

BOLIN CREEK WATERSHED RESTORATION PROJECT: (319 GRANT)

Community Meeting with Phase 2, Phase 3/4 Bolin Forest and Forest Court HOAs and

Amber Court homeowners

Tuesday December 7th, 2021



Welcome!

- Agenda for tonight's presentation
 - Introductions
 - Current Grant Status
 - What is a 319 Grant?
 - About Bolin Creek
 - Goal of the Project
 - Strategy and Timeline
 - Partner Responsibilities
 - Next Steps

Introductions

- **Town of Carrboro Stormwater Staff:**

- Emily Cochran, Stormwater Administrator, ecochran@townofcarrboro.org
- Randy Dodd, Stormwater Utility Manager, rdodd@townofcarrboro.org

- **Bolin Forest Phase 2 HOA Volunteer Representative:**

- Meg Molloy, Partner Engagement, meg1molloy@gmail.com

- **Bolin Forest Phase 3/4 HOA Volunteer Representative:**

- Christopher Sandt, P.E. , Technical Advisor, csandt2001@gmail.com

Current Grant Status

- Selected for funding by DEQ and EPA
 - Total amount: **\$258,036**
 - Federal: **\$150,000**
 - Non-federal: **\$108,036**
- Going through Town of Carrboro administrative processes (to be discussed later)



What is a 319 Grant?

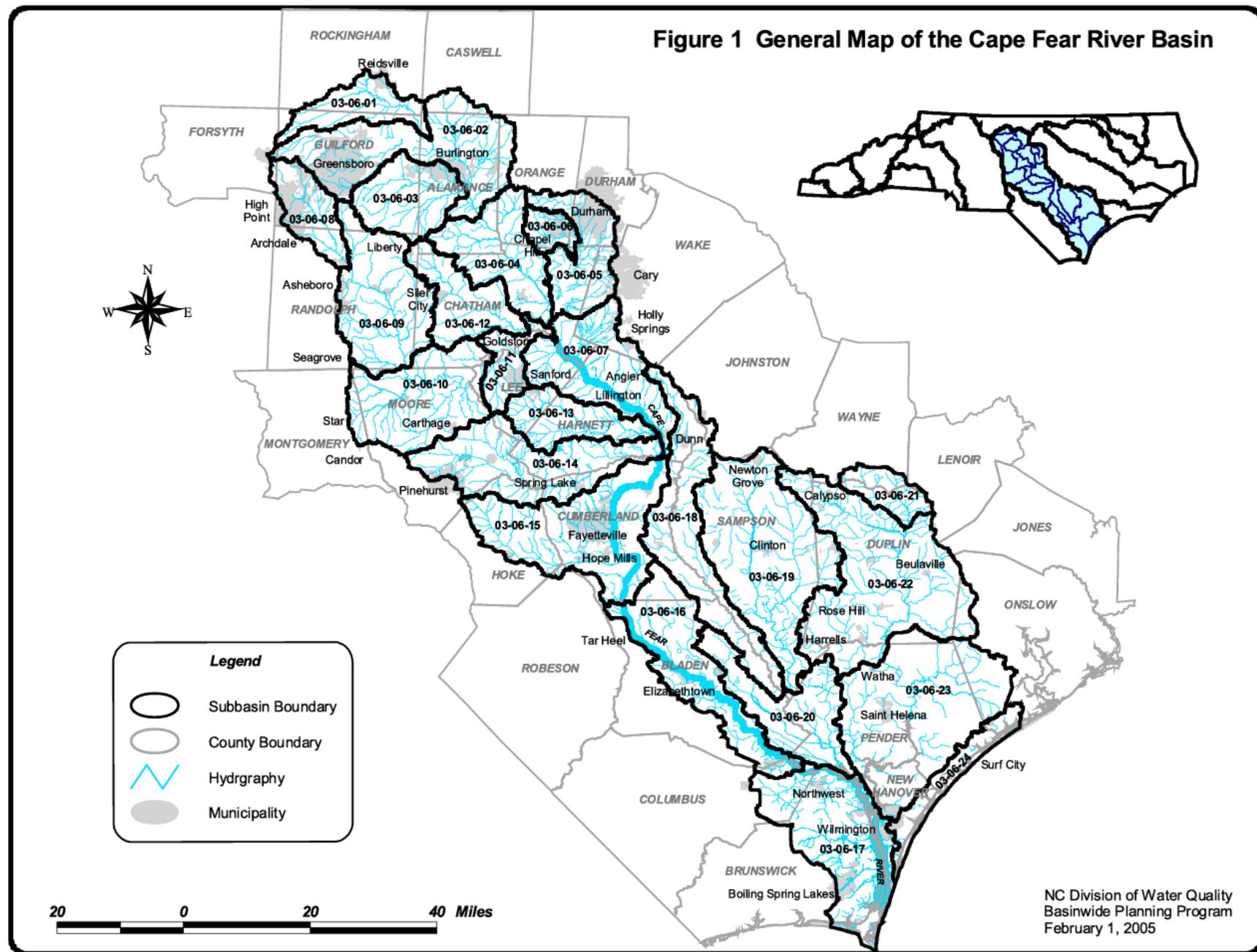
- Refers to the Clean Water Act, Section 319: Nonpoint Source Management Programs
- Under Section 319(h), states, tribes and territories can **receive grant money to address nonpoint source pollution**
- Funds can be used to conduct watershed restoration projects or restoration of impaired streams
- Local governments, public and private nonprofit organizations, etc. can apply to receive funds through their State (North Carolina Department of Environmental Quality)
- Full title of our grant is: Grant Contract No. CW24333 Ephemeral Channel Instability – Bolin Creek Watershed Nonpoint Source Implementation Grant



