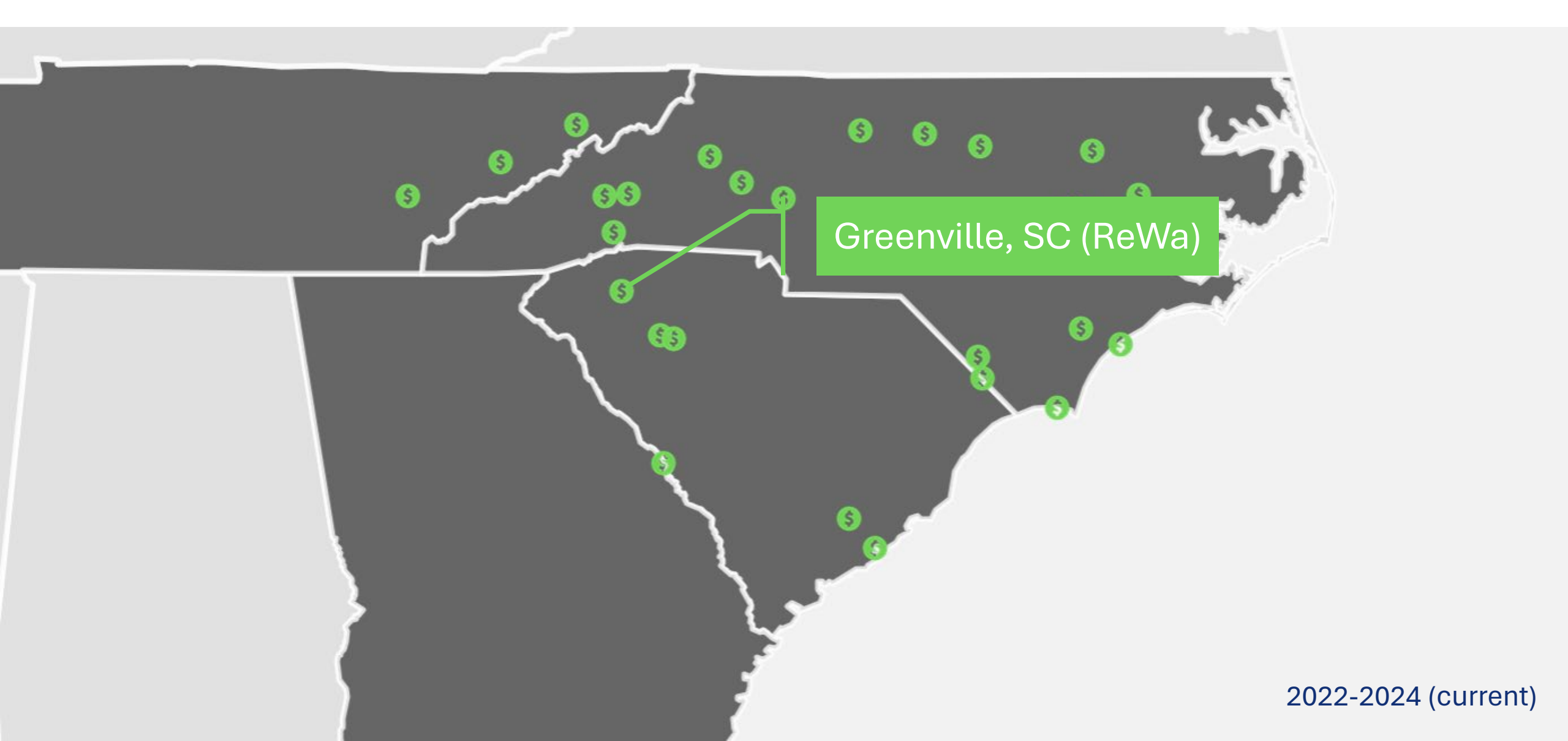
A map of Tennessee is shown in dark gray against a light gray background. The state's outline is white. Numerous green circular markers, each containing a white dollar sign (\$), are scattered across the state. A green line with a right-angle bend points from a green box labeled "Sevierville, TN" to a specific green dollar sign marker in the northern part of the state.

Sevierville, TN

2022-2024 (current)

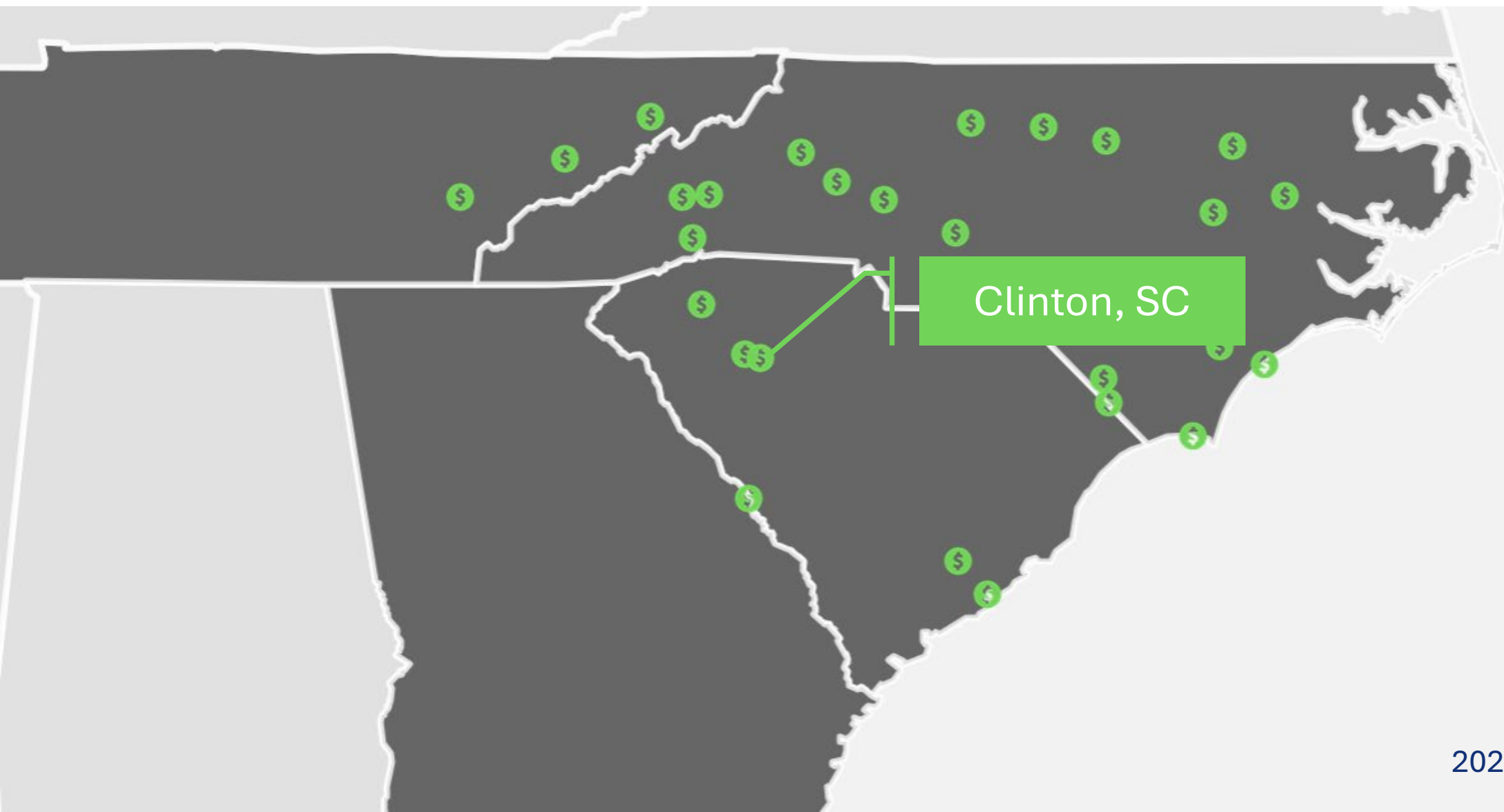


2022-2024 (current)

