

## Supplementary Materials

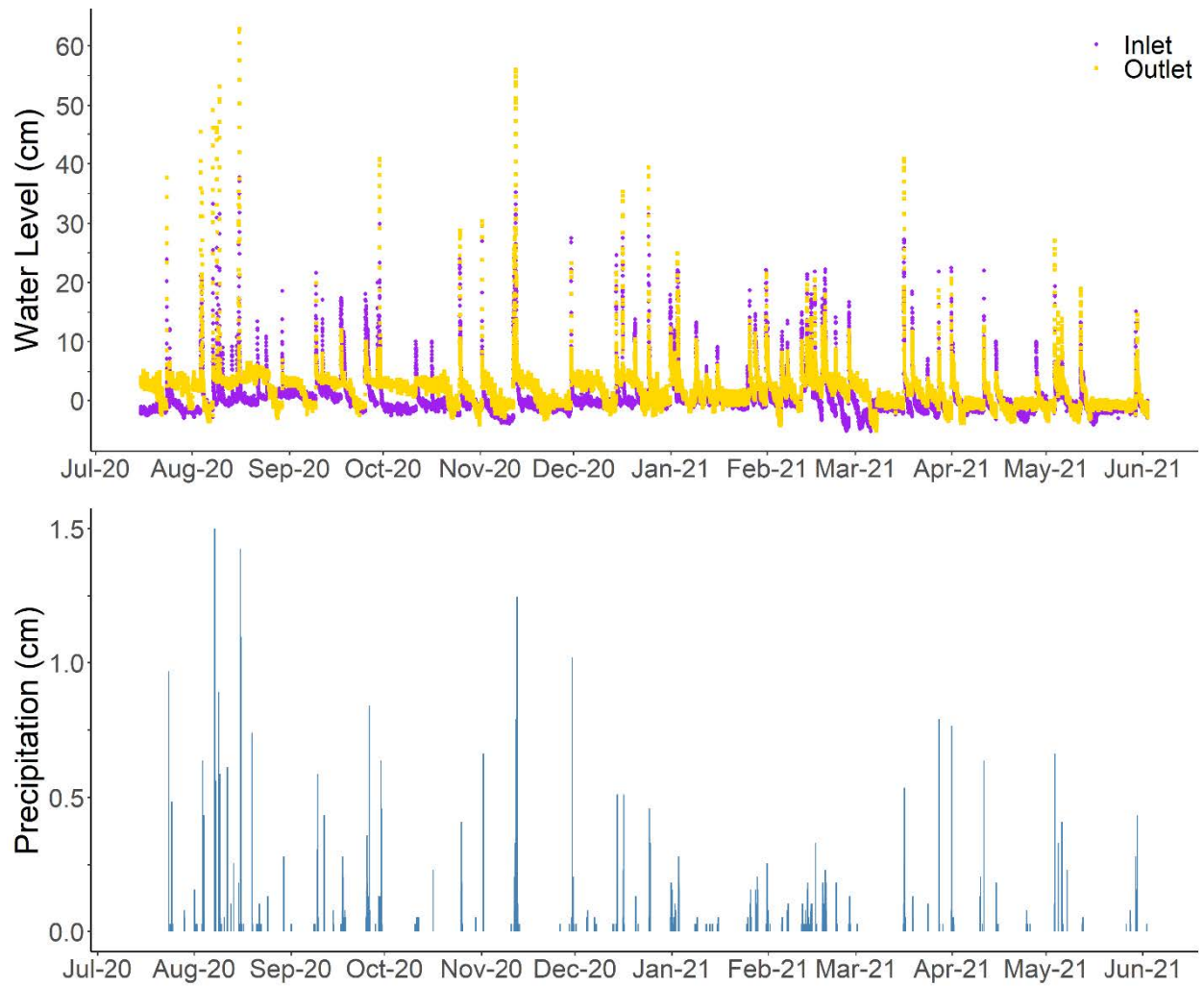


Figure S1. Stage responses at the inlet and outlet of the dry basin in response to rain events.

