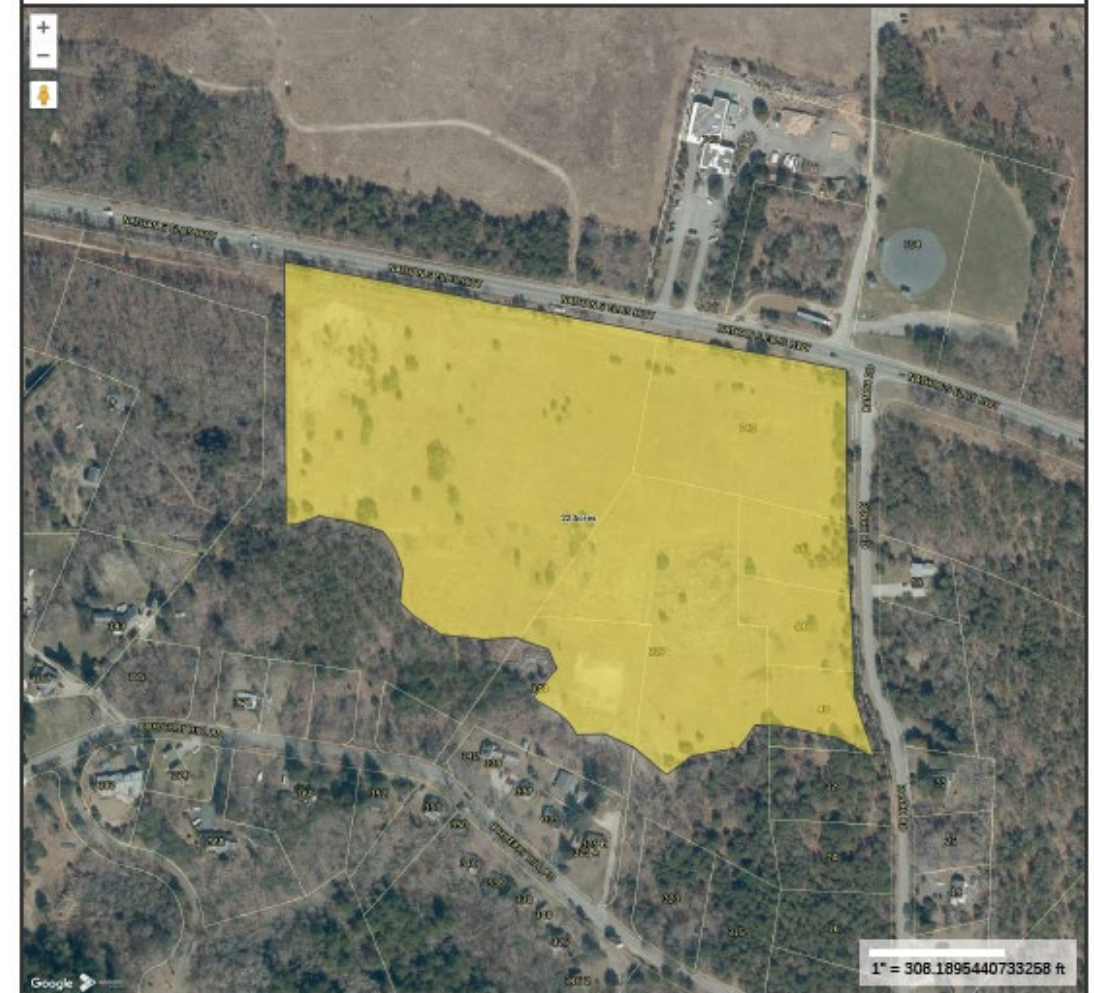




Managing Sandplain Grassland Community and Diversifying Habitats Through a Prescribed Burn – Summary Report

Coonamessett Fields, Falmouth, MA

Coonamessett Fields, Falmouth, MA - prescribed burn area proposal - 22 acres



On March 19, 2025, thanks to funding through a Partners for US Fish & Wildlife Habitat Restoration Agreement, Star Tree Wildfire Protection was contracted to burn the 22-acres. This collaborative effort was intended to:

- Reduce wildfire fuel loads throughout the project area for public safety
- Negatively impact invasive non-native grasses and woody plant species
- Enhance native sandplain grassland habitat adapted to periodic fire



**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

Town of Falmouth, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 09/04/2024
Data updated 10/17/2024

Print map scale is approximate.
Critical layout or measurement
activities should not be done using
this resource.

The Town of Falmouth's DPW Parks Department mowed the forested field edge perimeter, as well as around large eastern red cedars and tree patches that required protection from fire.

Mass Wildlife generously provided tractor services using a York rake to collect mowed material within the fire breaks.

