

*LSJR Tributary Meeting*

*November 13, 2008*

# Bacteria Source Identification Walk the WBID Summary

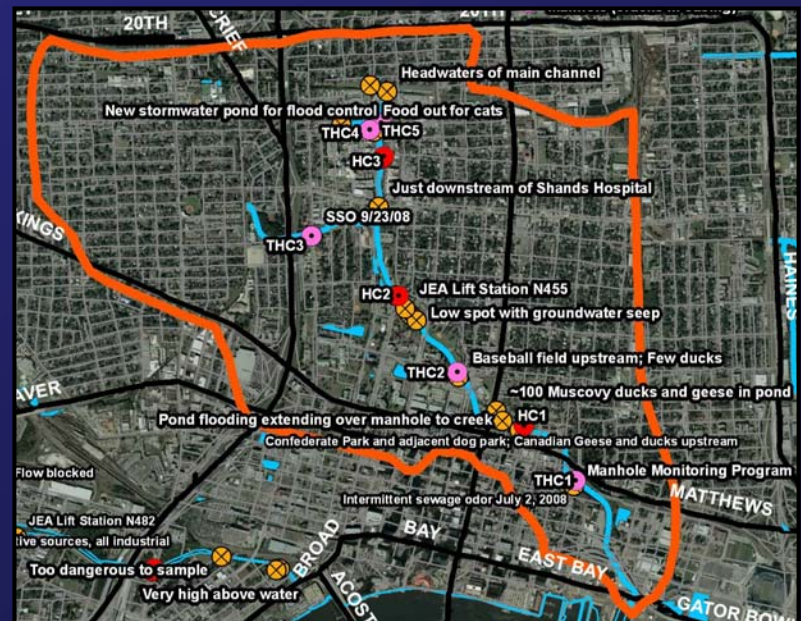
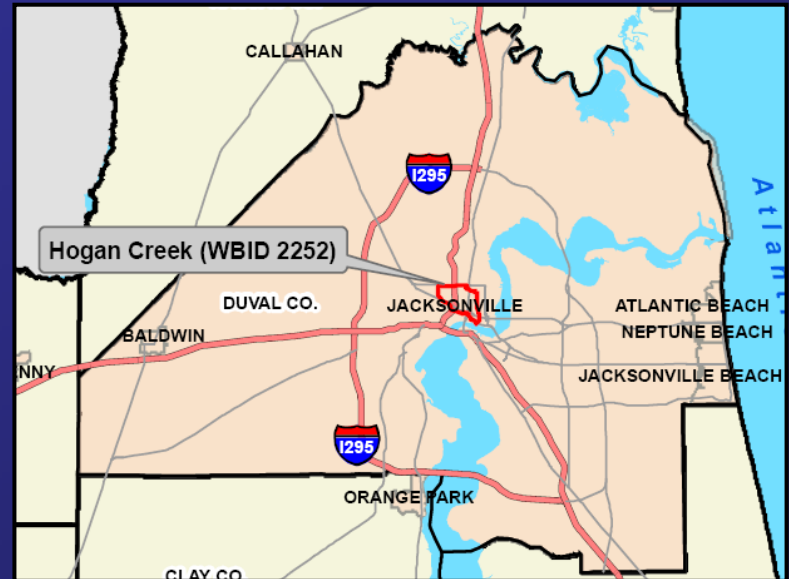
**Cheryl M. Wapnick  
Jason (Eric) Wilson**

**PBSJ**



# Hogan Creek (WBID 2252)

- Tributary Organization
  - Northwestern Branch
  - Southwestern Branch
  - Main Channel
- Existing Data
  - Throughout basin, primarily midstream





# Significant Findings

- Northwestern Branch
  - Several drop inlets feed retention pond that connects to creek (THC4)
    - Venus and Mars apartment complex inlet full of trash
    - Few birds in pond



