

Management Plan
for the Abrams Creek Wetlands Preserve
Winchester, Virginia

Prepared by the
Abrams Creek Wetlands Preserve Management Committee
for the Winchester Parks and Recreation Department

Approved by the Parks and Recreation Board on May 21, 2007

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INTRODUCTION

Purpose and Development of the Management Plan

On October 14, 2003, Winchester's City Council passed a resolution establishing the Abrams Creek Wetlands Preserve. The Council's resolution stated that the preserve, "shall be managed by the Winchester Parks and Recreation Department as open space for passive recreation and for the protection of its natural features."

This plan is intended to assist in carrying out the mandate of the City Council. After providing a brief history, the plan presents a mission statement and set of goals for managing the Abrams Creek Wetlands Preserve. The majority of this document is devoted to specific proposals for protecting, managing and maintaining various areas within the Preserve. These areas – called *management zones* in this plan – represent portions of the Preserve that require different types of management activities in order to fulfill the terms of the City Council's resolution.

Members of the Abrams Creek Wetlands Preserve Management Committee developed this plan through about a dozen committee meetings and site visits between June 2004 and November 2006. Public meetings with Preserve neighbors occurred on November 7, 2004 (hosted by Nancy Stam at her home in the Morlyn Hills development), on August 2, 2006 (at the Willow Lawn Community Center), and on November 13, 2006 (at The Willows). The Parks and Recreation Director and the Management Committee discussed drafts of the plan with the Parks and Recreation Board at several of the Board's meetings between November 2006 and May 2007. The Board gave its final approval to this plan on May 21, 2007.

This plan is intended to guide the Preserve's protection and management. Although the overall goals are unlikely to change a great deal, additional details about specific management and maintenance practices will need to be developed as the plan is implemented.

Members of the Abrams Creek Wetlands Preserve Management Committee

The following persons served on the Abrams Creek Wetlands Preserve Management Committee during some or all of the period between July 2004 and November 2006 as the plan was developed:

Sally Anderson, The Opequon Watershed, Inc., and the Virginia Native Plant Society
Greg Baruffi, Teacher, Timber Ridge School
Dawn Biggs, Landscape Architect, EcoLogic Design
Woody Bousquet, Environmental Studies Department, Shenandoah University*
Tom Hoy, Director of Environmental Maintenance, City of Winchester
Jim Lawrence, The Opequon Watershed, Inc., and Lord Fairfax Soil & Water
Conservation District
Cynthia Marston, Frederick County Extension Agent
Mary Stickley, Manager of Gardens and Grounds, Glen Burnie Museum*
Brad Veach, Director, Winchester Parks and Recreation Department

