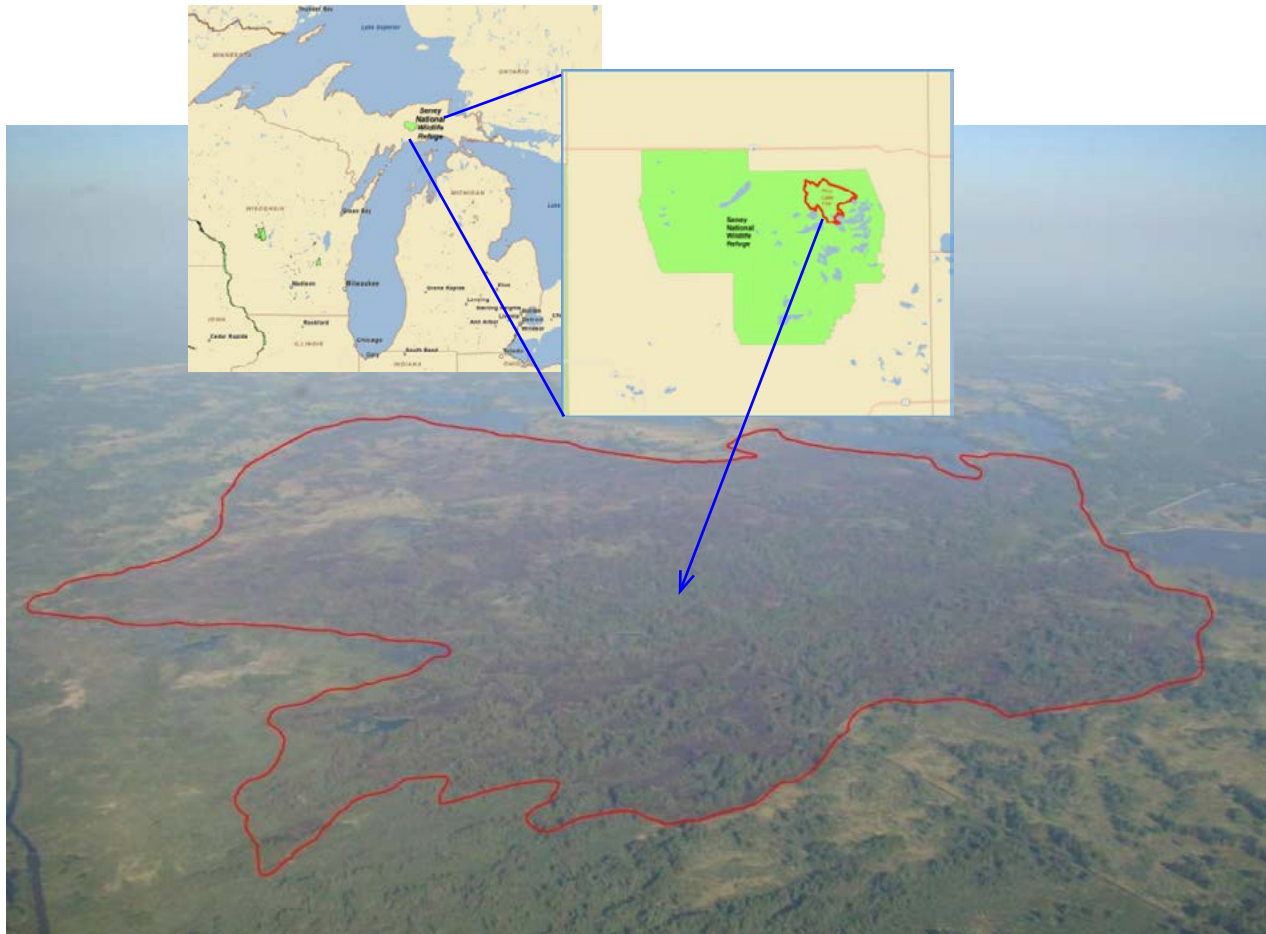




Success Stories from the Northeast Region

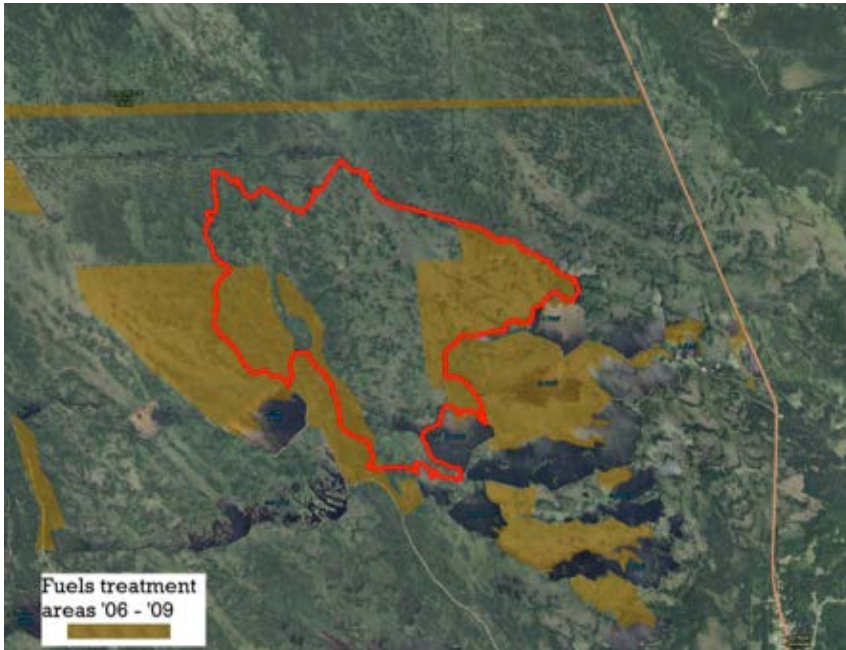
Cohesive Strategy Success Story: Benefits of the Fuels Treatment Program on the Seney National Wildlife Refuge



The Pine Creek fire occurred in May of 2012 on the Seney National Wildlife Refuge (NWR) in Michigan, where a fuels treatment program has been active for many years. The effects of the fuels treatments prior to the incident both increased firefighter safety and created more favorable conditions for containing the fire. The fuels were changed to favorably modify fire behavior, the personnel were experienced with fire on that specific landscape, and safety from the threat of wildfire for the town of Seney was greatly increased.

The treatments helped mitigate the intensity of the fire by reducing the available fuels. The obvious effect of the fuels treatment is fuels reduction. This reduction in fuels generally reduced the fire behavior by keeping it on the surface and allowing direct attack whereas areas burning outside the treated units showed passive crown fire, and the torching of trees.

“The areas that contributed to fire spread by long range spotting hadn’t had fire in 75 years,” said the Seney Fire Management Officer.



It was estimated that the fire could have been held to just one burning period if the northern portion of the fire area had been previously treated. “Would have been a one and done,” if the burns were all the way around the perimeter, explained the Zone Fire Management Officer.

The treatments changed the structure and arrangement of the available fuels, allowing less torching and crowning. Prescribed fire in the treatment units reduced the amount of ladder fuels that are a component of the isolated stands of pines within the fire area. The perimeters of these “pine islands” develop a continuous vertical path of fuel between the vegetation at the edge and the lower branches of the interior pines. Fire then can follow this path into the crown of the stand. Fuels treatments

remove the edge vegetation and lower branches, breaking that path. The treatments remove the brush from the unit for a number of years while the lower branches on the pines are removed for the life of the tree.

