



December 20th into 21st Rain Event

Flood Briefing # 1
As of: Noon Wednesday December 19, 2018
Prepared by: Rick Neuherz, Hydrologist

What has changed?
✓ First briefing











Key Considerations

- The following River Flood forecasts were made with the latest rainfall forecasts, and there will likely be adjustments as new model data and rainfall observations become available.
- As a result, there is the potential for some variability in River Flood forecasts, especially before and during heavy rainfall events. The reason for this is changes in where the rain falls, and how much there is, with respect to the basins could significantly alter river stage predictions.
- With many area rivers high or above flood stage when the rain falls, flooding along tributary rivers and creeks may be worse than is typical for a one to three inch rain event.
- Minor flooding is also possible along rivers and creeks where river forecasts are not available. People with interests in low areas along rivers and creeks should take action to prevent damage to items or materials on the ground in these areas.







Outlook

- Four rivers forecast to reach or remain above MODERATE flood:
 - Lumber River at Lumberton
 - Pee Dee River at Pee Dee
 - Little Pee Dee at Galivants Ferry
 - Santee River near Jamestown
- Seven rivers forecast to reach or remain above MINOR flood:
 - Cape Fear River at William O Huske Lock and Dam
 - Cape Fear River at Elizabethtown
 - Northeast Cape Fear River near Burgaw
 - Black Creek near Quinby
 - Lynches River at Effingham
 - Waccamaw River at Conway
 - Black River at Kingstree

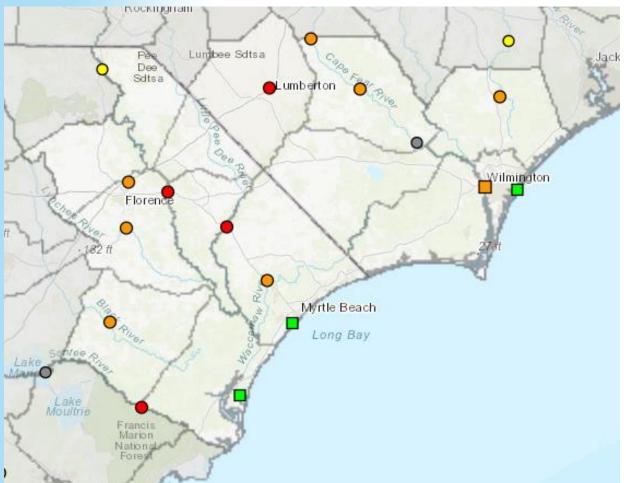








River Forecasts as of 1 PM Dec 19, 2018





Map denotes maximum flood category through 8 AM Dec 23, 2018.

This forecast contains forecast rainfall from 8 AM today through 8AM Friday.





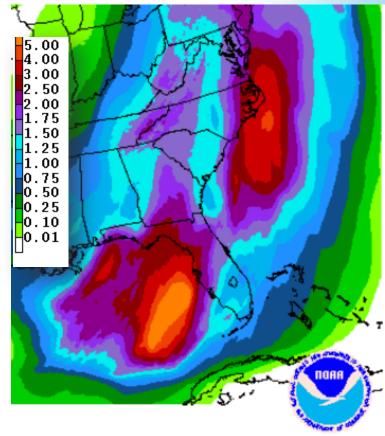






Excessive Rainfall Forecast and Day 1-3 Rainfall Forecast





WPC Excessive Rainfall Outlook valid Thursday morning through Friday morning

Day 1-3 WPC Rainfall valid through Saturday morning

• There is a slight risk of rainfall exceeding flash flood guidance Thu morning into Fri morning across the eastern Carolinas. Rainfall amounts could range from 1 to 3 inches, which could quickly lead to flooding of vulnerable low-lying/prone areas and additional rises on area streams and rivers.