Prior to the burn day, abutters to the 22-acres were hand-delivered notices that described the details of the prescribed burn and a map. Many property owners were home and asked questions, all spoken to were in favor of the controlled burn.





Star Tree Wildfire Protection completed the prescribed burn for the project area. All red cedars and forested patch areas were protected from fire except for one cedar patch. The extreme western 1-acre section, cleared of invasive trees and vines in 2022, burned very little as grasses have not established yet (below photo). During the post-burn review, Star Tree crew extended the burn in a small but critical location where State-listed plants have been documented in the past to enhance growth potential for these fire-adapted species.



Fire line advancing across S central field area, formerly a riding ring (left photo). Southern half of fields burned, viewed from the power lines to the north near Route 151.



Post-burn

View from NW project area to SE



View from SW project area to NW



Coonamessett fields greening up – photos taken 4/3/2025

View from NW project area to SE/S
Central



View from SW project area to N



Coonamessett fields greening up – photos taken 4/24/2025

View from NW project area to SE/S Central View from SW project area to N



Upper Cape Cod Regional Technical School students and The 300 Committee Land Trust volunteers assist here with moving uplimbed branches and trunks from invasive trees to open the forest buffer and expand sandplain grassland habitat.



Volunteers assist here with moving trunks of invasive trees from deeper into the forest buffer. This will serve to allow native shrubs and understory to grow with more light penetration and reduce further invasive plant spread into the fields.



Town Conservation staff and a certified arborist cut down and uplimbed non-native trees. Larger trunks were hauled off site to be used for other Conservation projects and the limbs stacked by volunteers were later chipped by DPW.



Depicted below are the end results of volunteer and Town efforts to “chase” invasive vegetation into the forest/grassland borders by cutting and removing invasive vegetation, leaving existing native wild cherry, red oak and pitch pine trees. Seed sources have been reduced and a forest/grassland mosaic has been created. Native secondary growth shrub patches shall be maintained and encouraged to further diversify the habitat.



During late fall, Upper Cape Cod Regional Technical School students assisted with harvesting native grasses at the Coonamessett fields, to be dispersed in recently cleared areas along the forest borders and within sparse grass areas like the western 1-acre field area noted above.



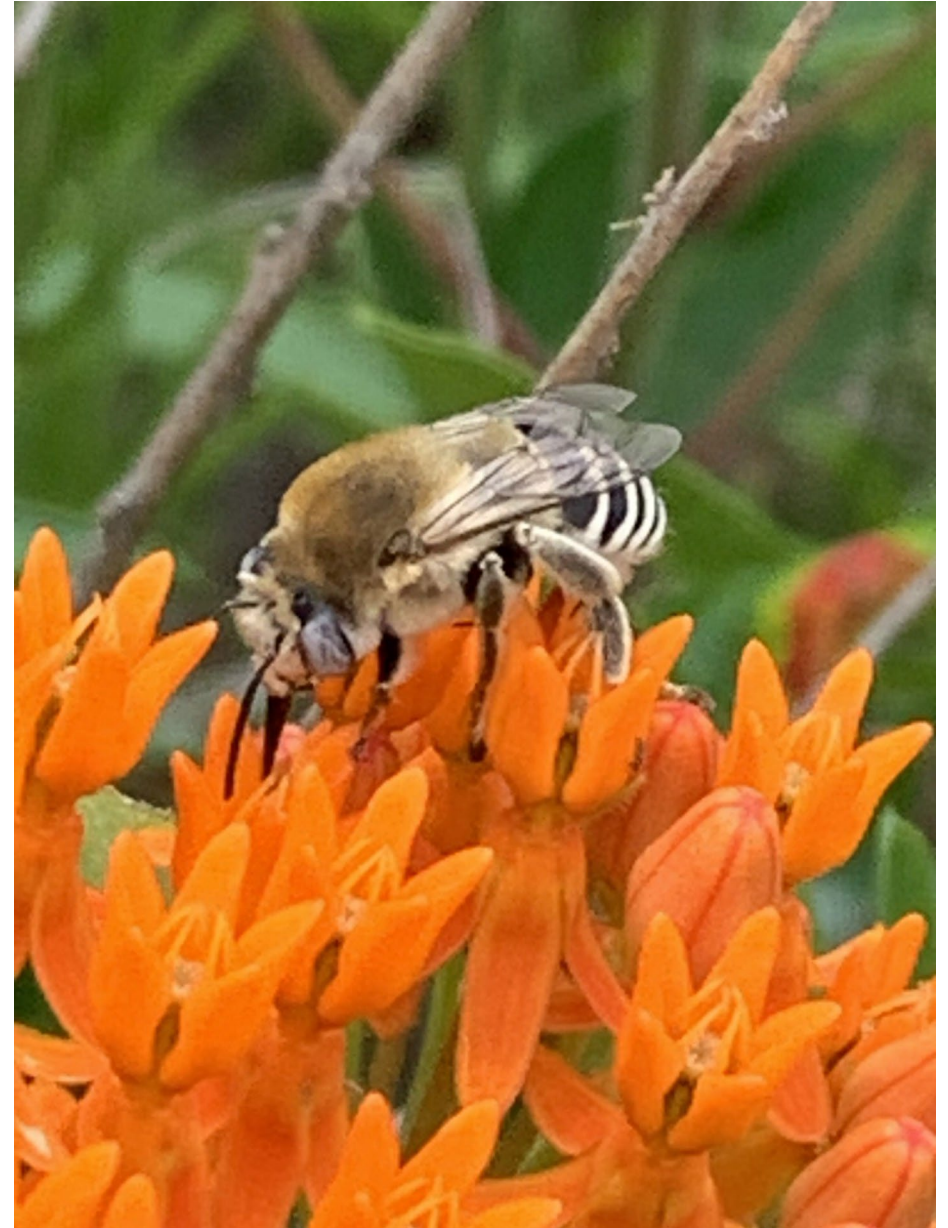
Estimated In-kind Services Contributed by the Town and Volunteer Groups Prior to the Prescribed Burn on 3/19/2025