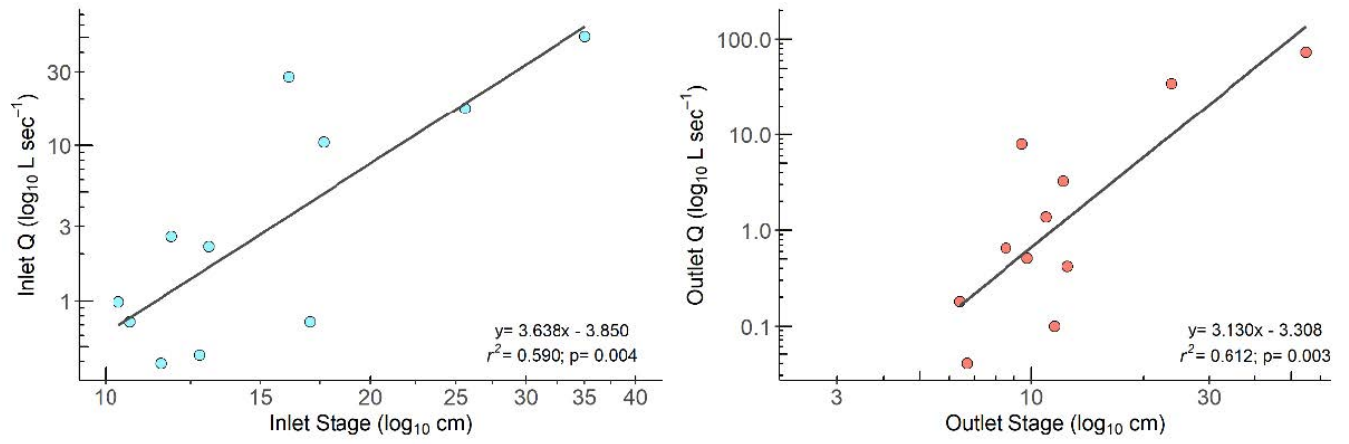


Figure S2. Rating curves for the inlet and outlet

# Soil Map—Pitt County, North Carolina

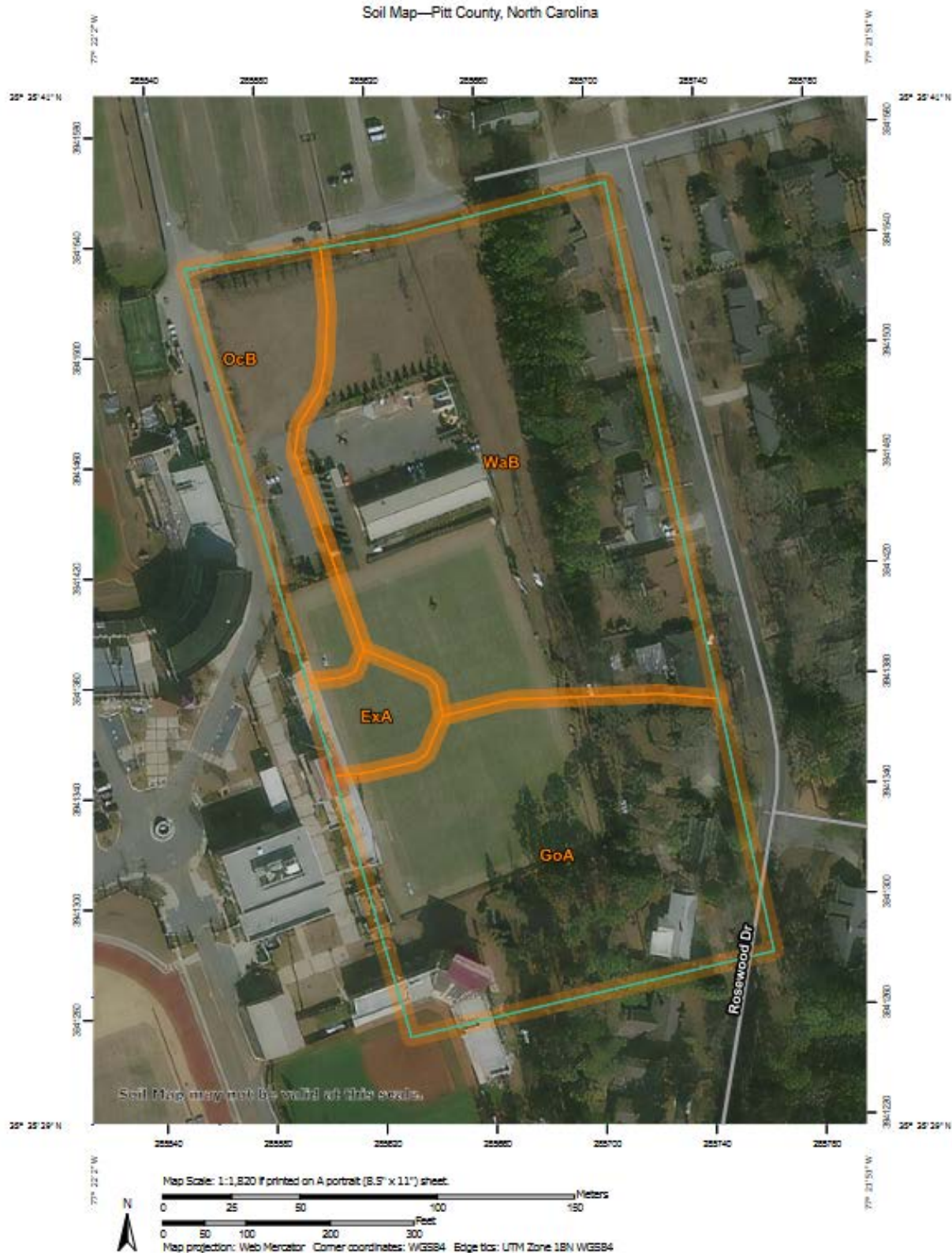


Figure S3. Soil map, including dry basin with Goldsboro (GoA) soils near the inlet and Wagram (WaB) covering the rest

## Report — Map Unit Description

### Pitt County, North Carolina

#### GoA—Goldsboro sandy loam, 0 to 1 percent slopes

##### Map Unit Setting

*National map unit symbol:* 3tyx

*Elevation:* 20 to 330 feet

*Mean annual precipitation:* 38 to 55 inches

*Mean annual air temperature:* 59 to 70 degrees F

*Frost-free period:* 200 to 280 days

*Farmland classification:* All areas are prime farmland

##### Map Unit Composition

*Goldsboro and similar soils:* 90 percent

*Minor components:* 5 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

##### Description of Goldsboro

###### Setting

*Landform:* Flats on marine terraces, broad interstream divides on marine terraces

*Landform position (two-dimensional):* Summit

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Loamy marine deposits

###### Typical profile

*Ap - 0 to 7 inches:* fine sandy loam

*E - 7 to 13 inches:* fine sandy loam

*Bt - 13 to 40 inches:* sandy clay loam

*Btg - 40 to 80 inches:* sandy clay loam

###### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Moderately well drained

*Runoff class:* Very low

*Capacity of the most limiting layer to transmit water (Ksat):*

Moderately high to high (0.57 to 1.98 in/hr)

