

The goal of grassland management on Willowsford Conservancy property is to increase wildlife habitat value, native plant establishment, and promote ecosystem services. Aesthetic preferences are a consideration when determining strategies for grassland management but are secondary to wildlife and environmental needs.

The grasslands in Willowsford have a variety of characteristics, purposes, and composition that serve environmental and community needs. A set of objectives have been designed to allow for the effective management of grassland areas to meet a variety of conservation goals.

# Summary

Grassland management via bush hogging aims to be an adaptive process taking site characteristics and management objectives into consideration. Grassland areas will be monitored to determine if management objectives are being met and management activities will be adjusted if necessary. Generally, bush hogging will take place in the spring to provide overwinter habitat for wildlife, allow native plants to properly finish seeding, and to not interrupt the nesting season of ground nesting birds.

All Conservancy grasslands adjacent to private property will have buffer strips bush hogged to mitigate plant and wildlife encroachment. Buffer strips are mowed by the Willowsford HOA on a regular schedule during the growing season.

Bush hogging regimes can be split into the following categories.

- A. Once every 3 years Late Winter (March)
- B. Once a year Late Winter (March)

Goal: Employ ecologically-sound bush hogging practices to meet land conservation and resident needs.

#### **Objectives:**

- 1. Reduce negative impacts on grassland wildlife during nesting season.
- 2. Increase food resource availability for wildlife.

- 3. Provide over-winter cover for wildlife.
- 4. Control invasive species.
- 5. Maintain grassland habitat.
- 6. Allow reforestation through natural succession.

#### Objective 1. Reduce negative impacts on grassland wildlife during nesting season.

Bush hogging inherently disrupts wildlife activity and wildlife habitat. Wildlife are most vulnerable during the nesting season when adults are building nests and young are being raised. A variety of ground nesting bird species depend on native grasslands from April until October to raise their young. Reducing frequency and delaying bush hogging until after the grassland nesting season can mitigate negative impacts on wildlife.

Actions:

- Do not bush hog during grassland wildlife nesting season (April September).
- Set bush hog blades at a height of no less than 8 in.

# Objective 2. Increase food resource availability for wildlife.

Wildlife food resources include fruit, seeds, vegetative matter, pollen and nectar, among other materials. Additionally, grassland management which supports insect populations provides more food resources for other wildlife such as birds, reptiles and amphibians, and mammals.

Actions:

- Bush hog after bloom season has ended and wildflowers have set seed (November or March).
  - This will increase wildflower proliferation to the benefit of seed-eating animals and pollinators. Additionally, this will promote wildflower meadow establishment, increasing landscape aesthetics.

# Objective 3. Provide over-winter cover for wildlife.

Wildlife require refuge from winter conditions just as humans do. Standing vegetation provides more space for wildlife to create over-wintering nests. This may have the additional benefit of providing over-winter habitat for wildlife away from resident homes.

Actions:

- Bush hog in the late winter (March) and let vegetation grow throughout season.

# Objective 4. Control invasive species.

Invasive species management is a key component of Willowsford Conservancy's land stewardship plan. Bush hogging can suppress the growth and spread of certain invasive grassland species.

# Actions:

- Bush hogging can help reduce the expansion of grassland invasive species such as autumn olive, lespedeza, and johnsongrass. Bush hogging before these plants set seed decreases their expansion to other areas.
- If bush hogging is deemed too disruptive to the grassland ecosystem or invasive species are less abundant, other forms of mechanical and chemical control can be used in place of bush hogging.

# Objective 5. Maintain grassland habitat.

In the Virginia Piedmont, nature will attempt to slowly convert grasslands to forests through the process of natural succession. To increase habitat diversity and maintain grassland ecosystems, the Conservancy uses bush hogging to reduce woody species growth in grassland areas.

# Actions:

- Bush hogging once every 3 years in the late winter will reduce woody species establishment and maintain open grassland habitat. Additionally, such a low frequency of bush hogging will reduce management disturbance and promote healthy grassland habitat.

# Objective 6. Allow reforestation through natural succession.

Left undisturbed, grasslands at Willowsford will slowly revert to forest through natural succession. In certain areas, succession from grassland to forest is the desirable outcome of grassland management. Additionally, the intermediate shrubland is a unique and imperiled ecosystem required by certain species. Allowing for natural succession will increase habitat diversity and support shrubland wildlife populations.

# Actions:

- Do not bush hog these areas to allow woody species to establish and reforestation to occur.
- Monitor areas for invasive or undesirable species presence to determine if chemical or mechanical control is necessary.