

Northern Beaufort County Regional Plan Implementation Committee
Executive Conference Room, Beaufort County Administration Building
Beaufort County Government Robert Smalls Complex
100 Ribaut Road, Beaufort, SC 29902
Friday, January 19, 2018
9:30 a.m.

Members:

Robert Semmler, Beaufort County Planning Commission Chair (Chairman)
Jerry Ashmore, Town of Port Royal Council
Earl Campbell, Beaufort County School Board Chair
Jerry Cook, Town of Yemassee Mayor
Gerald Dawson, Beaufort County Council
Joe DeVito, Metropolitan Planning Commission Chair (Vice-Chairman)
Brian Flewelling, Beaufort County Council
York Glover, Lowcountry Council of Governments
Alice Howard, Beaufort County Council
Billy Keyserling, City of Beaufort Mayor
Mike McFee, City of Beaufort Council
Samuel Murray, Town of Port Royal Mayor

REVISED AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. REVIEW OF SEPTEMBER 29, 2017, MEETING MINUTES ([backup](#))
4. TIMELINE AND SCOPE OF LADY’S ISLAND PLAN ([backup](#))
5. APPOINTMENT OF THE LADY’S ISLAND PLAN STEERING COMMITTEE ([backup](#))
6. UPDATE FROM LOWCOUNTRY COUNCIL OF GOVERNMENTS (Ginnie Kozak, Lowcountry Council of Governments)
 - A. TRANSFER OF DEVELOPMENT RIGHTS PROGRAM
 - B. LOWCOUNTRY AREA TRANSPORTATION STUDY (LATS)
7. BRIEF ON STATUS OF STORMWATER REGIONALIZATION (Eric Larson, Director, Environments Engineering & Land Management) ([backup](#))
8. ROUND THE TABLE COMMENTS
9. OTHER BUSINESS: NEXT MEETING—Friday, March 23, 2018 at 9:30 a.m., Executive Conference Room, Beaufort County Administration Building, 100 Ribaut Road, Beaufort, SC
10. ADJOURNMENT



Northern Beaufort County Regional Plan Implementation Committee Meeting
Executive Conference Room, County Administration Building
100 Ribaut Road, Beaufort, SC 29902
September 29, 2017

ATTENDANCE

Members Present: Robert Semmler, Chair, Northern Regional Plan Implementation (NRPIC) Committee and Beaufort County Planning Commission; Earl Campbell, Beaufort County School Board Vice-Chair Brian Flewelling, Beaufort County Councilman District 5; York Glover, Lowcountry Council of Governments; Alice Howard, Beaufort County Councilwoman District 4; Billy Keyserling, City of Beaufort Mayor; Tom Klein, Town of Port Royal Councilman; and Mike McFee, City of Beaufort Councilman

Members Absent: Mayor Jerry Cook, Town of Yemassee; Gerald Dawson, Beaufort County Council District 1; Joe DeVito, Metropolitan Planning Commission Chair; and Samuel Murray, Town of Port Royal Mayor.

Staff Present: Anthony Criscitiello, Beaufort County Planning Director; Linda Bridges, Town of Port Royal Planning Administrator; Thomas Keaveny, Beaufort County Attorney; Christopher Inglese, Beaufort County Assistant Attorney; Ginnie Kozak, Lowcountry Council of Governments; and Heather Spade, Beaufort County Planning Assistant.

Other Attendees: Kate Schaffer, Coastal Conservation League; Mitch Mitchell, Beaufort County Planning Commission; Rikki Parker, Coastal Conservation League; Brett Gillis, Stantec; Tyson Smith, White & Smith, TDR/Land Use Projects consultant; Jim Landis, Marine Corps Air Station and Recruit Depot; Ward Parker, Military Enhancement Committee; and Blakely Williams, Beaufort Regional Chamber.

PLEDGE OF ALLEGIANCE: Chairman Robert Semmler led those assembled with the Pledge of Allegiance to the United States of America.

CALL TO ORDER: Mr. Semmler called the Northern Regional Plan Implementation Committee (NRPIC) meeting to order at approximately 9:38 a.m.

REVIEW OF MINUTES: **Motion:** Councilman Brian Flewelling made a motion, and Mayor Billy Keyserling seconded the motion, **to approve the March 24, 2017, meeting minutes as written.** No discussion occurred. The motion **carried (FOR: Campbell, Flewelling, Glover, Howard, Keyserling, Klein, McFee, and Semmler)**

CHAIRMAN'S REPORT: Mr. Semmler stated he was hoping to have a public signing of the Memorandum of Understanding (MOU) and believed that this meeting would be a perfect setting because the mayors and key players from the different municipalities usually attend the meeting. Due to many changes that have taken place since the MOU was given out in March, the signing has not taken place until the new key members at the Air Station have time to review the documents.

JOINT LAND USE STUDY (JLUS) COMPLETION (Tyson Smith of White and Smith, LLC)

Mr. Tyson Smith commented on the MOU that was presented to everyone in March. He commented that there were no major changes, only a few wording changes; but, the Navy was proposed to be a part of the MOU and he believes it is no longer a priority for them, and they may drop out.

Regarding the Transfer of Development Rights (TDRs), he has finalized his deliverables and is now working with the County to implement and create activity on the TDRs. A land use economist is helping to come up with an estimate for the value of the development rights in the sending areas to better determine how the money that was given by the State should be spent and how much should be paid for each development right. Mr. Smith explained that the draft of that study is being finalized and staff will have time to review it once it

is finalized. Mr. Smith suspects that by September or October, with a public meeting on the process, the application period will begin for property owners in the Air Installation Compatibility Use Zone (AICUZ) area to apply for funding for their development rights.

Committee discussion included concerns on the possibility of changing either the wording or the designations for the 65-69.9 DBL to remove the notice requirements for that DBL line completely or to change the wording so that it is preferable but not mandatory; and querying if any studies have shown a direct correlation with the property value and the signing of the MOU.

Mr. Smith explained that some communities have voluntary real-estate disclosures and others have mandatory. The problem with the voluntary real-estate disclosure is that people tend to not use them. If people are more aware of what they are buying before they buy they are less likely to have a complaint later, in terms of effect on property values Mr. Smith is unsure of any studies that have been done to show correlation of military and real-estate disclosures. While drafting the noise overlay zone it was tailored by zone so that people could see specifically what zone they were located in and how the different zones differentiate from one another.

Further Committee discussion included looking at the subdivisions that are already in place and the overall effects on them, notification and recording of such TDRs, the rationale for the requirements, and concern for the health and safety of the citizens.

Mr. Jim Landis stated that both the Air Station and Parris Island are looking forward to the finalization to the JLUS process. It will play a key role in strengthening the relationship among them and the County, the City of Beaufort, and the Town of Port Royal. He explained that 65-decibel issue comes from four decades of working with AICUZ interaction with FAA (Federal Aviation Administration) and the Department of Transportation. The 65 decibels matches both of their guidelines and is about the point at which you expect to begin receiving complaints. Mr. Landis explained the most important part of the entire process is education the public starting with the real-estate agents.

Additional Committee discussion included properties that were purchased before the new zone was adopted and what the property owners were to expect.

SEA ISLAND PARKWAY CORRIDOR TRANSPORTATION STUDY (Bret Gillis, Stantec)

The first public meeting was held on September 29, 2016, to collect public input; the public concerns were geared towards traffic and congestion. Mr. Gillis described the maps and charts on the PowerPoint presentation depicting the traffic backups at the current time compared to what the traffic is projected to do in the future as growth continues. The study also considers the potential for future housing and development needs. The study concluded that 21 years from now the main Lady's Island intersection on Sea Island Parkway and Sam's Point Road would reach capacity. Once an intersection reaches capacity that becomes a multiplier effect. Mr. Gillis then offered some possible ways to relieve the traffic congestion on Lady's Island:

- Grade Separated Interchange with one road going over another (fly over): This does not fit with the character of the location. It would solve the traffic problem; but, would have an extensive impact on the area.
- Widening Sea Island Parkway: Because of the amount of buildings and parking spaces are so close to the road, this would not be a viable option.
- A new bridge as a Boundary Street Extension: The traffic relief would not outweigh the cost.

Mr. Gillis then discussed practical ways to improve the traffic problem on Lady's Island

- Turn Lane Improvements: Add a right turn lane onto Sam's Point Road and also a right turn lane coming off Sam's Point Road onto Sea Island Parkway.

- Connectivity: Seven new connections were identified to ease the traffic problems at the Lady's Island intersection, including:
 - a. Miller Drive, Sunset Boulevard, Hazel Farm Road, and Gay Drive.
 - b. Adding new stop lights at the points of connectivity to help with the flow of traffic.
 - c. Designing these connectivity roads to ensure that the neighborhood appeal is not lost.
 - d. Designing roads to make the drivers feel constrained and cause them to drive slower and safer.
 - e. Managing the intersections on the connectivity roads with an all-way stop or a mini-traffic circle. The mini-traffic circle is the more viable option since the steady flow of traffic does not cause further backups in traffic.

Committee discussion included a clarification on the road improvements or simply adding signals since the roads already exist (Miller to Sam's Point) (*Mr. Gillis explained that most of the improvements are being made by making use of existing right of way.*); clarifying the connector road Meadow Brook Extension (*Mr. Gillis explained it gives the properties back access and is already being used as a right-of-way.*); and concern for the median that was open in the past to keep the flow for emergency vehicles that now stays congested due to traffic flow in and out of the Lady's Island Walmart (*Mr. Gillis explained that often where there are raised medians, engineers try to keep a more natural space to allow emergency vehicles to pass if needed.*).