# Significant Findings

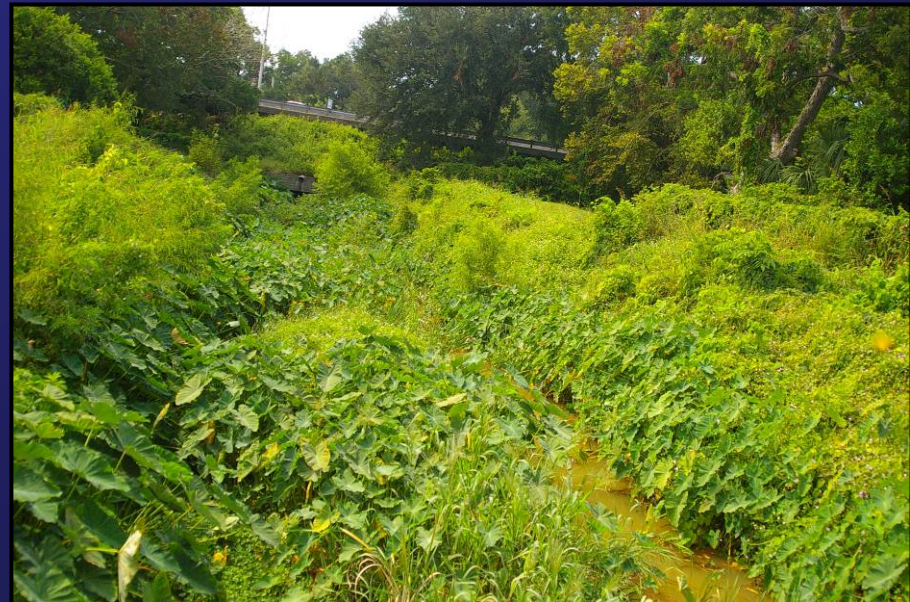
- Main Channel (upstream)
  - New retention pond at Flanders and 16<sup>th</sup> connects into railroad swales and then into creek at new endwall
    - Trash in creek
    - No OSTDS found on west side of creek (JEA Yard)
  - Food out for cats near creek at 13<sup>th</sup> Street (THC5)
  - Creek piped downstream of 10<sup>th</sup> Street (HC3)





# Significant Findings

- Southwestern Branch
  - SSO at W 6th St and North Davis St (THC3) on Sept. 23, 2008 (~100 gal)
  - Only small portion between I-95 and just downstream of Davis St. is above ground
    - Very heavily vegetated



# Significant Findings

- Main Channel (Mid-Downstream)
  - Evidence of homeless at Broad St. (HC2)
  - Repetitive SSOs in past at Paerl St. due to major cave-in (THC2 downstream at Boulevard)
    - Main line here recently lined – JEA to provide date
    - Manhole in Manhole Monitoring Program (MMP)
  - Confederate Park pond had ~100 waterfowl
    - Apparent washout between pond and creek from Faye
  - Dog park with pet station at Hubbard St (no evidence) (HC1)
  - Washington St. manhole in MMP (THC1)





# Hogan Creek - (WBID 2252)

| Station | Station Location                                                               | Corresponding Historical or TAT Station | Fixed or Flexible |
|---------|--------------------------------------------------------------------------------|-----------------------------------------|-------------------|
| THC5    | 13 <sup>th</sup> Street                                                        | HC13E                                   | Flexible          |
| THC4    | 13 <sup>th</sup> Street<br>(Northwestern Branch)                               | HC13                                    | Flexible          |
| HC3     | 10 <sup>th</sup> Street                                                        | 20030774                                | Fixed             |
| THC3    | West 6 <sup>th</sup> Street and<br>North Davis Street<br>(Southwestern Branch) | HCP6                                    | Flexible          |
| HC2     | Broad Street                                                                   | 20030729                                | Fixed             |
| THC2    | Boulevard Street                                                               | 20030692                                | Flexible          |
| HC1     | Hubbard Street<br>(Confederate Park)                                           | 20030772                                | Fixed             |
| THC1    | Washington Street                                                              | 20030773                                | Flexible          |

