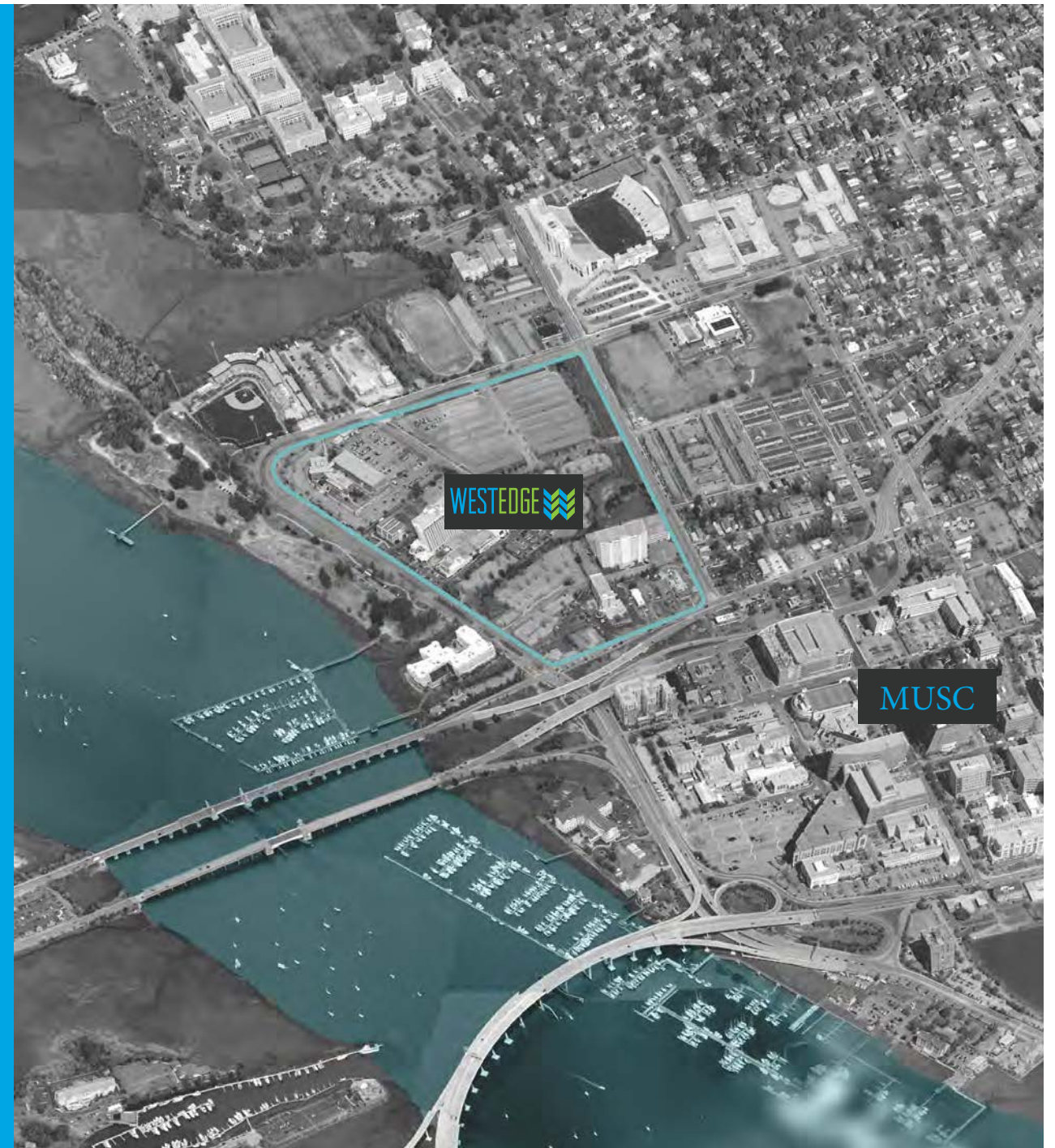


**A BOLD VISION
FOR A RESEARCH-ORIENTED
URBAN REVITALIZATION,
INTEGRATING ALL ELEMENTS
NECESSARY TO ADVANCE A
VIBRANT KNOWLEDGE-BASED
ECONOMY FOR CHARLESTON**

