

**Summary of the 2nd Annual
Southeast State Shellfish Sanitation Workshop
Hosted by NOAA's Southeast and Caribbean Regional
Collaboration Team**



Prepared for the
Southeast and Caribbean Regional Team
National Oceanic and Atmospheric Administration

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1.0 Introduction

NOAA continues to support shellfish sanitation management in the Southeast United States. On March 3, 2021, a SECART-sponsored meeting of state, federal and non-profit representatives was held with the goal of continuing to explore opportunities for NOAA to provide data and decision support tools for shellfish management. This constituted the second annual meeting of this group, following the inaugural meeting held in February 2020. Originally intended as an in-person gathering, the March 2021 meeting was conducted via a web-based platform, as a result of challenges and restrictions caused by the Covid 19 pandemic.

As was the case of the inaugural meeting, the goal of the March 2021 meeting was to allow state representatives to share their shellfish sanitation mission, best practices, and challenges and hear from NOAA line offices on existing collaborative projects and the potential for future support

2.0 Expected outcomes of the meeting

1. States will walk away with some best practices from their neighbors or refined ideas from the experiences and discussions with other states.
2. Review of action items from the 2020 meeting and continued discussions at this meeting will lead to further activities on facilitating data, process, and utility exchange and/or development between state and federal partners.
3. Planning will be initiated for a 2022 in-person meeting, which may be expanded to include aquaculture specialists and/or existing academic collaborators.

The following table of participants shared their office's missions, experiences, capabilities, and needs:

| Office | Name | E-mail |
|---|-------------------------|------------------------------|
| South Carolina DHEC | Mike Marshall | marshama@dhec.sc.gov |
| North Carolina DEQ | Shannon Jenkins | shannon.jenkins@ncdenr.gov |
| | Andy Haines | andrew.haines@ncdenr.gov |
| Georgia DNR | Dominic Guadagnoli | dom.guadagnoli@dnr.ga.gov |
| Florida Dept. of Agriculture | Jill Fleiger | jillian.fleiger@fdacs.gov |
| National Weather Service, Southeast River Forecast Center (SERFC) | John Schmidt | john.schmidt@noaa.gov |
| National Weather Service, Weather Forecast Office, Morehead City, NC (WFO-MHX) | David Glenn | david.glenn@noaa.gov |
| National Ocean Service, National Centers for Coastal Ocean Science (NCCOS), Oxford, MD | A.K. Leight | ak.leight@noaa.gov |
| National Ocean Service, NCCOS, Beaufort, NC | Ken Riley | ken.riley@noaa.gov |
| Food and Drug Administration (FDA), Office of Regulatory Affairs, Florida District | Elizabeth (Bess) Ormond | elizabeth.ormond@fda.hhs.gov |
| Southeast Coastal Ocean Observing Regional Association (SECOORA) | Jennifer Dorton | jdorton@secoora.org |

3.0 Review of Last Year's Meeting

A.K. provided a short review of the Feb 2020 inaugural meeting. In particular a brief set of highlights from each of the presentations from the previous meeting were offered.

4.0 Updates

4.1 GA (Dominic Guadagnoli)

Covid 19 restrictions forced telework for most GA shellfish sanitation employees, but lab processing of water quality samples continued.

Dom's group has hired two new positions in the last couple of months, including a GIS specialist.

In the past year, Georgia legislature passed new laws for mariculture, with an advisory panel providing feedback to the Department for the process of awarding new leases. The first water column aquaculture leases will be vetted by the panel soon with lease awards expected by June 1.

The State is actively reclassifying and resurveying existing large leases in order to dissect into multiple leases.

The State is coordinating with UGA (Skidaway) on Vibrio validation study to support new control plans for higher-risk summer month harvesting.

4.2 NC (Andy Haines & Shannon Jenkins)

Similar to GA, Covid-19 restrictions significantly impacted NC shellfish operations. After a two month suspension of most field work, water collections and laboratory analysis resumed, using Covid safety precautions.

Elevated levels of rainfall in 2020 resulted in a record number of harvest area closure proclamations.

NOAA Collaboration: A summer intern with NC DEQ conducted a side-by-side comparison of Quantitative Precipitation Estimates (QPE) from the SERFC with rain gauge data, including gauges not used by SERFC. In general, QPE agreed well with the rain gauge information.

NC implemented new *Vibrio* controls last year, and continues to refine those controls.

There have been a number of personnel changes, including the search for a new GIS specialist.

4.3 FL (Jill Fleiger)

Critical sampling continued in Florida, due to the relatively remote location and small staff of field offices.

Some personnel left to work with the FDA. These positions have mostly been backfilled.

NOAA Application: Twenty of the 65 conditionally managed growing zones now receive SERFC data, with four additional zones likely to use SERFC data by the end of March 2021.

Because there are a large number of requests for their data, the Florida shellfish sanitation division has developed an automated data acquisition system.

Potential NOAA Application: Florida uses tide information to schedule sampling and to predict water quality. There indicate a need for tide data from NOAA that would assist in these decisions.

They are in the process of converting all of their codes from SAS to R. This process should be complete this calendar year.

4.4 SC (Mike Marshall)

Covid restrictions did not impact SC water quality sampling and processing, but did create challenges for their law enforcement activities.