**TAT Sampling by COJ**



20TH

CRIF

Headwaters of main channel

New stormwater pond for flood control Food out for cats

THC4

THC5

HC3

Just downstream of Shands Hospital

SSO 9/23/08

THC3

HC2

JEA Lift Station N455

Low spot with groundwater seep

THC2

Baseball field upstream; Few ducks

~100 Muscovy ducks and geese in pond

Pond flooding extending over manhole to creek

HC1

Confederate Park and adjacent dog park; Canadian Geese and ducks upstream

Flow blocked

JEA Lift Station N482

ive sources, all industrial

Too dangerous to sample

Very high above water

BROAD

BAY

EAST BAY

Intermittent sewage odor July 2, 2008

THC1

Manhole Monitoring Program

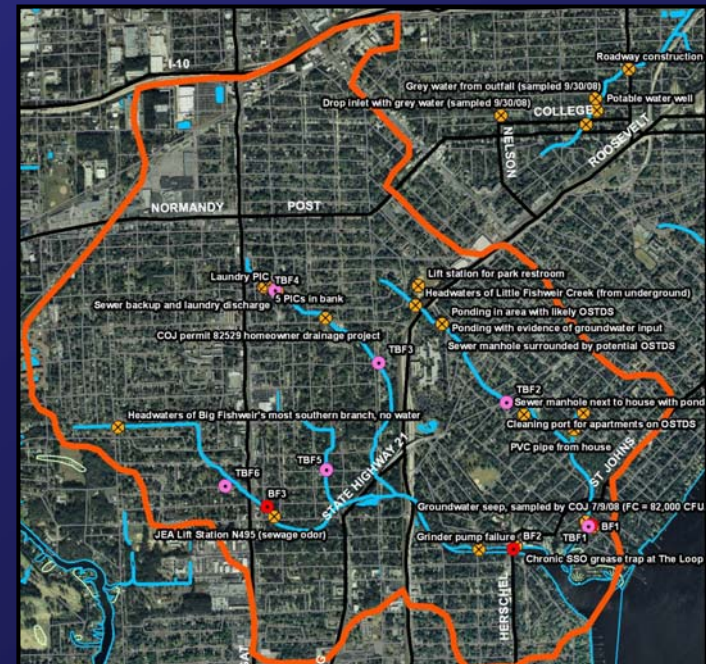
MATTHEWS

GATOR BOW



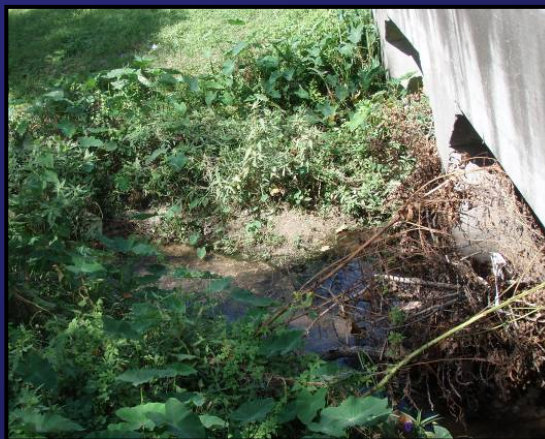
# Big Fishweir Creek (WBID 2280)

- **Tributary Organization**
  - Western Fork
  - Central Fork
  - Eastern Fork
  - Main Channel
  - Little Fishweir Creek
- **Existing Data**
  - Throughout basin, emphasis on Little Fishweir and downstream



# Significant Findings

- Western Fork
  - Headwaters at Lakeshore
  - Several PVC pipes entering creek from bank (no flow)
  - Piped downstream of Yerkes St. (TBF6)
    - Smells like dog feces in area
  - Recent OSTDS failure at Park St. – DOH to check status (BF3 downstream)
- Central Fork
  - Piped upstream of Amherst St. (TBF5)
    - PIC (black corrugated pipe) downstream – COJ to investigate





# Significant Findings

- Eastern Fork
  - Piped upstream of Cassat Ave.
  - 5 PICs between Cassat and Plymouth (most not flowing - **COJ to investigate**) (**TBF4 @ Woodruff Ave**)
    - Fecal material and TP observed outside home
      - DOH: laundry discharge (legal notice sent Oct. 24, 2008); previous plumbing back-up apparently already corrected
  - Hamilton St. (**TBF3**)



# Significant Findings

- Main Channel
  - Jersey St. and Glenwood Ave.; between central and eastern forks
    - New JEA LS (not on map) very close to creek
    - Tidal and opens into pond with no canopy (high die-off likely)
  - Merrimac Ave.; downstream of 3 forks
    - JEA LS undermined by runoff (called in by Ron)
    - OSTDS on map, not observed
  - Euclid St. (BF2 @ Herschel St.)
    - OSTDS on map is sewered (grinder pump bad)





