



Success Stories from the Northeast Region

Mashpee Collaborative Works to Restore Rabbit, Human Habitats

Rabbits having a tough time maintaining populations? Normally, you wouldn't think so. But in New England, conditions are far from normal for the region's only native rabbit species, the New England Cottontail, *Sylvilagus transitionalis*. In the wake of human development, fire and other natural disturbances that once maintained thick-
et and brush habitats, the species have all but disappeared from the landscape.

This threatens not only the cottontail, but also humans. Without periodic fire, flammable mid-story, "ladder" vegetation accrues to potentially carry ground fires to tree crowns, posing a risk to nearby homes. For the rabbits, which have already lost early successional habitat in 86 percent of their range (Massachusetts, Connecticut, Rhode Island, New Hampshire and Maine), a solution to this problem is critical.

On Cape Cod, the U.S. Fish and Wildlife Service (Service) has joined forces with the Town of Mashpee, State of Massachusetts, Waquoit Bay National Estuarine Research Reserve, Mashpee Wampanoag Tribe, and other partners to return fire to the land and restore resilient habitats for both New England cottontails and people. This team is managing the Wildland Urban Interface by targeting areas with the most burnable vegetation and strategically cutting undergrowth, thinning the forest, and conducting controlled, planned burns that continue the natural renewal process and reduces fire danger to nearby homes and businesses.

"The tribal people feel strongly about helping species that are indigenous like us," said Chuckie Green, the Mashpee Wampanoag Tribe's Assistant Director of Natural Resources. "People have not allowed Mother Nature to be in control, so we are responsible for bringing back the habitat that this rabbit needs."



New England Cottontails inhabit Cape Cod and are a candidate for listing under the Endangered Species Act. *Photo credit: David Tibbetts/USFWS*



Chief Baker at an early planning meeting to restore fire to Mashpee National Wildlife Refuge. *Photo credit: Catherine J. Hibbard/USFWS*

With over 8,000 homes valued at over \$2.5 billion, the town of Mashpee was designated a community at risk to wildfire in 2001 due to volatile pitch pines and scrub oaks in the neighboring Mashpee National Wildlife Refuge. This is a major concern for the fire department, which is responsible for protecting Mashpee.

In 2008, the Service contracted with Northeast Forest and Fire Management, LLC to do a wildland fuel hazard assessment in and around the 6,000-acre refuge. Because the assessment identified the highest priority as opening up roads to improve access and protect firefighter safety, partners cleared over 64,000 feet of roads in 2009 and 2010.

Then the team began planning for prescribed burns to reduce fire risk and stimulate new, dense growth of scrub oaks for New England cottontails. In 2012, that planning became reality as the team successfully burned 13.5 acres with two burns next to a subdivision.

It's too early to tell if New England cottontails have benefitted from these initial actions, but partners are trying to find out with studies, which include putting radio collars on the rabbits.

What is clear is that fire risk has been reduced to protect an estimated 250 homes worth \$87 million. In addition, while each partner has a distinct mission, they are working together to achieve common goals. Through their collaborative efforts, the partners are achieving multiple benefits.

And there have been priceless benefits as well: improved firefighter safety. After seeing Service firefighters wearing protective chain-saw chaps while clearing roads in 2009, Mashpee Fire Department bought chaps for their firefighters. In 2010, those chaps prevented a firefighter responding to a local wildfire from being seriously injured when his chainsaw bucked back on his legs.

"I chalk the positive outcomes of that fire to things this department and I have learned from the Federal Fish and Wildlife Service," said Mashpee Fire Department Chief George Baker.

The work at Mashpee National Wildlife Refuge and similar efforts of the Massachusetts Army National Guard at nearby Camp Edwards is good news, but just a start to restoring fire-dependent systems on Cape Cod. After the first successful prescribed burn in Mashpee, Deputy Refuge Manager Tom Eagle said it best, "All the years of planning were worth it. All the partners are happy and I am happy. All of Cape Cod is like this. There's a lot more work to be done."



A prescribed fire consumes overgrown scrub oak near a subdivision in Mashpee. Photo credit: Catherine J. Hibbard/USFWS



USFWS Regional Fire Planner Rick Vollick meets with partners to view the road clearing project. Photo credit: Catherine J. Hibbard/USFWS

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