Source: Town of Carrboro

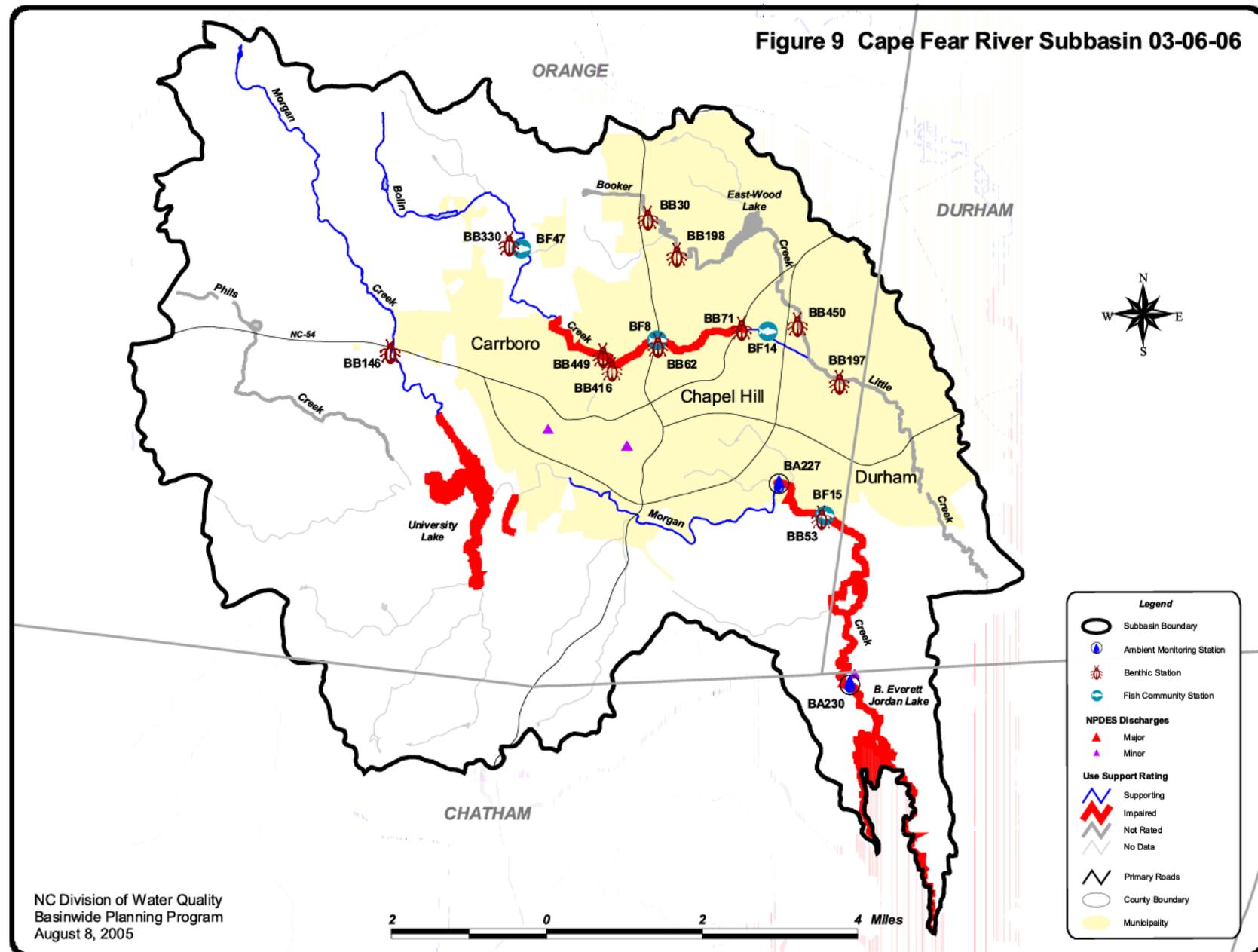
About Bolin Creek

- Part of the Cape Fear River Basin



About Bolin Creek (cont.)

- Listed on the state and federal **impaired waterbodies 303(d) list**, based primarily on aquatic biology (aquatic insects)



About Bolin Creek (cont.)

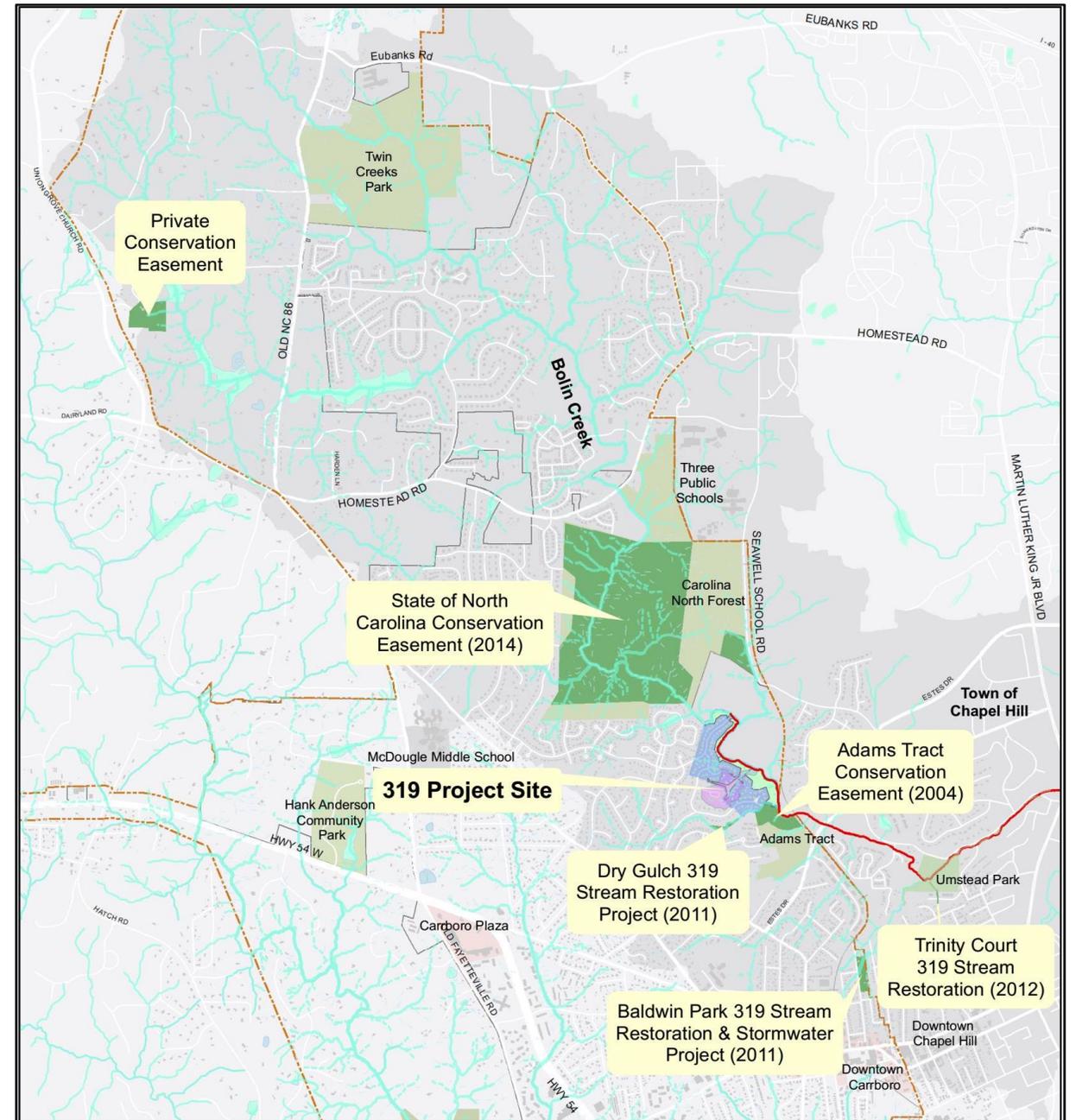
- Condition has deteriorated due to:
 - Habitat degradation
 - **Excessive stream bed/bank scouring, loss of trees along stream banks**
 - Removal of riparian vegetation
 - Toxicity (pollutants)
 - Occasional low flow conditions, resulting in low dissolved oxygen
 - Stormwater runoff from impervious area(s) within the watershed
 - Increasing intensity of regular rain events