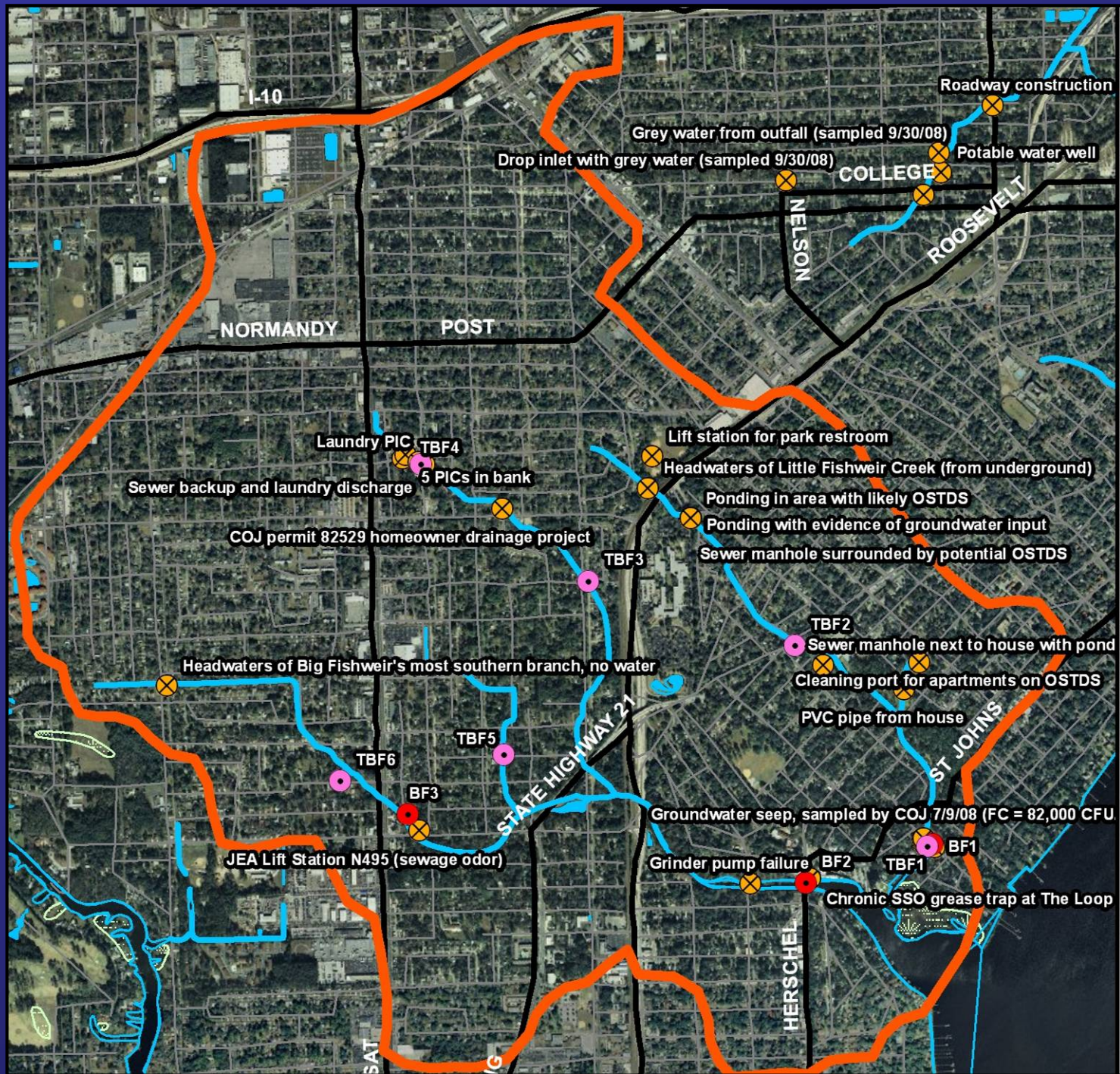
# Significant Findings

- Little Fishweir
  - Headwaters heavily forested (wildlife potential)
  - Evidence of dogs in Boone Park (TBF2)
  - Potential OSTDS sanitary nuisance on Eloise St. in low-lying area – DOH to investigate
  - COJ samples taken Sept. 8, 2008
    - St. Johns @ pipe (FC = 1,000)
    - Greenwood Ave. near seep (FC = 640) (BF1)
    - Greenwood Ave. upstream of seep (FC = 860)
    - Greenwood Ave. outfall (FC = 2,800) (TBF1)



