

SESWA Regional Seminar

Developing Policies to Maintain Drainage Infrastructure in an Urbanizing NC County

April 24, 2020





Agenda

- Background
- Key Relationships and Partnerships
 - » Cities and Towns
 - » DOT
 - » Private
- Policy Considerations
 - » Cross-County Drainage
 - » Rate Structure and Credit Program
- Summary and Next Steps

WHO IS **Raftelis**

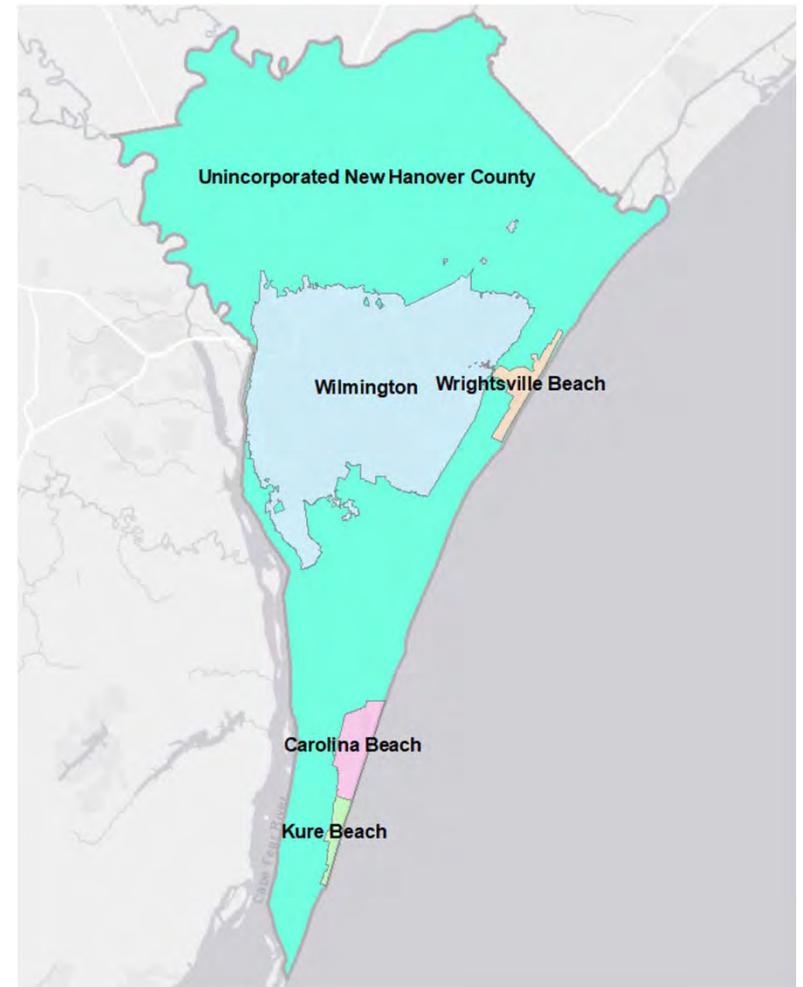


Background



New Hanover County, NC

- Southeast coastal North Carolina
 - › City of Wilmington
 - › Town of Kure Beach
 - › Town of Wrightsville Beach
 - › Town of Carolina Beach



Stormwater Program Drivers

- Unincorporated County
 - › Lots of open channel drainage
- Coastal landscape
 - › Flat with sandy soils
- Warm climate
 - › Long growing season with lots of vegetative growth
- Lots of open channel drainage in a flat landscape results in drainage infrastructure that requires regular, consistent maintenance



Stormwater Program Drivers

- Water and sewer service in the unincorporated County
 - › More dense development than is typical for most unincorporated areas
 - › Increased growth and demand on the drainage infrastructure



Hurricane Impacts

- Hurricane Florence (2018) and Hurricane Matthew (2016) devastated the North Carolina coast
- Impacts and flooding associated with these events brought increased attention to the need for higher performing drainage infrastructure