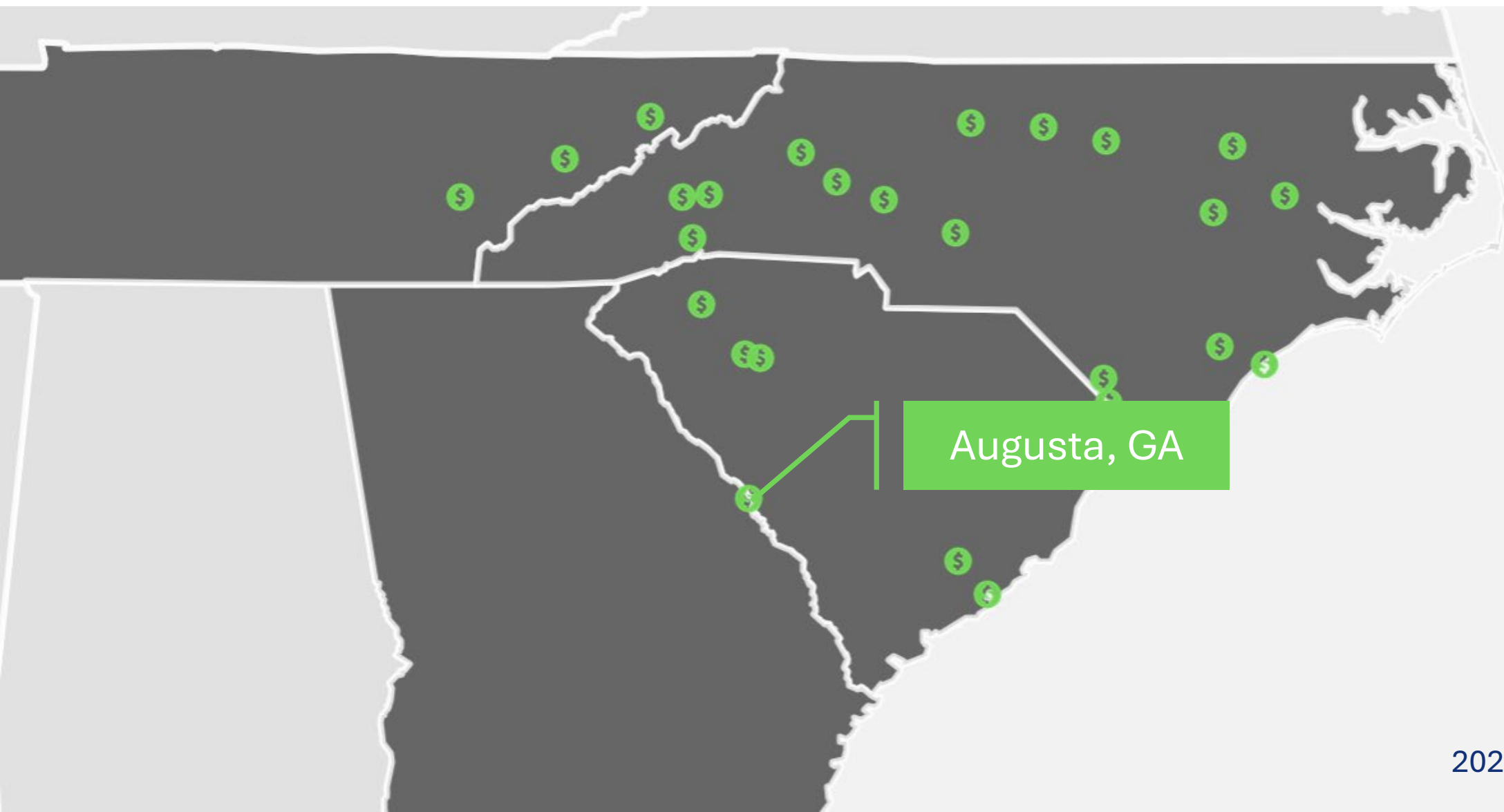


Greenville, SC (ReWa)

2022-2024 (current)



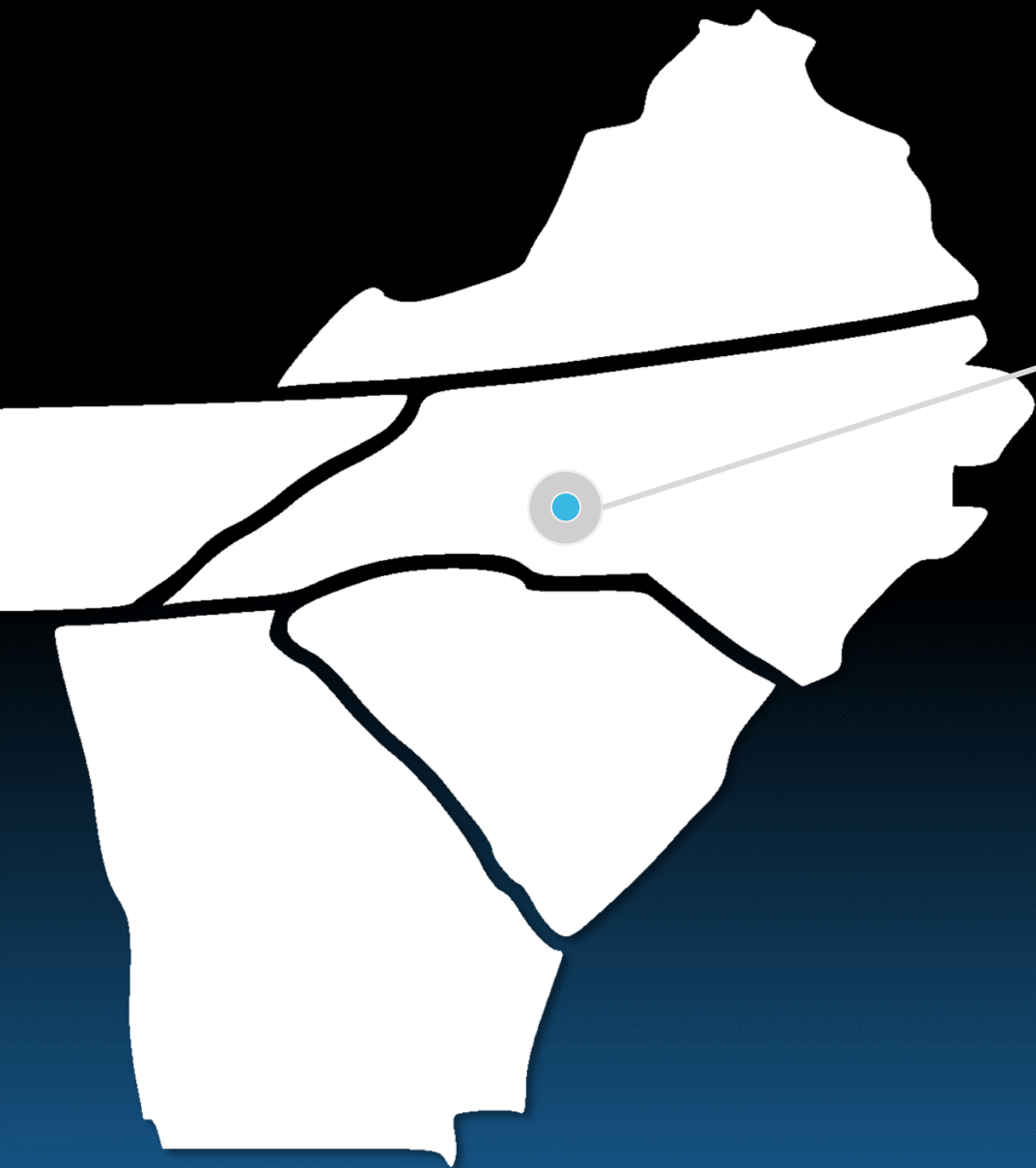
2022-2024 (current)