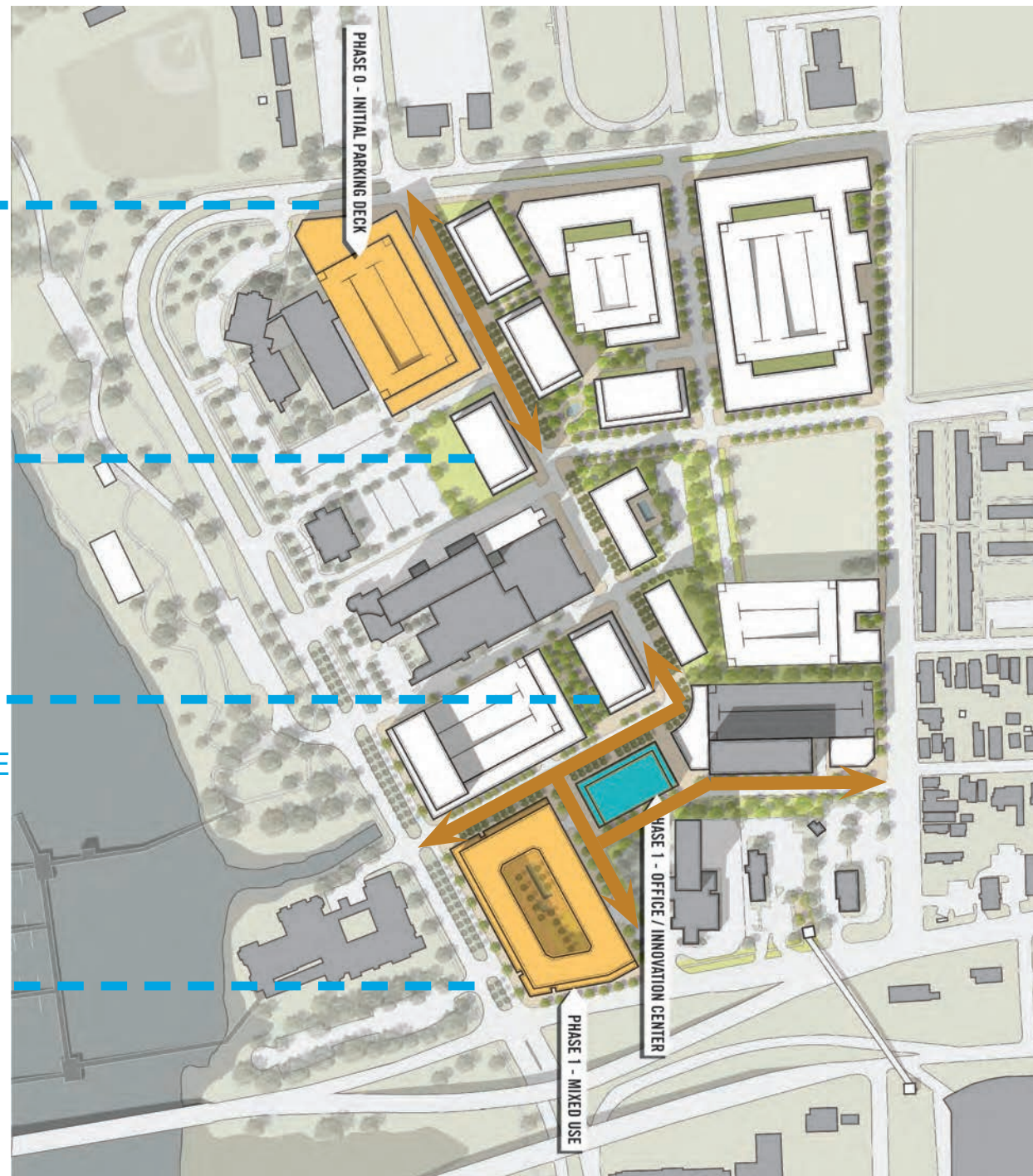


WESTEDGE SITE CONTEXT



PHASE 0: 99 WESTEDGE
VERTICAL AND
HORIZONTAL
DEVELOPMENT

PHASE 1: 10/22 WESTEDGE
VERTICAL AND
HORIZONTAL
DEVELOPMENT



- RESIDENTIAL USES (RENTAL AND FOR SALE)
- OFFICE, RESEARCH, LABORATORY
- PARKING STRUCTURES
- EXISTING OR NOT CURRENTLY IN PROJECT



SITE GEOTECHNICAL HISTORY

WESTEDGE DISTRICT

It is generally accepted that the geographic definition of Charleston has changed over time through ongoing filling operations all around the edges of the Peninsula. This 1939 aerial photo clearly shows the mill pond that is now the site of the Medical University of South Carolina campus; it also shows the marsh areas that have been filled to create the area that is now known as WestEdge.



SITE GEOTECHNICAL HISTORY

WESTEDGE DISTRICT

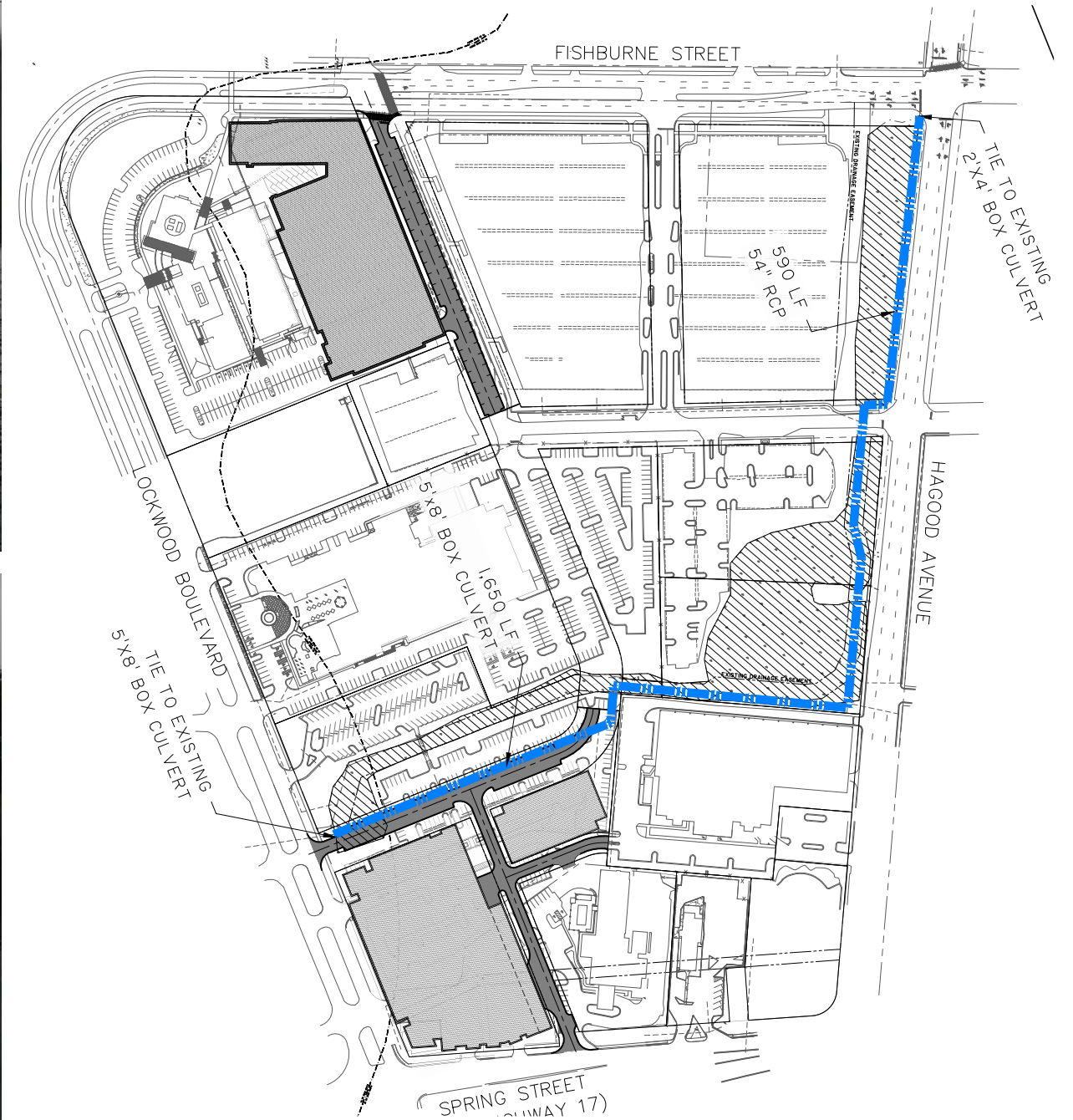
In the early 1950's a municipal sanitary landfill was opened on the west side of the Peninsula, and over the next 20+ years land was created through the dumping of waste into the marsh. The types of waste is not well documented, but it is evident that the landfill includes household waste, construction waste, medical waste and appliance and machinery waste.