| Big Fishweir Creek - (WBID 2280) |                                          |                                         |                   |
|----------------------------------|------------------------------------------|-----------------------------------------|-------------------|
| Station                          | Station Location                         | Corresponding Historical or TAT Station | Fixed or Flexible |
| TBF6                             | Yerkes Street<br>(Western Fork)          | NA                                      | Flexible          |
| BF3                              | Park Street<br>(East)                    | NA                                      | Fixed             |
| TBF5                             | Amherst Street<br>(Central Fork)         | NA                                      | Flexible          |
| TBF4                             | Woodruff Avenue<br>(Eastern Fork)        | 20030799                                | Flexible          |
| TBF3                             | Hamilton Street<br>(Eastern Fork; North) | Hamilton Street                         | Flexible          |
| BF2                              | Herschel Street                          | 21FLJXWQCR139                           | Fixed             |
| TBF2                             | North Park Street<br>(Little Fishweir)   | 20030798                                | Flexible          |
| TBF1                             | Greenwood Avenue<br>(Stormwater Outfall) | NA                                      | Flexible          |
| BF1                              | Greenwood Avenue<br>(Little Fishweir)    | 21FLJXWQCR6                             | Fixed             |
| TAT Sampling by JEA              |                                          |                                         |                   |

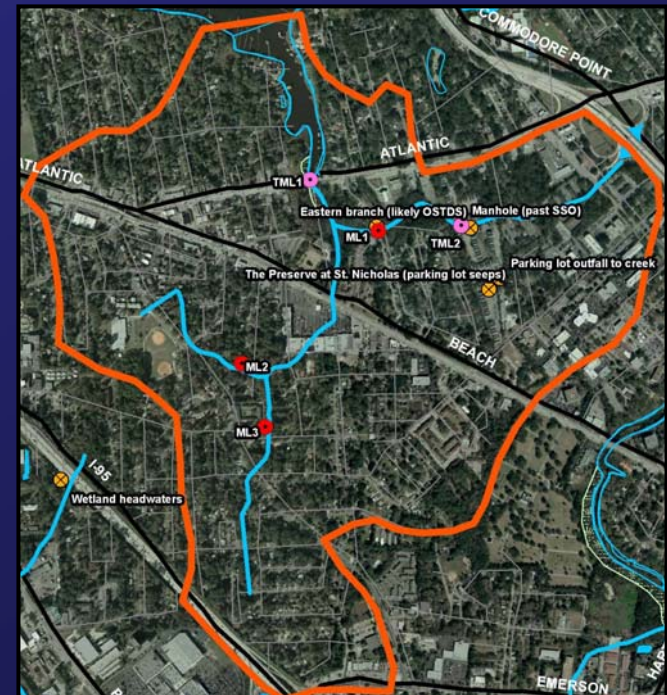






# Miller Creek (WBID 2287)

- Tributary Organization
  - Southern Fork
  - Northern Fork
  - Eastern Branch
  - Main Channel
- Existing Data
  - Data throughout; primarily downstream





# Significant Findings

- Southern Fork
  - Piped upstream of Stillman St. (ML3)
    - Stormwater manhole in woods upstream was sampled ~2005 by DEP (FC ~60,000) and by JEA shortly after (FC low)
      - Opened Oct. 1, 2008; sheen, no odor
    - Homeless no longer in area



# Significant Findings

- Northern Fork
  - Walked upstream to footbridge from Camden Ave. (ML2) with resident's permission
    - Piped upstream of footbridge to Spring Park Rd.
    - Upstream OSTDS ~Spring Park Rd. got abandonment permit ~2005/2006
    - Several cats in area (homeowner presumably dumps cat litter into creek)
    - Dog feces in grass next to creek
    - Black corrugated pipe extends from house towards creek (DEP never observed discharge)