Stormwater Fee

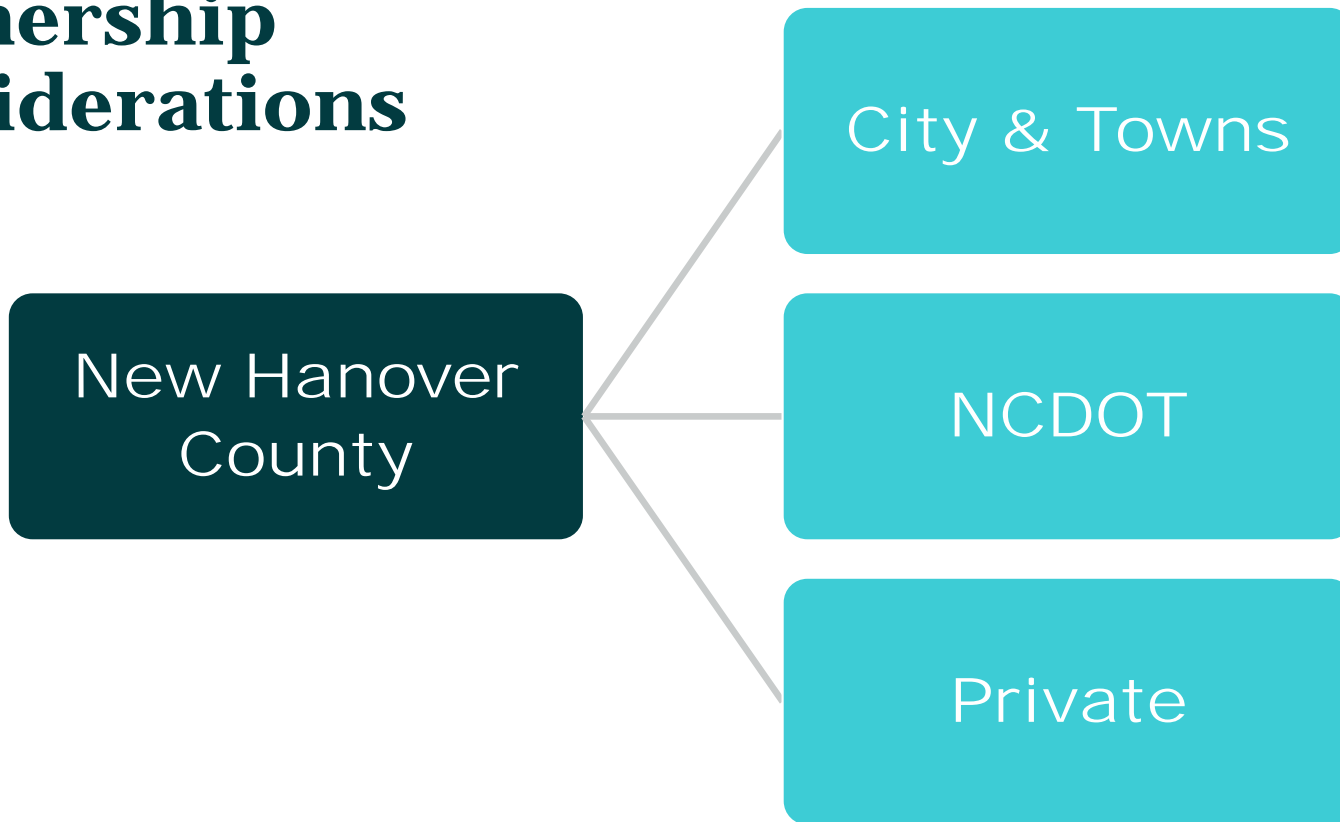
- In order to better address stormwater concerns across the County, the County decided to increase the stormwater program extent and level of service.
 - › Watershed approach
 - › System-wide improvements
 - › County maintenance for major system components
 - › Comprehensive approach to reduce the negative affects of flooding
 - › Every property benefits from the drainage system
- This increase in service would be funded through a stormwater fee.



Key Relationships & Partnerships



Partnership Considerations



City and Towns

- Drainage does not know jurisdictional boundaries
- The County and the City of Wilmington have been in discussions throughout the County's stormwater utility fee development process
 - › The City of Wilmington has had a stormwater fee for many years
- Examples of partnerships discussed
 - › Capital projects
 - › Operations and Maintenance
 - Street sweeping
 - Inlet cleaning
- It is expected that partnerships will be formalized through interlocal agreements
- Leadership has agreed to partner whenever it creates value or is more efficient



North Carolina Department of Transportation (NCDOT)

- Roads make up a large component of the stormwater drainage infrastructure.
- Counties in North Carolina do not own roads. Roads are owned by incorporated jurisdictions or the State of North Carolina.
- NCDOT has many miles of roads to maintain and may not be able to get to some stormwater capital projects in a timely fashion.
 - › Focus is on roadway rights-of-way
- The County imagines working with NCDOT to complete some stormwater projects.
 - › For example, the County may complete a culvert replacement project and NCDOT would fund or reimburse the County for the work.



Private Property

- Currently, private property owners are responsible for the maintenance of drainage infrastructure that flows through or across their property, regardless of the existence of easements.
- Failure to properly maintain this drainage can result in channels backing up and flooding on nearby properties.
- Once the stormwater fee is implemented, the County will be responsible for the maintenance of drainage infrastructure on many properties (not all).
 - › With consent of property owner and an easement to access the drainage infrastructure



Policy Considerations



Defining Public Drainage

- The County will maintain cross-County drainage if the County has an easement and/or permission.
- Cross-County drainage conveyances are those that meet both of the following tests:
 - › The drainage conveyance is not in the NCDOT roadway right of way
 - › The drainage conveyance does not originate within a permitted area upstream of or inclusive of a permitted SCM

	Cross-County Drainage	County will maintain
NC DOT Right of Way (ROW)	No	No (NCDOT responsible for maintenance)*
Conveyance originates in a permitted area that drains into a permitted SCM	No	No
Conveyance downstream of SCM	Yes	Yes, with easement
Conveyance does not originate in a permitted area upstream of SCM	Yes	Yes, with easement

* Under certain conditions the County may maintain NCDOT rights of way if funded by NCDOT

Stormwater Fee

- The stormwater fee rate was approved by County Commissioners in December 2019
- The fee will be conveyed on the County tax bill in 2020

ERU: Equivalent Residential Unit

1 ERU = 4,000 square feet



Single Family Residential Properties (SFR)



Calculated flat fee of 1 ERU



Non-Single Family Residential Properties (NSFR) - All other properties



Calculated fee per ERU (minimum of 1 ERU)



Undeveloped Land



No Charge

\$67.80 per ERU per year

Rate Structure and Credit Program

- Align the rate structure and credit program with the stormwater program
- Properties with an active permitted stormwater control measure, constructed after 2000 will receive a 31% credit on their stormwater fee



Summary & Next Steps



Summary and Next Steps

- Strong communication, partnerships, and relationships will be essential to the success of the stormwater program
- Complete implementation of the stormwater fee
 - › Fee will be conveyed on the tax bill
- Ordinance development
- Prioritization of projects
- Work with private property owners to obtain permission to access property
- Hire staff and contractors



Thank you!

Contact: Katie Cromwell

919.368.0116 / kcromwell@raftelis.com

