

THE APPLICATION OF OPERATIONAL NATIONAL WEATHER SERVICE PRECIPITATION DATA TO SHELLFISH HARVESTING MANAGEMENT

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The National Oceanic and Atmospheric Administration's Southeast River Forecast Center (SERFC), a field office of the National Weather Service, monitors hydrometeorological conditions and prepares streamflow and level forecasts for rivers in the Southeast U.S. and Puerto Rico. To accomplish this primary mission, SERFC hydrometeorologists continually process hourly Multi-sensor Precipitation Estimate (MPE) data, a program that combines weather radar rainfall estimates and rain gauge data to produce calibrated precipitation estimates for use in river forecasting. Recently, the SERFC has been working with the Division of Aquaculture, Florida Department of Agriculture and Consumer Services, and the Shellfish Sanitation and Recreational Water Quality Section in the North Carolina Department of Environmental Quality, agencies who are charged with monitoring and closing shellfish harvest areas in their respective states for the protection of public health. Precipitation data is a key variable in making harvest area closure decisions and this collaborative effort is leveraging SERFC's continuously calibrated precipitation estimates to provide more reliable 24-hour rainfall totals, an indicator of the potential for pollution runoff, to decide if shellfish harvesting waters should remain open or be closed. This presentation will describe the production of MPE data, the variety of formats that MPE data is packaged in, and how MPE is applied operationally in harvest area closure decisions. Additionally, topical forecast data will be described that may be applicable for future shellfish closure decision and resource management.

Program reference: 2.3.1