

# Stormwater Update

David W. Heglar, PE  
Emergency Response  
Coordinator

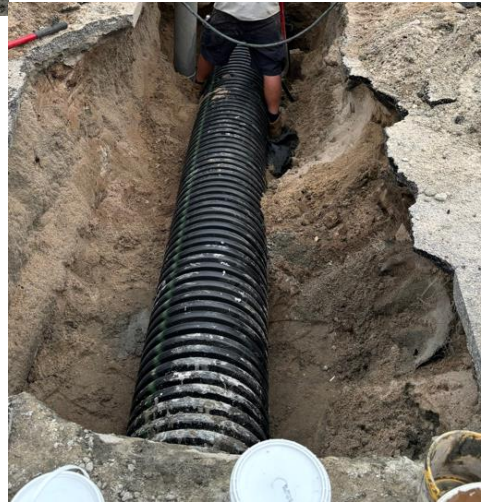
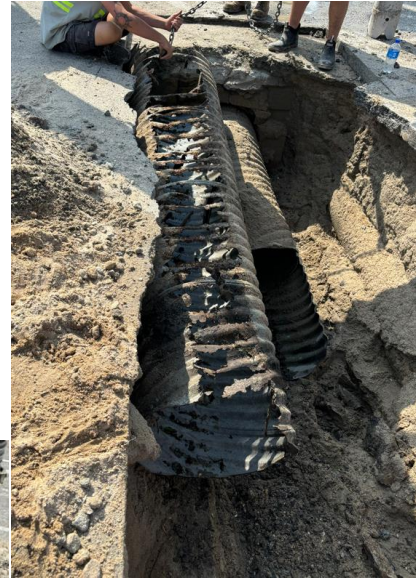
- TS Debby brought >11" of rain in the previous 6 days – resulting in ground saturation
- Localized rain event on 8/12 resulted in official reporting of 4.34" of rain in less than 2 hours
- Multiple individuals reported in excess of 6" from local rain gauges in same time period
- The amount of rainfall exceeded the design capacity of all stormwater systems within the town – resulting in significant road ponding through the event and multiple properties being damaged.
- The event occurred at just after high tide which adds back pressure to the outfalls by putting hydraulic pressure (water) on the dune system.
- The amount of rainfall in this short duration was comparable to Hurricane Florence (2018) (during 2-4am) and Hurricane Floyd (1999).

# Town Actions

- **Public Works**

- Ensured lift stations were not flooded / released to environment
  - 2 lift stations required manual pumping actions during event
  - With 4 others alarming throughout the event
- Ensured drain systems were not clogged during event – all personnel were in town moving from system to system during the 2 hour rain.
- Once rain stopped – systems operated as designed and within 30 mins to 2 hours all roads were passable and areas were clearing
- No system failures detected until the following day – pipe at Atlantic avenue failed and resulted in sinkhole –road blocked and repaired that day.

# Pipe failure – Atlantic Ave



# Fire Department

- Multiple 911 calls during storm for flooded vehicles
  - 341 S Fort Fisher Blvd
  - 766 Sloope Point Ln
  - 600 block of South 4<sup>th</sup> ave
- Additional assistance as department was in community and observed issues

# Police Department

- KBPD requested high-water vehicle from NHC Emergency Management – which was available late in event
- Road Closures during event-
  - Fort Fisher Blvd South from I Avenue to G Avenue-North and Southbound lanes closed
  - South 6<sup>th</sup> Avenue from I Ave. to J Ave.,- North and Southbound lanes closed
  - South 5<sup>th</sup> Avenue from I Ave to J Ave.- North and Southbound lanes closed
  - Sandman Court to Anchor Way- Road passable but put out cones as a precaution
  - Sloope Pt around Ashley and Cutter Court was next on list but water receded before limited resources could close off

# Development and Compliance Department

- Requested information from affected citizens
- Shared FEMA recovery information
- Offered contact information (New Hanover County) to affected citizens for Mitigation Grant Funding

# Reported Flooding – historic and this event

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FEDERAL EMERGENCY MANAGEMENT AGENCY  
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FEMA Form 100-2-1-1, 4/13