Mr. Gillis explained that according to the study there is no need to widen the road only to improve the flow of traffic and that the mini traffic circle is meant to be a long term solution. Other solutions included:

- Streetscape improvements including more landscaping, lighting, and walking paths to invite both bikers and pedestrians.
- A new traffic light at Lady's Island Middle School to help with the flow of traffic and busses.
- Moving the light for Beaufort High School down to create an intersection onto Sunset Boulevard, creating easier access to a connectivity road.
- Raised medians to help beautify the roads along with providing safety from right angle collisions. The medians have to be strategically placed to allow for emergency vehicle access.
- Extending the right turn lane past the Lady's Island Walmart to make that segment safer.
- Putting a new traffic light at the Lady's Island Walmart intersection.
- Creating a new frontage road to alleviate the public concern of turning left off Sea Island Parkway.
- Bicycle and pedestrian enhancements that result in significant reduction in delays, safety improvements, greater access for bicycles and pedestrians, and beautification enhancements

Mr. Semmler consulted with board members on the appropriateness of this board voting on the traffic study and was advised that the presentation to the Northern Regional group was for informational purposes to keep all jurisdictions on the same page.

Committee discussion included:

- Clarification on the RFP being shared and contributed by different Jurisdictions (*Mr. Merchant confirmed that usually a RFP is solely the task of the planning department; however, since the plan has a broad effect on the area, it would be best for input from neighboring municipalities.*);
- Clarification on The Coastal Conservation League letter with the proposed \$400,000 for the plan which is beyond the County's estimated \$75,000 budget, unless other jurisdictions contribute also;
- The non-involvement of the Metropolitan and County Planning Commission to approve and recommend changes to the RFP;
- The possibility of the Natural Resource Committee reviewing the final RFP, and deciding that greater details and more funding may be necessary;
- Considering the studies conducted by The Sea Island Corridor Coalition and the Coastal Conservation League when developing the RFP;
- Clarifying that the Lady's Island plan cannot just be a one phase project because the plan must conform to what is already in place; and

- Financial support from the City of Beaufort and other surrounding jurisdictions;

UPDATE ON BRAC (BASE REALIGNMENT AND CLOSURE) (Military Enhancement Committee of Beaufort Regional Chamber of Commerce)

During the Obama administration there were a couple of initiatives to put forward a BRAC. Mr. Ward Parker went on to explain that specific language has been added to this year's FY2018 Special Defense Authorization Act, along with the National Defense Appropriations Act, that makes it against the law to have a BRAC until 2021.

STATUS OF PORT ROYAL PORT (Linda Bridges)

Ms. Linda Bridges was unable to attend the meeting due to a scheduling conflict. Mr. Tom Klein, Town of Port Royal Councilman, explained some of the events that have taken place leading up to the potential sale of the Port Royal Port. He explained that the potential purchasers have made significant changes to the development agreement and the PUD and resubmitted to the Town Council. The town citizens and Town Council have not come back regarding those changes. Mr. Klein also spoke of a very well attended town meeting to discuss the potential project. He believes that the issues at hand are: dry stack structure, shrimp dock, date and times of the development agreement, the requested property swap of the Mark Sanford Park, and the allowance of insurance reserve funds to which the Town is entitled.

Note: Chairman Semmler recessed the meeting at approximately 10:46 and reconvened the meeting at approximately 10:51 a.m.

ROUND THE TABLE DISCUSSION: Committee discussion included:

- An exciting week for Beaufort County investing time to start the public planning process for the reconstruction era monument.
- The importance of the school district being involved with the Northern Regional Plan Implementation Committee.
- Geismar, a France-based manufacturer in Northern Beaufort County is now hiring
- The importance of the traffic study and a unified view on the problem in order to better find a solution.
- Comments on the Port of Port Royal and the effects of the purchase that could potentially have on the School budget.
- Appreciation of the Lady's Island corridor item being on the agenda due to the importance of the traffic issue, specifically coming in and out of the schools.
- Coastal Conservation League presence at today's meeting and has brought forth informational information that has come from the public forum that was held in the spring.
- The potential plastic bag ban ordinance.

OTHER BUSINESS: NEXT MEETING—Friday, September 22, 2017 at 9:30 a.m., Executive Conference Room, Beaufort County Administration Building, 100 Ribaut Road, Beaufort, SC

ADJOURNMENT: Mayor Billy Keyserling made a motion, and Councilman York Glover seconded the motion, to adjourn the meeting. The motion carried (FOR: Campbell, Flewelling, Glover, Howard, Keyserling, Klein, McFee, and Semmler; ABSENT: Cook, Dawson, DeVito, and Murray). Mr. Semmler adjourned the meeting at approximately 10:38 a.m.

Note: The video link of the July 28, 2017, Northern Regional Plan Implementation Committee meeting is: http://beaufort.granicus.com/MediaPlayer.php?view_id=3&clip_id=3340

Lady's Island Area Plan Project Scope

Lady's Island is strategically located between the City of Beaufort, the Town of Port Royal, and other sea island communities to the east. It is a primarily residential community with supporting businesses and services, and its primary concern is to protect and reinforce its livability and sense of low-country place. However, its strategic location also places it within an important regional context. The bridges connecting Lady's Island to Port Royal and Beaufort are important connectors between the mainland and the sea islands, and newer large format retail uses serve a larger regional population. The island itself is split between city and county planning and zoning jurisdiction. As such, there are multiple interests and dynamics that must be addressed and balanced to successfully manage its future. This process will provide a forum for the various interests to engage in a local planning process that results in a consensus based vision for the future.

PHASE I. ORGANIZE

We will first organize the community for a successful planning process. This task will include:

- Identifying and defining roles for stakeholders and interest groups.
- Organizing a leadership structure of the planning process, including consideration and designation of a resident and stakeholder based steering committee.
- Defining the roles and relationships of the Beaufort County, City of Beaufort, and the Northern Beaufort County Regional Plan Implementation Committee.
- Designing a thorough but focused public outreach strategy.
- Defining expectations for the outcome of the process.
- A planning process schedule.

Deliverable: Project Management Plan

PHASE II. ASSESS

We will work with local planning staff to summarize existing research and analysis and update or supplement the analysis as needed. This will address at least the following:

- Relevant policies and recommendations from existing plans and codes including the Beaufort County Comprehensive plan, county development codes, the City of Beaufort Civic Master Plan, and the Lady's Island Transportation Study.
- Land use patterns and trends, focusing on areas of potential change such as the Village Center and surrounding areas.
- Capacity for additional growth based on infrastructure and natural constraints (See Task 1 in the RFP).

- Demographic trends, including areas of minority populations.
- Public facility and infrastructure needs.

Deliverable: User-friendly summary with simple and clear graphics in a form to be determined with local staff.

PHASE III. LISTEN

We will engage the community in an open, interesting, and participatory process to educate people about forces and trends that are shaping the community and understand issues of concern. We will work with staff to define and execute a public engagement plan that fits the unique needs of this area. The public engagement will likely include a combination of public meetings, individual or focus group interviews, and online engagement tools.

Deliverable: Summary and execution of a public engagement plan, summary of public engagement results.

PHASE IV. COMMON GOALS AND OBJECTIVES

Based on the previous two phases we will draft a series of common goals and objectives. These will reflect a consensus of the multiple interest groups that we anticipate being involved in the planning process, and will be a framework for plan recommendations. (Note that we refer to “common” goals and objectives: this is terminology that has been used in Beaufort County in previous planning successful efforts to signify the importance of building consensus among varied interests.)

Deliverable: Common Goals and Objectives

PHASE V. PLAN DRAFT

We will prepare a draft Lady’s Island Area Plan based on the previous phases, including the following components:

- Summary of forces and trends that are shaping the area.
- Common Goals and Objectives.
- Strategies and actions to accomplish the plan.
- Future land use, focusing on the Village Center and surrounding areas and how to better integrate the commercial uses with surrounding neighborhoods (See Tasks 2 and 3 in the RFP).
- Natural resource management.
- Public facilities, including projected needs and costs based on desired levels of service (See Task 4 in the RFP).

- Summary implementation recommendations.
- Assistance with plan adoption.

Deliverable: Draft plan in a form determined with planning staff.

PROJECT BUDGET AND SCHEDULE

The work outline in this proposal is estimated to be completed for \$80,000 with an approximately six-month timeframe. For the purposes of budgeting, this estimate assumes five to six on-site trips by the consultant – generally, one for each phase and one trip per month. We anticipate that each trip would include a steering committee meeting and other related public meetings as needed.

The budget and schedule may be refined in conversations with staff prior to commencing the project. We would appreciate the opportunity to refine this budget and schedule based on additional discussions about the expectations for work to be performed by staff and consultants, the availability of data and information, and the anticipated number of on-site meetings by the consultant.



COUNTY COUNCIL OF BEAUFORT COUNTY
Community Development Department
Beaufort County Government Robert Smalls Complex
Administration Building, 100 Ribaut Road
Post Office Drawer 1228, Beaufort, South Carolina 29901-1228

TO: Northern Beaufort County Regional Plan Implementation Committee
FROM: Robert Merchant, Assistant Director, Beaufort County Community Development
DATE: January 12, 2018
SUBJECT: **Appointment of the Lady's Island Plan Steering Committee**

The planning staffs of the City of Beaufort, Town of Port Royal and Beaufort County recommend the appointment of a Lady's Island Plan Steering Committee to oversee the development of the Lady's Island Plan. Staff anticipates that the Steering Committee would meet monthly to guide the development of the plan, assist in public meetings, and provide assistance to staff in the formulation of the plan.