THE EXTENT OF THE LANDFILL

PHOTOGRAPHS FROM 1939 AND 1989

The photographic record demonstrates the extent of the sanitary landfill operations that occurred from the 1950s until 1973. Photographic data shows that filling operations preceded the establishment of drainage easements, a clear indication that the current drainage ditch is through landfill waste. It is unknown at this time whether the filling to the north along Hagood or the spit of land north of Brittlebank Park were also a result of the municipal waste operations or separate filling operations.



INFRASTRUCTURE SITE DEVELOPMENT

WESTEDGE DISTRICT CONCEPTUAL INFRASTRUCTURE PLAN

Proposed infrastructure improvements include the creation of new roads to increase connectivity and cross-connections, plus a new stormwater drainage culvert that connects the existing outfall at Hagood and Fishburne to the existing culvert at Lockwood. A tidal backflow valve is proposed at the interface with the Lockwood culvert to help manage tidal inflows.



TIDAL IMPACT AREAS

AREAS THAT COULD HAVE TIDAL IMPACTS
REMOVED WITH THE ADDITION OF A TIDAL GATE



SPECIAL REPORT

Filthy floods

Charleston's floodwaters aren't just dirty, they're alive with bacteria that can make you sick



Floodwaters on June 8 in Charleston sent knee-deep water into streets around the medical district. Post and Courier reporter Tony Bartelme collects samples of the water in the middle of the street for disease-indicating bacteria.

BY TONY BARTELMÉ and GLENN SMITH
 bartelme@postandcourier.com
 gsmith@postandcourier.com

Many downtown Charleston streets become filthy puddles of bacteria in flooding rains, with fecal levels dozens of times above safe limits, according to a Post and Courier analysis and research by the College of Charleston. During the drenching rainstorm June 8, the newspaper sampled eight streets on peninsular Charleston for fecal coliforms, a common measure of human and animal waste. Targeted areas included streets near schools, stores and hospitals. Analyzed immediately by Trident Labs in Ladson, a state-certified lab, these samples showed dangerously high levels of fecal bacteria on Charleston's East Side.

On Harris Street, across from Sanders-Clyde Elementary School, a sample contained an estimated 160,000 fecal bacteria colonies. Near Ashmun at Cooper and America streets, a sample contained 92,000. For years, local limits for sewer effluent were just 400.

Please see T15786, Page A6



The eight water samples await testing at the certified lab in Ladson.

Test samples reveal disgusting truth

TESTING, from A1

High readings also were found near Ashley Hall, a private girls school, and the Medical University of South Carolina.

Meantime, more extensive sampling by College of Charleston students over the past two years revealed the same troubling result: Floodwaters during and after heavy storms are crawling with potentially dangerous microbes.

"We don't know if people are getting sick from this," said Vijay Vulava, a College of Charleston geology professor who supervised one sampling project. "I really think it is a public safety issue."

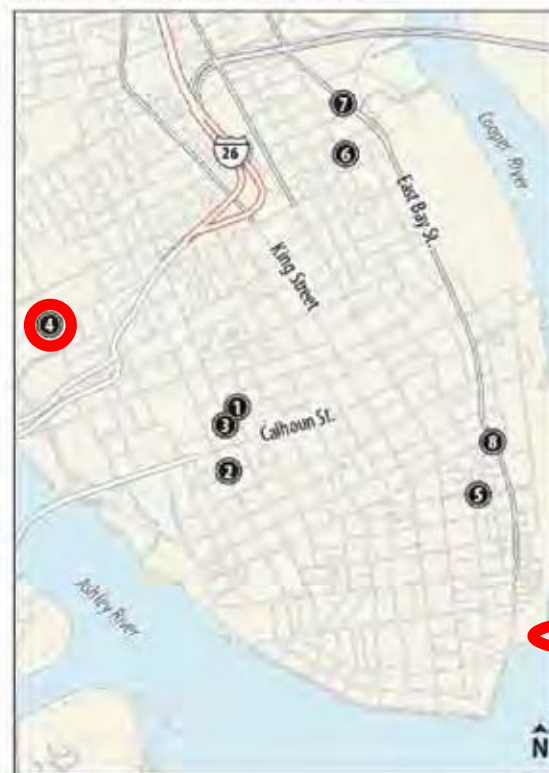
Together, these findings raise new questions about the city's lagging efforts to keep floodwaters at bay at a time when sea rise and climate change have led to a dramatic increase in flooding in the Charleston area. The city now sees more than 50 days of tidal flooding each year, and that number is only expected to surge in coming years.

Residents have pleaded with the city to do more to protect their properties.

But the bacteria samples show floodwaters also could pose a risk to those who walk through these mucky pools.

How, where and what we sampled

The newspaper identified frequently flooded areas in downtown Charleston that often see heavy foot traffic. At 1 p.m., during a heavy rainstorm, two reporters and a photographer sampled eight locations. Samples were then taken immediately to Trident Labs Services, a state-certified lab in Ladson, where they were tested for fecal coliform levels.