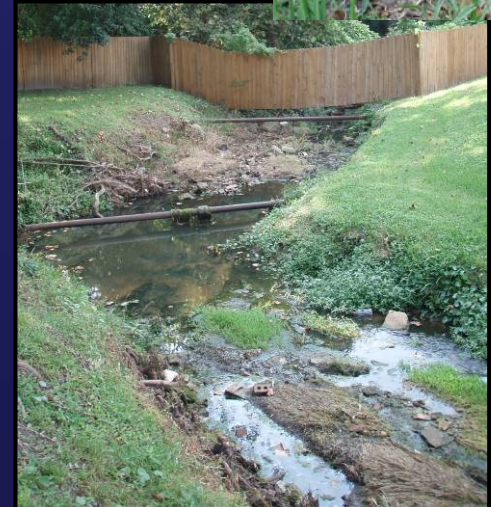
# Significant Findings

- Main Channel
  - Evidence of homeless population downstream of confluence
  - Creek joins piped conveyance system downstream of confluence with northern and southern forks
    - Remains piped until Beach Blvd., just west of Mayfair Village Rd.
  - Tidal, open, marshy area at Atlantic Blvd., below Eastern Branch (die-off likely) (TML1)



# Significant Findings

- Eastern Branch
  - Preserve at St. Nicholas Apartments
    - Piped upstream
    - Water with green/white residue bubbling up from pavement in parking lot
      - Reported to Tom K (DEP) – **DEP to provide status**
      - DEP sampled parking lot outfall to creek Oct. 1, 2008 (FC = 300)
    - Drop inlets surcharged behind apartments
    - Private LS not on map
    - Prior SSO at manhole downstream of LS **(TML2)**
  - Heavily shaded at Mayfair Rd **(ML1)**