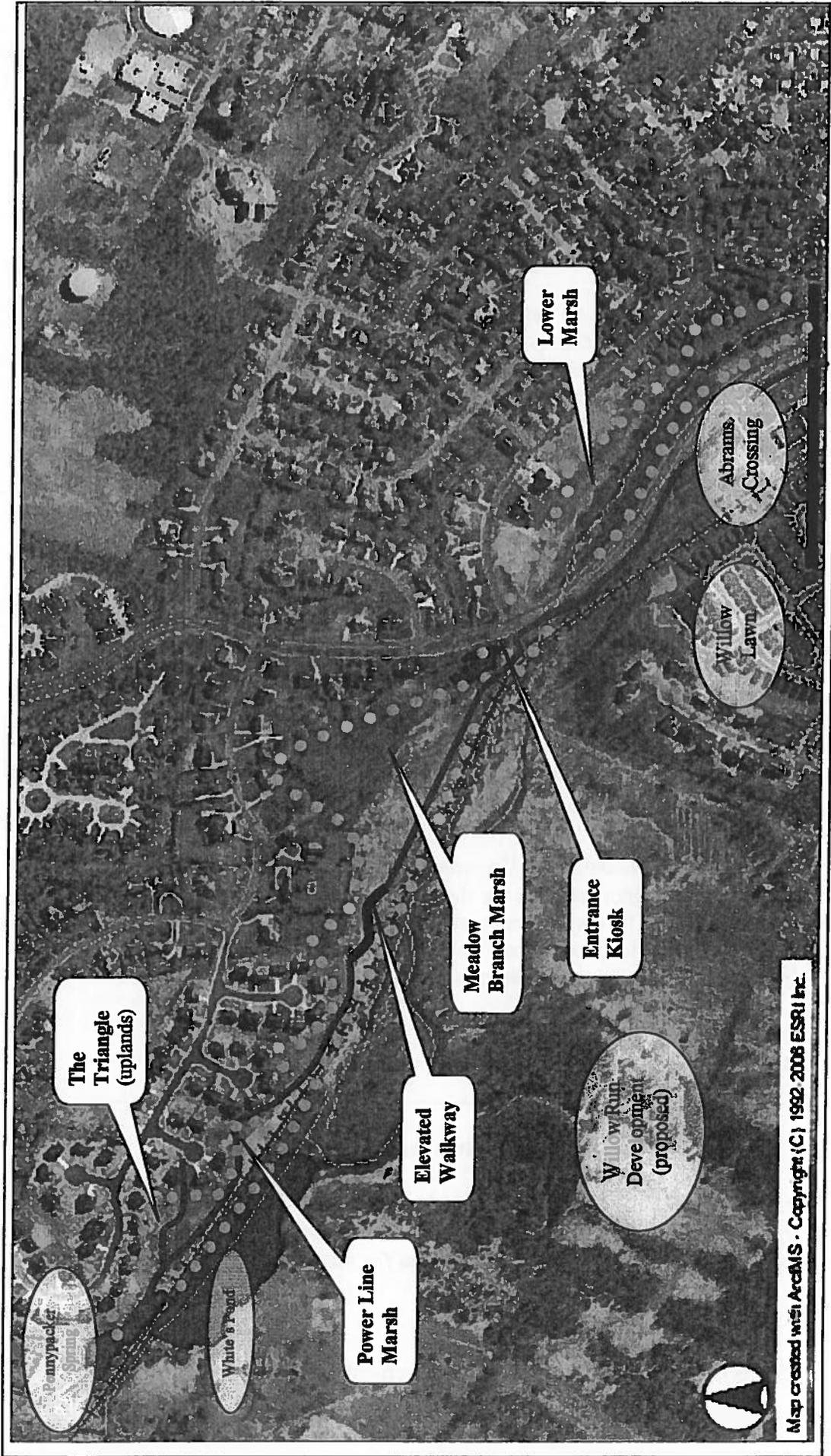
* co-chairs

ESTABLISHMENT OF THE PRESERVE

In 2003, the City of Winchester accepted three parcels of land that had been offered by the developers of two residential tracts in the western part of the city, Meadow Branch and Morlyn Hills. Meadow Branch North LLC (the developer of Morlyn Hills) offered a 4.52-acre parcel that contains a wetland known as Power Line Marsh, adjacent uplands, plus a small portion of Meadow Branch Marsh. Meadow Branch South LLC (the developer of Meadow Branch) offered two parcels: 10.9 acres encompassing most of Meadow Branch Marsh, and 9.1 acres containing Lower Marsh. See Figure 1.

These three contiguous tracts form a strip of land approximately one mile long that borders the north bank of Abrams Creek. Together, the parcels extend from Pennypacker Spring (also known as Merrimans or Robinson Spring) on the west to Harvest Drive on the east.

Prior to offering these properties to the City of Winchester, the two development companies had constructed a walking-bicycling path in the uplands above Power Line Marsh and across the southern side of Meadow Branch Marsh. Meadow Branch South LLC, had also built a gravel pathway through the western portion of Lower Marsh. Trex Inc., provided decking for the elevated walkway bridge. In addition, Melco Inc., (the firm that developed the Abrams Crossing commercial center) built a pathway along the southern side of Jubal Early Drive extending from Meadow Branch Marsh almost to Harvest Drive. All three segments of this pathway were proffered as part of the developers' respective site plans.