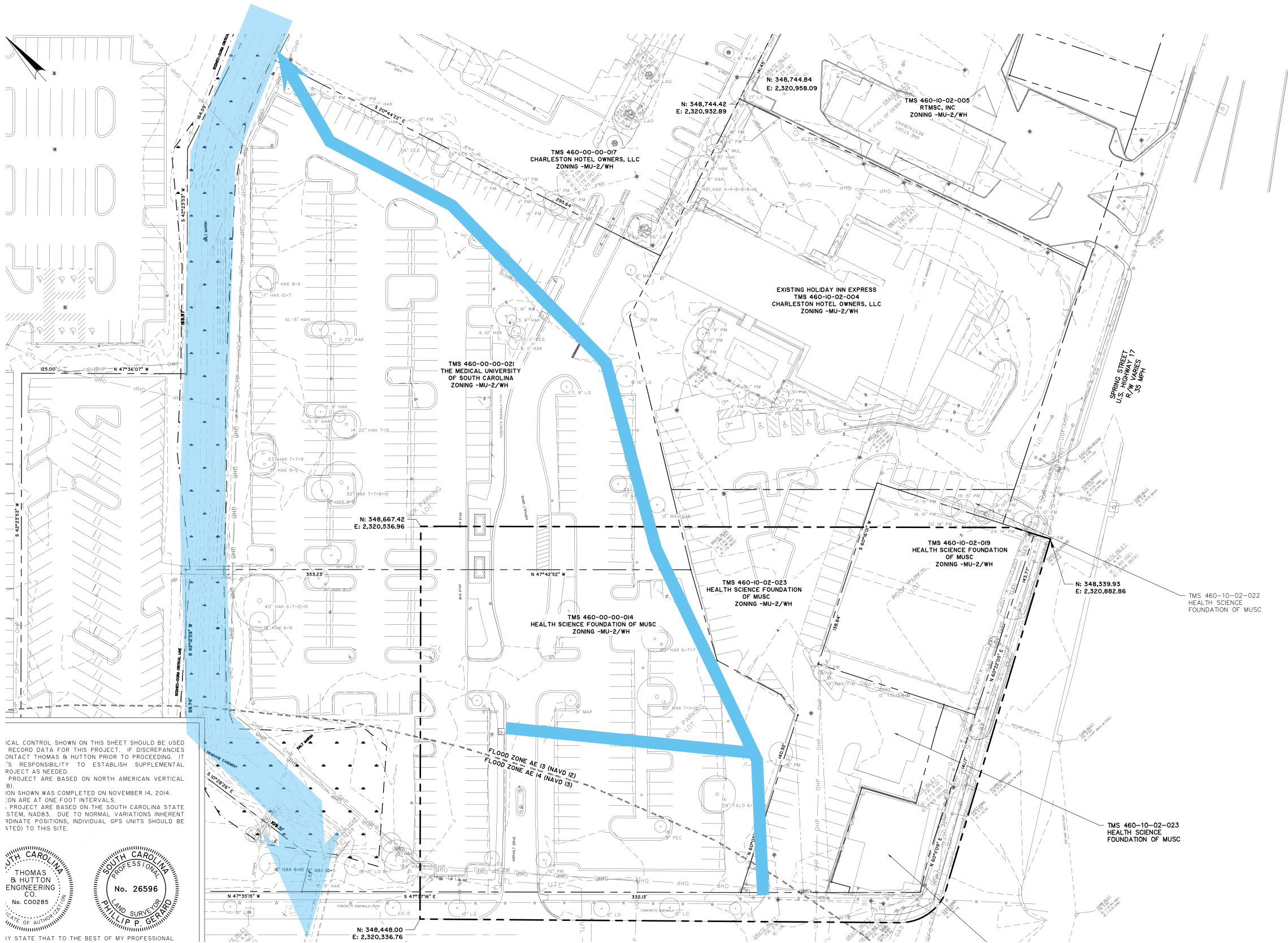


Location	Most probable number of bacteria colonies (per 100 milliliters)
1. Vanderhorst Street at Ogler Street	24,000
2. Ashley Avenue near Bennett Street	7,000
3. Ashley Avenue near Sanders-Clyde Elementary School	1,000
4. Hagood and Line streets	11,000
5. Market Street between East and West streets	3,300
6. Cooper and America streets	92,000
7. Harris Street by Sanders-Clyde Elementary School	160,000
8. East Bay and Hassel streets	54,000