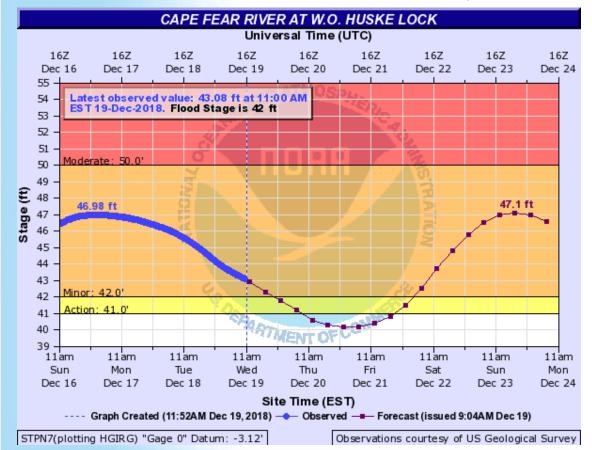












The river is falling and expected to get below Flood Stage by Thursday night. Rainfall will then make the river rise to Flood Stage Friday night with a crest around 47 feet on Sunday.

- 79.3 Water will reach the elevation of the instrument shelter in the USGS well house. Extensive flooding will occur along the all reaches of the river.
- 76.5 Water will reach the floor in the USGS well house. Extensive flooding will continue along both banks of the river.
- 75.5 Flood waters will reach within eight inches of the floor in the lockmasters residence. Extensive flooding can be expected along both banks of the river.
- 65 Water will approach the road in front of the lockmasters residence. Extensive lowland flooding will occur along the left bank with minor flooding along the right bank.
- 52 Extensive flooding will occur along the left bank of the river. Water levels will reach the door sill of the USGS well house.
- 50 Extensive lowland flooding will occur along the left bank of the river.
- 45 Flood waters will affect areas along the left bank of the river with some minor overflow along the right bank.
- 42 Water levels will top the navigational lock.

 Operations stop and the equipment must be removed.

 Minor flooding will occur on land adjacent to the left bank of the river.











ELZN7(plotting HGIRZ) "Gage 0" Datum: 9.55"

The river was below Flood Stage this morning and falling. The river will continue to fall into Friday before rising and getting back to Flood Stage on Sunday with a crest early next week.

- 47 Flood waters will remain below the bridge on Highway 242 but lower roads along the left bank will of the river experience high water.
- 43 Considerable flooding will occur along the entire length of the river as well as near the city of Elizabethtown.
- 38 Flood waters will enter the first floor of the lockmasters residence.
- 35 Flood waters will reach the home of the lockmaster and will affect low grounds along the length of the river.
- 30 Flood waters will affect low grounds along the right bank of the river.
- 27 Floodwaters will affect farmers' fields adjacent to the river requiring the movement of farm equipment to higher ground.
- 25 Flood waters will reach the top of the navigational lock.
- 23 River will spread further into low grounds on the left bank.

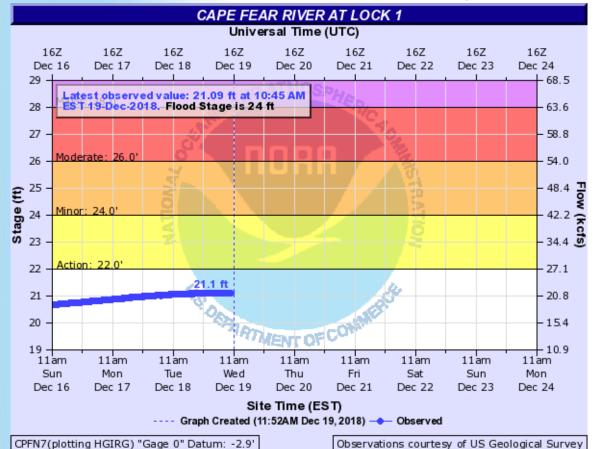












The river is at crest from earlier rainfall and will begin falling later today or tonight. The river is expected to remain below Action Stage through the weekend.

- 50 Water levels will reach the height of the bluff on which the lockmasters residence is located.
- 28 Flood waters will near the flood of record. At 30 feet, this is above the flood of record and flood waters reach the instrument shelter.
- 26 Moderate flooding of swamps and low lands. Flooding similar to that reached with the remnants of Hurricane Hilda in 1964.
- 24 Lowland flooding will occur along the riverbed.