**FIGURE 1. ABRAMS CREEK WETLANDS PRESERVE
WINCHESTER, VIRGINIA**



Winchester's Parks and Recreation Board approved the concept of accepting the parcels as a nature preserve on July 28, 2003. Subsequently, the Winchester City Council unanimously approved the following two motions at its regular meeting on October 14, 2003:

1. Motion to accept the two parcels in Meadow Branch South, totaling 20.0 acres, that have been offered to the City by Mr. F. L. Wilson, and to accept the terms stated in Mr. Wilson's letter of March 27, 2003.
2. Motion to designate the above two parcels in Meadow Branch South, plus the adjacent 4.52 acres of open space and wetlands already donated to the City from the Morlyn Hills development, as the Abrams Creek Wetlands Preserve. This Preserve shall be managed by the Winchester Parks and Recreation Department as open space for passive recreation and for the protection of its natural features.

The 24.52-acre Abrams Creek Wetlands Preserve and the first mile of the Winchester Green Circle – that is, the pathway through the Preserve and along Jubal Early Drive – were formally dedicated in a ceremony held on October 26, 2003. Nearly 100 people attended.

MISSION STATEMENT AND GENERAL MANAGEMENT GOALS FOR THE PRESERVE

In the winter and spring of 2004, Winchester's Parks and Recreation Department sponsored a public workshop and several subsequent meetings of citizens and local officials to develop plans for constructing the Winchester Green Circle and protecting the Abrams Creek Wetlands Preserve. The Abrams Creek Wetlands Preserve Management Committee formed in June 2004 to focus on management and maintenance issues related to the Preserve.

Among the first tasks the Management Committee addressed were to draft a mission statement and set of general management goals for the Abrams Creek Wetlands Preserve. These were derived from the City Council's resolution passed on October 14, 2003 and from the conditions of the donation of the Meadow Branch South parcels, as set forth in the March 27, 2003 letter from Mr. F.L. Wilson of Meadow Branch South, LLC.

Mission Statement

Mission Statement

The Abrams Creek Wetlands Preserve has been established in order to permanently protect open space, wetlands, and other natural features of the property while providing compatible opportunities for passive recreation and education.

developed by the
Abrams Creek Wetlands Preserve Management Committee, August 2004

Goals

The goals of protecting, managing, and maintaining the Abrams Creek Wetlands Preserve were developed by the Abrams Creek Wetlands Preserve Management Committee in July 2004. They are as follows:

- to provide undeveloped open space in the City of Winchester;
- to protect natural communities including the marshes, swamps, seeps, springs, uplands and creek within and adjacent to the Preserve's boundaries;
- to provide opportunities for passive recreation;
- to interpret the Preserve for residents and visitors of all ages;
- to serve as a point of interest on and provide a segment of the Winchester Green Circle; and
- to contribute to maintaining and enhancing the City's natural environment, the water quality of Abrams Creek, the City's plant and animal populations, the aesthetic beauty of the Shenandoah Valley, and the region's air quality.

MANAGEMENT AND MAINTENANCE

To fulfill the terms set forth by the City Council when it established the Preserve and to meet the goals listed above, this section of the plan presents specific proposals for protecting, managing and maintaining the Preserve. Different parts of the Preserve have different features, and they serve different purposes. Therefore, the Management Committee has divided the Preserve into areas called *management zones*. Management and maintenance activities will vary by zone.