Staff recommends the following makeup of the Steering Committee:

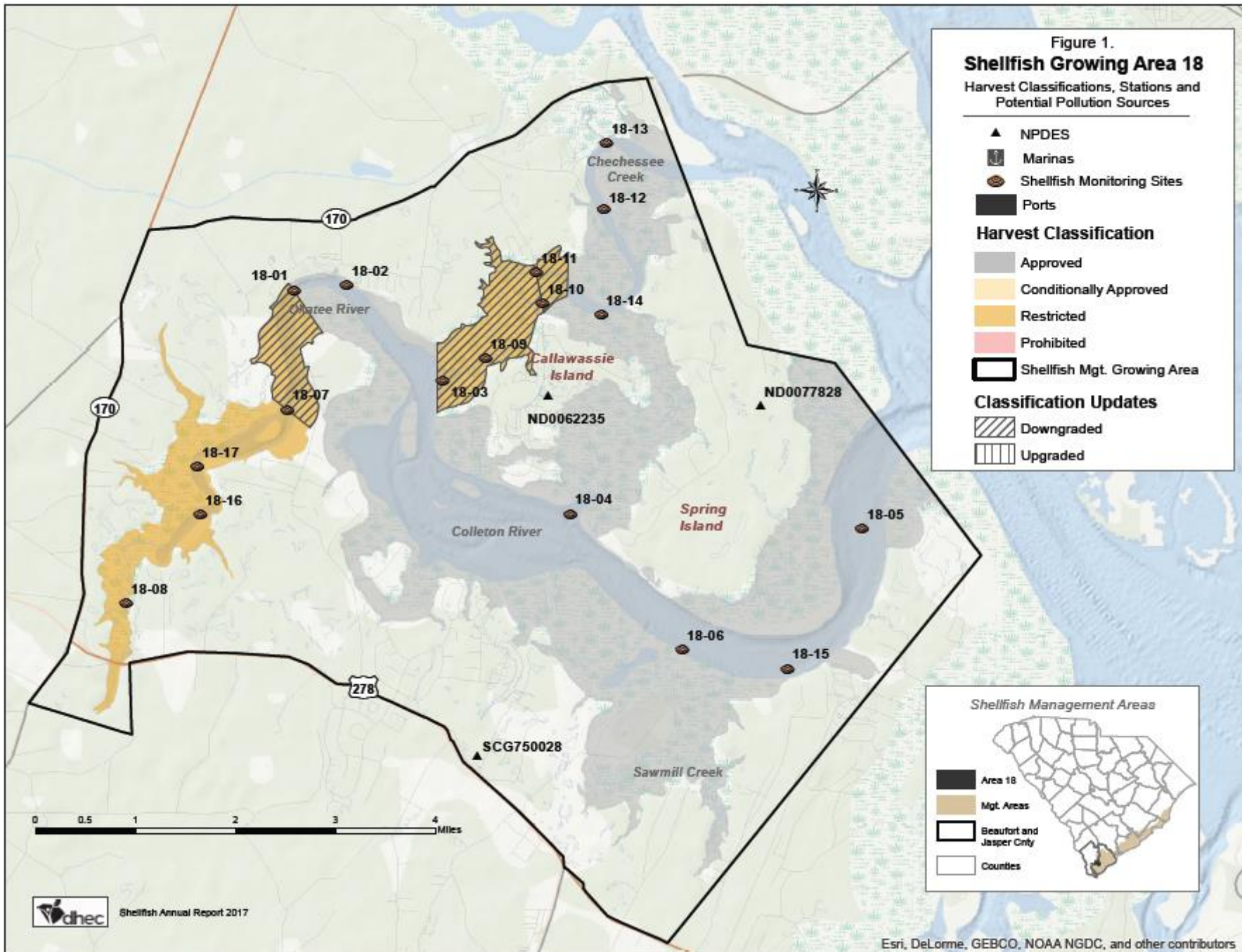
One Representative from each of the following organizations:

- Northern Beaufort County Regional Plan Implementation Committee (Chairman)
- Coastal Conservation League
- Sea Island Corridor Coalition
- Lady's Island Business Professionals Association (LIBPA)
- Beaufort County Planning Commission
- Metropolitan Planning Commission
- Lady's Island Community Preservation Committee
- Representative from St. Helena Island (appt. by York Glover)

Graphical Longitudinal Analysis of DHEC Shellfish Monitoring Stations 18-01, 18-02, 18-07, 18-08, 18-16 and 18-17

**D. Alan Warren, Danielle Mickel and Mike Monday
USCB Water Quality Laboratory
December 6, 2017**

Figure 1.
Shellfish Growing Area 18
 Harvest Classifications, Stations and
 Potential Pollution Sources



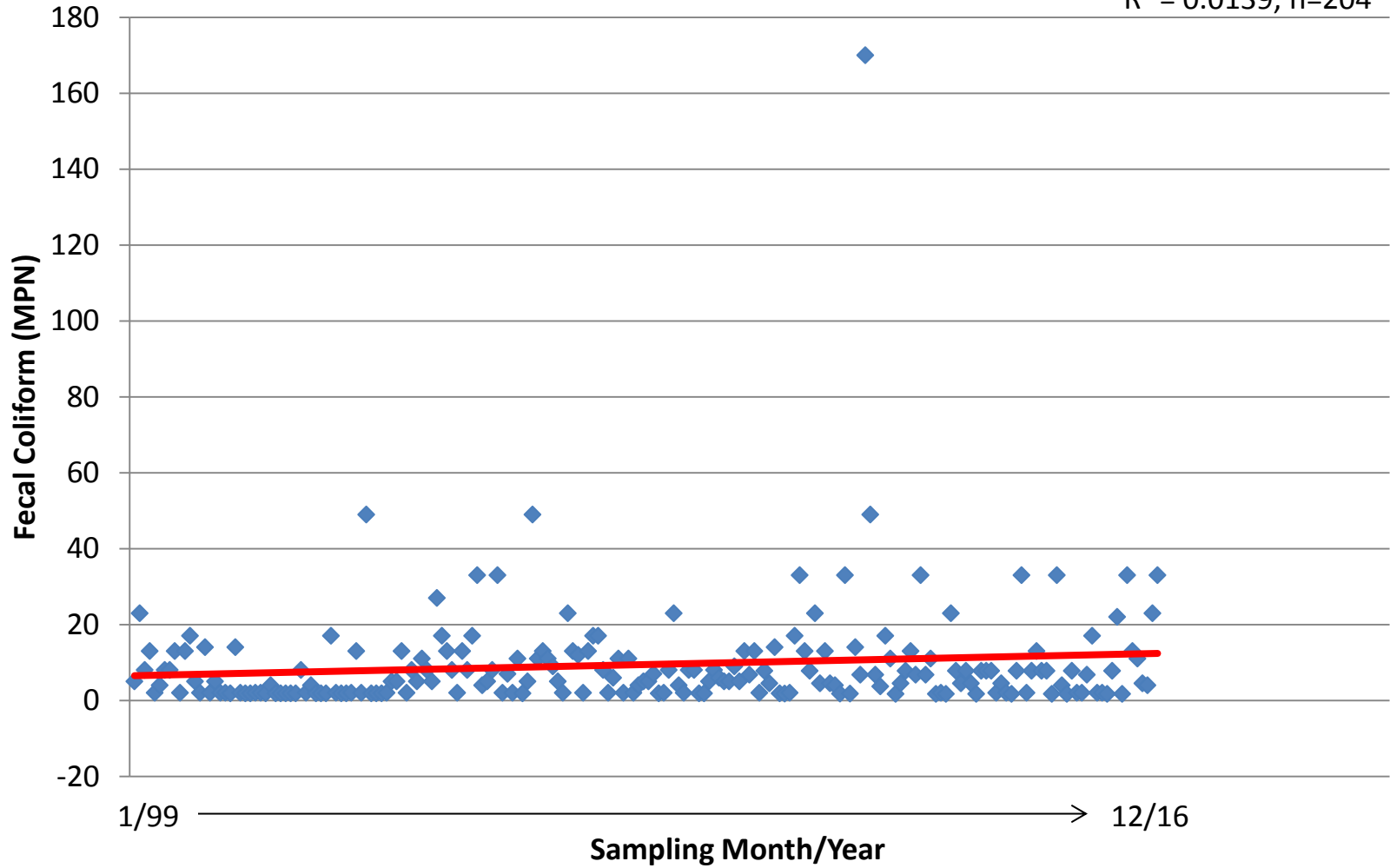
Monitoring Station Descriptions

Station	Description
18-02.....	Okatie River Behind Bailey's Oyster Dock
18-01.....	Okatie River at Camp St. Mary's Dock
18-07.....	Okatie River at Indigo Plantation
18-17.....	Okatie River at Confluence of Cherry Point Tributary
18-16.....	Okatie River at Confluence of Pickney Colony Tributary
18-08.....	Okatie River at Dock without House



