The severe winter storm that occurred from Feb. 11-13, 2014 had a major impact on South Carolina’s forests, resulting in direct damage estimated at $360 million on over 1.5 million acres across 24 counties. Only Hurricane Hugo caused more damage at $1.2 billion. Based on the Storm Damage Assessment it was projected that approximately 30,000 acres would need to be salvaged and reforested. The Forestry Commission, with invaluable support of forestry partners, played a lead role in responding to this natural disaster - from assisting with debris removal and conducting the damage survey to the ongoing assistance we are providing to forest landowners who must deal with reforestation of their destroyed timber stands. The forestry community (forest industry, consulting foresters, timber buyers, loggers, and others) made a concentrated effort in salvage operations.

Emergency Response
During and immediately following the storm, SC Forestry Commission personnel provided transportation to key medical personnel using agency 4-wheel drive trucks, provided staffing at the SC Emergency Operations Center, and assisted with debris removal operations on state and county roads by providing chainsaw crews and heavy equipment.

Damage Assessment
Immediately following the ice storm, Forestry Commission personnel conducted an initial aerial survey to estimate the area (corridor) affected as well as the extent of damage. A comprehensive aerial survey, measurement of one-seventh of FIA plots (based on protocol developed by NC Forest Service), and ground checks of the aerial survey, began on February 18 and was completed on February 24. During this period, data was collected on 248 FIA plots, measuring nearly 5,000 trees. The aerial survey covered 3,600 miles of flight lines resulting in 1,019 observations of damage. The heaviest damage was determined to have occurred in young planted pine stands that had been thinned in the last 2 to 3 years and in sapling-sized longleaf pines.

Landowner Assistance
While this damage assessment was being conducted, SC Forestry Commission foresters began planning for and providing assistance to landowners with ice-damaged timber. In coordination with partners such as Clemson Extension Service and the SC Forestry Association, the Forestry Commission disseminated information designed to help forest owners and homeowners. In addition, agency staff coordinated with the USDA Farm Services Agency (FSA) to ensure that Emergency Forest Restoration Program (EFRP) cost-share assistance would be available for affected areas.

Upon completion of the assessment, meetings were held to discuss the extent of the damage and planned actions with key South Carolina legislators, Governor Haley and her staff, the Foresters Council, Farm Services Agency, and the SC Forestry Association (SCFA). State Forester Henry “Gene” Kodama declared a Forest Disaster on March 5 at a press conference at the State House. This declaration called upon “all forestry
interests to work together to facilitate prompt salvage and regeneration of the damaged resource.” Thanks to the concerted efforts of SCFA and SC Timber Producers Association staff, Governor Haley signed an executive order allowing logging trucks to haul up to a Gross Vehicle Weight of 90,000 pounds to help facilitate salvage operations.

Following the disaster declaration, the Forestry Commission and Foresters Council sent letters to forest industry, consulting foresters, timber buyers and loggers encouraging a rapid, determined effort to salvage and utilize damaged wood. Throughout the salvage period, agency personnel surveyed mills to obtain salvage volumes. Staff provided updates to the forestry community on the progress of salvage operations and the status of technical assistance. Even with the concerted effort by the forestry community, only 6% of the estimated volume of pine damage was salvaged. Salvage recovery for major events like hurricanes and ice storms that cover significant portions of the state have historically been around 15% or less due to damage to timber, difficult ground conditions, and wide-spread distribution of the impacted trees.

On March 12, 2014, President Obama issued a major disaster declaration for the State of South Carolina, triggering the release of Federal funds to help communities recover from the storm. This declaration and the assistance of FSA Director Harry Ott and his staff enabled South Carolina to be approved for approximately $4 million in EFRP funding.

The SCFC would like to thank our employees, the forestry community and other partners for their hard work and outstanding service to the State and its citizens during this event and as we continue to work to ensure that our forests recover from this devastating natural disaster.

### Activity Summary

#### ICE DAMAGE EXAMS

SCFC field staff received and completed over 1,100 EFRP requests, in addition to basic forest management plans and Conservation Reserve Program (CRP) requests, for examinations of ice damaged timber on over 40,000 acres. Over 20,000 acres were approved for reforestation under EFRP.

#### REFORESTATION ACREAGE

Over 30,000 acres were determined (through field exams and reports) to have heavy damage that needed to be clearcut. Unfortunately, much of this acreage was not salvaged and will not be reforested.

#### TIMBER VOLUME SALVAGED

<table>
<thead>
<tr>
<th>Month</th>
<th>Products (tons)</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb/March</td>
<td>291,057</td>
<td>46.9</td>
</tr>
<tr>
<td>April</td>
<td>173,582</td>
<td>28.0</td>
</tr>
<tr>
<td>May</td>
<td>105,812</td>
<td>17%</td>
</tr>
<tr>
<td>June</td>
<td>40,055</td>
<td>6.5</td>
</tr>
<tr>
<td>July</td>
<td>10,044</td>
<td>16%</td>
</tr>
<tr>
<td>Total</td>
<td>620,550</td>
<td>100%</td>
</tr>
</tbody>
</table>

(96.6% softwood* & 3.4% hardwood)

*The estimated volume of pine damaged by the ice storm was equivalent to one year’s production of timber in South Carolina. The amount salvaged equates to about 6% of the pine volume damaged by the storm, which is approximately 2.4% of the total volume of timber produced statewide in 2013.

#### COMMUNICATIONS

- Issued 9 press releases to update the public on the progress of ice storm recovery and assistance available.
- Produced articles for landowners including information about assessment of tree and timber stand damage, cost-share assistance, and tax treatment of casualty loss.
- Wrote letters to consulting foresters, forest industry personnel, timber buyers, and loggers asking for their help in quantifying salvage efforts and informing landowners about assistance that was available.

#### TIMBER SUPPLY IMPACTS

To assess the long term impacts of the ice damage to the state’s wood supply, the Commission used the Subregional Timber Supply model developed by Dr. Bob Abt, Dr. Fred Cubbage, and Gerardo Pacheco and 2012 Forest Inventory and Analysis data to project future wood supplies.

The study found small decreases in small diameter pine inventory in the short-term as well as a reduction over the long-term, ranging from 2-4% depending on demand scenario. This reduction was evident at the state level analysis, with more pronounced impacts in the South Coastal Plain FIA Unit.

To continue to accelerate recovery from the ice storm’s impacts and help grow the industry, the state’s forest landowners should be encouraged to actively manage their forests for timber production and other forest values and forest products markets should be expanded.