The treatments aided in suppression efforts by firefighters able to utilize pre-existing treatment unit fire lines. The control lines constructed for the prescribed fire treatment units could be utilized for the control of the wildfire, providing for better, faster, control. Planning of the treatment units allows for well-considered placement of the control lines. These lines were used to a great advantage in establishing the fireline and burnout between the fire and the town of Seney during the early stages of the fire.

The fuels treatments aided in firefighters’ maneuverability in the area of the fire. The area where the fuels treatments occurred removed heavy brushy vegetation through which travel would have been difficult. It was easier for equipment and personnel to get around in the area of the fire due to the reduction in heavy vegetation.

An active fuels program provided unparalleled experience with fire on this landscape. Local Firefighters had great familiarity with the fuels, fire behavior, and travel conditions in the fire theater due to their past work in the treatment areas. This familiarity and experience minimized risk when developing and implementing a course of action.



The treatments enabled the ‘well-reasoned’ burnout plan. There was a plan to burnout the northwestern perimeter of the incident utilizing the existing fire breaks in place between the refuge’s northern boundary and highway M-28. This burnout was expected to have proved effective and economical. However, due to new initial attack fire activity in the area for the Duck Lake fire, the decision was made to use an aerial attack to stop the fire spread.

The occurrence of the Duck Lake fire, thirty miles to the east of the Pine Creek fire caused the reassignment of the holding resources. Duck Lake had structures threatened at the time. That fire eventually grew to 21,069 acres and accounted for the loss of 47 homes or cabins, 23 garages, 38 sheds, and 26 campers. It grew until it ran into the south shores of Lake Superior. It is possible that the Pine Creek fire could have experienced the same type of fire growth without the Seney NWR prescribed fire program.



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