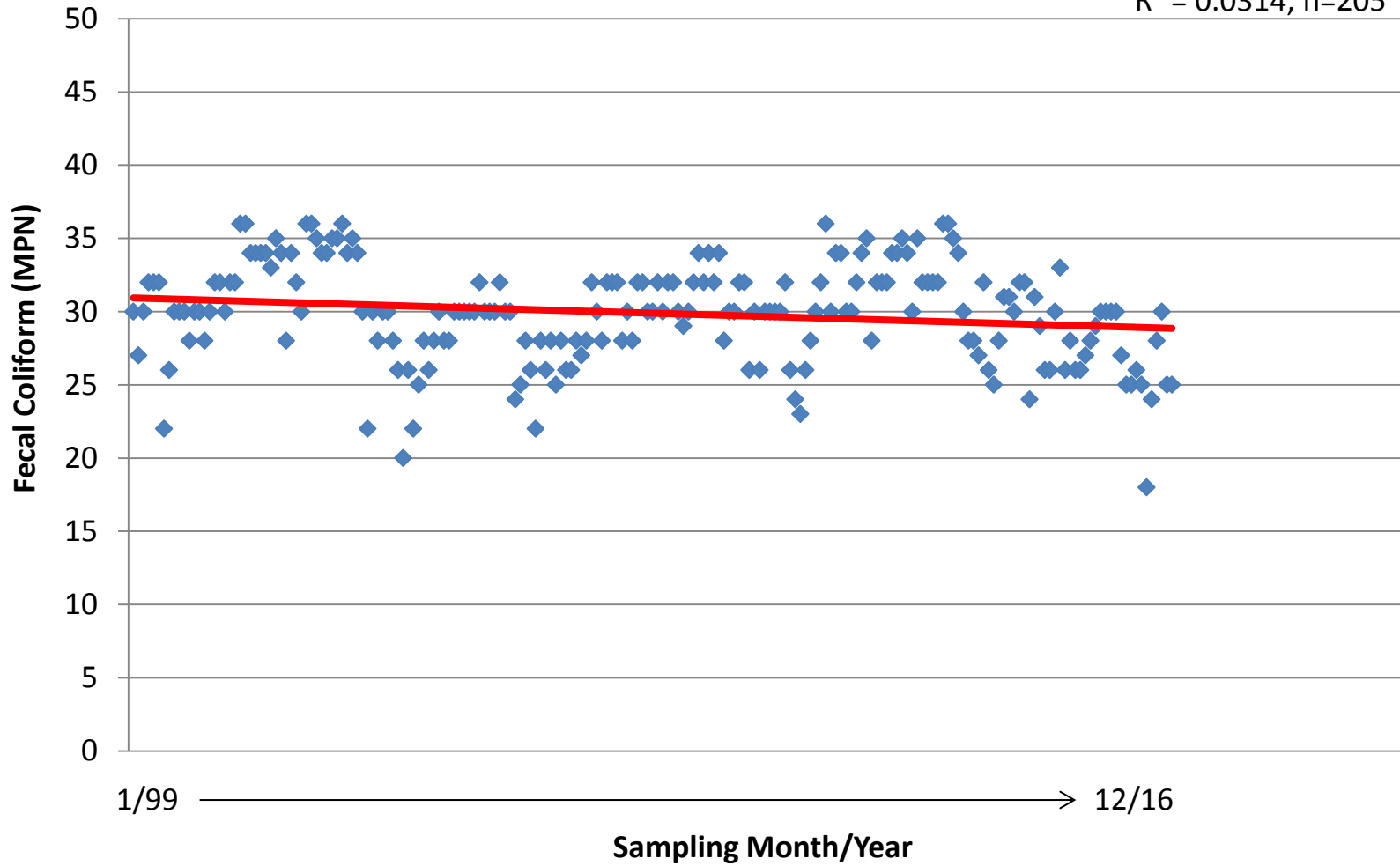
Station 18-02

$y = 0.029x + 6.5234$
 $R^2 = 0.0139; n=204$



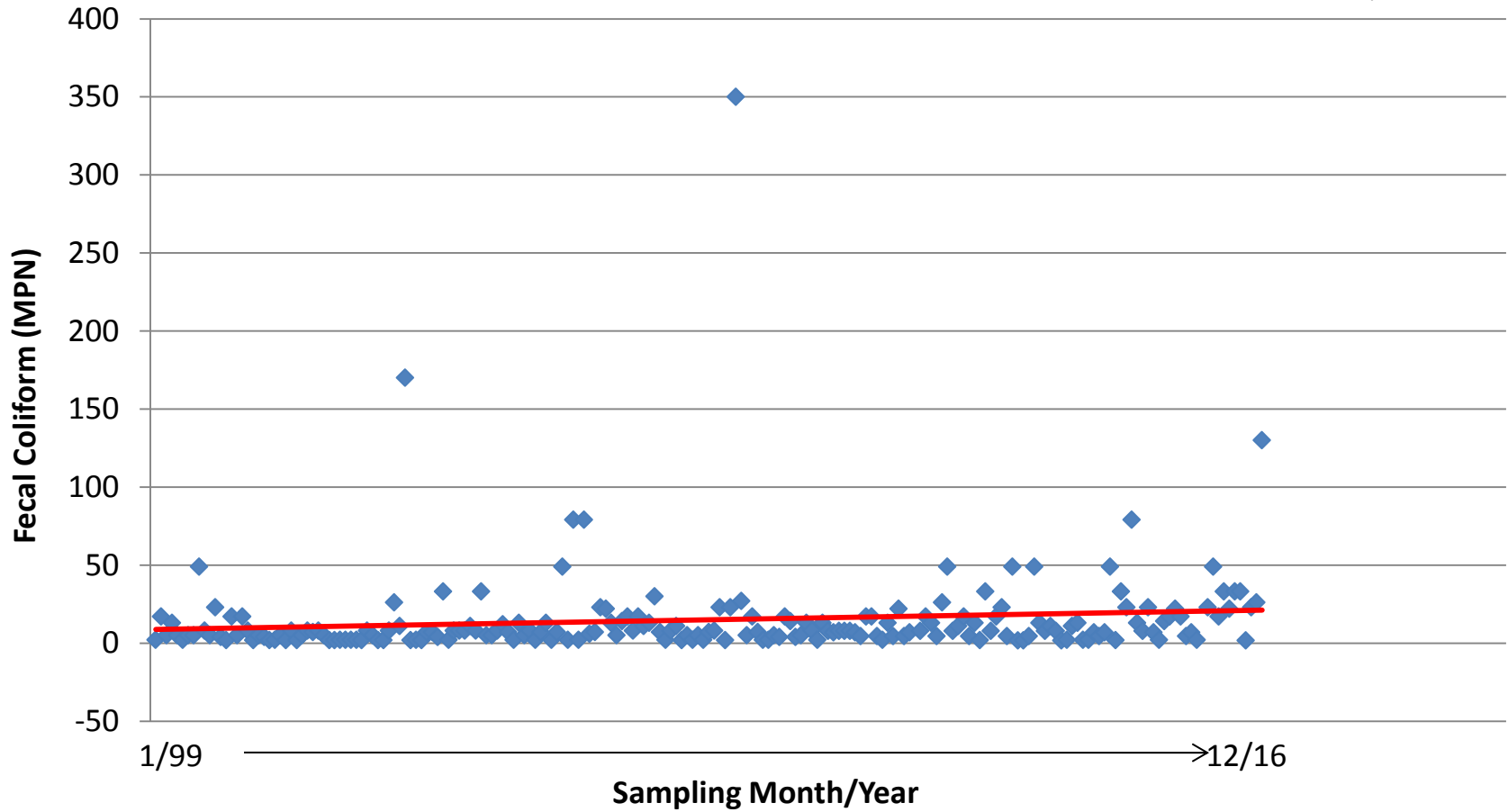
Station 18-01

$y = -0.0102x + 30.944$
 $R^2 = 0.0314; n=205$



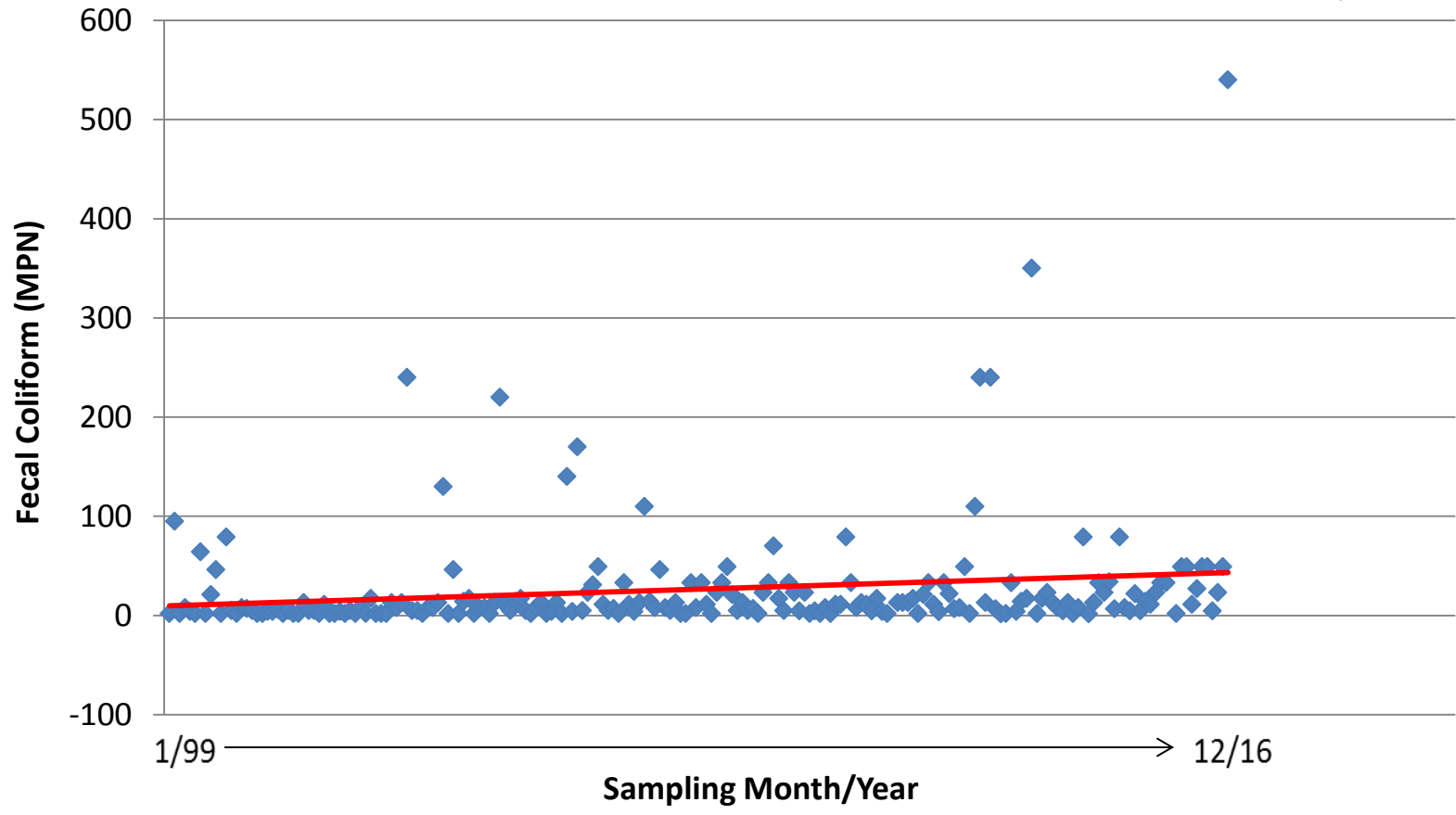
Station 18-07

$$y = 0.0609x + 8.7286$$
$$R^2 = 0.014; n=202$$



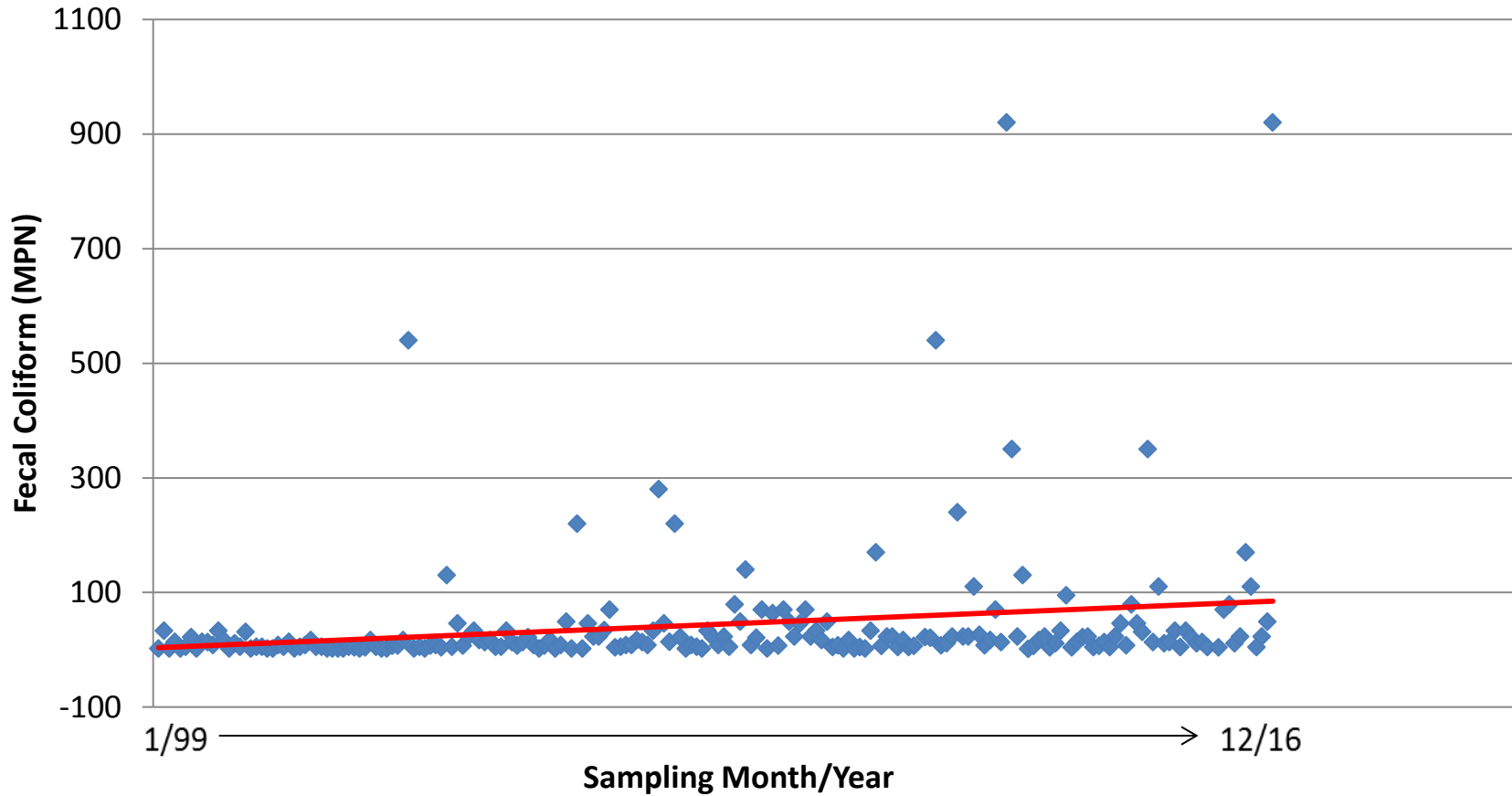
Station 18-17

