



PRESCRIBED FIRE FOR HABITAT RESTORATION

Dutch Island

Prescribed burns, also known as prescribed fires and controlled burns, refer to the controlled application of fire by a team of experts under specified weather conditions to restore health to ecosystems that depend on fire. They are common practice among wildlife biologists and land managers across the U.S. to prevent unplanned, destructive wildfires and create a mosaic of diverse habitats for native plants and animals. Prescribed burns can additionally provide an opportunity for local wildland firefighters to train during a controlled event, so they are prepared for future emergency situations.

Historically, Rhode Island landscapes experienced periodic, low-intensity wildfires which would naturally reset forest ecosystems. As human populations grew and more land was developed, these fires were increasingly suppressed, which led to a decrease in habitat diversity and provided ideal conditions for invasive species to thrive. By implementing prescribed fires, biologists mimic these natural disturbance events and help maintain healthy natural communities.

The U.S. Fish & Wildlife Service's Wildlife and Sport Fish Restoration program (WSFR) provides funding to states to conserve, protect, and enhance fish, wildlife, their habitats. WSFR's support allows DEM to protect and enhance wildlife habitat in Rhode Island forests and management areas through prescribed burns such as this, and ensure healthier, more diverse, and abundant wildlife populations.



Rhode Island Department of Environmental Management
Division of Fish & Wildlife



How do you decide when to burn?

To decide the ideal window for a prescribed burn, fire management specialists create a prescribed fire plan which outlines specific fuel and weather conditions that would produce appropriate fire behavior and intensity to meet the desired management goals. This burn window is then further refined based on other considerations and values, like wildlife and public activity. In addition, the selected window is intended to produce different vegetative responses, for example, burns performed in early spring will help promote warm season grasses. Within the given window, the exact date of the burn depends on both the long and short-term weather patterns. Ideal conditions can be projected by modelling software that takes into account the wind speed, wind direction, and other environmental factors that will lead to the successful implementation of fire as a management tool.

How much of the area will be burned?

Dutch Island has been divided into seven burn units ranging from 5 acres to 19 acres, only a portion of which will be burned as each unit has specific and varying fuel and weather conditions that need to be met. Fuel breaks are created around each of the units to help contain the fire within the desired area.

How high will the flames be?

Flames will be regulated by professional wildland firefighters and are expected to be about 2-4ft high during the majority of the burn. This is achieved by close monitoring of the weather conditions and fuel conditions ahead of the prescribed burn, and ignition patterns and sequencing. Ultimately, flame height is determined by the height of fuels (vegetation being burned), however the spread of the fire will be very slow and methodical.

Will there be a lot of smoke?

Smoke production will vary during the prescribed fire operation. Every prescribed fire requires a permit from the Office of Air Resources, where environmental scientists review the proposed prescription for allowable conditions and approve or restrict operations as needed. It is expected that some smoke may reach the mainland but will be kept at a minimum by carefully selecting weather conditions that will blow smoke away from, or disperse smoke prior to, impacting occupied areas and bridge commuters. Adherence to the prescribed fire plan and air quality permit will ensure the least possible impact to residents.

What will happen to the animals?

The timing of the burn is aligned to have the lowest impact on native wildlife and specific techniques are used to make it easier for animals to move out of the area. Fast moving animals like deer and rabbits will easily be able to move away from the area, as the burn will be unidirectional and slow, providing time and space for them to vacate the unit. At the time of the burn, slow moving animals, like reptiles and amphibians will be resting in their winter hibernacula, where they will be safe from the flames. Many animals have adapted techniques to survive low-intensity forest fires, since fires were a natural and regular occurrence in the past. The ultimate goal of the prescribed burn is to benefit all animals on the island by improving the quality of the habitat.

Will the historic structures on the island be damaged?

The burn team is working with the Rhode Island Historical Preservation and Heritage Commission as well as the Dutch Island Lighthouse Society to ensure that all historic structures will be protected from the flames by clearing brush around the structures to create a fire break.

Can I watch from somewhere?

Dutch Island is closed to the public. As a safety precaution, please refrain from approaching the island on the day of the burn to avoid distracting the fire crews and unnecessarily occupying emergency personnel.