FLOODING AND HEALTH RISKS

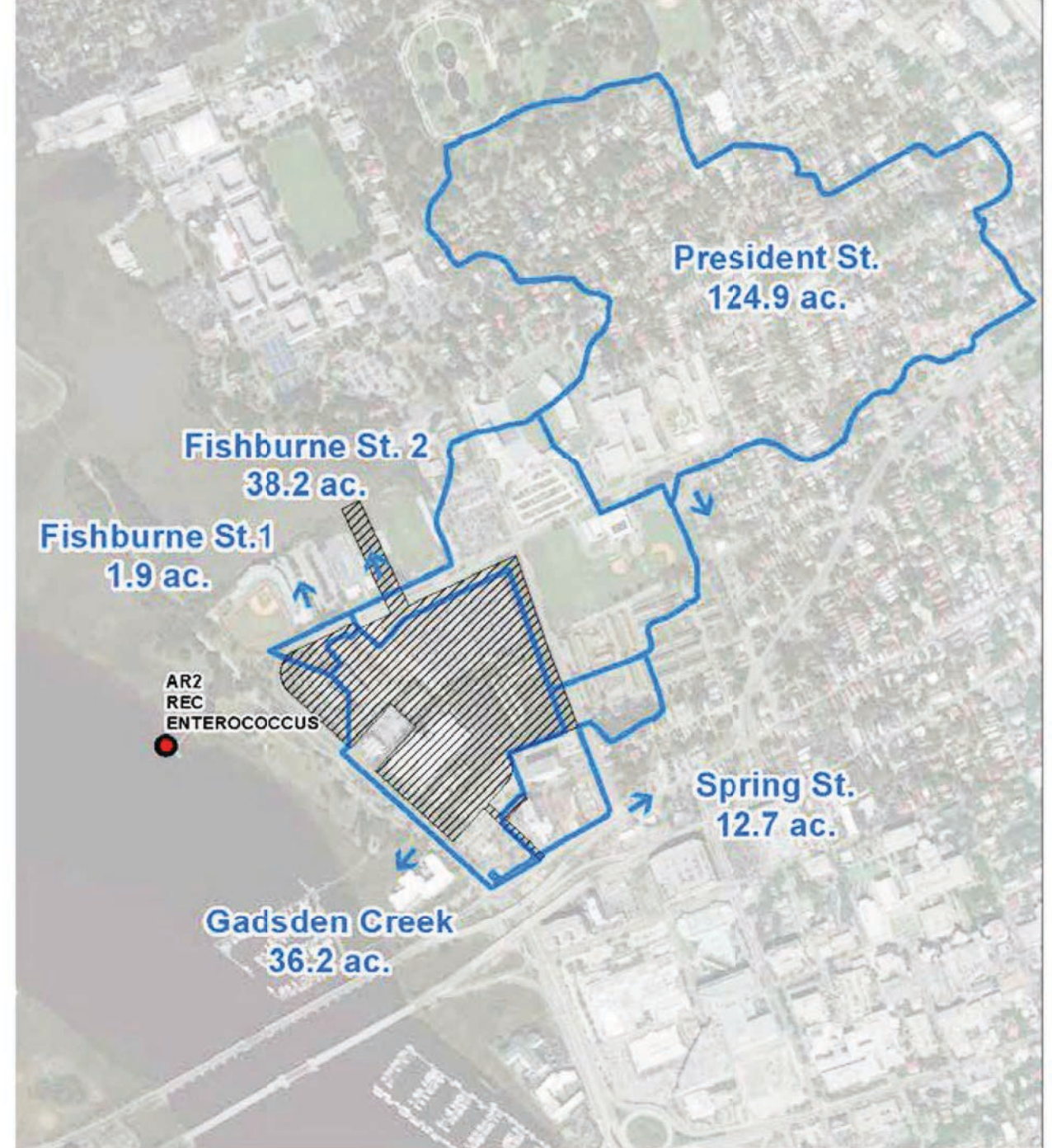
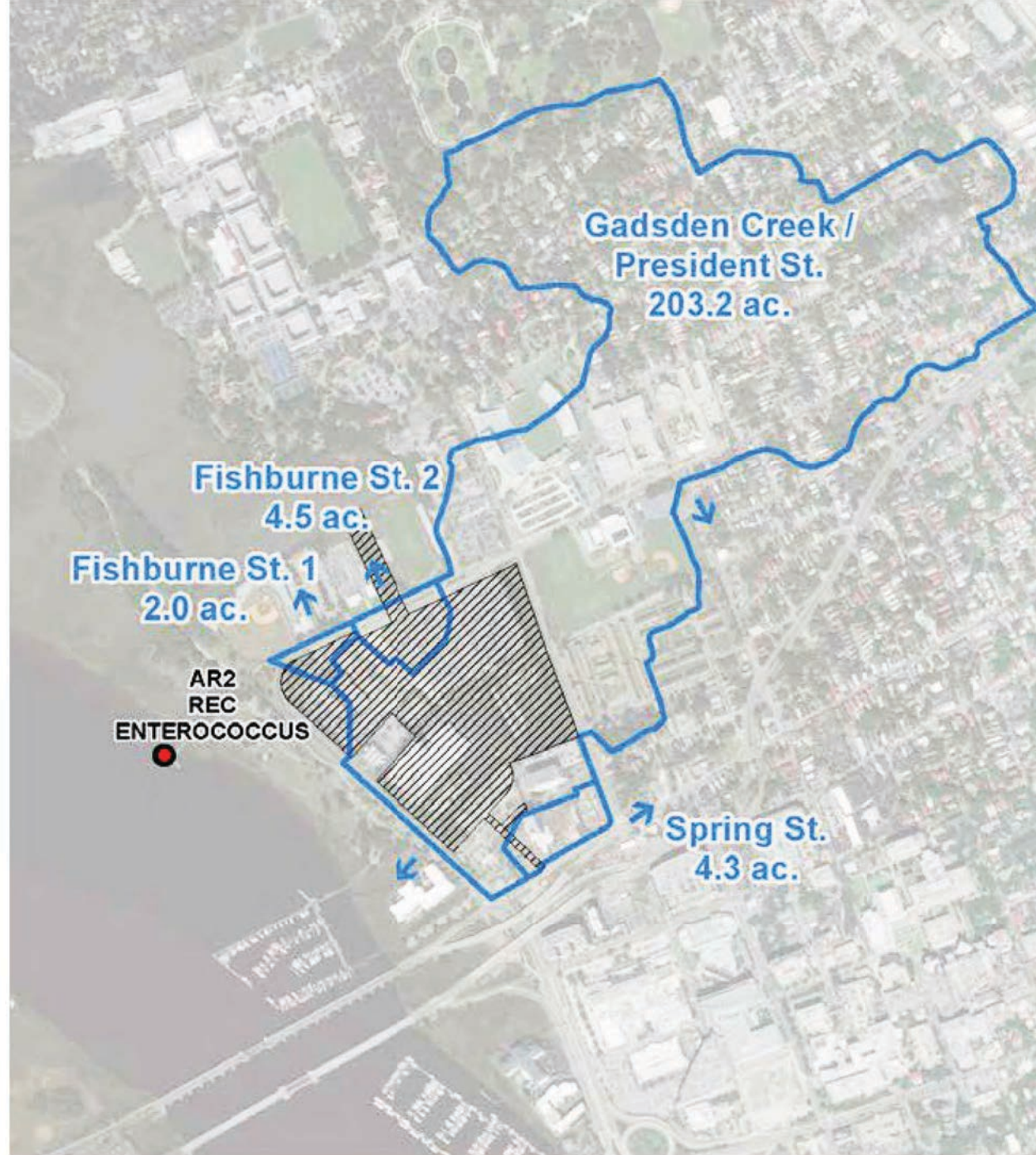
WATER QUALITY TESTING OF HAGOOD FLOODING

Besides being a nuisance and a risk to property, recent water quality testing has revealed that street flooding brings significant health risks, with water samples taken in the vicinity of Hagood and Line Streets having over 250 times the SC-DHEC limits on shellfish beds, and over 30 times the SC-DHEC limits on swimming areas.