Management Zones of the Abrams Creek Wetlands Preserve

Green Circle Pathway

Preserve Boundaries

Marshes

Swamps

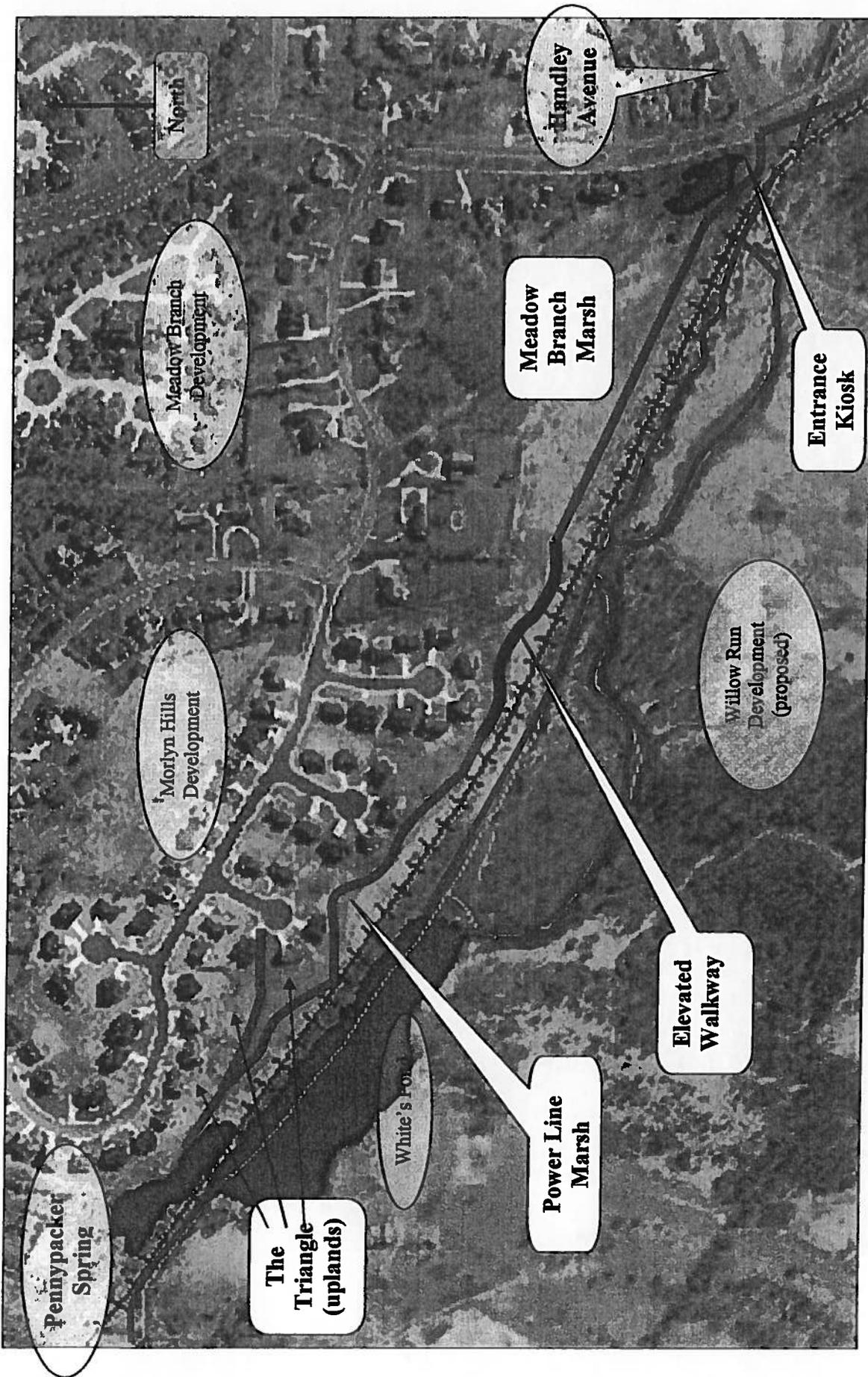
Uplands

Lower Marsh Area

This section of the plan begins with general considerations that apply to the entire Preserve. The zone-by-zone discussion of management and maintenance issues follows the general discussion.