Source: Town of Carrboro

About Bolin Creek (cont.)

- **2006** → Bolin Creek Watershed Restoration Team created
- **2007** → Clean Water Management Trust Fund Grant to conduct geomorphic analysis
- **2008 & 2009** → two 319 grants received for restoration projects, planning and monitoring
- **2012** → Carrboro Watershed Restoration Plan and Watershed Situation Assessment completed





Goal of the Project

- **PURPOSE:** Stabilize eroding ephemeral channels and adjacent areas in catchment area draining three adjoining neighborhoods.
- **WHY?:** Land use in the Bolin Creek watershed is dominated by single-family residential neighborhoods; **geomorphic instability is a driver of water quality concerns.**
- **DESIRED OUTCOME:** Not only stabilize these channels, but also demonstrate an effective technical solution for similar sites; be an example for other neighborhoods and private developments in the area.
- Significant focus on **partnership between stakeholders and education and action by HOAs and homeowners** of what each can do to reduce and manage stormwater runoff.

Strategy and Timeline

STRATEGY:

- Restore/stabilize approximately 1,000 linear feet along two ephemeral channels
- Treat stormwater runoff from approximately 11 acres of the Bolin Creek watershed at the upstream end; where Bolin Creek is recognized as an impaired stream, adjacent to Phases 2 and 3/4
- Improve streambank vegetation conditions
- Serve as an example of what is possible in a residential and/or private HOA or business setting to address water quality and instability issues using low-impact, easy-to-maintain, regenerative stormwater conveyance approaches