2022-2024 (current)

Multi-Layer Benefits





Mooreville, NC

Center Avenue

Stormwater Improvements









Flood
Reduction



Funding



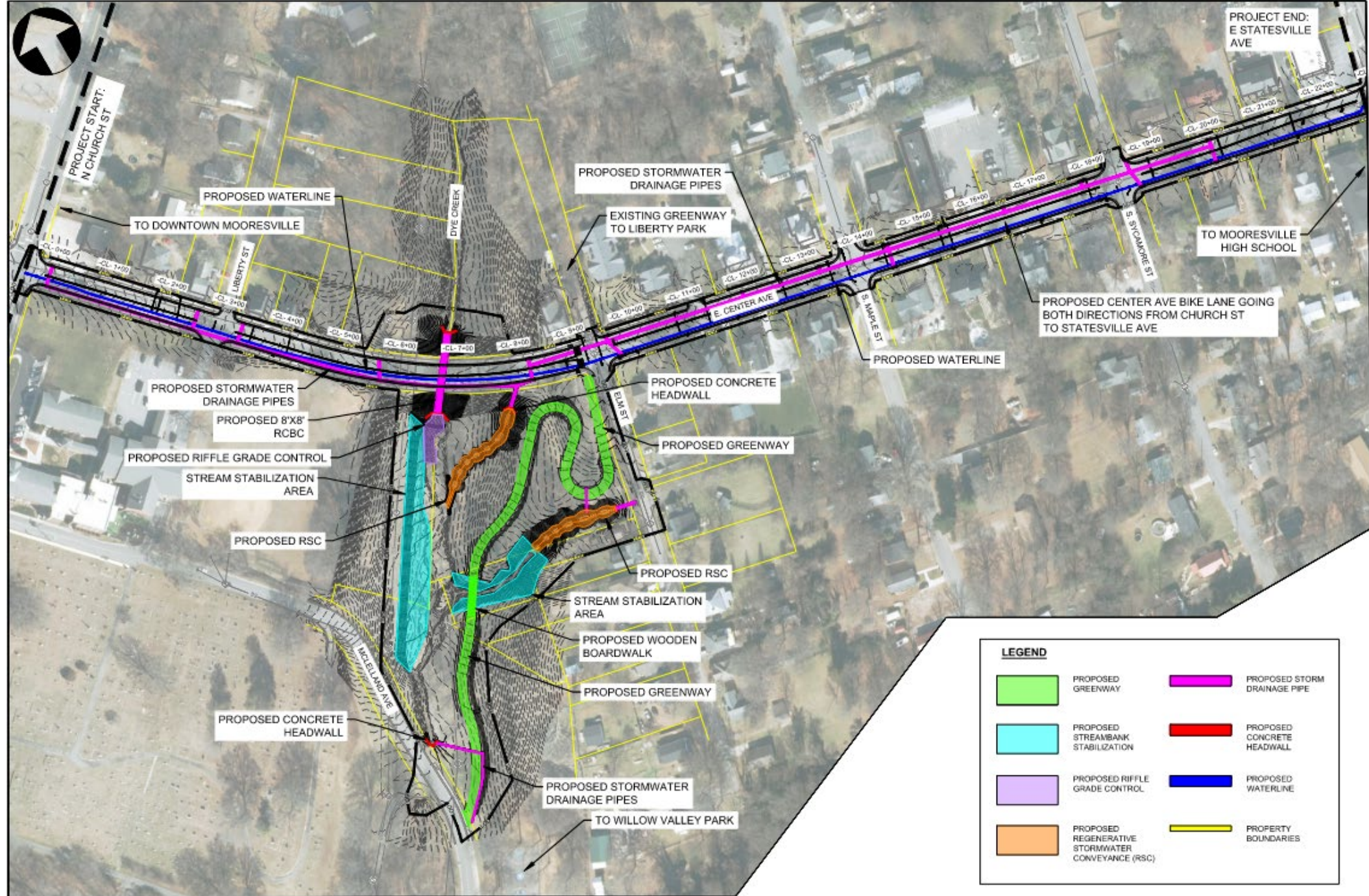
Community
Connectivity



Environmental
Education



Green
Infrastructure







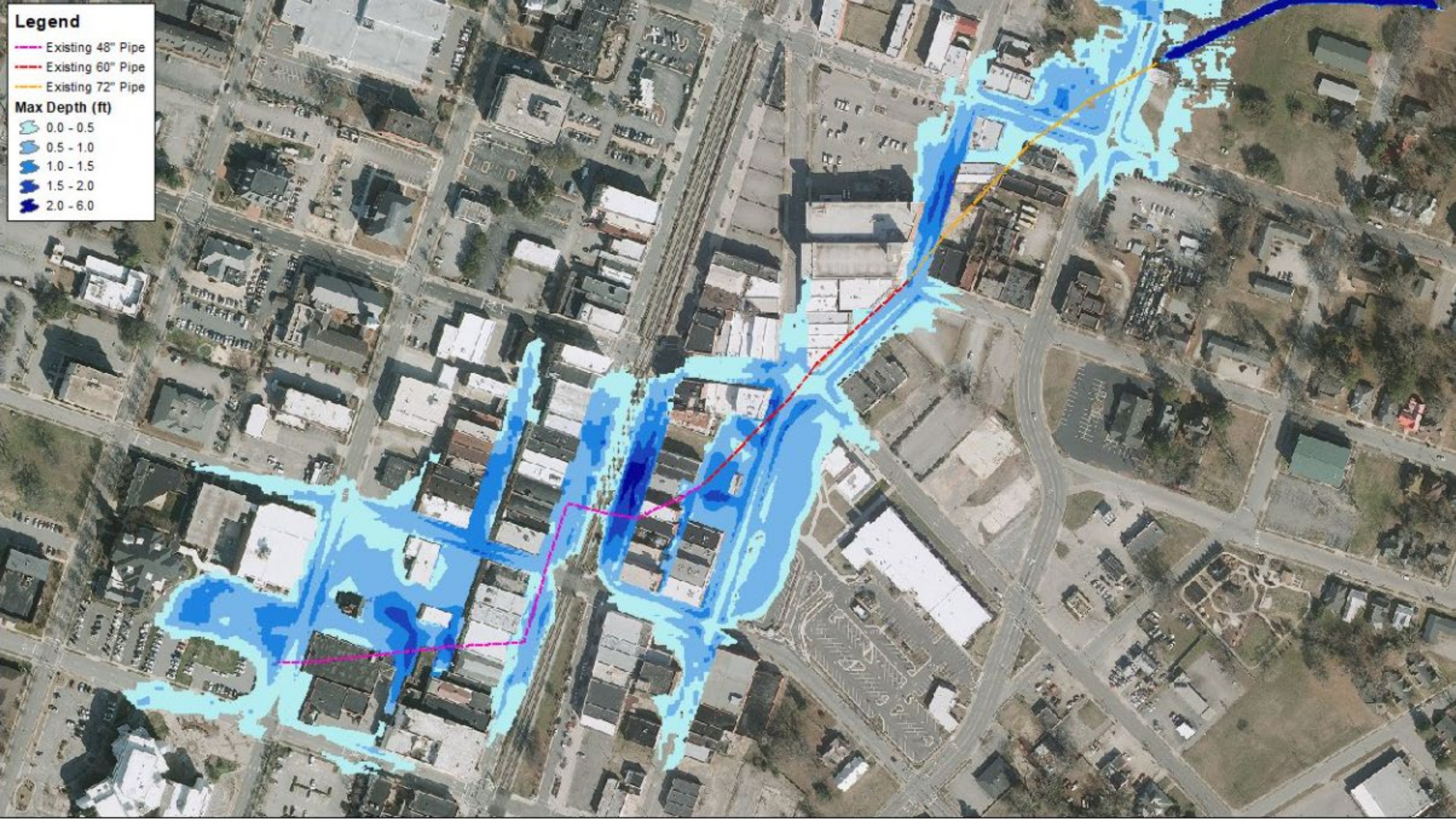


Rocky Mount, NC

Downtown Drainage









Legend

- Proposed Stormwater Improvements
- Future Parking Lot Improvements
- Parcels
- Existing 48" Pipe
- Existing 60" Pipe
- Existing 72" Pipe
- Main Thoroughfares



Water - Aging water distribution networks close to existing drainage infrastructure could lead to extended outages and costly repairs if failures occur.



Law Enforcement/Fire Services - Roadway flooding Downtown introduces barriers to Public safety services using the main travel thoroughfares.