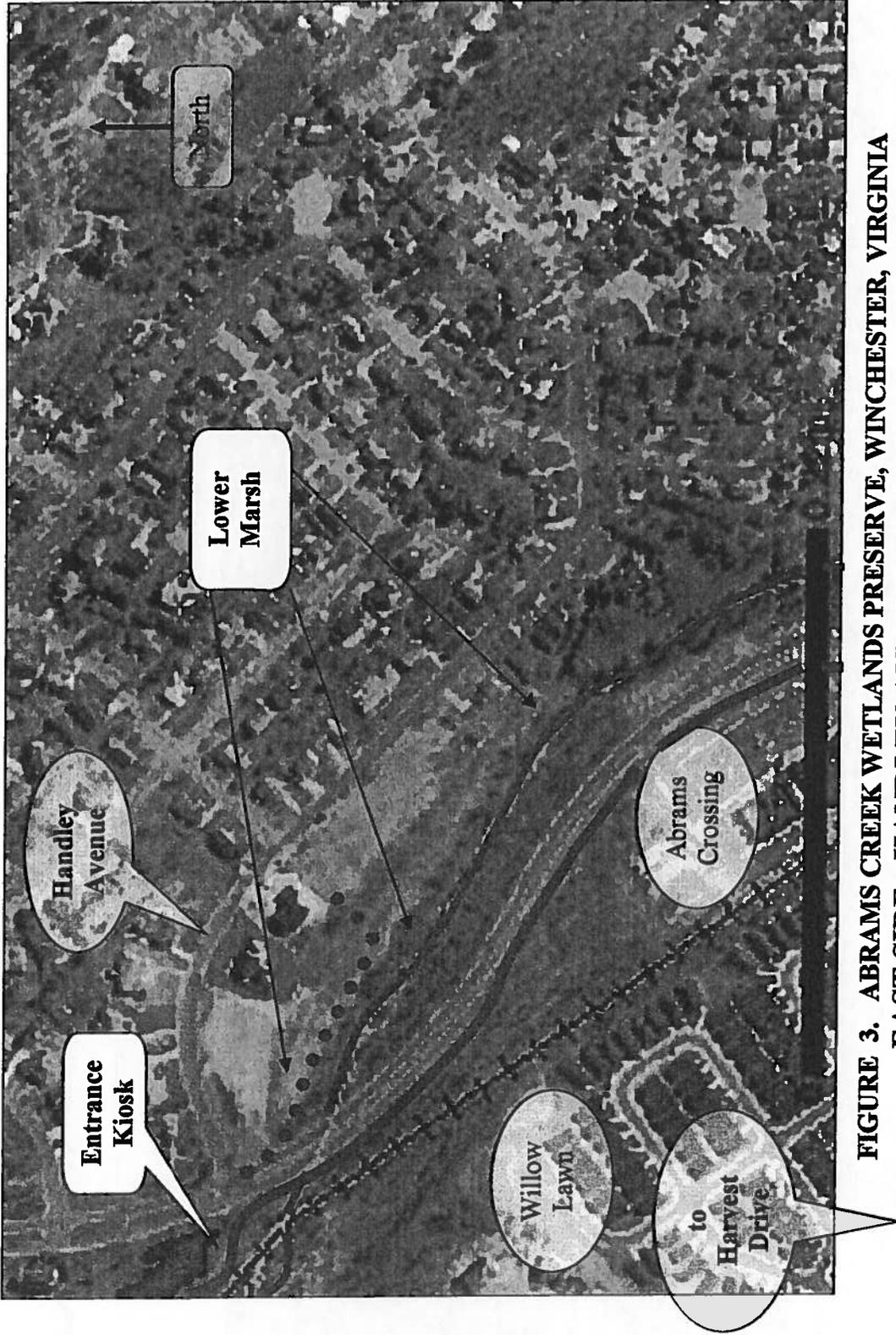
General Strategies for Management and Maintenance of the Preserve as a Whole

1. Mark the entrances to the Preserve with signs compatible with the area's purpose.
2. Provide information kiosks, interpretive signs, brochures, public nature walks and other educational services, as appropriate, to help visitors enjoy and appreciate the Preserve's plants, animals and recreation opportunities.
3. Promote the Abrams Creek Wetlands Preserve in Winchester and the surrounding region as a natural area and an opportunity for passive recreation.
4. Involve the Preserve's neighbors, youth and other area citizens in protecting the Preserve and providing input to management plans.
5. Restrict maintenance and development activities to those that are absolutely necessary to fulfill the Preserve's mission and achieve its goals.
6. Identify and control exotic vegetation and (in the marshes) invading woody species that threaten the Preserve's ecological integrity.
7. Maintain the bioretention areas and control erosion problems and waste in order to protect the water quality of Abrams Creek and the wetlands.
8. Include routine management and maintenance costs (labor, equipment, supplies, materials) in annual budget plans for the Winchester Parks and Recreation Department.
9. Anticipate and include major expenditures (e.g., pathway repairs, new bridges, tree cutting) in long-range budget plans for the City of Winchester.
10. Seek grants and work with the Parks Foundation to obtain support, as appropriate, for projects such as interpretive signs, landscaping in The Triangle and upgrading the pathway in Lower Marsh.
11. Solicit and utilize volunteer labor, as appropriate, for maintenance tasks and special projects such as tree cutting.
12. Inspect the Preserve regularly to identify protection, management and maintenance concerns.



