The Northeast River Forecast Center's Decision Support Services for Federal and State Fisheries Activities in the Gulf of Maine Region **David R. Vallee NOAA/National Weather Service Northeast River Forecast Center, Taunton, MA** david.vallee@noaa.gov



The Northeast River Forecast Center provides decision support to the Gulf of Maine Harmful Algal Bloom community for their monitoring and forecasting activities in the basin. Support is provided in the form of biweekly hydro-meteorological outlooks which address rainfall departures, current streamflow conditions, and the likelihood of above normal precipitation and river runoff for the next 2 weeks. These outlooks are utilized by modelers at The Woods Hole Oceanographic Institute to coordinate cruises during the season to support sampling activities. These outlooks also support State Departments of Environmental Management who have responsibility for sampling activities and the issuance of shellfish bed closure notifications. Factors that influence the bloom potential include ocean salinity, fresh water runoff, and persistent northeast wind flow which provides a connection between the eastern and western Maine coastal currents. NERFC plans to operationalize these discussions into a Graphical Hydrometeorological Outlook and HAB Situational Awareness webpage in 2016.



Decision Support for Gulf of Maine Harmful Algal Blooms

Decision Support for Salmon Stocking Management Activities

The Northeast River Forecast Center provides decision support to the NOAA Northeast Fisheries Science Center, Maine Field Station, in Orono, ME. NERFC provides bi-weekly briefings to discuss current streamflow conditions and to interpret short to long range flow forecasts including simulations from the Metmember Based Ensemble Forecasting System and the 30 to 90 day Ensemble Streamflow Predictions (ESP) to support Atlantic Salmon stocking activities on Maine rivers. The Orono station has shown through their research that in-river survivability is influenced by river flow. For the 2015 season, the Orono station subjectively leveraged NERFC forecasts in their stocking strategy as it related to the timing of the release of Atlantic Salmon Smolts during the spring. A longer range goal will be to incorporate the ESP and eventual Hydrologic Ensemble Forecast System flow simulations directly into their PenPass Model to improve stocking strategies to increase Atlantic Salmon in-river survivability rates.