Government Services - The main Government building for Rocky Mount is located within feet of the existing drainage system and flooding. Existing drainage infrastructure is located under buildings throughout the project area. This reduces access and increases maintenance costs for City crews.



Hazardous Materials - Rail lines carry hazardous materials through Downtown on a regular basis. Drainage infrastructure failure could lead to rail failure and service interruption.



Infrastructure - The existing drainage system goes directly under a major communications building. The building and associated telecom duct banks will be impacted with further drainage infrastructure failures in the area.



Patient Movement - Thomas Street is a main route to the Hospital and currently floods as a result of undersized drainage infrastructure.

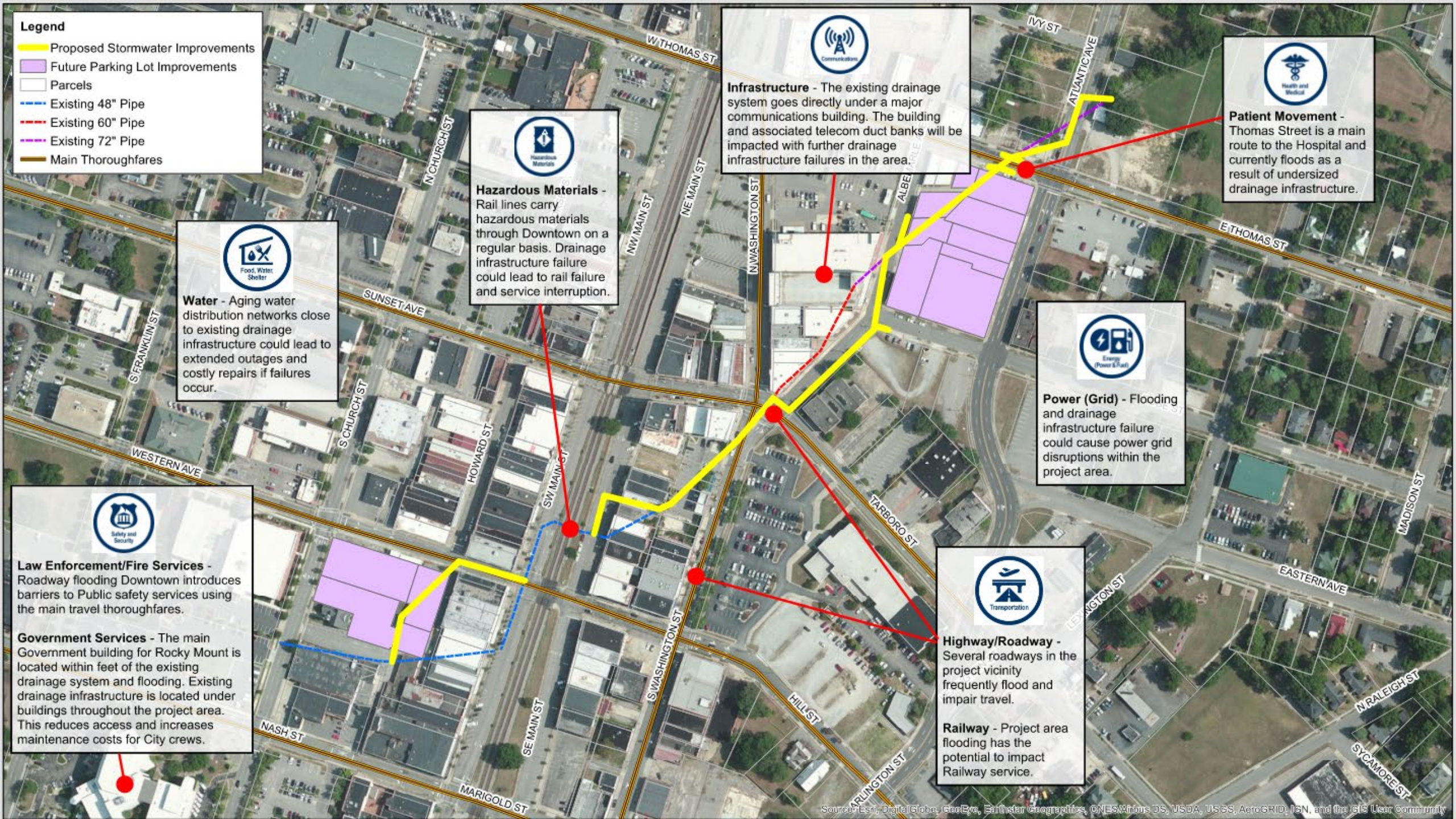


Power (Grid) - Flooding and drainage infrastructure failure could cause power grid disruptions within the project area.