Leading up to the burn day as documented in the USF&W Service Habitat Restoration Agreement, the estimated in-kind service contributions would be provided by the Town of Falmouth directly through the Department of Public Works and Conservation Department. The Town would also coordinate volunteer services with The 300 Committee Land Trust, AmeriCorps Cape Cod, Upper Cape Technical School, the Conservation Volunteer Group and pro bono professional arborist work by Cape Cod Tree Care. The services and accomplishments were as follows:

- Town of Falmouth - DPW Highway and Conservation Departments: \$4,200
- AmeriCorps Cape Cod, Upper Cape Cod Regional Technical School, The 300 Committee Land Trust and other volunteer groups: \$20,840 over 582 hours
- Over 150 invasive trees were removed that included Norway & sycamore maples (85), black locust (20), European spindle-trees (20) and autumn olive (25). Non-native maple trees removed were the largest, most ranging 13-20" DBH (diameter taken at 4.5' height), with some 24 to 32" DBH.
- Larger branches and trunks of the black locust trees were salvaged for fencing, creating bank stabilization, storm water redirection and public seating.
- Future volunteer days planned in the next two months for invasive plant control shall push us over the \$29,000 estimated in-kind services.

Future Town Management Plans at the Coonamessett Fields

- Commit to long-term management of sandplain grassland through herbicide control and prescribed burns
- Expand native grassland and tree/shrub mosaic habitat in forest buffer areas where invasive plant density is high
- Continue thinning forest to encourage native shrub understory and by transplanting shrubs
- Work with neighboring abutters to educate how to control invasive plants on their property
- Monitor and manage for State-listed bird, plant and invertebrate species
- Transplant red cedars and native shrubs as a buffer to the highway and blocking off road access in other areas



State-listed Walsh's Digger-Bee (*Anthophora walshii*)
Found at Coonamessett Fields in 2024

Acknowledgements

Sincere thanks to the many participants that contributed to another successful burn at the Coonamessett fields. Bill Edwards, Sr & Jr with Star Tree Wildfire Protection's seasoned crew, Josh Nigro's experienced group from Massachusetts DCR, Bureau of Fire Control assisted with burn resources and Falmouth Fire Department Chief Tim Smith's crew had an engine and crew on standby for the operation. Many thanks also to Jason Zimmer, District Supervisor at Massachusetts Division of Fisheries and Wildlife for assistance with field perimeter and cedar protection mowing.

Jim Grady of DPW-Highway Department and Jeremiah Pearson of DPW-Parks Department were instrumental in assisting with the machinery for the lifting of trunks, mowing and chipping. Shawn Wolf of Cape Cod Tree Care was extremely generous with his time removing difficult trees and instructing students and volunteers in safety protocols.

The endless hours contributed by Upper Cape Cod Regional Technical School Environmental Science students along with the guidance of their instructors Kathleen Gausman and John Kelly, AmeriCorps Cape Cod, The 300 Committee Land Trust volunteers and our Conservation Volunteer Group always accomplished more than thought humanly possible and made every outing fun by their enthusiasm and work ethic. Thanks also go out to an anonymous donor who funded lunches for our volunteers and to Laurie Brown for the many deliveries to the work site.

Last and not least, our greatest thanks goes out to Ted Kendziora and the USF&W Service for their financial support. We look forward to sharing information with the Service on our long-term achievements over the years to come, thanks in part to this burn. Successful management of sandplain grassland habitat requires the periodic use of prescribed burns to maintain and enhance native species and combat aggressive exotic non-native species.