Reducing Stormwater Runoff Volume on the UNC-Wilmington Campus Phase II

FUNDING SOURCE & AMOUNT

EPA 319 Grant Program
$239,298 funded, including match

TIMEFRAME

Awarded 2022
January 2022 – December 2023

GRANT ADMINISTRATOR

NC Coastal Federation

IN-KIND PARTNERS

City of Wilmington, NC

North Carolina Department of Environmental Quality

University of North Carolina, Wilmington

SUMMARY / DESCRIPTION

The North Carolina Coastal Federation is continuing its partnership with the City of Wilmington and University of North Carolina at Wilmington (UNCW) to reduce stormwater entering Bradley Creek by installing another round of innovative Stormwater Control Measures (SCMs) throughout UNCW's campus.

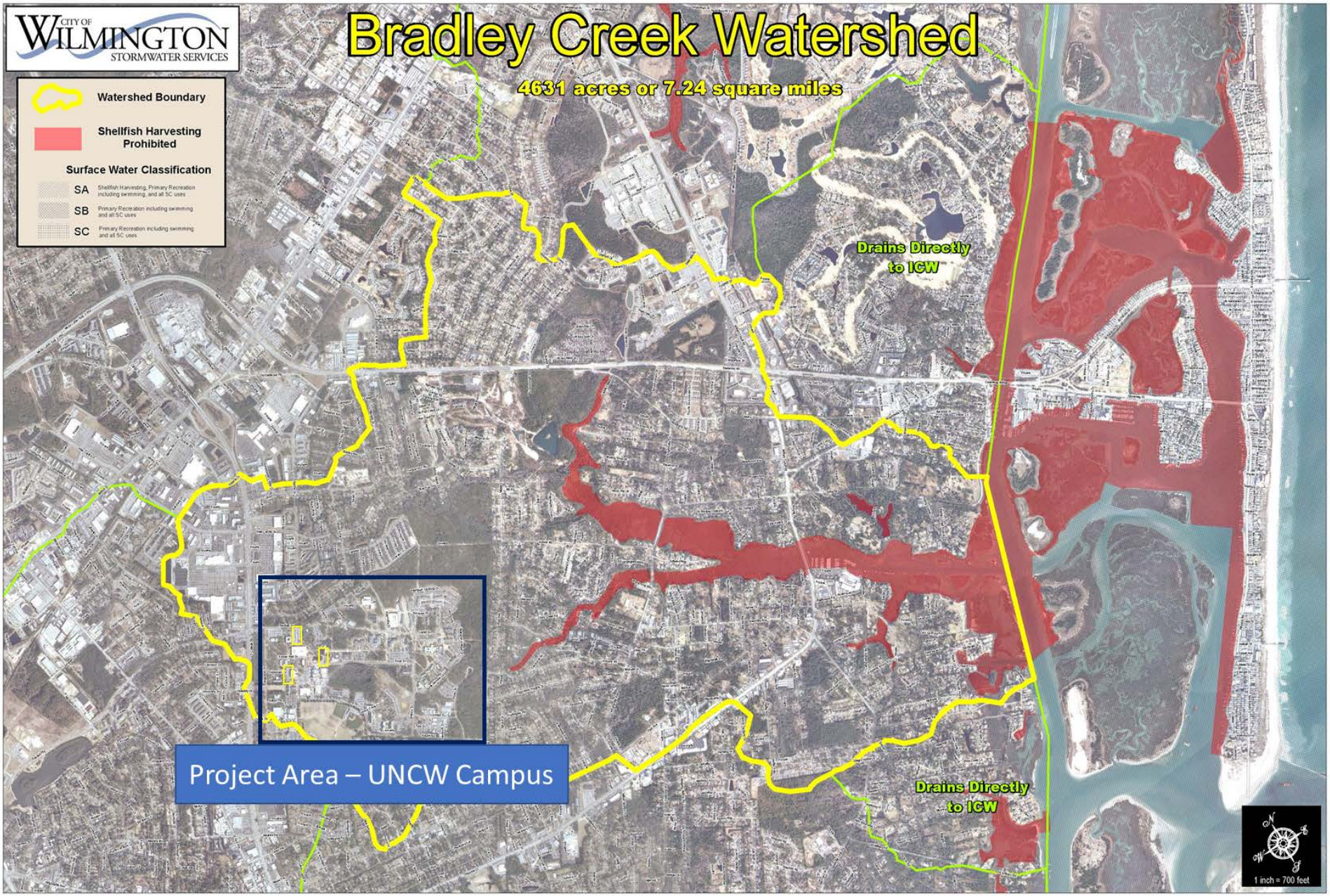
Bradley Creek is one of two watersheds targeted by the City of Wilmington's voluntary Bradley and Hewletts Creeks Watershed Restoration plan. The plan focuses on reducing stormwater runoff and subsequent bacterial pollution to improve water quality and prevent closures of recreational areas. UNCW is the largest landowner within the Bradley Creek Watershed.

Specific sites have already been identified for stormwater management and volume reduction projects. A licensed engineer will design several rain gardens and pervious pavement retrofits along university parking lots and buildings. There are additional opportunities for tree plantings, supplementary native plants, and educational signage around campus. Education will also be a large component of this grant by incorporating volunteers whenever possible, student monitoring of implemented SCMs, and showcasing the sites to community members.