Highway/Roadway - Several roadways in the project vicinity frequently flood and impair travel.

Railway - Project area flooding has the potential to impact Railway service.

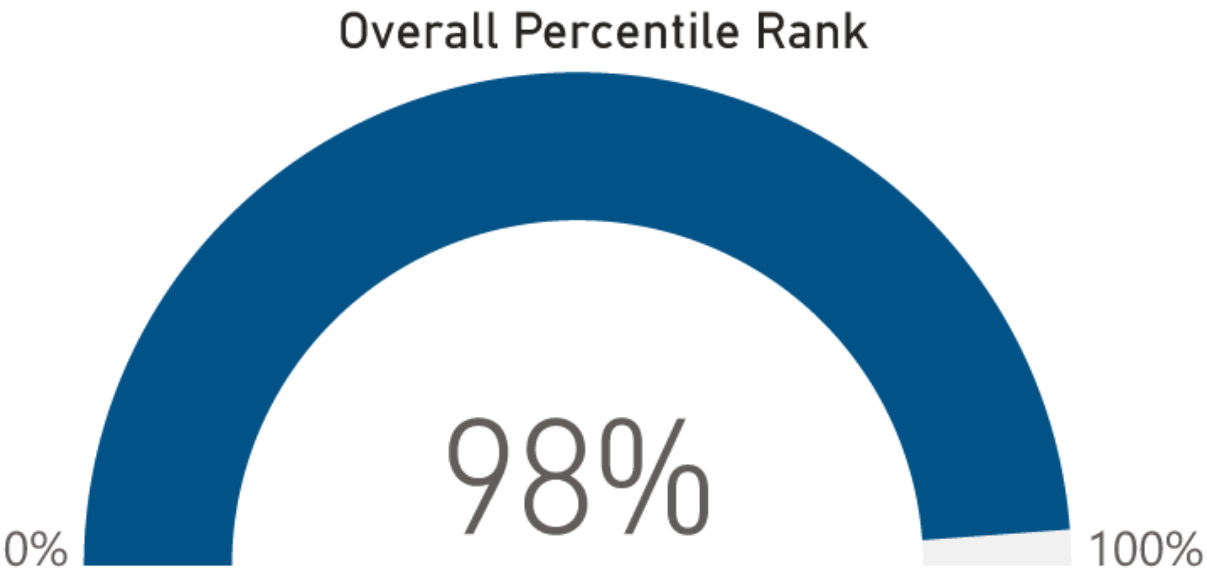




FY 21 BRIC Qualitative Review Memo

Recipient Name	Subgrant ID	Subrecipient Name	Subapplication Title
NORTH CAROLINA DEPARTMENT OF PUBLIC SAFETY	EMA-2021-BR-005-0003	ROCKY MOUNT, (INC) CITY OF	City of Rocky Mount: Downtown Drainage Project

FEMA BRIC



DR-4487-NC

\$10,800,000

Subapplications selected in the FY 2021 National Competition performed between 31% to 98% in the National Panel Review

Subapplication Qualitative Performance



Surf City, NC

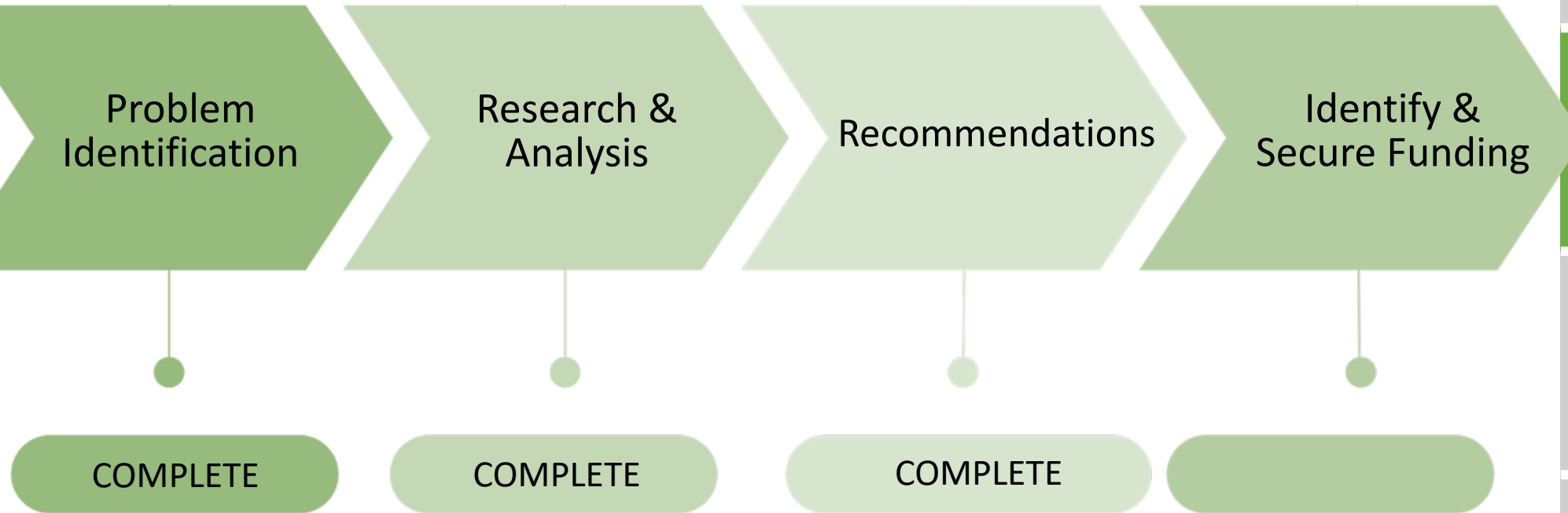
South Shore Drive

Dune Infiltration System

When it rains, it pours...



