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**Progress Report and Management Recommendations for  
The Moore Woodlands, Avalonia Land Conservancy Inc.**

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**Abstract/Summary**

The Avalonia Land Conservancy, Inc. entered into an agreement with the DEP Wildlife Division in 2006 to use funding from the Landowner Incentive Program (LIP) to restore early successional habitat on the Moore Woodlands property in the Mystic section of Groton. The Wildlife Division worked in partnership with the Conservancy to design a project on approximately four acres of degraded old pasture within the mostly wooded 25-acre parcel. This former agricultural land was returning to poor quality forest, overgrown with invasive shrubs and vines. LIP funds were used to contract the services of a heavy duty excavator with a specialized brontosaurus cutting head to cut and mulch the invasive plants and all trees that were two to ten inches diameter at breast height (dbh). The work was done in February 2007. The project site has grown back into a good quality early successional habitat, primarily dense native thicket, although substantial regrowth of invasive species has also occurred. On October 22, 2009, Judy Wilson, Robin Blum and Lisa Wahle of the DEP Wildlife Division made a brief review of the Landowner Incentive Program (LIP) project site at the Moore Woodlands. The following is a brief report and list of management recommendations based on that visit, previous inspections and our involvement with the project beginning in 2006.



□ Approx. Property Boundary  
□ Approx. Project Boundary

**Avalonia - Moore Woodlands  
Old field restoration (4 acres)**

150 75 0 150 300 Feet

## **Ecological Context - Importance of Early Successional Habitats**

Succession is the natural, predictable process by which open areas typically dominated by herbaceous plants that thrive in sunlight, grow or succeed into brushy shrublands, young trees and eventually, without disturbance, a mature forest. Early successional habitats are considered those found at the beginning of the successional process. Late successional stage habitats are generally considered those with maturing trees and closing tree canopies. From a regional and state perspective, early successional habitats are declining due to natural succession from open agricultural land to forest, lack of natural disturbances such as fire and flooding, and development of these habitats for homes, shopping centers and industrial parks. Early successional areas generally require management and maintenance to create and sustain them.

Early successional habitats in Connecticut include meadows, grasslands, old fields, thickets, shrublands, seedling-sapling areas, and pitch pine-scrub oak communities. Each of these vegetative communities is characterized by plants that are suitable for certain wildlife species, which "specialize" in using that type of habitat. These wildlife species are called habitat "specialists". Other species of wildlife known as "generalists" are able to utilize a variety of habitats that may include early successional habitats in association with others. Examples of generalist type species include deer, turkey, coyote, raccoon, red fox, opossum, and eastern garter snake.

Habitats known specifically as grasslands are dominated by grasses, but may contain other herbaceous plants, scattered shrubs and even a few scattered trees. If large enough, it may support a variety of grassland specialists such as bobolinks, meadowlarks and Savannah sparrows. Each grassland bird species has a minimum habitat size requirement for nesting. Research has shown that bobolinks require at least four to five acres, while Savannah sparrows require 12 to 25 acres as a "minimum patch." Many other animal species such as butterflies, dragonflies, and small mammals can thrive in smaller areas of grassland.

Shrubland or thicket is habitat with little or no tree cover and a well developed shrub and/or brushy component. After an area is cut and mature trees removed, this type of habitat generally lasts up to about 20 years before it transitions to a young forest. Typically the most useful early successional shrub habitat is present between years five and fifteen after a management action. Five years gives an area enough time to produce adequate cover, nesting sites and food resources, although some areas grow back more quickly. Sites dominated by shrubs that grow slowly may be useful to shrubland specialists beyond 15 years. Shrublands support a group of bird species distinct from grasslands, including brown thrashers, golden-winged warblers, eastern towhees, blue-winged warblers, chestnut-sided warblers and woodcock. In the Northeast region, 22 of 40 shrubland birds have significant declining population trends. In Connecticut, it is estimated that seedling-sapling and shrubland type early successional habitats have declined from 32 percent to 5.5 percent during the period 1972 through 2000 (Northeast Forest Statistics). Concurrently, a decline in Connecticut's population of ruffed grouse, woodcock, chestnut-sided warbler, blue-winged warbler, eastern towhee and brown thrasher has been noted. Many species of shrubland birds do not require nesting areas as large as those for grassland specialists.