The river is in Minor Flood and is expected to remain around 11 feet through Friday before rising into early next week. The river could reach Moderate Flood level early next week.

River Flood Impacts vs Stage

22.4 12 miles of Highway 53 are underwater, in some cases 7 feet deep, between the Northeast Cape Fear bridge and Maple Hill. All homes including 60 in River Bend, 20 to 25 in River Birch and 12 in the Alligator Lake subdivision are flooded. 20 to 30 homes in Holly Shelter estates are underwater. In the Sandy Bend subdivision, off Shaw Highway, 40 to 50 homes, which is half of the homes in the subdivision sustain flooding. Portions of Croomsbridge, Island Creek and White Stocking Roads are underwater.

16.5 White Stocking Road is closed and floodwaters begin to get into the homes in this area. Highway 53 is closed adjacent to the river. Stag Park Road has water 2 feet deep on it and becomes impassable.

- 16 Water begins to get into homes, including those that are elevated, in the River Birch and River Bend subdivisions. Floodwaters also get into homes on Croomsbridge Road.
- 15.25 The approaches to the bridge at Lanes Ferry on Highway 210 may be flooded. Much of White Stocking Road is closed. At the wildlife ramp on Shaw Highway, ramp is underwater and parking lot is half full of water.
- 14 Floodwaters cause portions of Shaw Highway to be closed between Carl Meeks Road and Lillington Lane. White Stocking Road is also closed from Chorley Road to Mack Williams Lane. Flooding worsens on Highways 210 and 53 but roads remain open.

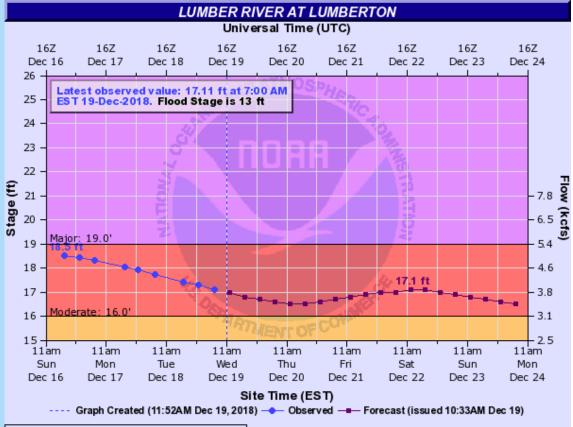












LBRN7(plotting HGIRZ) "Gage 0" Datum: 100'

The river is in Moderate Flood but receding. The river will slowly fall into Friday before rising to a crest around 17 feet Saturday.

- 20 Floodwaters come within 40 feet of the Pepsi plant on Chippewa Street. Flooding deepens in the Pines Area, Coxs Pond, along River Road and between the Pepsi plant and the river. Portions of Cox Road will become impassable. Flood waters affect areas along Planetarium Road including the Robeson County schools facility. West Carthage Road will be impassable near McMillan's Beach Road. Kenric Drive will be flooded. Areas along Hester Drive off West 5th Street will experience minor flooding.
- 19 Extensive flooding occurs along the river. Over 50 dwellings will be inundated or isolated due to the flood waters and several roads will be closed especially in the Pines area and Coxs Pond area. Carthage Road may be completely covered with water.
- 18 Flood waters deepen in the Pines and Coxs Pond areas as well as along River Road. Flood waters may affect Carthage Road. Several homes will become isolated or inundated between the Pepsi plant and the river. Chickenfoot Road, Hestertown Road and Noir Street will be closed.
- 17 Flooding worsens west of Interstate 95 and water may begin surrounding homes in the Pines and Coxs Pond areas. Homes off River Road may become isolated by flood waters. Water may also affect yards off Planetarium Road and fields off deep Branch Road. East of Lumberton, the lowest homes in the Pines area may be flooded and homes may be surrounded by water in the Pines area and between the Pepsi plant and the river. Chickenfoot Road, Noir Street and Hestertown Road may be impassable.