Mike Pearson (participant at 2020 meeting) took a position with FDA. Mike Marshall took his position. Two new officers have been hired and are being onboarded now.

A couple of growing area classifications have been changed. As a result, South Carolina does not currently have any conditionally managed growing areas.

Potential NOAA Application: The shellfish sanitation team from South Carolina might also benefit from NOAA forecasts (e.g. tides, streamflow, precipitation) for making sampling decisions.

4.5 SERFC (John Schmidt)

The River Forecast Center has been under maximum telework since March 2020, a significant challenge for an operational center with no previous experience in telework.

John presented charts of 2020 rainfall plotted against quartiles of historic data, showing how 2020 was a very wet year with many storms. In particular, Sally dumped approximately 2 feet of rain on Pensacola in about 2 days.

NOAA Application: SERFC data use by this community continues to expand. Several new watersheds in Fla are now using both historic and real-time data. Point data continues to be supplied to SC.

NOAA Application: SERFC provided historic rainfall data for the QPE and rain gauge comparison study being conducted by NCCOS and NC DEQ

Looking forward, an operational implementation of HEFS hydrologic ensemble simulations is expected in 2021.

4.6 NCCOS (A.K. Leight & Ken Riley)

Despite maximum telework status, NCCOS has continued to work with States in the southeast on both sanitation and for aquaculture topics.

NOAA Application: A.K. presented results of the QPE study, mentioned by both Andy and John. On an annual basis, the mean difference between the QPE and rain gauge estimates is on the order of several hundredths of an inch. However, the error varies by season and is particularly influenced by large storms.

NOAA Collaboration: A brief description of ShellCast was presented. ShellCast provides mariculturists in NC with forecasts about potential harvest area closures over the next 24-72 hours. It was developed by NSCU researchers in collaboration with NC SeaGrant, SECOORA and NOAA.

Ken presented information about NCCOS aquaculture activities. NCCOS is heavily engaged in responding to the large US seafood trade imbalance and the Executive Order on Promoting American Seafood Competitiveness and Economic Growth by providing information on aquaculture siting, especially in the Aquaculture Opportunity Areas.

NOAA Application: Ken describes the upcoming SECART workshop on gear tagging and recovery, encouraging participation from the State shellfish managers.

NOAA Application: Ken also communicated the availability of aquaculture literacy grants by a collaborative of NOAA and the North American Association for Environmental Education. Individual grants, up to \$15K, are available to states governments, academic institutions, and nonprofits.

4.7 NWS/MHX (David Glenn)

The WFO in Morehead remains interested in supplying forecast products for high impact events.

NOAA Application: MHX delivers high impact event forecasts to NC DEQ. Shannon and Andy confirm that they are used regularly for making sampling and operational planning.

4.8 FDA (Bess Ormond)

Bess reported that five new shellfish specialists were hired in the last year, including three new hires in Branch 1, which covers the SECART region. Currently these new staff are training.

Covid restrictions significantly impacted FDA shellfish activities, with fewer in-person inspections and an increase in data calls from coastal states.

FDA is working with the Interstate Shellfish Sanitation Commission (ISSC) executive boards to provide guidance on flexibilities to states on requirements during COVID.

FDA has also been conducting their annual training for state sanitarians remotely, which has proved challenging for courses that require hands-on exercises.

Bess also communicated that the ISSC conference 2021 has been postponed until 2022.

4.9 SECOORA (Jennifer Dorton)

Potential NOAA Application: Jennifer presented details about recent coupled atmospheric-hydrodynamic modeling efforts, funded by SECOORA and led by Dr. He at NCSU. Initial model development and testing is occurring in Albemarle and Pamlico Sounds (NC) and St John's River (FL). Water level and salinity represent the primary outputs. The goal is to transition model capabilities to NOAA. SECOORA is looking for applications.

5.0 Action Items

| Topic | Discussion Points |
|---|---|
| Development of Closure Decision Tools | <ul style="list-style-type: none"> ● Andy and A.K. committed to continuing modeling and closure tool development in NC. Andy indicates that once their new GIS specialist gets onboarded, they will likely have renewed capacity to consider additional efforts. ● Jill indicates that her team is busy completing transition to R and would return to expanding modeling efforts after that. ● Dominic will discuss use of NOAA data with new GIS specialist. |
| NWS Briefings | <ul style="list-style-type: none"> ● David Glenn offered real-time phone call assistance to SE States on go/no-go decisions about field operations ● David will follow up with WFO contact for GA |
| White paper synthesizing notification methods in the SE | <ul style="list-style-type: none"> ● This item was considered a relatively low priority ● Some notification methods might be better suited to recreation water closures |
| Shellfish sanitation curriculum for community colleges | <ul style="list-style-type: none"> ● NC and FL share examples of existing interactions with education and training programs ● This item may not need any action from this team moving forward |
| GIS information sharing across states | <ul style="list-style-type: none"> ● With new GIS specialists in two states, there might be benefit to sharing best-practices across states ● This action received little discussion but may be revived once operations reach post-Covid levels and new employees get integrated. |
| Planning for a 2022 in-person meeting | <ul style="list-style-type: none"> ● There was general interest in continuing with this collaboration, but, as with the last item, the State representatives had little capacity to plan at this time ● A less formal discussion will be had during the summer to reevaluate potential locations and participants |