LOCKWOOD DRAINAGE BEFORE 10WE



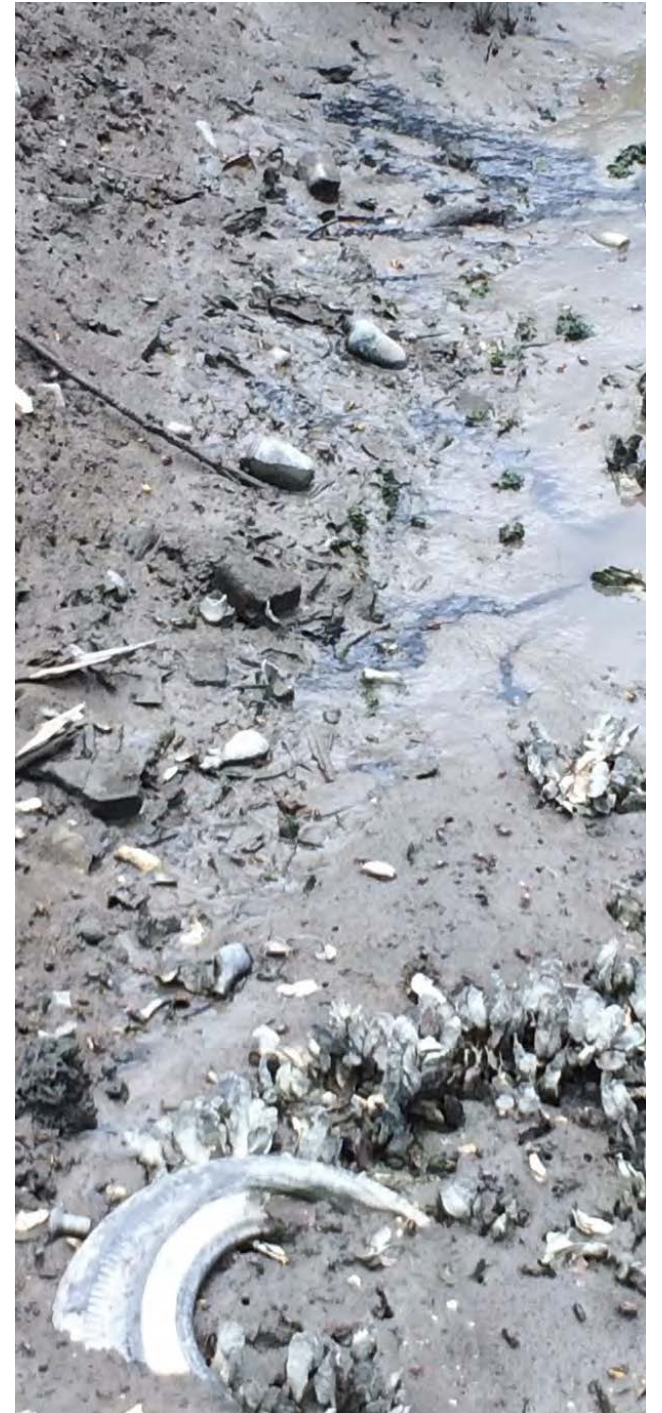


EXISTING AND FUTURE DRAINAGE BASINS

IMPROVEMENTS TO REDUCE STORMWATER IMPACTS

WestEdge Environmental Permit: A Repair and Maintenance Project for Former Trash Landfill

- Protect the health, safety and welfare of the public
- Protect the water quality of the Ashley River
- Reduce instances of flooding of City streets and adjacent properties
- Improve long-term performance of drainage infrastructures
- Facilitate positive investment of areas impacted by blighted conditions



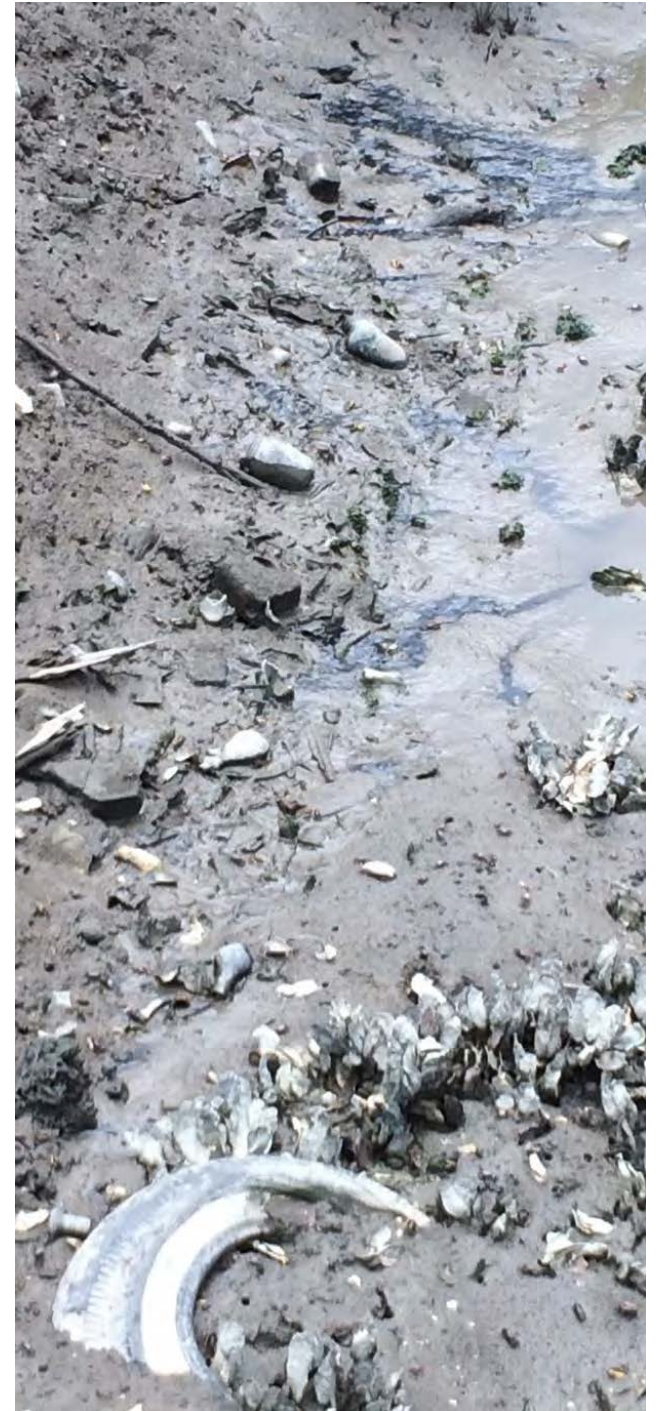
RESPONSIBILITIES

PROPOSED PLAN OF ACTION



WestEdge Environmental Permit: A Repair and Maintenance Project for Former Trash Landfill