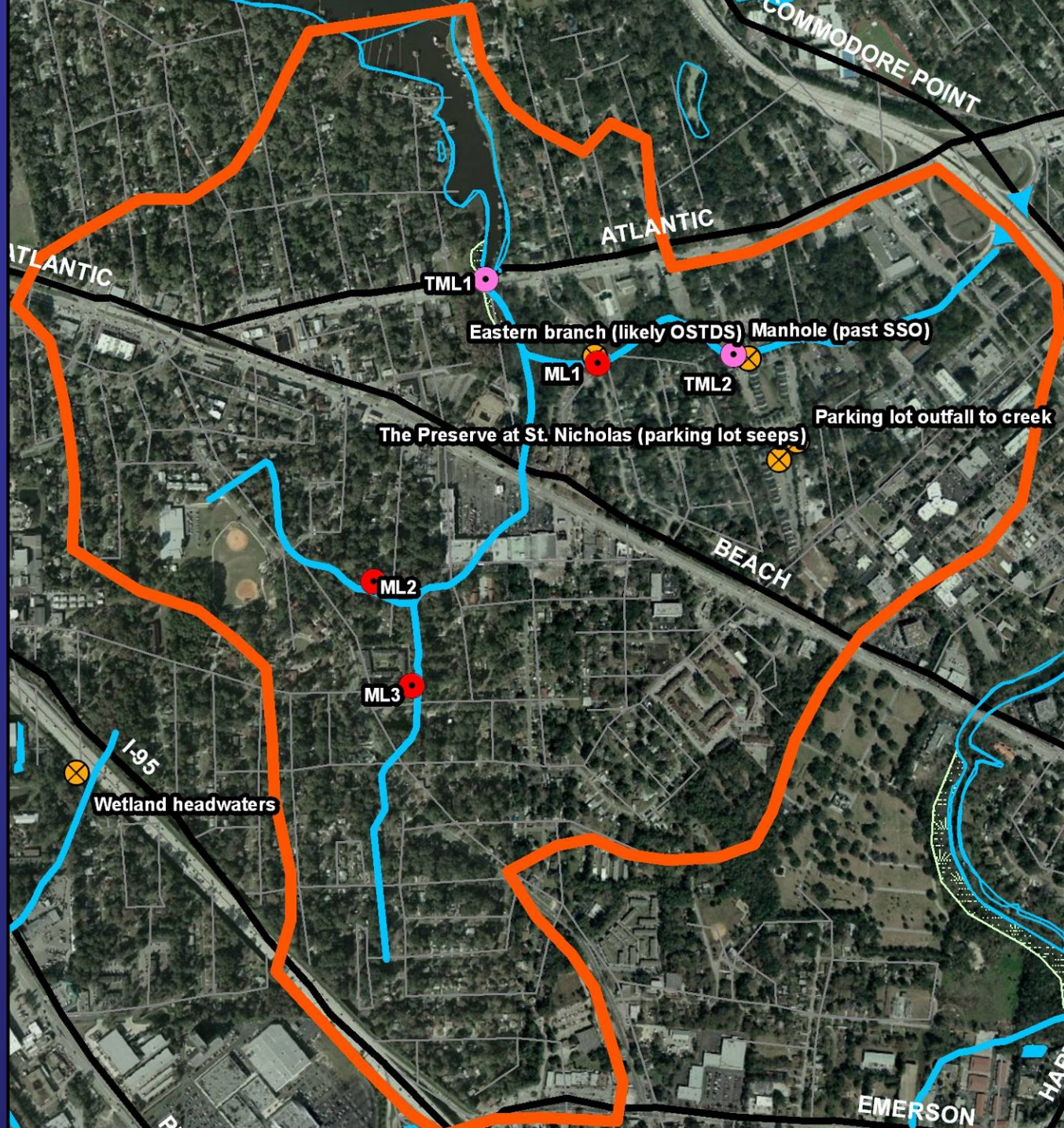




# Miller Creek - (WBID 2287)

| Station | Station Location                                                               | Corresponding Historical or TAT Station | Fixed or Flexible |
|---------|--------------------------------------------------------------------------------|-----------------------------------------|-------------------|
| ML3     | Stillman Street<br>(Southern Fork)                                             | 20030795                                | Fixed             |
| ML2     | Camden Avenue<br>(Northern Fork)                                               | 20030796                                | Fixed             |
| TML2    | Arletha Road at The Preserve Apartments<br>at St. Nicholas<br>(Eastern Branch) | NA                                      | Flexible          |
| ML1     | Mayfair Road (Eastern Branch)                                                  | NA                                      | Fixed             |
| TML1    | Atlantic Boulevard                                                             | 21FLJXWQSS1                             | Flexible          |

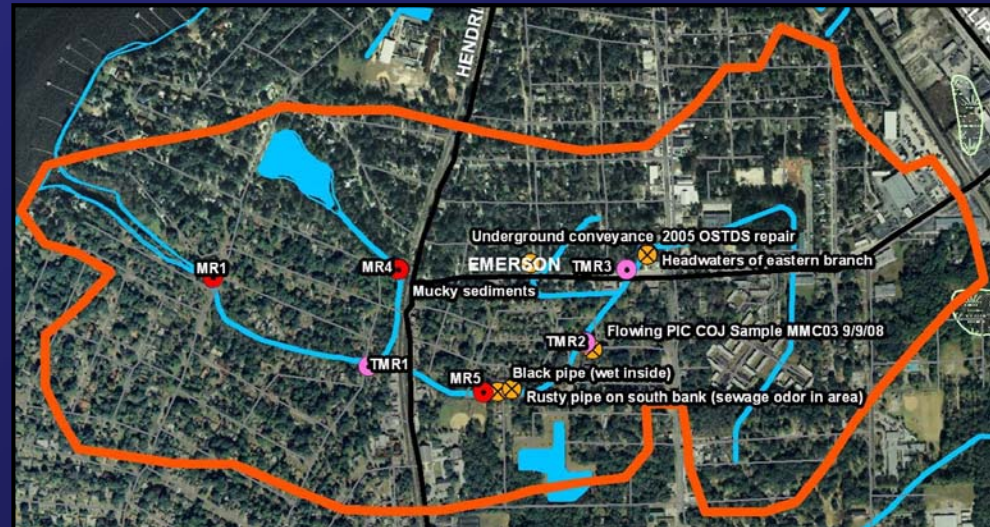
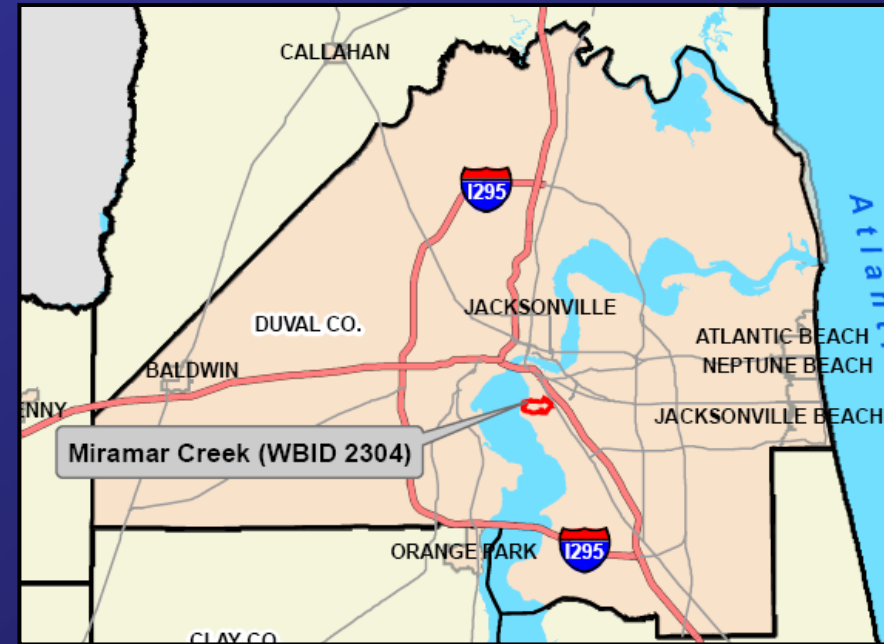
TAT Sampling by COJ