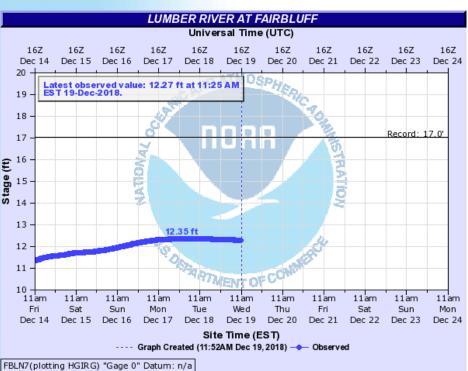


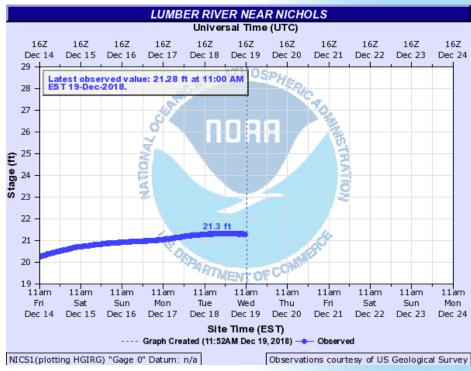






River Observations 1 PM Dec 19,2018





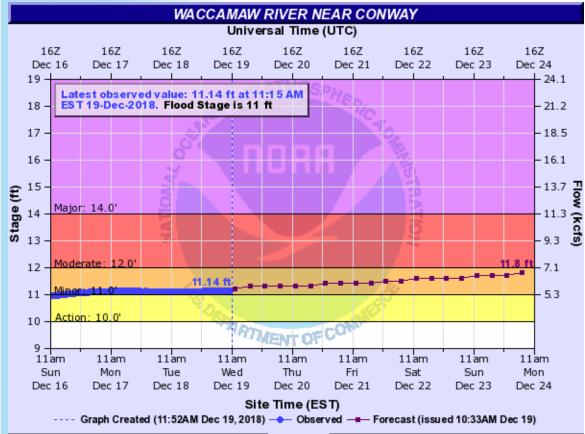
Levels on the Lumber River at Fair Bluff and Nichols are not forecast. However, minor flooding is likely underway in these areas and could continue for much of the next week with additional rain on the way.











CNWS1 (plotting HGIRG) "Gage 0" Datum: -5.06'

Observations courtesy of US Geological Survey

The river is in Minor Flood, will slowly rise through the weekend and could reach almost 12 feet by early next week.

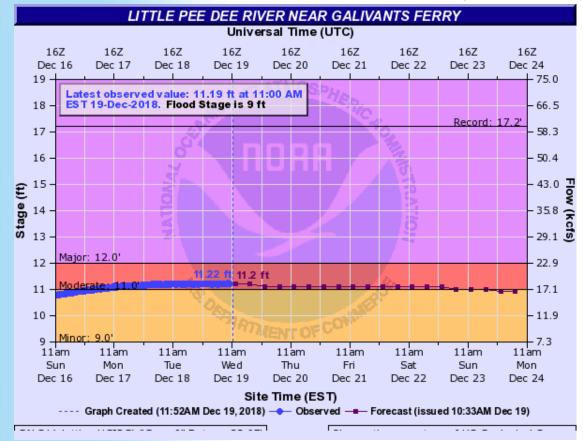
- 15 Residential flooding will continue to worsen. The Conway Marina will be flooded. Railroad trestles in downtown Conway will flood at 15.9 feet.
- 14 Flood waters will worsen and affect several residential properties and roads at Riverfront South, Lees Landing, Savannah Bluff, Pitch Landing, Jackson Bluff and Bucksville.
- 13 Flooding will occur in residential areas off Business 501, Highway 905 and Highway 90. Water levels one foot deep will surround approximately 20 homes in the Savannah Bluff area. Flood waters will also surround homes in the Lees Landing, Pitch Landing and Riverfront South communities. Flooding will occur near a few homes on Oak Street as well as at Punch Bowl and Pitch Landing.
- 12 Flooding will worsen in the Lees Landing, Riverfront South, Pitch Landing and Savannah Bluff communities. Flood waters will begin to affect homes north of Conway on Riverside Drive. Swamps will be heavily flooded.
- 11 Water will begin to cause minor flooding of yards and a few roads in the Lees Landing, Pitch Landing, Savannah Bluff, and Riverfront South communities. Overflow of vast uninhabited swamp and natural boat landings will occur.