$y = 0.1624x + 9.7163$
 $R^2 = 0.0276; n=203$



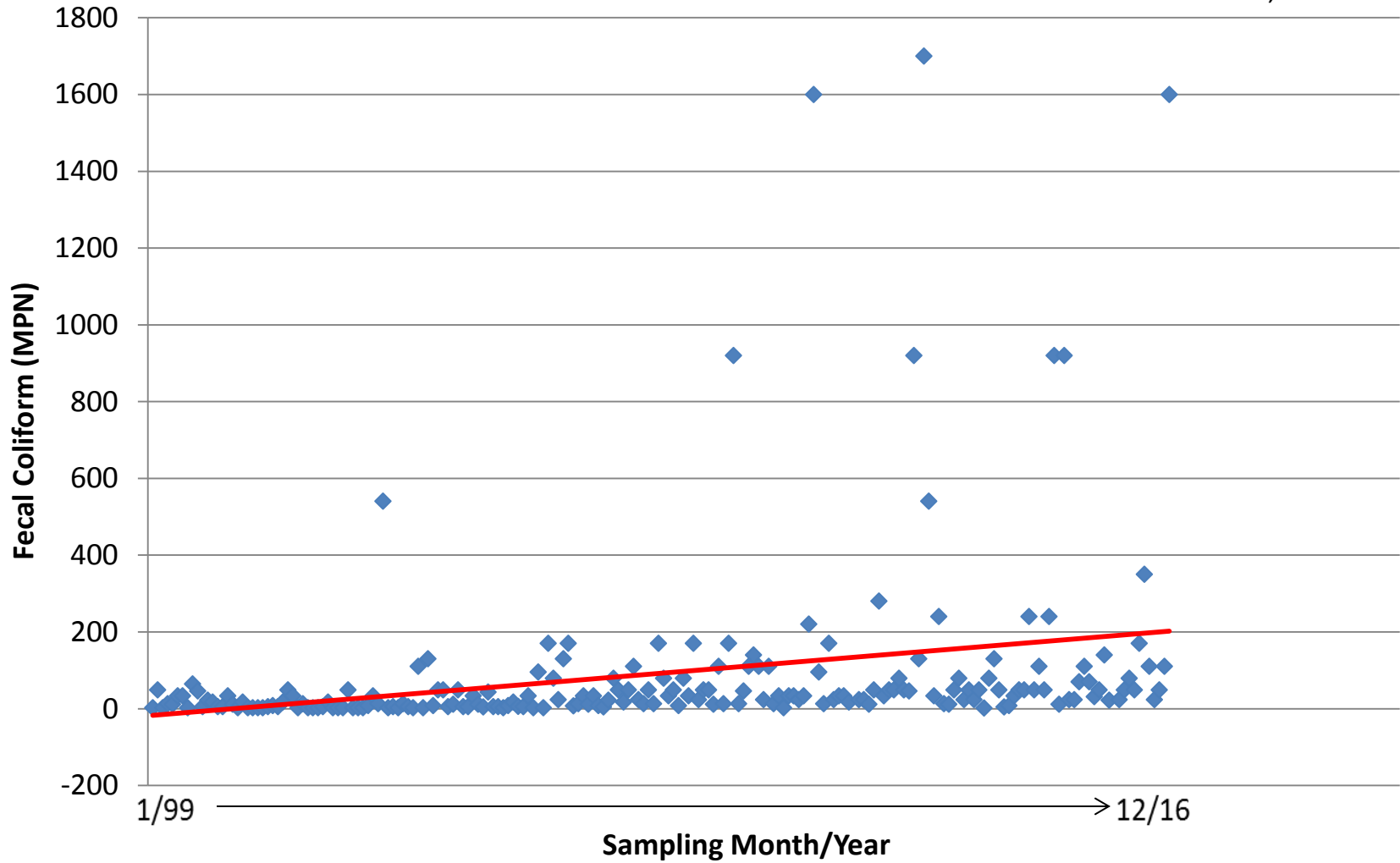
Station 18-16

$$y = 0.396x + 3.1825$$
$$R^2 = 0.0428; n=203$$



Station 18-08

$y = 1.0813x - 18.279$
 $R^2 = 0.072; n=203$



Trendline Slopes and Summary

Station	Trendline Slope
18-02	+ 0.029
18-01	- 0.0102
18-07	+ 0.0609
18-17	+ 0.1624
18-16	+ 0.396
18-08	+ 1.0813