Identify and Secure Funding



Flood
Reduction



Funding



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Connectivity



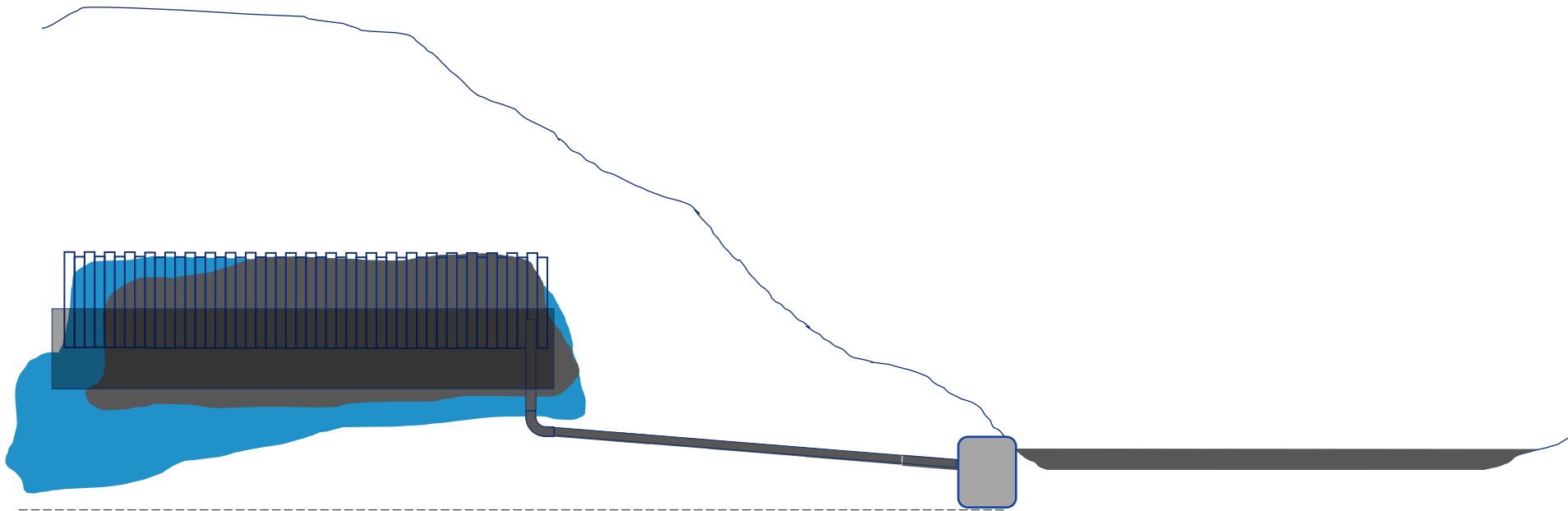
Environmental
Education



Green
Infrastructure

How it works

South Shore Drive Infiltration System



Seasonally high-water table



Flood
Reduction



Funding



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Legend

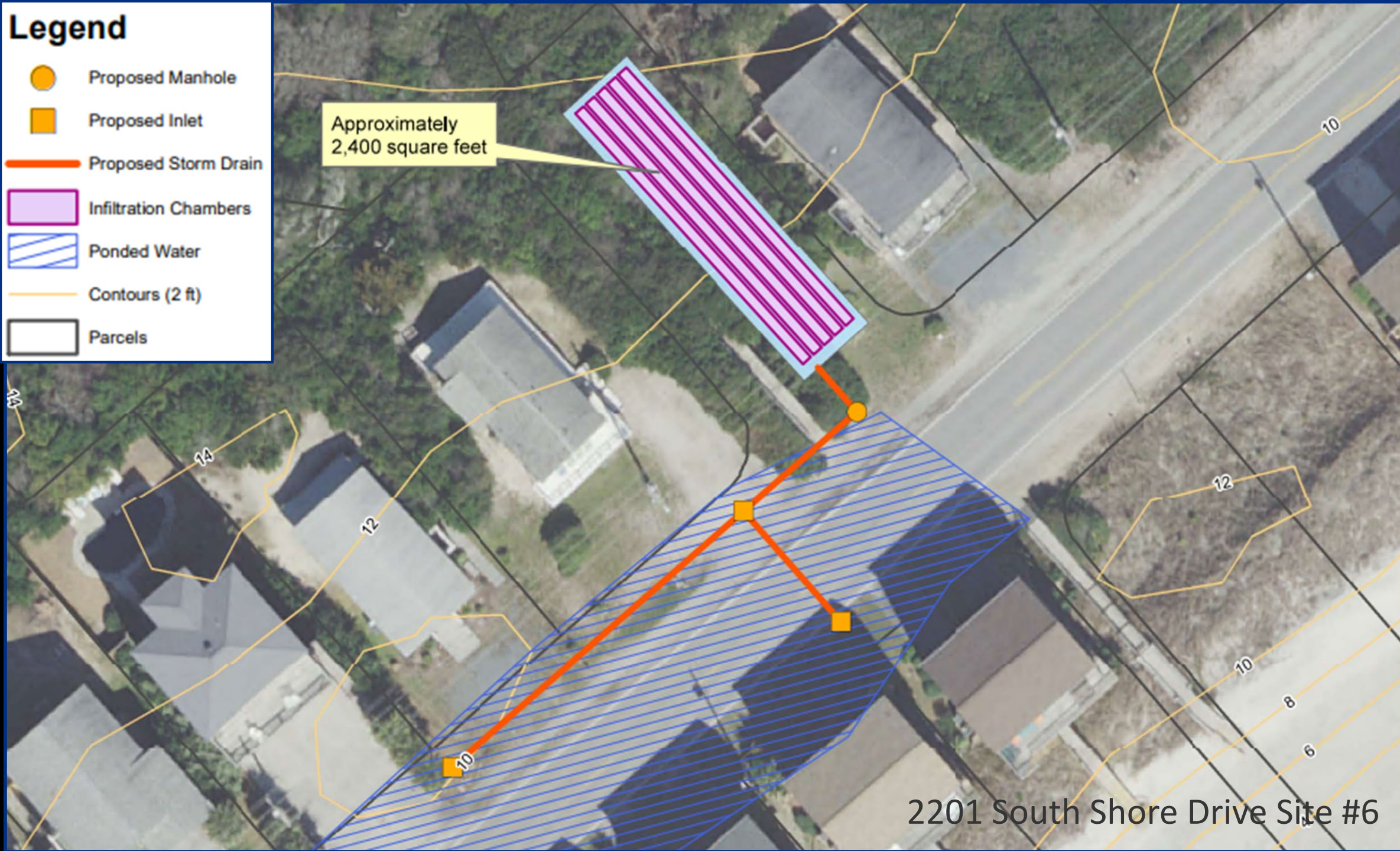
- Stormwater Pump Station
- Proposed Manhole
- Proposed Inlet
- Proposed Storm Drain
- Proposed Force Main
- Infiltration Chambers
- Ponded Water
- Contours (2 ft)
- Parcels



Legend

- Proposed Manhole
- Proposed Inlet
- Proposed Storm Drain
- Infiltration Chambers
- Ponded Water
- Contours (2 ft)
- Parcels