The river is in Moderate Flood and will remain around 11 feet through the weekend.

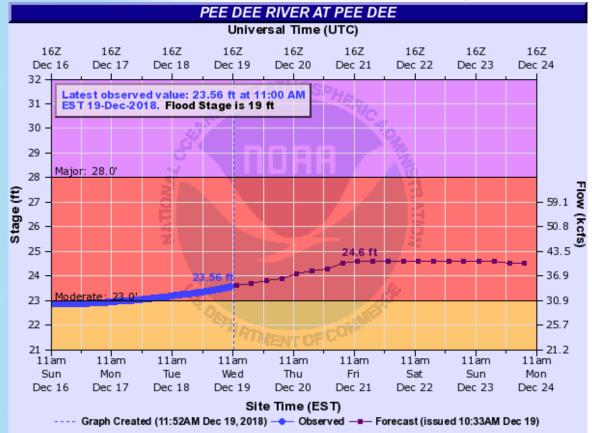
- 12 Flood waters will affect 30 to 40 homes in the Fork Retch community near Nichols.
- 11 Flood waters will continue to rise in the Fork Retch community located near Nichols. Flood waters will begin to affect some homes at Fork Retch. Swampland flooding will increase.
- Flood waters will begin to affect residential yards in the Fork Retch community upstream of Galivant's Ferry near the town of Nichols. Swampland flooding becomes noticeable and natural boat landings will be flooded.
- The river is at bank-full. Some minor flooding will occur in low lying areas.











The river is in Moderate Flood and rising. The river is expected to crest just below 25 feet this weekend.

River Flood Impacts vs Stage

- 28 There will be extensive flooding of timber land and farm land along the river. Access roads may be damaged by the flood waters and operations at industrial plants along the river will be affected.
- 25 Flood waters will continue to affect logging operations upstream and downstream from Pee Dee. Flooding of farmlands adjacent to the river will worsen.
- 23 Flooding will affect swamp and timberlands while also disrupting logging operations. Operations will likely cease and equipment not previously moved will remain trapped. Some farmland will have minor flooding especially around Britton Neck.
- 20 Flood waters will affect swamplands and logging interests. Flood waters will affect timberland as far downstream as Yauhannah two weeks after the crest passes Pee Dee. Logging equipment needs to be moved.
- 19 Flood waters will affect swamplands adjacent to the river.

PDES1/plotting HCIPC) "Gage 0" Datum: 24-73"

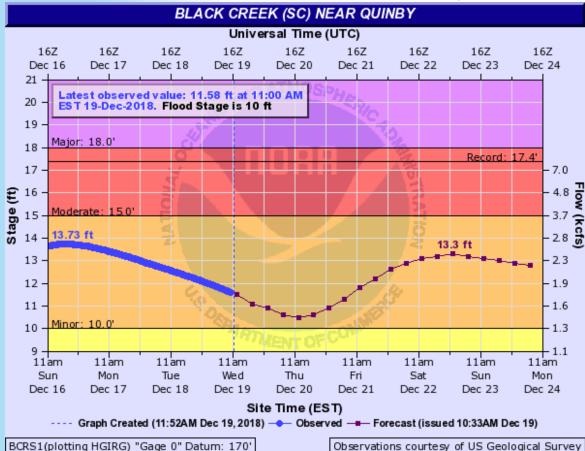




Observations courtesy of HS Ceological Survey







The creek is in Minor Flood and falling but will begin rising again Thursday and crest just above 13 feet Saturday.

