Sand Hill Reservoir Forest Management Plan

Background:
In discussions about moving forward with previously formed recreation plans at the reservoir, the subject of forest health and management was one of the concerns considered by the Conservation Commission. A couple tree species known to be part of the forest composition on the reservoir are Red Pine and White Ash, both threatened by different, but equally damaging invasive insect pests. Infestation by these insects generally leads to mortality of these trees in a given stand.

Red Pine, which makes up a fairly high percentage of the forest composition is threatened by Red Pine Scale, an insect spread by wind and birds which can quickly weaken and kill entire stands of Red Pine in short periods of time. Red Pine Scale has been found in Peterborough and Rindge and is known to be in southern NH counties of Cheshire, Hillsborough, Merrimack, Belknap, Strafford, and Rockingham. Though not currently thought to be in this forest, it is highly likely scale could become a problem here.

White Ash, a fairly small percentage of the forest composition, is threatened by the Emerald Ash Borer, among other common insect and disease problems. Evidence of Emerald Ash borer has been found on reservoir ash trees. This aggressive pest spreads quickly and will likely kill a high percentage of ash in the area.

Another known pest on this site include Hemlock Wooley adelgid which was in the small stand of hemlock on the back side of the reservoir at the time of the last harvest. Adelgid is controlled by cold weather to some extent and may not result in mortality of all hemlock. Forestry professionals such as a local licensed forester and a UNH Cooperative extension forester were consulted on how this small forest could be managed before moving forward with recreational improvements.

Another forest health issue discussed was that of invasive plant species. This is a real problem here already with almost every invasive plant known in the area present throughout the forest. Controls and treatment for this problem is expensive and or labor intensive and may not be feasible on the scale required.

Options to move forward discussed were:
1. Do nothing now, and deal with problems if and when they occur
2. Conduct a small proactive commercial timber harvest to remove red pine and white ash, and other badly damaged or declining trees.
3. Conduct a small service oriented operation to remove only the trees that may be an impact to future improvements.

After consideration and thorough discussion it was decided by the Conservation Commission to recommend to the Select Board a small commercial harvest be conducted before the planned improvements are done.

The Select Board ultimately agreed to this recommendation based on a specific prescription designed by a licensed forester.
The positives of this approach are thought to be:

1. Future need for disturbance of the site will greatly reduced.
2. Natural resources, forest products we all use in our homes and daily lives will be captured and utilized while giving consideration to future and current use of the site by both people and wildlife.
3. The harvest work will not cost the town taxpayers, and in fact will provide a small amount of income to the town. This small income is not the reason for doing this project, merely a positive outcome for choosing this proactive approach.

What Happens Next
In the next week or so, a commercial harvest will begin on the forest surrounding the reservoir. Red pine, white ash and a small amount of white pine will be harvested, with exception of areas that are deemed to impactful to the site such as on the peninsula and on the back side of the reservoir where trees are along a steep bank at the water's edge and require wetlands impact to reach. The harvest will take a couple weeks from start to finish. Please excuse this short interruption to the quiet of the neighborhood. Fort Mountain Companies, a forestry and timber harvesting company, will be conducting the harvest work.

Harvest Work:
During the harvest, expect noise from heavy equipment and a change to the scenery you are used to as some of the trees along the road frontage will be removed. The forest will take on a new look. It may be disturbing to some and maybe an exciting change to others. Ultimately the resilient forest we are blessed with in NH will recover relatively quickly. Advanced regeneration, "young trees and our future forest" is already in place due to past disturbances such as at least two other logging entries and at least one major ice storm. The seedling, sapling and pole sized sugar maple, beech, pine, oak and birch will fill in the lower forest canopy level, especially in summer. The larger healthy white pines, and mixed hardwoods such as cherry and red maple will remain in the upper canopy providing that vertical diversity. Areas left open by this harvest should quickly regenerate by natural seeding and sprouting. The loggers will do their best to save and protect the smaller trees which are not slated for removal, though some will be cut to meet the goals of the harvest. Red Pine, hemlock white pine and mixed hardwoods will remain undisturbed on the back side of the reservoir.
Much of the brush from tops will be chipped to reduce debris while some brush will be returned to the forest used as "best management practices" to prevent erosion as well as to create additional wildlife habitat in the form of strategically placed brush piles. Larger dead stems already on the ground as well as some which may be felled will remain on the forest floor to rot, adding to the habitat quality of the site. Dead snag trees may be left for woodpeckers and den trees.

Though we can never predict Mother Nature's next step, this forest should have a brighter future following the management we do today. Once completed, the conservation commission will complete the design and mapping of the existing and new trails and two bog bridges to cross the wet areas from the beach. In early spring, the trails and parking area construction will begin. A gate and signage will complete this phase of the project.