Approximately
2,400 square feet



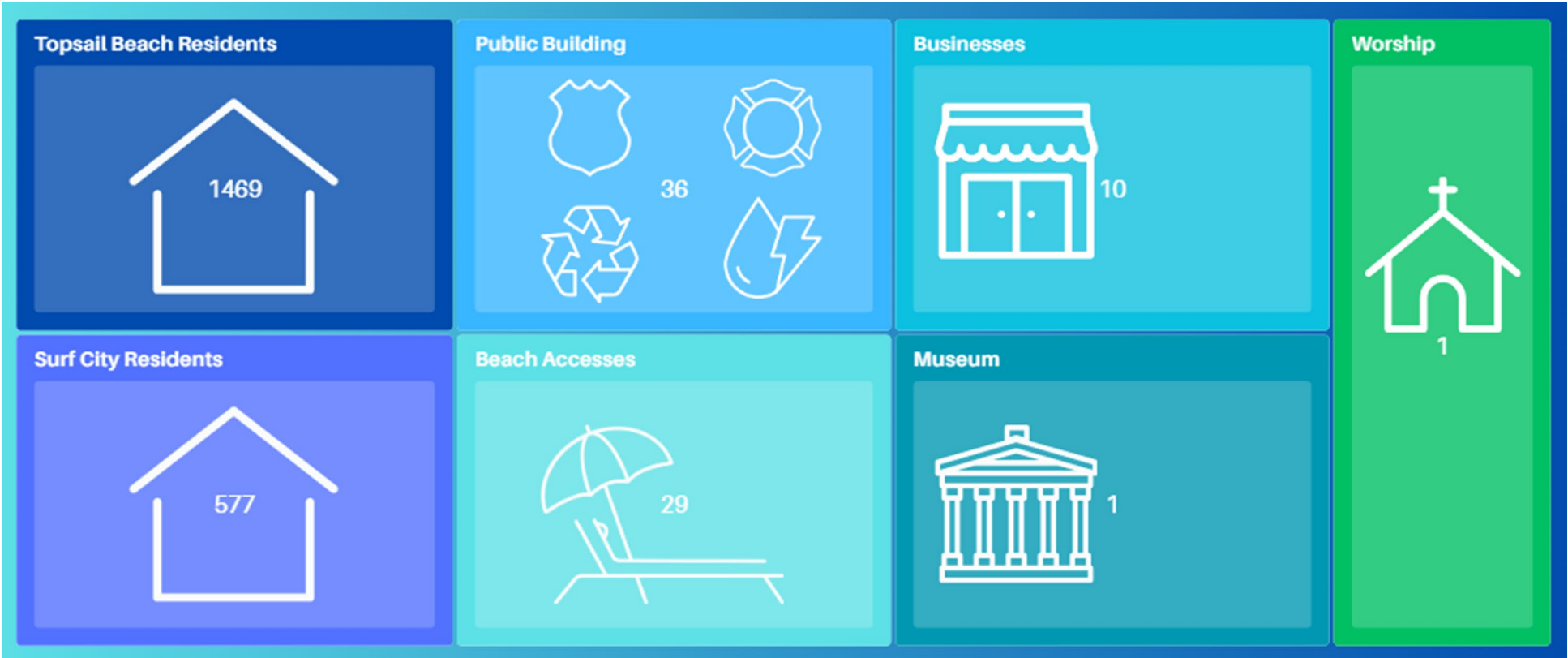
2201 South Shore Drive Site #6

\$250,000





\$520,100



Flood Reduction



Funding



Community Connectivity

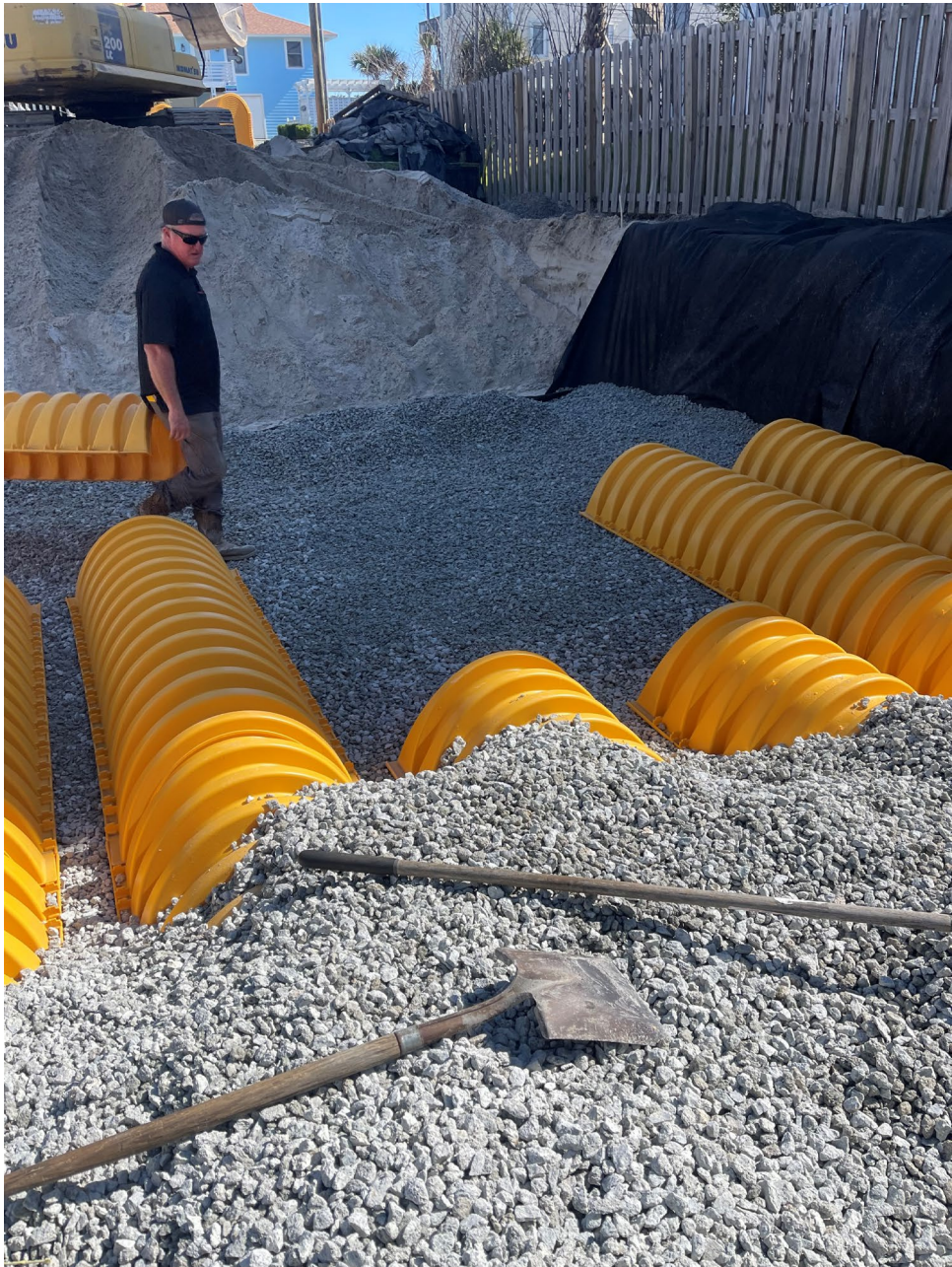


Environmental Education



Green Infrastructure











Charleston, SC

Barberry Woods

July 2018



July 2021 Rain Bomb (~2 in)
16-Hours after Rain Bomb

Multiple Benefits – Slow, store and slowly convey water across the landscape



- **NFWF grant**
 - WK Dickson Johns Island Restoration Plan
- **Dedicated Stormwater Capital Project Fund**
 - Design fees
- **City funding and South Carolina Conservation Bank**
 - Design fees and lot acquisitions
- **South Carolina Office of Resilience (SCOR) ARPA funds through ASIP grants**
 - Construction fees (must expend all funds by December 2026)



Flood
Reduction



Funding



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Funding Restrictions/ Requirements

Estimated Total Project Costs:

- Strategic Retreat Plan: ~\$19,300,000
- Full Concept Plan: ~\$16,800,000
- 60% Updated Plan: ~\$8,748,000
- 90% Updated Plan: ~\$7,670,000

Total project costs include construction, plant materials and property acquisition costs.