- 18 Water several feet deep in numerous homes on Creekside Drive, East Black Creek Road, and Crooked Creek Drive.
- 16 Floodwaters deepen on Creekside Drive, East Black Creek Road, and Crooked Creek Drive. Flood waters spread onto Cyprus Bend Road into the Country Club of South Carolina.
- 15 Floodwaters enter numerous homes on Creekside Drive, East Black Creek Road and Crooked Creek Drive.
- 14 Floodwaters surround the majority of homes on East Black Creek Road, Creekside Drive and Crooked Creek Drive and all residents are isolated due to the floodwaters. Water is lapping at the foundations of all ground level homes in these areas.
- 13.5 Floodwaters begin to affect one mobile home on Creekside Drive and continue to rise in yards.
- 13 Floodwaters spill over into all yards of residences on Creekside Drive, Crooked Creek Drive and East Black Creek Road. The creek spills over its banks off Highway 327 in the Country Club of South Carolina. Floodwaters affect some yards of residences in the Country Club of South Carolina.
- 12.5 Floodwaters continue to rise on Creekside Drive and East Black Creek Road with water nearing a few homes. Homes along East Black Creek Road become isolated and residents must use boats to exit the neighborhood.
- 11.5 Floodwaters spill over into yards of all residences on Creekside Drive.
- 11 Floodwaters affect Creekside Drive in Quinby. Water begins to get into residents' yards on Creekside Drive and East Black Creek Road.

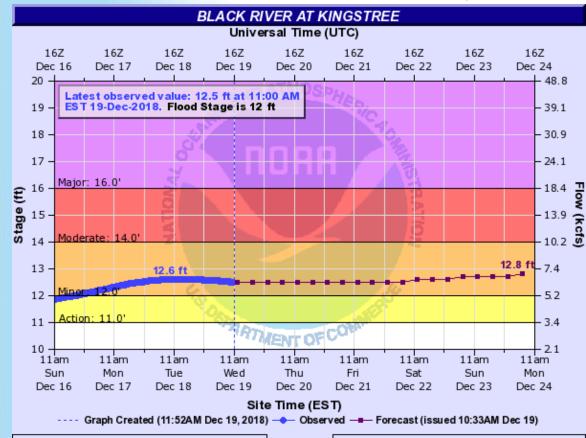












The river is slowly falling but is forecast to remain in Minor Flood into early next week.

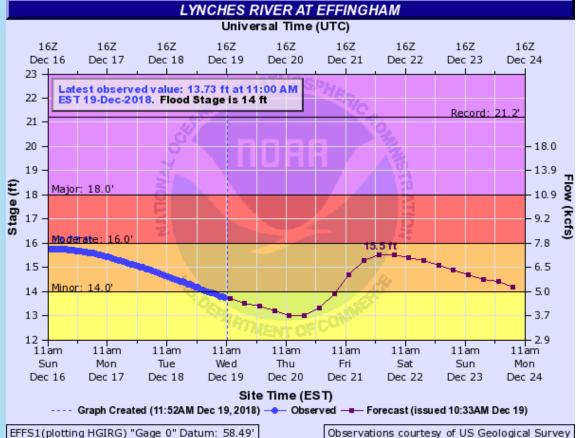
- 19.7 Flood waters will affect residential streets in Kingstree including Singleton, Scriven, McFarlin, and Cedar. Overflow from a canal on East Main Street near the railroad crossing may damage some stores in the area. Highway 52 and 261 closed.
- 18 Flood waters will begin to overflow Highways 52 and 261 causing some closures. Some evacuations may become necessary in the Kingstree area.
- 16 Flood waters will flow into some homes in the Kingstree area. Extensive flooding will occur along the remainder of the river.
- 14 Flood waters will continue to affect immediate areas along the river bed. Rising water levels will also reach Highway 41 at Andrews at 14.5 feet.
- 12 Flood waters will affect low lying areas along the river especially upstream from the Highway 52 bridge.











The river is falling but will begin rising Thursday night, reach Flood Stage early Friday, and crest around 15.5 feet Friday night.

- 21 Near record flooding will occur.
- 18 Extensive flooding will occur.
- 17.5 Extensive flooding will occur along the river. In addition, flood waters will affect some residential areas up stream near the Sumter County line.
- 16.5 Water will enter some homes along Roundtree Road. Several homes will be isolated along North Old Georgetown, Roundtree, and Bengause Roads near Effingham and New Hope.
- 16 Flood waters will affect several homes along the river and isolate those residents without boats.
- 15.5 Flood waters will affect portions of North Old Georgetown, Roundtree and Bengause Roads near Effingham and New Hope. The roads will be impassable in places.
- 15 Flood waters will affect roads near Effingham and New Hope. North Old Georgetown, Roundtree and Bengause Roads will flood in low lying areas near the river.
- 14 Flooding will affect low lying areas along the river.