The EPA 319 Grant Program provided funding of $142,946 for design, engineering, and construction of the installations. That will be matched with $96,352 of in-kind support from project partners. The City of Wilmington's in-kind support will include staff time, outreach materials, and supplemental mini-projects around campus.

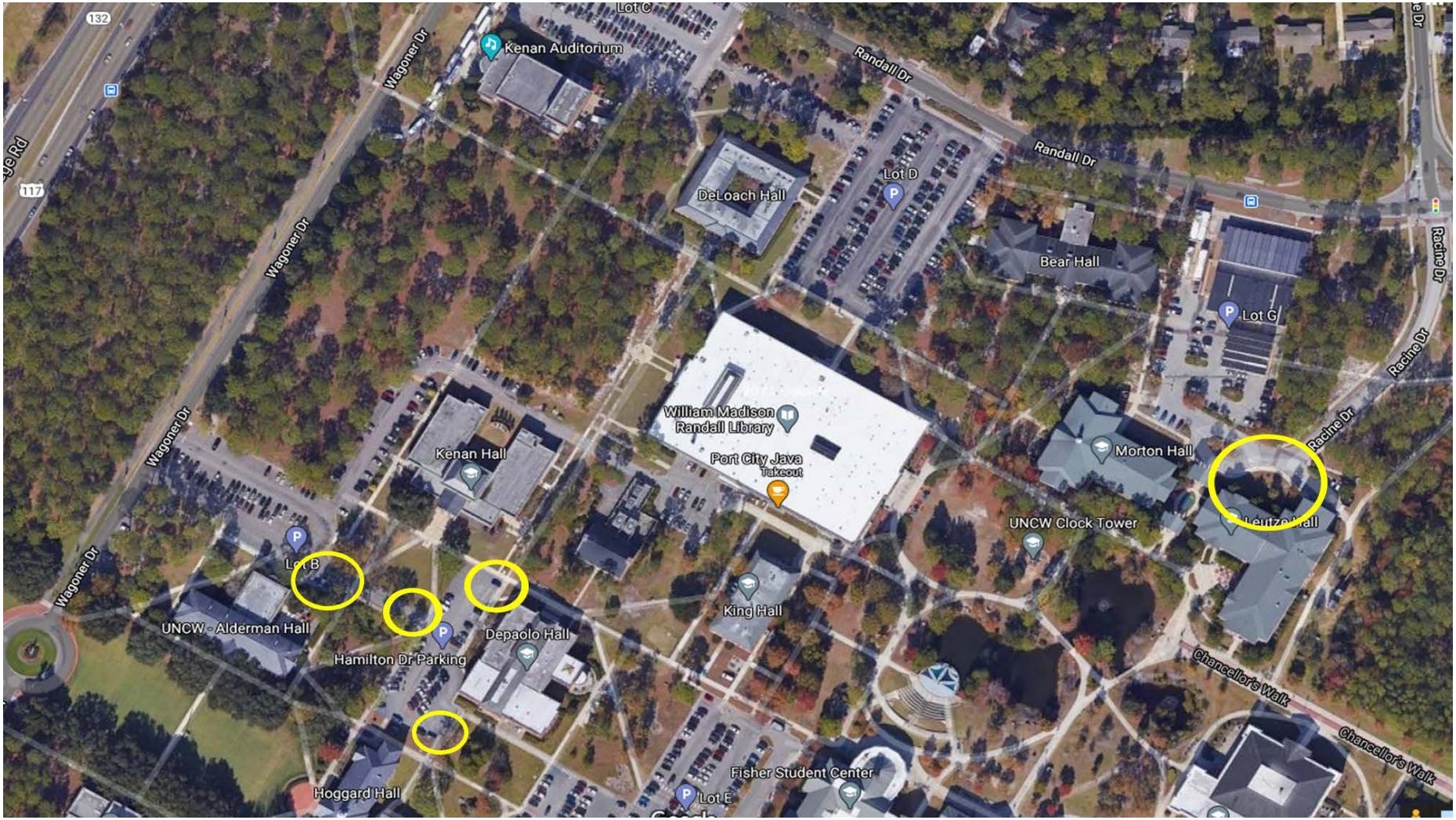
GRANT GOAL(S)

- Decrease the amount of stormwater entering Bradley Creek by installing green infrastructure (bioretention areas, pervious pavement, curb cuts, and downspout reroutes) throughout UNCW, particularly in areas with older infrastructure.
- Continue encouraging community buy-in for the Bradley and Hewletts Creeks Watershed Restoration Plan by providing educational opportunities on campus.
- Build upon existing partnerships between community groups and watershed stakeholders.
- Demonstrate simple, cost-effective stormwater solutions to campus staff, students, surrounding neighborhoods, local businesses, and interested community members.



UNCW is the largest landowner within the Bradley Creek Watershed, which currently has high levels of fecal coliform bacteria.

The focus of the Phase II Grant is in the northeast corner of campus, where there is older stormwater infrastructure that provides little pollution treatment.



Rain gardens and pervious parking retrofits are planned for parking lots near DePaolo Hall to increase infiltration and pollution treatment.

One large rain garden is planned in front of Leutze Hall. Several downspouts from Leutze Hall will be redirected into the rain garden before entering an overflow storm drain.