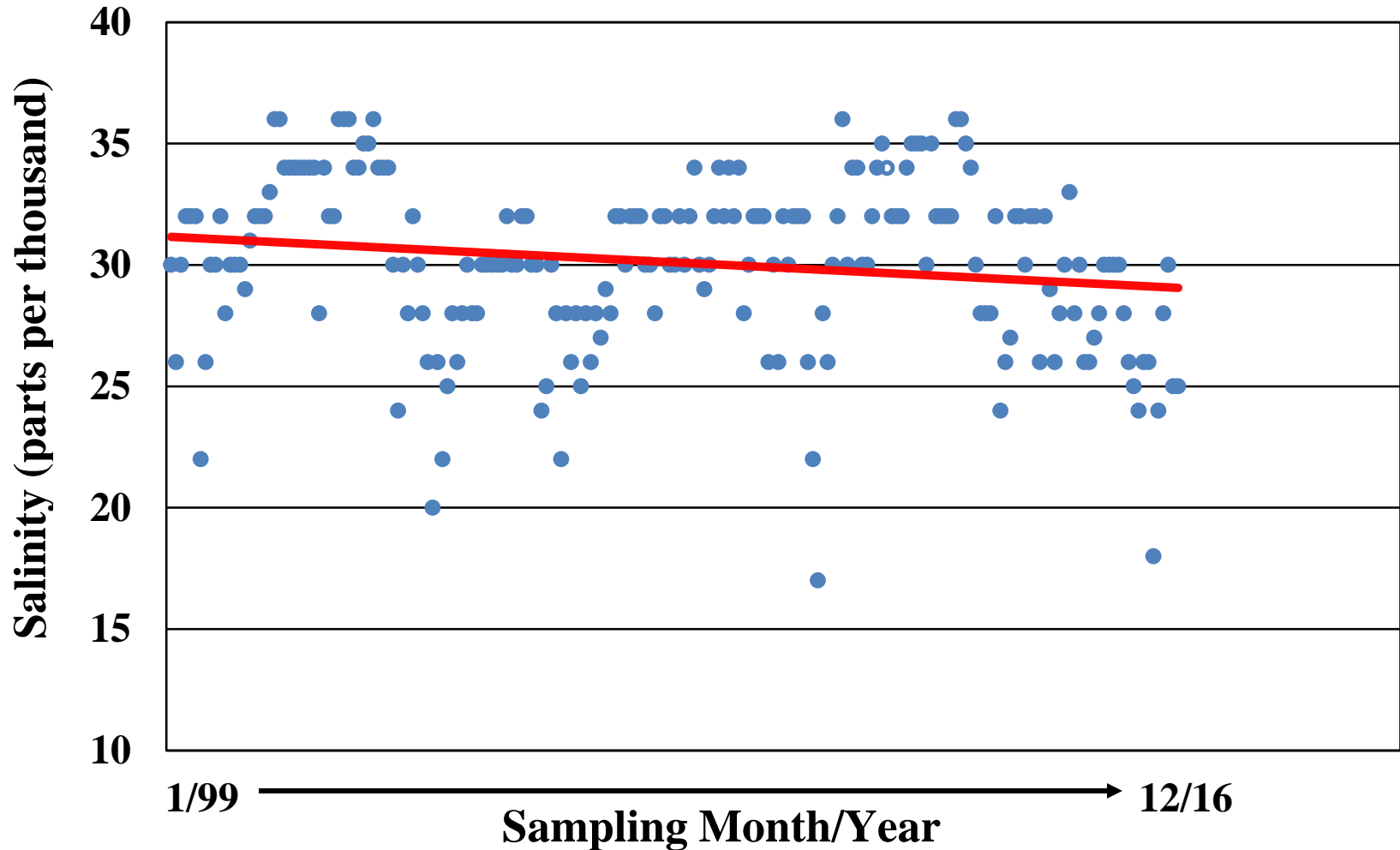
Summary: Based on linear trendlines of positive slope that were fitted to DHEC water quality data, five of the six monitoring stations saw increasing trends in fecal coliform concentration during the period 1/99 to 12/16. Of those stations showing trends of increasing concentration, the rate of increase was greatest at station 18-08, occurring at a rate 2.7- and 6.7- fold that of stations 18-16 and 18-17, respectively. Considerably more modest rates of increase were seen at stations 18-02 and 18-07, while a slightly decreasing concentration trend was observed at station 18-01. In general, the rate of increase in fecal coliform concentration is, at least in part, a function of where a particular monitoring station is located relative to the headwaters of the Okatie River (i.e., the rate of increase became greater as one moved further up river). In addition, the same pattern emerges when one examines the average concentration of fecal coliform bacteria at each monitoring station over the period from 1/99 to 12/16 (i.e., average fecal coliform concentrations were 9.5, 29.9, 15.0, 26.4, 43.9 and 91.9 MPN at monitoring stations 18-02, 18-01, 18-07, 18-17, 18-16 and 18-08, respectively). ¹⁰

Salinity vs. Time at DHEC Shellfish Monitoring Stations 18-01, 18-02, 18-07, 18-08, 18-16 and 18-17