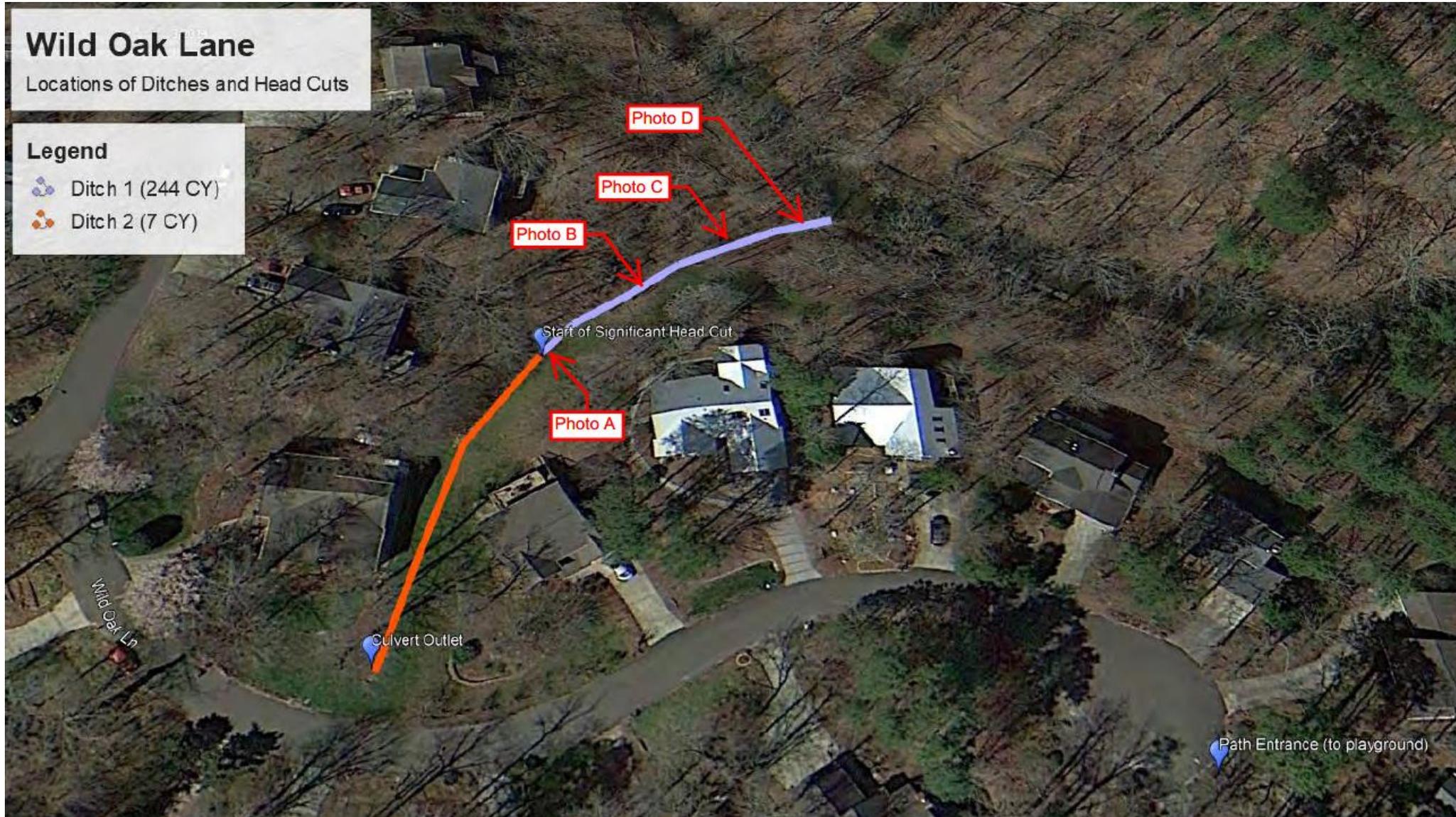


Wild Oak Lane

Locations of Ditches and Head Cuts

Legend

-  Ditch 1 (244 CY)
-  Ditch 2 (7 CY)



Strategy and Timeline (cont.)

SCOPE:

- Perform **topographic surveys** to create an accurate site map (including property lines) and a design base
- Conduct **design work** for ephemeral channel restoration
- Use **regenerative stormwater conveyance**, stream channel repair, energy dissipation, erosion control, outfall treatment, log vanes, stone, step pools, and other natural grade control/stabilization and riparian improvement



Source: Underwood & Associates

Strategy and Timeline (cont.)

