

Water Quality Monitoring, Beaufort County

Project Status Update
for the

Beaufort County Storm Water Management
Utility Board

December 7, 2011

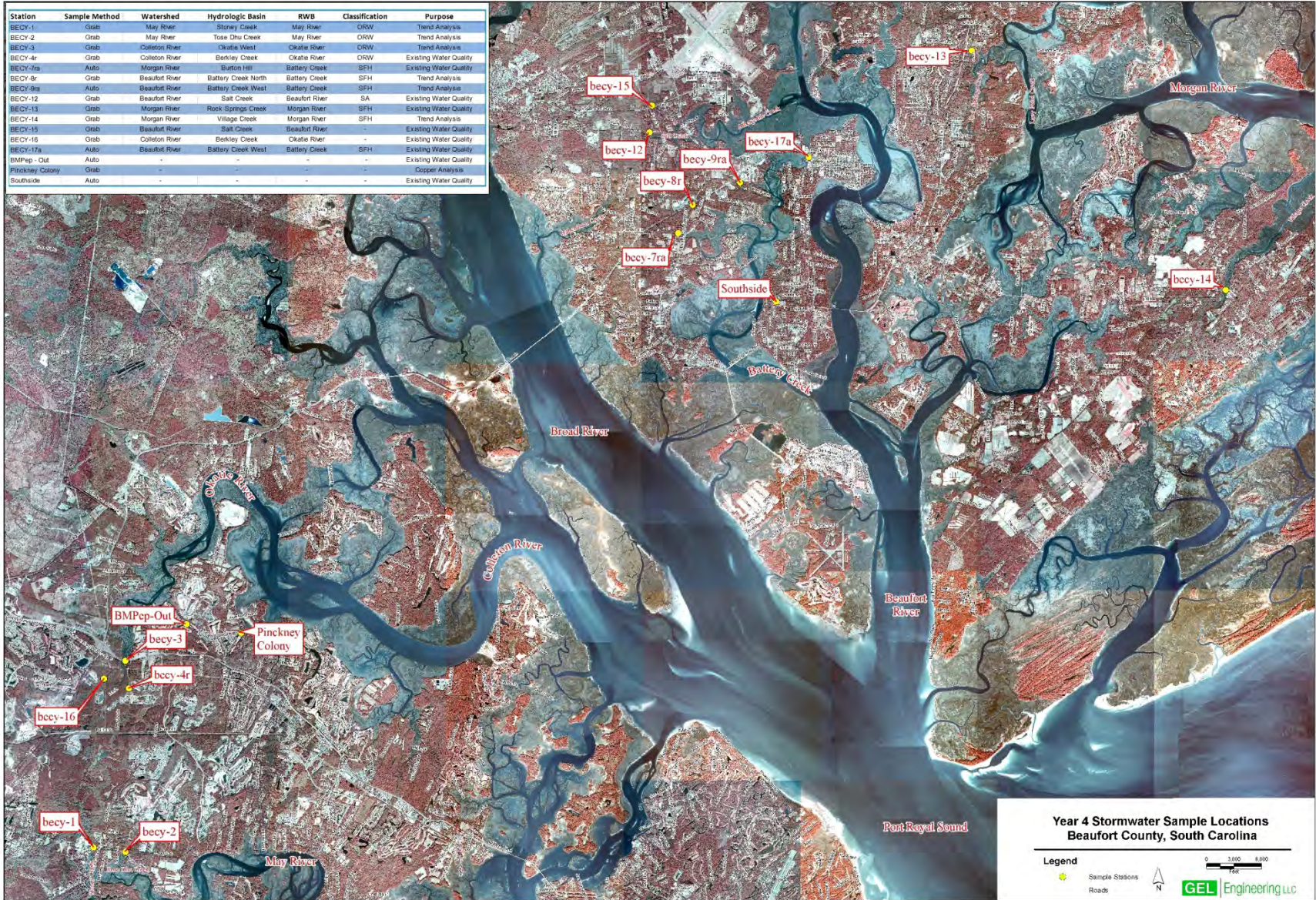


Year 4 Draft Annual Report

- Changes in Sample Locations
- Expanded Copper Evaluation
- Sediment Sampling – Fecal Coliform
- Conclusions and Recommendations

Changes to Sample Locations

Station	Sample Method	Watershed	Hydrologic Basin	RWB	Classification	Purpose
BECY-1	Grab	May River	Stoney Creek	May River	CRW	Trend Analysis
BECY-2	Grab	May River	Tossy Dhu Creek	May River	CRW	Trend Analysis
BECY-3	Grab	Culleton River	Okatie West	Okatie River	CRW	Trend Analysis
BECY-4r	Grab	Culleton River	Berkley Creek	Okatie River	CRW	Existing Water Quality
BECY-4rs	Auto	Morgan River	Stoney Hill	Battery Creek	SFH	Existing Water Quality
BECY-8r	Grab	Beaufort River	Battery Creek North	Battery Creek	SFH	Trend Analysis
BECY-9a	Auto	Beaufort River	Battery Creek West	Battery Creek	SFH	Trend Analysis
BECY-12	Grab	Beaufort River	Salt Creek	Beaufort River	SA	Existing Water Quality
BECY-13	Grab	Morgan River	Rock Springs Creek	Morgan River	SFH	Existing Water Quality
BECY-14	Grab	Morgan River	Village Creek	Morgan River	SFH	Trend Analysis
BECY-15	Grab	Beaufort River	Salt Creek	Beaufort River	-	Existing Water Quality
BECY-16	Grab	Culleton River	Berkley Creek	Okatie River	-	Existing Water Quality
BECY-17a	Auto	Beaufort River	Battery Creek West	Battery Creek	SFH	Existing Water Quality
BMPep - Out	Auto	-	-	-	-	Existing Water Quality
Pinckney Colony	Grab	-	-	-	-	Copper Analysis
Southside	Auto	-	-	-	-	Existing Water Quality



Eagles Pointe Copper Evaluation

- **Copper Sulfate Application Sampling**
 - Copper Concentrations remain highly elevated for approximately 24-hours
- **Biotic Ligand Model (BLM)**
 - Results infer copper concentrations would be below toxic levels 24-hours after copper sulfate applications
- **Eagles Pointe Operational Solution**
 - Hold water for 24-hours following copper sulfate application

Fecal Coliform in Sediments

- **1st Set of Samples**
 - Fecal coliform (FC) not prevalent in the subsurface sediment samples
 - Elevated values in some surface areas, but not widespread
- **2nd Set of Samples (Before and After BJWSA Pump Test)**
 - Elevated in some areas, but not widespread
 - No obvious trend before/after
- **Decision to Discontinue Sediment Sampling**

Bacterial Source Tracking (BST)

- No BST occurred in Year 4

Year 4 Existing Water Quality

- All stations continue to have elevated FC
- Excluding FC, no widespread, consistent water quality issues
- At least 3 years of consistent water quality data obtained for multiple sample stations

Recommendations and Observations

- No recommendations for the relocation of sample stations
- Locate new BMP efficiency site
- Relocate BECY-1A and BECY-4A (Runoff Sites)
 - High/Medium Density Residential or Industrial/Heavy Commercial Site

Questions?