Flood
Reduction



Funding



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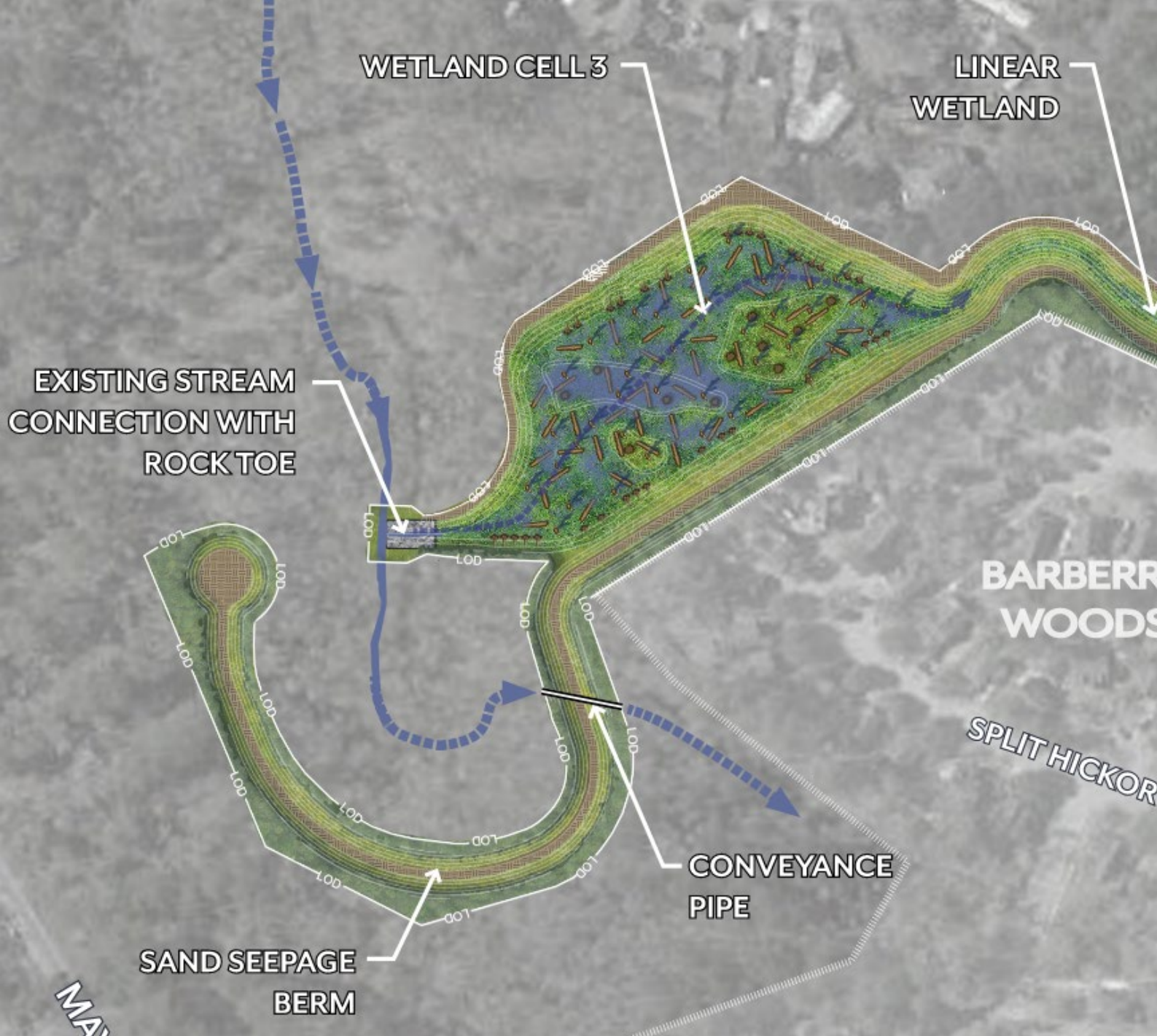


Environmental
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Flood
Reduction



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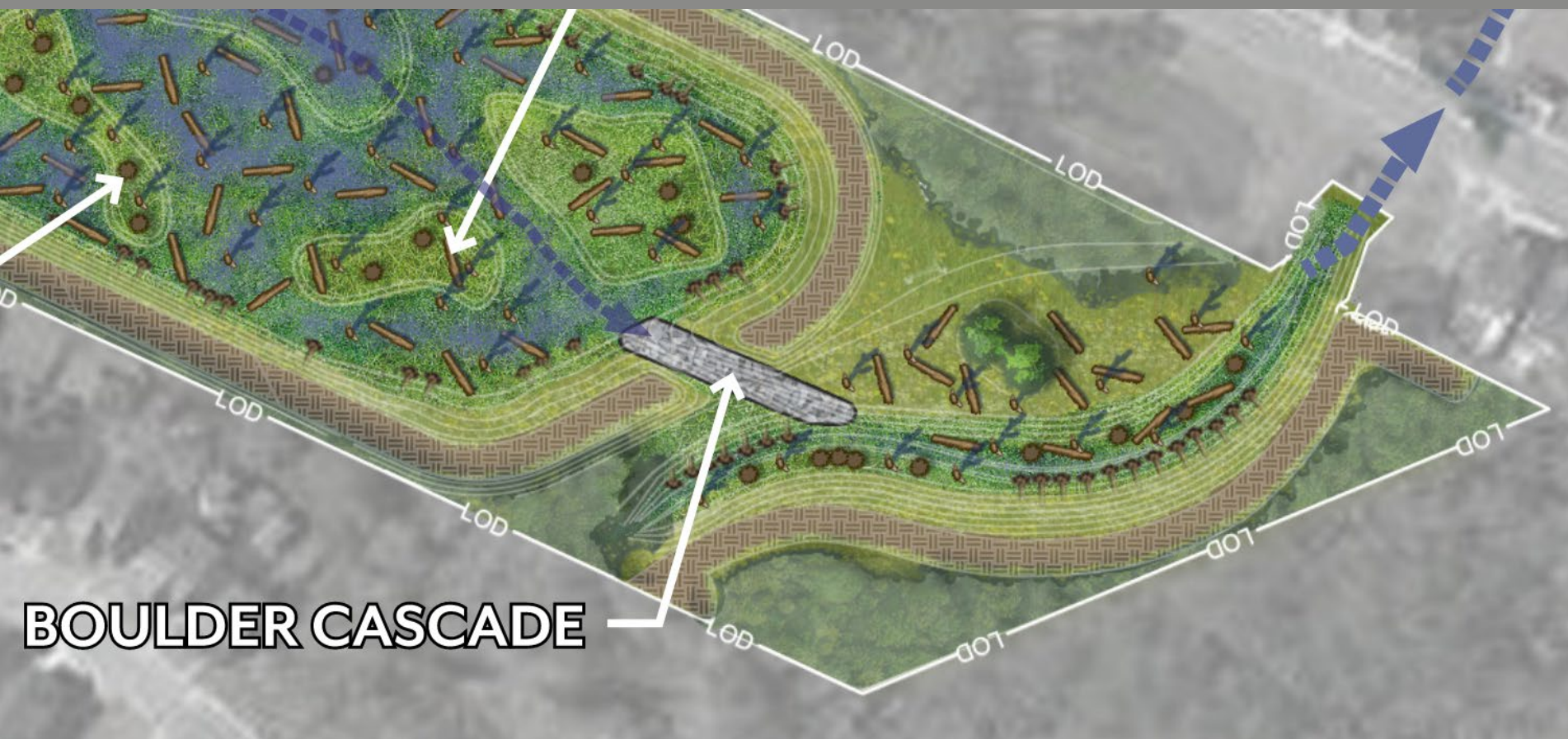
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BOULDER CASCADE



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