

GAZETTENET.COM

Published on *GazetteNet* (<http://www.gazettenet.com>)

[Print this Page](#)

Red pine scale: Insect the size of fleck of pepper killing trees in Northampton's watershed

By CHAD CAIN

Staff Writer

Monday, October 20, 2014

(Published in print: Tuesday, October 21, 2014)

NORTHAMPTON — A tiny insect the size of a fleck of pepper is wreaking havoc on red pine trees in the city's watershed lands, forcing the Department of Public Works to hire a forester to survey the trees and develop a harvesting plan for early next year.

Known as red pine scale, the non-native insect has been present in the state for some time but was only recently detected in the city's water supply property located in six communities, including highly visible spots off major roads.

"Within a year or two, all of the red pines will be dead. Many are already dead," said City Engineer James Laurila, referring to the red pines on city property.

The red pines, which are not native to New England, were planted in the 1930s to stabilize the soil and protect the water quality of the reservoirs and for eventual harvesting. The recently discovered disease will force the city to bring its harvesting plans several years

forward.

There are 37 red pine stands and sub-stands totaling 234 acres in Northampton, Westhampton, Hatfield, Conway, Whately and Williamsburg. That's about 7 percent of the nearly 3,500 acres of forest owned by the city next to water supply reservoirs.

Laurila said red pine scale had not been detected in the city's forests between 2011 and 2013 as the DPW put together comprehensive Forest Stewardship Plans to manage the land. The plans, however, did note that the red pine stands were in a state of decline due to pests and pathogens, including various bark beetles. The plans recommend gradually replacing red pine stands with native trees. The insect doesn't seem to affect other native tree species.

"We wanted to move toward a more natural forest, but the presence of red pine scale will accelerate those plans," Laurila said.

Little can be done to stop the spread of red pine scale or to protect trees from being killed. Once dead, the lumber harvested from the trees becomes worthless and in many cases the trees pose a hazard to the public, Laurila said.

That's why the Board of Public Works recently awarded a three-year, \$77,000 contract to forester Michael Mauri to prepare cutting plans for the standing red pines. Mauri is marking trees in areas suitable for logging and sometime this fall will likely lead a public walk to explain the issue and the city's plan.

On a Monday afternoon walk through a part of the watershed at the corner of Chesterfield and Kennedy roads — the hardest-hit red pine stand in the city — Mauri and Nicole Sanford, the city's senior environmental scientist, pointed out many dead or nearly dead red pine trees that have been on a steady decline.

"When the red pine scale showed up, it's kind of like the nail in the coffin and it quickly kills whole stands of trees, not just individual trees," Mauri said.

Northampton is one of many communities in the state dealing with red pine scale, a disease that is attacking red pines planted around watersheds on state or municipal lands in the early 1900s through a Civilian Conservation Corps reforestation program, said Ken Gooch, forest health program director for the state Department of Conservation Resources. The goal at the time, Gooch said, involved planting trees for eventual harvest as a money-making endeavor.

"Statewide it's a pretty big problem," Gooch said of red pine scale. "It's been spreading from the south ... it's pretty much a very quick tree killer."

First spotted in 1940s

The red pine scale is an insect that first appeared in the 1940s in Connecticut, and spread to New York and New Jersey in the 1950s and '60s. The insects feast on red pine trees, first discoloring the needles from green to a rust red color and eventually killing the trees. The insects can't fly, so the most common mode of transportation is by wind or on birds or squirrels. Connecticut and Rhode Island have removed red pine out of nearly all their forests, and New Hampshire has been dealing with the disease since 2012 when it was discovered in Bear Brook State Park, Gooch said. Maine began spotting the disease in September.

In Northampton, Laurila said the red pine trees that are still alive and accessible will be harvested in a separate contract that he expects will go out to bid later this fall. By removing the trees before they are dead, the city will still make a profit on them because the lumber is still usable. The harvest would occur over the winter and generate an estimated \$100,000 in revenue for the city, depending on how many trees Mauri finds acceptable for logging.

That money would go into the city's water enterprise fund and can be used for water-related projects.

Trees that are still alive but inaccessible will be left to die, while trees that are already dead and pose no safety hazard will remain where they are. Finally, some already dead trees that pose a safety hazard will be cut down wherever possible. These can include trees near hiking trails or reservoirs.

"Our goals are to capture the value of trees alive and to reduce the long-term financial liability of trees that pose a safety hazard," Laurila said.

He cautions, however, that the logging contracts will not call for cutting down 234 acres of trees, but rather will include removal of red pine trees on parts of that property.

The city's red pine stands are scattered in forested water supply property at the Ryan and West Whately, Mountain Street and Roberts Meadow reservoirs. While some of the trees are in isolated areas, many are in areas where the logging will be visible to passers-by. Among those are lands in the Roberts Meadow watershed in Leeds and around the city's water treatment plant off Mountain Road in Williamsburg. Removing the trees will be visually jarring, but it's the most responsible way to deal with the infestation, Laurila said.

"We want to try and remove as much of the red pine as we can but protect the young hardwood forest that's underneath," said Mauri, pointing to other hardwood trees such as sugar maples, black birches and others mixed in with red pine at the Kennedy-Chesterfield intersection. "The challenging thing for us will be the vines."

Mauri said removing the red pines could exacerbate the growth of interfering vines, including oriental bittersweet and wild grapes, that are already a problem but will become worse. These vines populate the understory of the red pine canopy and in many cases are climbing up trees. If left unchecked after the red pines are cut down, these vines could spread and take over the area, choking out new trees and spreading to existing trees.

"If we just let them die, the bittersweet will just start climbing these young hardwoods and overtake them," Mauri said. "With the red pine dying quickly, we have to deal with the vines more quickly."

Laurila said DPW staff are studying ways to manage this vegetation. Among those are mechanical cutting and removal techniques and the possible limited use of herbicides. The decision will be made in part based on a review of how other public water suppliers deal with such vegetation. "We're trying to be as upfront with the public as we can," Laurila said.

Gooch agrees that the recommended strategy in dealing with red scale is to cut the stands while the trees are alive and have monetary value. He said once red pine scale kills a tree, other bugs such as bark beetles and wood bores can cause further damage quickly and render the wood worthless.

While it's OK to leave the trees alone to die in certain areas, Gooch said, landowners have to think about hazardous situations from trees — or large parts of trees — that may fall near homes, on power lines and into water supplies. Fire is another potential hazard because red pines contain a type of resin that make them susceptible to crown fires.

Waiting to remove these trees until they are dead can cost communities money because they'll need to be cut down for liability reasons and can't be sold to lumber yards, he said.

"If the trees are in an area where nobody is, then it's probably not an issue to leave them," said Gooch, noting that the state is doing this in many areas. As the trees fall, he said, they add nutrients to the soil.

Chad Cain can be reached at ccain@gazettenet.com.

Source URL:<http://www.gazettenet.com/home/14005905-95/red-pine-scale-insect-the-size-of-fleck-of-pepper-killing-trees-in-northampton>