**D. Alan Warren, Danielle Mickel and Mike Monday
USCB Water Quality Laboratory
December 6, 2017**

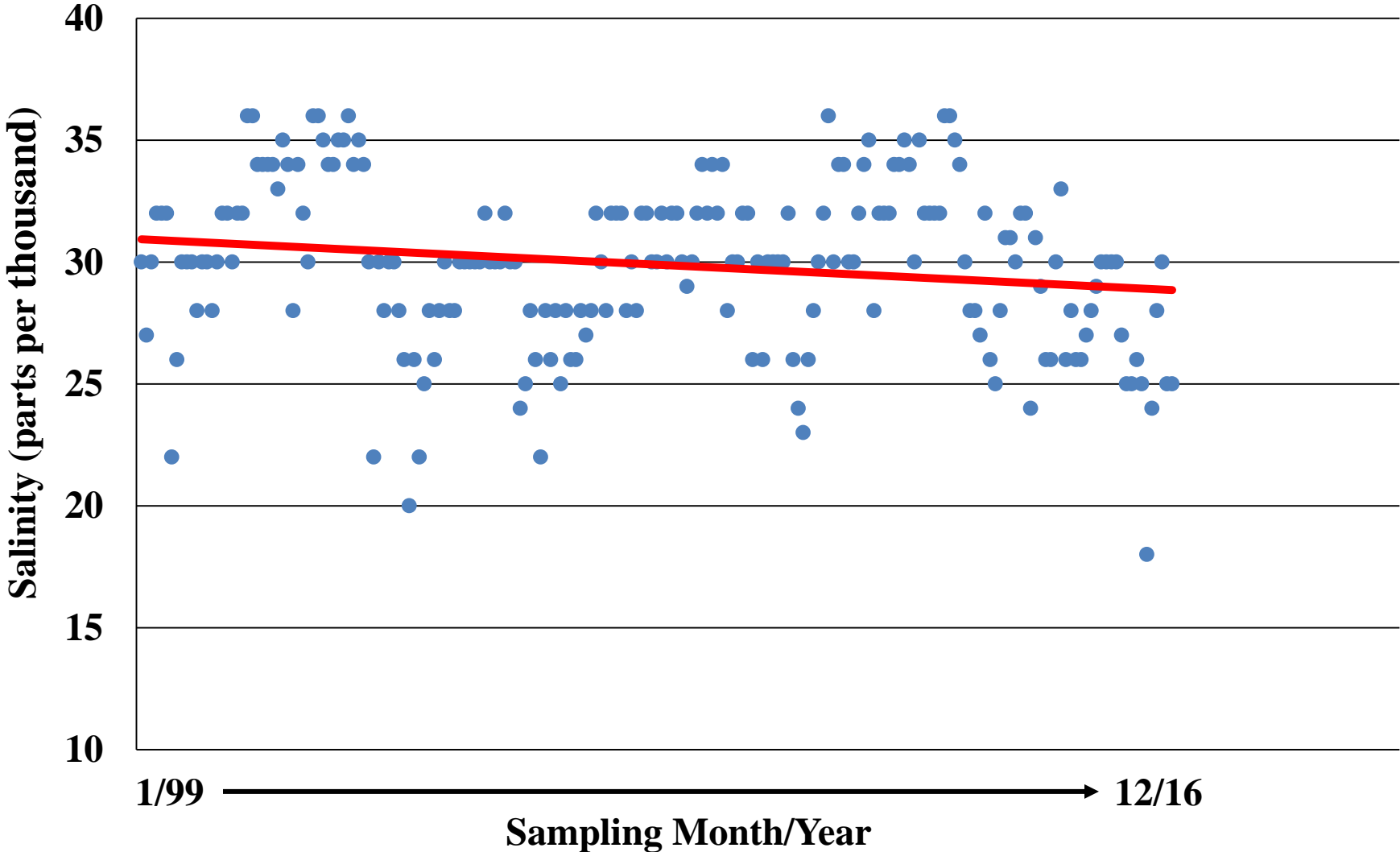
$y = -0.0103x + 31.162; n=205$

Station 18-02



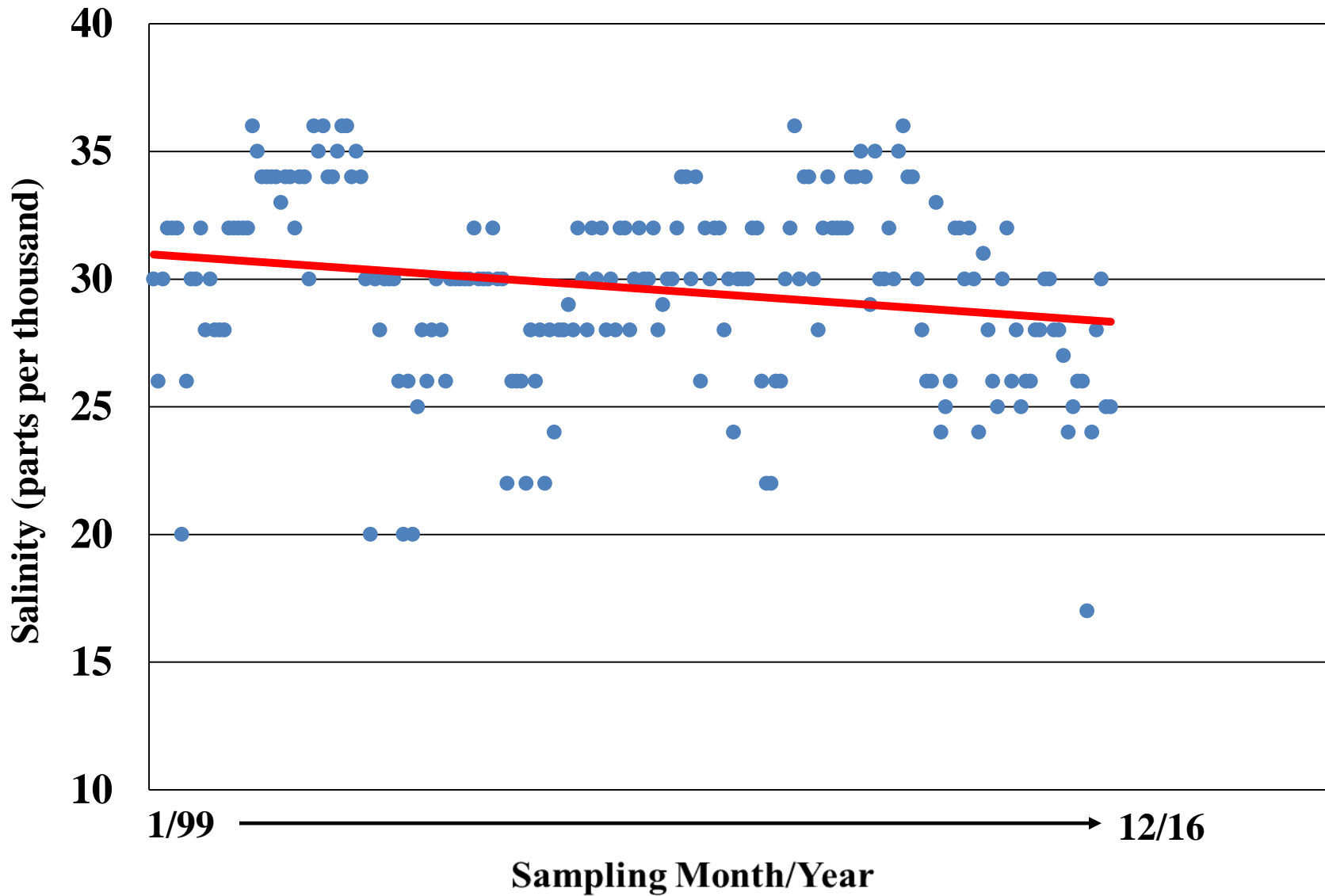
$y = -0.0102x + 30.944; n=205$

Station 18-01



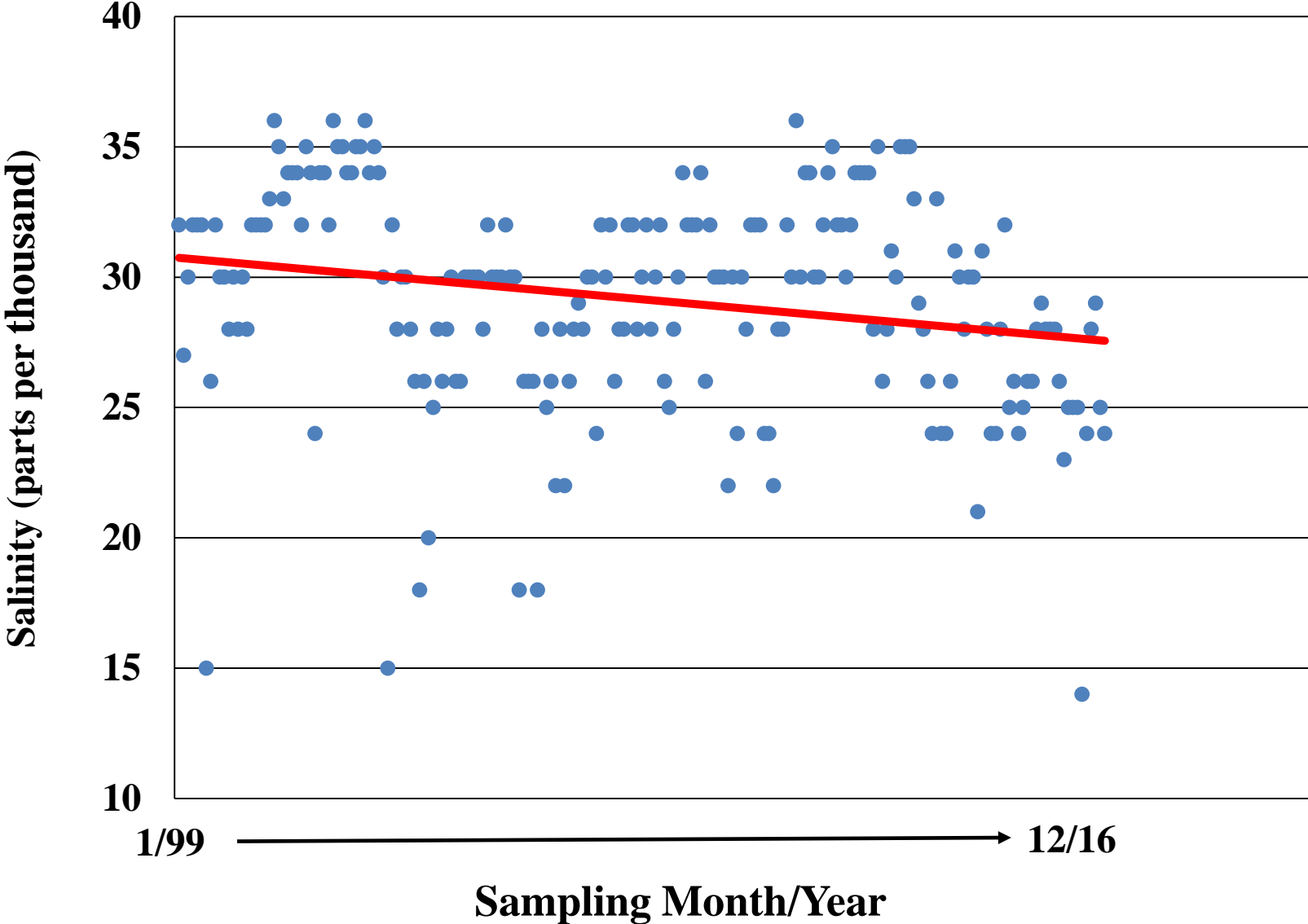
$y = -0.0129x + 30.971; n=204$

Station 18-07



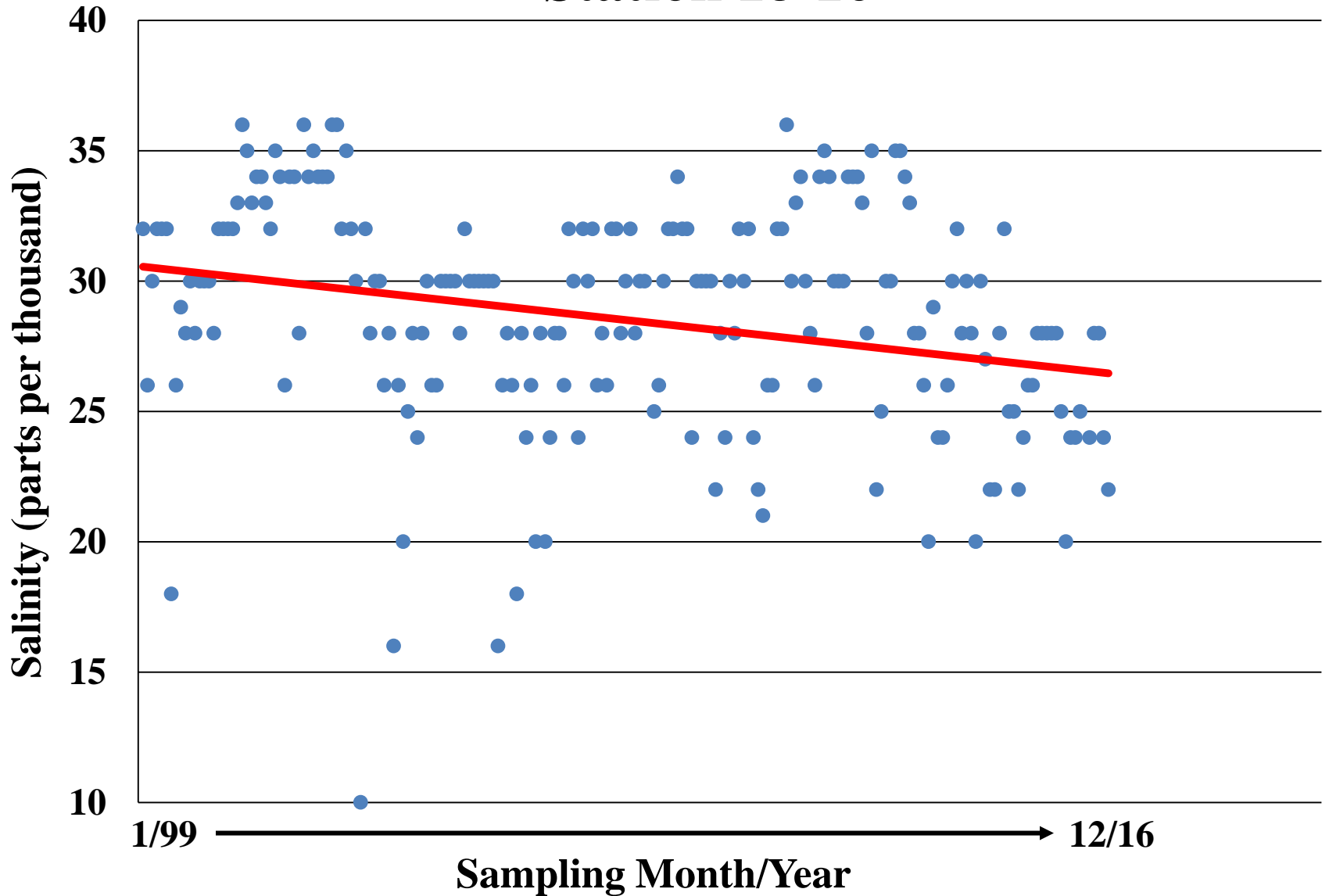
$y = -0.0156x + 30.753; n=205$

Station 18-17



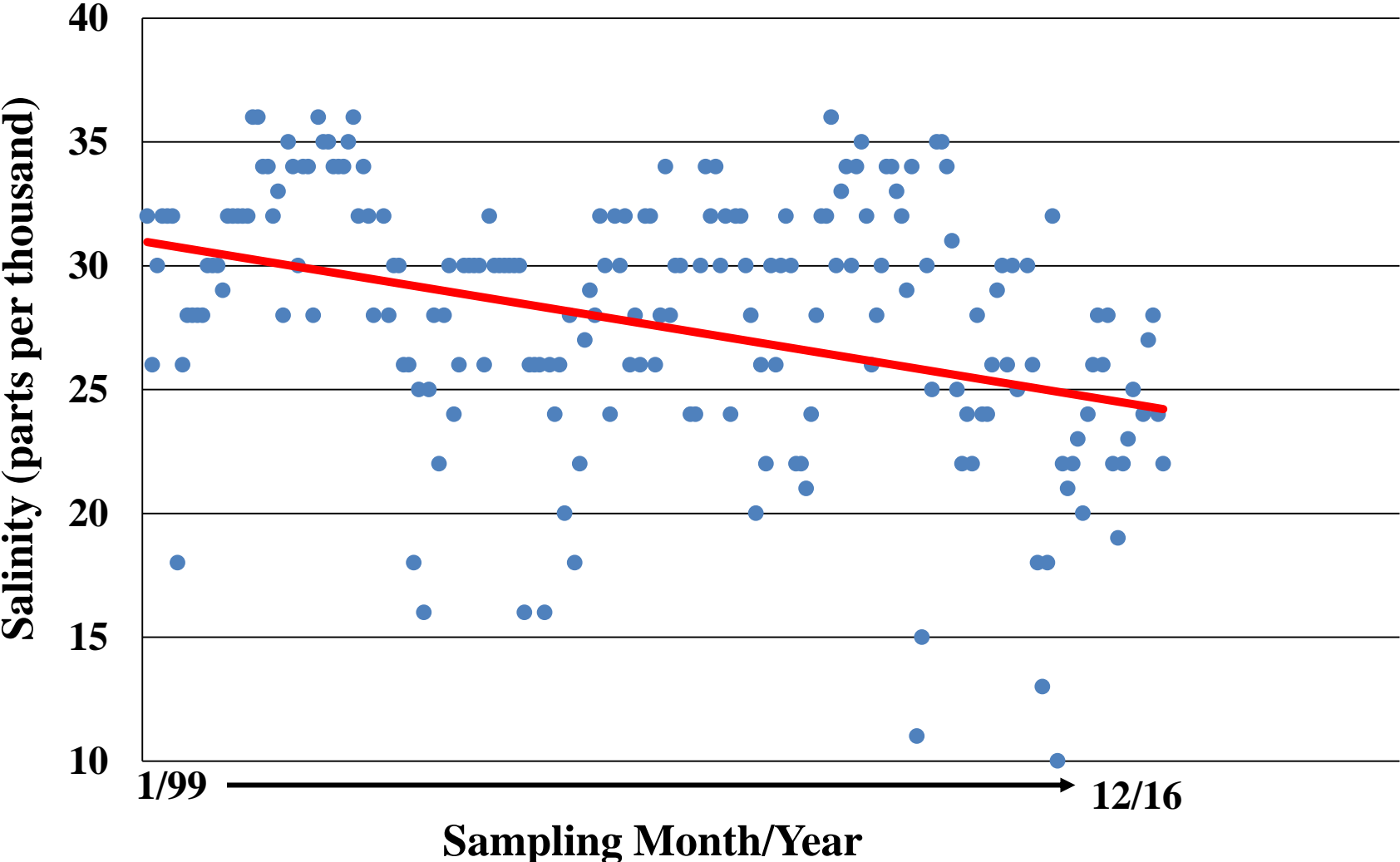
$$y = -0.0201x + 30.573; n=205$$

Station 18-16



$y = -0.0334x + 30.99; n=203$

Station 18-08



Trendline Slopes and Summary

Station	Fecal Slope	Salinity Slope
18-02	+ 0.029	-0.0103
18-01	- 0.0102	-0.0102
18-07	+ 0.0609	-0.0129
18-17	+ 0.1624	-0.0156
18-16	+ 0.396	-0.0201
18-08	+ 1.0813	-0.0334

Summary: In a previous analysis, five of six monitoring stations examined saw increasing trends in fecal coliform concentration during the period 1/99 to 12/16. In general, the rate of increase in fecal coliform concentration was, at least in part, a function of where a particular monitoring station was located relative to the headwaters of the Okatie River (i.e., the rate of increase became greater as one moved further upriver). In addition, the same pattern emerged when one examined the average concentration of fecal coliform bacteria at each monitoring station over the period from 1/99 to 12/16 (i.e., average fecal coliform concentrations were 9.5, 29.9, 15.0, 26.4, 43.9 and 91.9 MPN at monitoring stations 18-02, 18-01, 18-07, 18-17, 18-16 and 18-08, respectively). We now report the results of a second analysis, this one examining salinity changes (often considered a surrogate measure of stormwater volume) at these same monitoring stations over the same time period. As might be predicted based on fecal coliform concentration trends, salinity decreased at all six monitoring stations during the period 1/99 to 12/16, with the rate of decrease being greater as one moved further upriver. These results suggest an increase in stormwater volume into the Okatie River over time, with a concomitant increase in bacterial loading.

Narrative Summary of the Analysis of DHEC Shellfish Monitoring Stations 18-01, 18-02, 18-07, 18-08, 18-16 and 18-17

**Eric W. Larson
Beaufort County Stormwater Utility Manager
December 15, 2017**

Narrative Summary

- The attached analysis consists of a series of graphics showing trends of fecal coliform concentrations, as reported by SC-DHEC, at six sampling stations within the Okatie River from 1999 to 2016. The sampling stations are shown on the accompanying map.