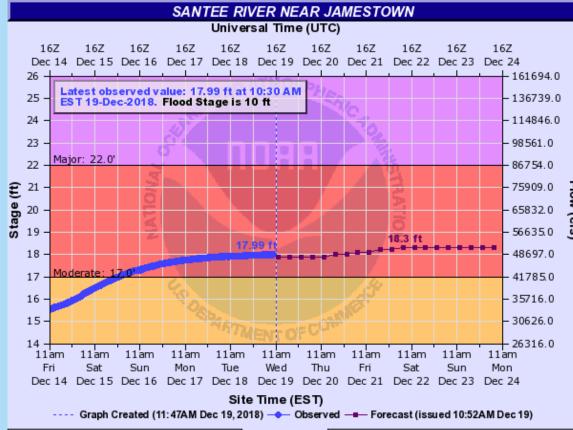












JAMS1(plotting HGIRG) "Gage 0" Datum: 0'

Observations courtesy of US Geological Survey

The river is in Moderate Flood and will slowly rise through early next week.

Selected River Flood Impacts vs Stage

- 24 water will start to enter the lower level of the home at the end of Lawton Farm Lane.
- 22 water will surround the residence at the end of Crow Hill Drive and portions of the road will be covered with water due to backwater effects.
- 19 The lower quarter mile of Lawton Farm Lane is impassable.
- 17 The lower half mile of Harris Landing Road is flooded and impassable and the residence at the end of the road is flooded. Lenuds Ferry boat landing at Highway 41 is inaccessible and the parking lot is flooded.
- 16 water surrounds the house at the end of Harris Landing Road and the adjacent boat ramp is no longer accessible.
- 12 several dirt logging roads become impassable.
- 10 water covers numerous logging roads and inundates timber land adjacent to the river. Most access points to Wee Tee State Forest are cut off.

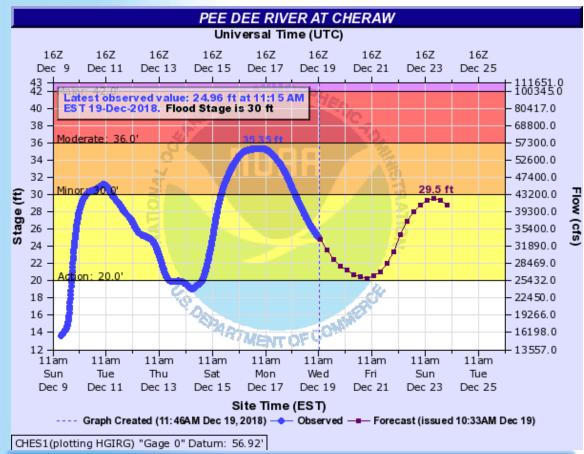










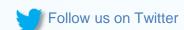


The river is below Flood Stage and receding. The river is forecast to remain below Flood Stage through early next week.

Selected River Flood Impacts vs Stage

- 55 Extensive damage occurs in small communities downstream from Cheraw.
- 50 Extensive flooding of farmland around and downstream from Cheraw is expected.
- 42 Secondary roads downstream from Cheraw begin to flood.
- 40 Potential loss of livestock and farm equipment in river bottomland near Cheraw is possible.
- 36 Extensive overflow of the left bank will occur and large areas of farmland near Cheraw will be flooded. Livestock and farm equipment should be moved to higher ground.
- 35 Southeast of Wallace, Old River Road between Community Road and Highway 912 will become flooded and may need to be closed.
- 33 Southeast of Wallace, water spreads onto Old River Road between Community Road and Highway 912.
- 30 The higher bank begins to flood. Large areas of farmland and river bottomland near Cheraw will be flooded. Portions of Riverside Park become flooded.
- 20 River bottomland downstream from Cheraw will begin to flood.











Contact Information