**FIGURE 2. ABRAMS CREEK WETLANDS PRESERVE, WINCHESTER, VIRGINIA
WEST SIDE: PENNYPACKER SPRING TO HANDLEY AVENUE**

 = Abrams Creek
  = Green Circle Pathway
 Scale: 1 inch equals 0.07 miles



**FIGURE 3. ABRAMS CREEK WETLANDS PRESERVE, WINCHESTER, VIRGINIA
EAST SIDE: HANDLEY AVENUE TO HARVEST DRIVE**

 = Abrams Creek
  = Green Circle Pathway
  = Gravel Path

Scale: 1 inch equals 0.07 miles

Green Circle Pathway

Description and Location (Figures 2 and 3)

The asphalt pathway for the Winchester Green Circle extends the length of the Abrams Creek Wetlands Preserve, although not always within the boundaries of the Preserve itself. Near the Preserve's west end, the path begins at the Stone House Court cul-de-sac. It runs southwest across The Triangle for about 500 feet to Pennypacker Spring. From the spring, the pathway doubles back and heads southeast. It passes beside Power Line Marsh, crosses the elevated walkway and Meadow Branch Marsh, and then reaches Jubal Early Drive near the intersection of Meadow Branch Avenue and Handley Avenue. See Figure 2.

The pathway leaves the Preserve's current boundaries at this point and meanders south-southwest beside Jubal Early Drive. See Figure 3. It crosses two entrances to the Abrams Crossing commercial center and, at present, stops a few hundred feet short of Harvest Drive.

Management Goals

1. Maintain the pathway's surface, berm, retaining walls and culverts.
2. Manage nearby vegetation to provide a clear pathway and minimize the damage from root growth.
3. Inform visitors about the Preserve's natural features, recreation opportunities, rules and upcoming events.
4. Encourage visitors to remove trash and clean up after their pets.

Management and Maintenance Practices

1. Inspect the pathway surface, berm, retaining walls and culverts periodically. Clean, maintain and repair as needed.
2. Mow the vegetation along the edges of the pathway no more than 3 feet off the asphalt. Trim adjacent trees and shrubs to provide clear travel along the pathway.
 - a. Make, when necessary, limited and judicious use of herbicides approved by the Virginia Department of Game and Inland Fisheries (DGIF) for application in wetlands to individual trees and shrubs.
 - b. Cut new growth and spray or cut sprouting stumps every 1-2 years to discourage significant regrowth of trees and shrubs.
3. Cut trees and shrubs off at ground level up to 6 feet away from the asphalt to decrease damage to the pathway from root growth. When necessary, make limited and judicious use of herbicides approved by the Virginia Department of Game and Inland Fisheries (DGIF) for

application in wetlands to individual trees and shrubs. Cut new growth and spray or cut sprouting stumps every 1-2 years to discourage significant regrowth of trees and shrubs close to the pathway.

4. Maintain an information kiosk beside the pathway near the junction of Jubal Early Drive, Meadow Branch Avenue and Handley Avenue. Establish a second kiosk in The Triangle below Stone House Court.

5. Provide and maintain trash receptacles and pet-waste disposal-mitt stations.

Boundaries

Description and Location (Figures 2 and 3)

For its 25-acre size, the Preserve has surprisingly lengthy boundaries that total about 2 miles. Jubal Early Drive and the Winchester & Western Railroad tracks clearly delineate about half of this boundary. The other half – more than a mile – borders the private properties of individual homeowners at Spring Hill, Morlyn Hills, Meadow Branch and Handley Avenue.