*Depth to water table:* About 24 to 36 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water supply, 0 to 60 inches:* Moderate (about 8.1 inches)

###### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2w

*Hydrologic Soil Group:* B

*Hydric soil rating:* No



## Pitt County, North Carolina

### WaB—Wagram loamy sand, 0 to 6 percent slopes

#### Map Unit Setting

*National map unit symbol:* 3tzm

*Elevation:* 80 to 330 feet

*Mean annual precipitation:* 38 to 55 inches

*Mean annual air temperature:* 59 to 70 degrees F

*Frost-free period:* 210 to 265 days

*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Wagram and similar soils:* 90 percent

*Minor components:* 5 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Wagram

##### Setting

*Landform:* Broad interstream divides on marine terraces, ridges on marine terraces

*Landform position (two-dimensional):* Summit, shoulder

*Landform position (three-dimensional):* Crest

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Loamy marine deposits

##### Typical profile

*Ap - 0 to 8 inches:* loamy sand

*E - 8 to 24 inches:* loamy sand

*Bt - 24 to 75 inches:* sandy clay loam

*BC - 75 to 83 inches:* sandy loam

##### Properties and qualities

*Slope:* 0 to 6 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):*

Moderately high to high (0.57 to 1.98 in/hr)

*Depth to water table:* About 60 to 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water supply, 0 to 60 inches:* Moderate (about 6.7 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2s

*Hydrologic Soil Group:* A

*Hydric soil rating:* No