- Develop a more permanent cap to encapsulate trash and polluted soils and to eliminate potential health and safety impacts to the public
- Stronger impervious cap within the drainage easement to separate landfill from stormwater and tidal influx
- Reduce methane gas by reducing water infiltration into landfill
- Reduce direct run-off pollution by reducing recurrent tidal and stormwater flooding of streets



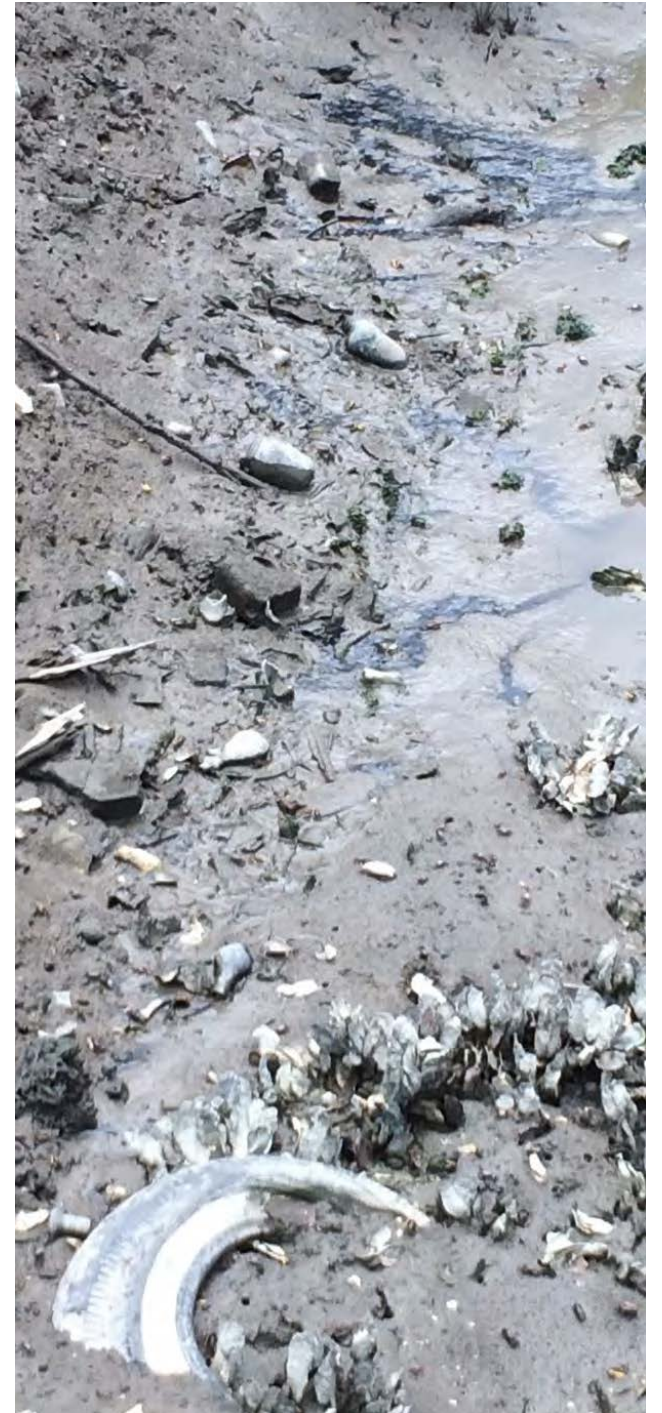
STRATEGIES

PROPOSED PLAN OF ACTION



WestEdge Environmental Permit: A Repair and Maintenance Project for Former Trash Landfill

- Build an engineered drainage system to improve both water quality and flood control within the established drainage easement
- Introduce a tidal gate to reduce instances and impacts of tidal flooding
- Facilitate regular maintenance of stormwater infrastructure by removing aggregation of vegetation and silting