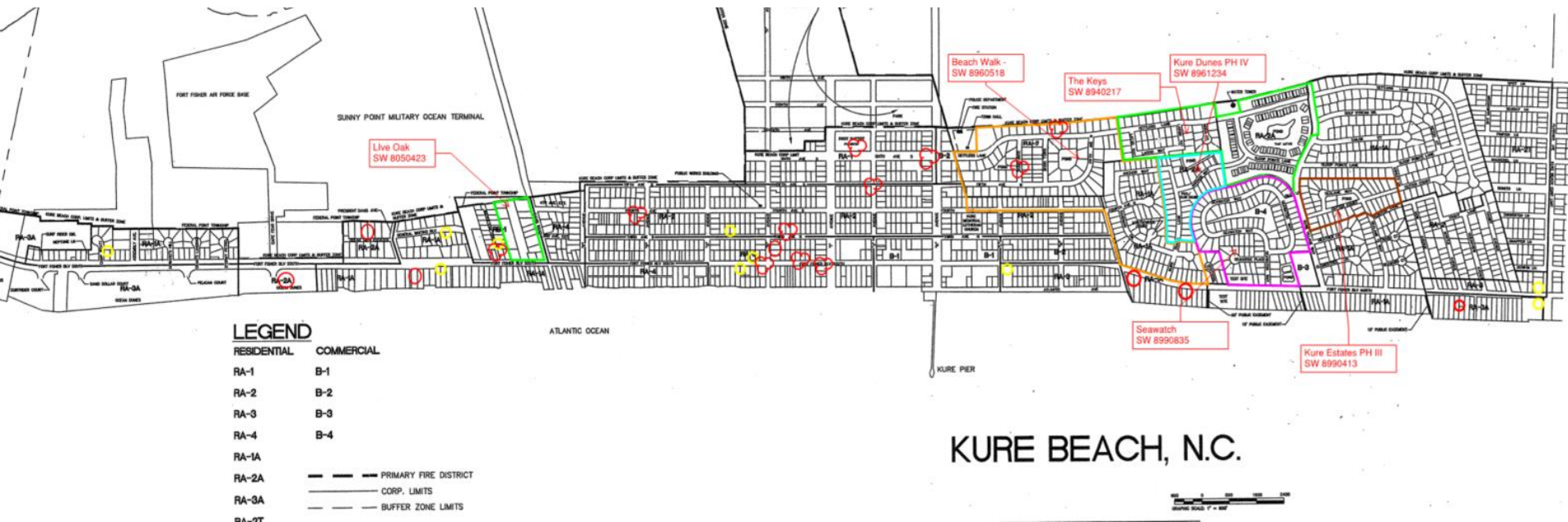


# Reported Flooding – 8/12/24

- Surf Drive: Sent pictures of the yard flooded and water up to the foundation/crawlspace access but did not respond back to request for any internal/external damage.
- 200 block Fifth Ave S: Said that the lower level flooded both Friday and Monday but did not respond back with any specific damage
- 300 block Fort Fisher Blvd S: Stated that entire lower level had at least 6" of standing water in it. Lower level includes entry way, bathroom, storage room, air handler for ac, water heater, water filtration system and 2 garage stalls with drywall. She did not respond back with specific damage. Note that this property is in the VE Zone and current regulations require mechanical equipment to be raised above BFE, but probably was not required when their house was built.
- 400 block Fort Fisher Blvd S A & B: She just said she had water damage but did not respond back with specifics. This property is also in the flood zone.
- 300 block Settlers Lane: He said he had a few inches of water in his crawl space which tripped the breaker and killed the sump pump.
- 200 block Water Oak: Said he had flooding on the first floor
- 300 block Third Ave S: Had ½ inch of water on first level

# Flooding reports

- Hurricane Florence 2018
- Hurricane Floyd 1999
- ⬮ Storm August 12, 2024



# Follow on actions from town

- Ensure that all outfall piping is intact with no damage
  - PW has reached out to vendor to schedule camera review of all 13 outfalls from the Fort Fisher Blvd to the beach IN PROGRESS
- Review and extend outfall piping to beyond the high ridgeline east – currently 4 outfalls end prior to the most eastern ridge
  - During the event the system flowed excessive amounts of water as Fort Fisher Blvd is the lowest point of the town east of 4th ave and all water flows to Fort Fisher Blvd and then to the 13 outfalls to the Atlantic Ocean. IN PROGRESS – PW works reaching out for quotes for this work

- Questions or Comments