SCOPE:

- Create **temporary pools** on Forest Court property with **native structures and vegetation** for wildlife benefit and regrade area that has been washed out due to high water volume from culvert and downspouts



Source: MassHighway Storm Water Handbook



Source: Hudson Civil Products

Strategy and Timeline (cont.)

SCOPE:

- HOA members and other volunteers will be involved in education and stormwater management practices on private land, planting and maintenance
- 20 organizations and hundreds of people collaborating!
- Monitor before/during/after implementation





Strategy and Timeline (cont.)

TIMELINE:

- **2nd Quarter 2022**
 - Contract for and complete topographic survey(s) and engineering design
 - Release construction bid
 - Begin public education workshops and actions by HOAs and homeowners
 - Determine easement requirements, remove objects/property from area
- **3rd Quarter 2022** – begin construction
- **4th Quarter 2022** – complete construction, conduct planting of areas
- **4th Quarter 2023** – replacement plantings, grant closeout

Public education and action on HOA & homeowner properties continues throughout the grant period

Partner Responsibilities

- **Partners:**

- Bolin Forest Phase 1 HOA
- ***Bolin Forest Phase 2 HOA & 7 homeowners****
- ***Bolin Forest Phase 3/4 HOA****
- ***Forest Court HOA****
- Ironwoods HOA
- Orange Water and Sewer Authority
- Orange County Soil and Water Conservation District
- NC State Cooperative Extension Service
- Friends of Bolin Creek
- UNC Institute of Environment Eco Studio
- Chapel Hill-Carrboro City Schools

**** Property where engineering and planting occurs***

All partners involved in education, workdays, and adoption of voluntary best practices

- **Contributions Include:**

- Cash
- “In-Kind” support
 - Volunteer time
 - Professional services/consultation
 - Intern hours
 - Development of educational workshops and filming/archiving education on web
- Voluntary adoption of best practices on HOA and homeowner property

Partner Responsibilities (cont.)

- If a partner pledged cash or in-kind support, they will need to sign a **Memorandum of Agreement (MOA)** with the Town of Carrboro
- The MOA is a legal agreement stating what the partner agreed to; committing them to provide it throughout the grant implementation process
- MOA(s) will be signed by the Town Manager and the representative for the partner (e.g. HOA President)



Partner Responsibilities (cont.)

- **What's in the MOA?**

- Terms of the grant (“WHEREAS, the grant award is solely for a watershed restoration initiative in the Bolin Creek Watershed”....)
- What the partner committed to providing (“WHEREAS, the Example HOA has committed to provide a cash contribution as part of the grant match requirements”....)
- Specific agreements between the parties:
 - Town is the grant administrator
 - The partner will provide specific dollar amount of cash and in-kind services of specific amount of volunteer hours, etc.
 - Partners and Town will keep documentation of \$ and volunteer hours and in-kind services
 - Legal statements (can be amended, shall commence upon execution, etc.)

Partner Responsibilities (cont.)

- **Logistics of MOAs**

- Town staff are reviewing drafts of these
- All individual (homeowner) contributions will be rolled into HOA contributions
- This means that we will NOT have an MOA with each person
- The MOA for each HOA will include the total contribution from the organization AND, if applicable, each individual member who pledged a contribution
- This avoids entering into contracts with individuals, and reduces administrative time to process for Town

Next Steps

- Draft Memoranda of Agreement (MOA) actively being reviewed by Town staff
- Town will send MOAs to organizations for review/approval and deadline for signature
- Town Council meeting in January (tentative)
 - **Requires signed MOAs from all partners before being scheduled!!!**
 - Adopt resolution accepting the grant award
 - Create a project ordinance to begin contracting
 - Allow Town Manager to finalize MOAs with partners
- Then the project can begin!



Source: WK Dickson

Questions?

- Email Emily: ecochran@townofcarrboro.org
- Email Randy: rdodd@townofcarrboro.org
- For more information, visit: <http://www.ci.carrboro.nc.us/280/Bolin-Creek-Watershed-Restoration>