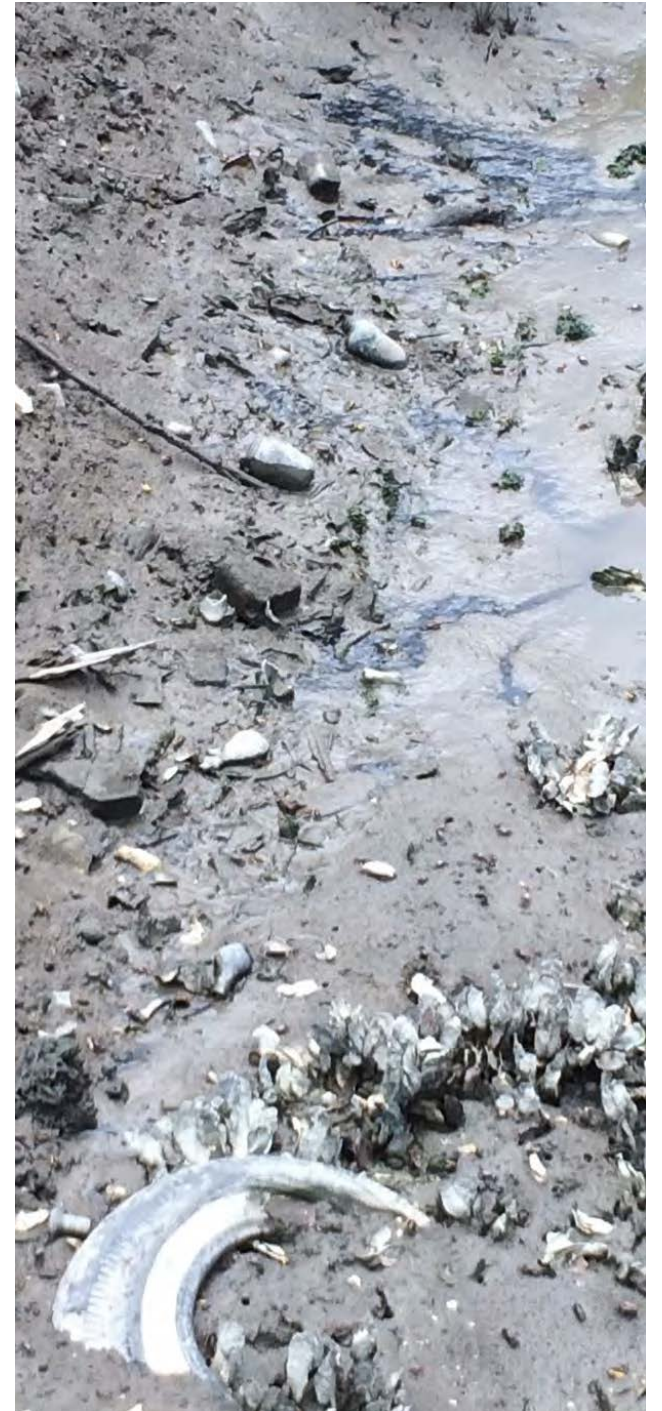
STRATEGIES

PROPOSED PLAN OF ACTION



WestEdge Environmental Permit: A Repair and Maintenance Project for Former Trash Landfill

- Protection of health and safety by eliminating the public's exposure to landfill waste
- Reduction of water and air pollution and health hazards by reducing methane gas
- Reduced negative health, safety and economic impacts due to recurrent flooding
- Elimination of blight caused by environmental challenges and recurrent flooding
- Facilitates reinvestment, creating significant economic development benefits, new businesses and new jobs



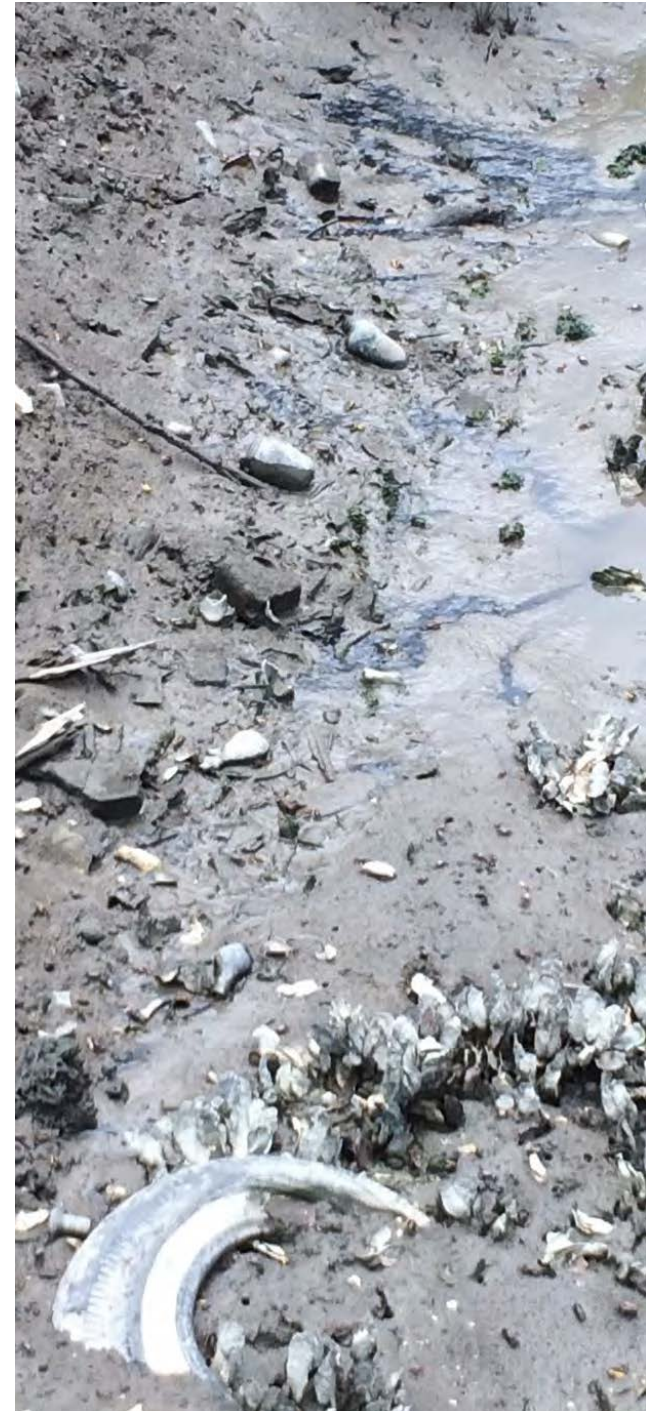
PUBLIC BENEFITS

PROPOSED PLAN OF ACTION



WestEdge Environmental Permit: A Repair and Maintenance Project for Former Trash Landfill

- Fulfills the promise of the 2008 TIF District, providing a timely source of funds for infrastructure improvements
- Effective and efficient redevelopment creates significant long-term increases in property tax revenue to the benefit of the City, the County, and CCSD
- Redevelopment creates important neighborhood services and amenities
- The vision of WestEdge transforms this landfill into a vibrant and economically prosperous addition to the west side of the Charleston Peninsula



PUBLIC BENEFITS

PROPOSED PLAN OF ACTION



-  **NATURAL TIDAL CREEK**
-  **HARDENED DRAINAGE W/TIDAL INFLUENCE**
-  **NATURAL MARSH AREA**



CHARLESTON'S TIDAL CREEKS

EXISTING TIDAL CREEKS IN THE HISTORIC CITY
(below Mount Pleasant Street)

Some have asserted that the former Gadsden Creek is unique and special because it represents the last urban tidal creek in the historic city. In fact there are numerous such creeks still existing in various states all around peninsular Charleston. What does make the drainage easement in the WestEdge area unique is that it is the only such instance that exists over and through a documented sanitary landfill. It is this fact that compels us to treat it in an especially careful manner to protect health, safety and welfare.