Management Goals

1. Prevent Preserve visitors from trespassing onto adjacent private property.
2. Prevent the intrusion of vegetation from the Preserve onto or over adjacent private property.
3. Prevent encroachment (including mowing, gardening, landscaping, water pumping and dumping yard waste or other refuse) into the Preserve from adjacent property.

Management and Maintenance Practices

1. Mark the boundaries between the Preserve and adjacent private property where no clear visual boundary exists.

This situation prevails in the Morlyn Hills development and along the south side of Handley Avenue from Jubal Early Drive eastward. In these circumstances, erect single-rail wooden fencing. Several owners of adjacent property in Morlyn Hills have already built their own fences, of various designs, along their boundaries with the Preserve.

2. Allow a 10-15-foot buffer of native trees and shrubs to grow within the Preserve where a clear visual boundary exists between the Preserve and adjacent private property. This buffer will further distinguish between the Preserve and private property.

This situation prevails at Spring Hill, along the southeastern half of Lower Marsh, and along much of the Meadow Branch development, where slope and/or ecosystem changes (e.g., from a treed swamp to a manicured lawn) identify the Preserve's boundaries.

3. Mow a 4-6-foot strip monthly (during the growing season) within the Preserve in upland areas that border private property. This periodic mowing will help keep the Preserve's boundary-fence areas attractive.

4. Inspect the Preserve boundaries regularly to identify potential problems with fence maintenance, trash, encroachments and related concerns.

Marshes

Description and Location (Figures 1 and 2)

Marshes are wetlands that are dominated by herbaceous plants such as grasses, rushes, ferns and wildflowers. The major marshes at the Abrams Creek Wetlands Preserve are known as Power Line Marsh, Meadow Branch Marsh and Lower Marsh.

Management Goals

1. Maintain the marshes' natural herbaceous vegetation, particularly plant species on the Rare Plants List and Plant Watch List published by the Virginia Division of Natural Heritage (DNH).
2. Prevent degradation of the marsh ecosystems by development, encroachments, trash, exotic vegetation and other disturbances.

Management and Maintenance Practices

1. Leave existing marshes undeveloped.
2. Prevent woody vegetation (trees, shrubs) from taking over the marshes:
 - a. Cut all trees in the marshes at ground level, except for some "specimen" trees that break up the landscape visually and provide important nesting sites for birds.
 - b. Cut shrubs on a selective basis.
 - c. Make, when necessary, limited and judicious use of herbicides approved by the Virginia Department of Game and Inland Fisheries (DGIF) for application in wetlands to individual trees and shrubs.
 - d. Cut new growth and spray or cut sprouting stumps every 1-2 years to discourage significant regrowth of trees and shrubs.
3. Inspect the marsh areas regularly to identify potential problems with invasive plants, trash, encroachments and related concerns.

Swamps

Description and Location (Figures 1 and 2)

Swamps are wetlands dominated by woody plants, that is, by trees and shrubs. Two swampy areas occur within the Abrams Creek Wetlands Preserve's current boundaries. Large trees grow in the northern third of Meadow Branch Marsh, while saplings and young trees grow in much of the north-central part of Lower Marsh.

Immediately adjacent to the Preserve is a 2-acre area known as Jubal Early Swamp. It lies west of Jubal Early Drive and extends north from the Abrams Crossing commercial center.

Management Goals

1. Maintain the swamps' natural woody and herbaceous vegetation.
2. Prevent degradation of the swamp ecosystems by development, encroachments, trash, exotic vegetation and other disturbances.

Management and Maintenance Practices

1. Leave the swamps undeveloped.
2. Support a variety of wetland habitats by periodically thinning swamp trees in Lower Marsh, particularly on its northwestern half along the gravel path.
3. Allow swamp trees and shrubs to grow naturally in the northern third of Meadow Branch Marsh by refraining from cutting them, except in cases where exotic species are present. Allow dead trees to decay naturally in order to provide wildlife habitat.
4. Inspect the swamp areas regularly to identify potential problems with invasive plants, trash, encroachments and related concerns.