- In general, the concentration of bacteria increased as one traveled upriver toward the headwaters. The higher concentrations in the headwaters are believed to be a function of its relatively shallow depth and the fact that it doesn't "flush" well by comparison to downriver locations.
- Bacterial concentration trends over time were upward at five of the six sampling stations. In other words, bacterial concentrations generally increased over the 18-year period analyzed.
- Monitoring efforts have not included the measurement of surface runoff or overland flow within the Okatie River watershed. However, increased runoff volume and flow rate are suspected following rain events that have occurred over the period analyzed.
- The following milestones in Beaufort County's Stormwater Utility program are noteworthy:
 - 1) The Stormwater Utility was formed in 2001, and
 - 2) the Okatie River TMDL report is based on data through 2010.

What Does This Mean?

- The upward trend in fecal coliform concentration does not reflect a lack of concern by the County for the “health” of the Okatie River or development within its watershed.
- Though the watershed has seen some development, it has been relatively undeveloped over the time period analyzed, suggesting the predominant bacterial input has been from “natural” sources. Nonetheless, development without adequate BMPs has the potential to further increase runoff volume and flow rate, thereby amplifying the amount of bacteria entering the Okatie River via suspension and transport within channels.
- As the County finds the upward trend in bacterial concentration unacceptable, a more proactive approach to management of the Okatie River watershed is needed compared to years past. The Okatie East project completed in late 2014 was an initial step in the right direction. However, it must be viewed as the first of several such efforts to be implemented at strategic locations within the watershed.

Looking Ahead

- The County's goals are to be vigilant in its regulatory oversight, pursue land preservation, and construct new BMPs throughout the Okatie River watershed in an attempt to slow/stop the upward trend in bacterial concentration and ideally, reverse it.
- Given the “naturally occurring” bacterial sources and proposed development within the watershed, it is imperative that BMPs be well-designed, well-maintained, and well-functioning when development does occur.
- Comprehensive water quality monitoring plans are needed to identify priority areas within the watershed and determine the effectiveness of BMPs.
 - Such plans will inform the County and allow for early intervention and appropriate enforcement, thereby supporting the goal of natural resource preservation.