# Miramar Creek (WBID 2304)

- Tributary Organization
  - Main Channel
  - Western Branch
  - Northern Branch
- Existing Data
  - Throughout WBID, including MST



# Significant Findings

- Main Channel
  - Propose revision of WBID boundary to exclude area east of St. Augustine Rd.
    - Headwaters just west of RPM on Emerson (TMR3)
      - Groundwater seep under culvert (white bubbling sand)
      - 2 small discharge pipes from evaporator behind RPM
    - Western Branch primarily all piped (high flow)
    - Home with sump pump removed, swampy, deck cut into drainfield, no discharge on Brooker Rd. (TMR2) – DOH/DEP to investigate





# Significant Findings

- Main Channel cont.
  - BJP Pond at Callahan St. drains residential neighborhood; outfall to Miramar Creek not identified – **PWD to provide location**
  - COJ sampled PICs in Orlando Cir. Area Sept. 9, 2008 **(MR5)**
    - Rusty pipe (FC = 100)
    - Black corrugated pipe (FC = 5,100) – **DOH to investigate**
    - Vacant house discharge reported to DEP



# Significant Findings

- Northern Branch
  - Colonial Park Pond weir structure overflow
    - *Sphaerotilus* in water?
    - Stormwater outfall and 1-inch PVC pipe just downstream of pond outfall
    - Few ducks in pond
  - JEA Lift Station #S505 (MR4)
    - Operates with dry pit flooded suction (older design allowing for access to work on pumps through dry area)
    - Stormwater outfall to creek from LS probably no longer used
    - Homeless population (caution when sampling)
    - Animal burrow behind LS





# Significant Findings

- Northern Branch cont.
  - JEA sewer lines downstream of Greenridge Rd. were upgraded from terra cotta to PVC
  - Seep under sewer line with sewage odor
    - COJ sampled Sept. 9, 2008 (FC = 30,000) – JEA to investigate
  - Green sewer line crossing creek is bowed and needs replacement – JEA to investigate
  - Confluence with main channel upstream of Gadsden Rd. (TMR1)



# Significant Findings

- Main Channel cont.
  - Manhole overflowed into neighboring residence at San Jose Blvd. during Faye (MR1)
  - Last residence on sewer, north of OSTDS failure area





# Miramar Creek - (WBID 2304)

| Station | Station Location                            | Corresponding Historical or TAT Station | Fixed or Flexible |
|---------|---------------------------------------------|-----------------------------------------|-------------------|
| TMR3    | Emerson Road (West)                         | 20030827 DMR2                           | Flexible          |
| TMR2    | Brooker Road                                | NA                                      | Flexible          |
| MR5     | Orlando Circle West (Between MR3 and DMR2A) | NA                                      | Fixed             |
| MR4     | JEA Lift Station #S505                      | JEA #S505 N Branch                      | Fixed             |
| TMR1    | Gadsden Road                                | DMR3                                    | Flexible          |
| MR1     | San Jose Boulevard                          | MR-1                                    | Fixed             |

TAT Sampling by COJ