Uplands

Description and Location (Figure 1)

In contrast to wetlands, uplands are forests, meadows and lawns that are normally dry. The Preserve's most extensive uplands – known as The Triangle – are the meadows situated north of the Green Circle pathway, west of Stone House Court. A small upland forest is located northwest of the elevated walkway. Grass-and-shrub upland areas occur along Jubal Early Drive and south of Lower Marsh across from Abrams Crossing.

Management Goal

Support the growth of native vegetation and control exotic species.

Management and Maintenance Practices

1. Establish warm-season native-grass meadows in The Triangle. Small clumps of native trees and shrubs can be included. Until this plan can be developed and implemented, mow meadows in The Triangle annually at the end of the growing and nesting season.
2. Control exotic, noxious weeds (e.g., non-native thistle species) in The Uplands as practical, especially in areas that are both north of the pathway and within 50 feet of the Preserve boundary. Much of this control can be achieved by establishing the warm-season native-grass meadow listed above.
3. Mow a 4-6-foot strip monthly (during the growing season) within the Preserve in upland areas that border private property. This periodic mowing will help keep the Preserve's boundary and fenced areas attractive.
4. Allow the forest-and-thicket upland north of the elevated walkway to grow naturally.
5. Allow the grass-and-shrub uplands along Jubal Early Drive adjacent to Lower Marsh to grow naturally, except along the road where mowing is appropriate.
6. Inspect upland areas regularly to identify potential problems with invasive plants, trash, inappropriate mowing, encroachments, and related concerns.

Lower Marsh Area

Description and Location (Figures 1 and 3)

The Lower Marsh Area is the 9.1-acre tract of the Preserve located to the northeast of Jubal Early Drive and Abrams Creek, and southwest of Handley Avenue. This tract is composed primarily of marshes. A band of young trees is present along Lower Marsh's northeastern half. A narrow berm of uplands runs along Abrams Creek's northeast bank, separating the creek from Lower Marsh.

Access is provided by two narrow corridors extending southwest from Handley Avenue. These corridors are part of the Preserve and owned by the City. Since 2000, several houses have been built between Lower Marsh and Handley Avenue, and others are currently under construction (May 2007). A gravel pathway was constructed from Jubal Early Drive to Handley Avenue through the northwestern third of Lower Marsh in 1998.

Management Goals

1. Maintain Lower Marsh's natural herbaceous vegetation and habitats, particularly the plant species on the Rare Plants List and Plant Watch List published by the Virginia Division of Natural Heritage (DNH).
2. Prevent the degradation of the marsh, swamp and stream-bank ecosystems by development, encroachments, trash, exotic vegetation and other disturbances.
3. Identify and maintain access points to Lower Marsh from Jubal Early Drive and Handley Avenue.

Management and Maintenance Practices

1. Leave existing wetlands undeveloped, except for upgrading the pathway built in 1998 and possibly constructing trail access at the tract's southeastern ends (Jubal Early Drive, Handley Avenue).
2. Prevent woody vegetation (trees, shrubs) from taking over the marshes:
 - a. Cut all trees in the marshes at ground level, except for:
 - i. leaving some "specimen" trees that break up the landscape visually and provide important nesting sites for birds, and
 - ii. allowing a 10-15-foot buffer of native trees and shrubs to grow on this tract's northeastern boundary, to provide a visual boundary between the Preserve and adjacent private property on Handley Avenue.
 - b. Cut shrubs on a selective basis.
 - c. Make, when necessary, limited and judicious use of herbicides approved by the Virginia Department of Game and Inland Fisheries (DGIF) for application in wetlands to individual trees and shrubs.
 - d. Cut new growth and spray or cut sprouting stumps every 1-2 years to discourage significant regrowth of trees and shrubs.
3. Work with city officials to resolve recent encroachments from Handley Avenue properties.
4. Inspect the area regularly to identify potential problems with invasive plants, trash, encroachments and related concerns.