

Frankford Township, Sussex County  
Management Plan for Dry Brook Greenway Preserve  
Block 44/Lot 10 – 239 Acres



As Approved by the  
Frankford Township Committee  
May 29, 2012  
Frankford Township Open Space Committee  
June 7, 2012

## **Purpose**

This plan is intended to serve as a guide to the management of Frankford Township's Dry Creek Greenway Preserve. It was produced with the assistance of Conservation Resources Inc. (CRI) of Chester, New Jersey, in cooperation with the Frankford Township Open Space Committee. The goal of the plan is to properly manage the preserve to maintain and improve its agricultural and scenic values and its natural features, while providing quality access to the citizens of Frankford and the State of New Jersey.

Management of the property by the township should be consistent with the purpose for which it was purchased, which was to set aside a large tract of land in its natural state that allows for compatible farming and public access. The following are recommended as permitted and prohibited uses by members of the public. Note that the Township reserves the right to undertake such other management activities as may be necessary or appropriate in order to implement the provisions of this management plan.

## **Permitted Uses**

Birding  
Horseback riding  
Farming (by special lease)  
Fishing  
Hiking  
Nature study  
Picnicking  
Snow shoeing and cross-country skiing  
Walking of dogs on leashes

Hunting and trapping as allowed by the New Jersey Game Code

## **Prohibited Uses**

Camping  
Disturbance of wildlife  
Dumping  
Collecting or removal of native plants and animals  
Fires  
Logging and firewood cutting  
Mining of soil and rock  
Motor vehicles, including ATV's (except for management and emergency purposes)  
Snowmobiling  
Target practice and skeet shooting

The remainder of the plan addresses individual management issues, including access, farming, meadow management, posting, and trails. Maps are provided to point to important sites on the preserve, delineate meadows requiring ongoing management, and delineate trail routes and features of interest.

## **Access to the Preserve**

There is only one practical access to the preserve for motor vehicles, which is the existing access used for farming on Perry Road. Perry Road is a township road, which allows the township to develop a suitable access point meeting township standards. Figure 1 shows this location.

Conservation Resources has discussed this proposed point of access and sight-distance safety issues with Township Engineer Harold Pellow, who presumably would design the actual parking area. It appears that the construction of a small 3-4 car trailhead parking area is feasible at this site, as long as it is constructed in such a way that vehicles do not have to back out onto Perry Road to leave the parking area. CRI recommends that a trailhead parking area be established as close as possible to Perry Road to allow for easy monitoring of activity at the parking area. This would require rearrangement of a short stretch of stone wall along Perry Road to accommodate and delineate parking spaces. Modifying the stone walls would enhance the attractiveness of the preserve from Perry Road and serve to discourage unwanted vehicular access. Note: This trailhead parking area was recently completed.

A new gate should be installed immediately beyond the parking area in the general vicinity of the current old steel tubular gate to prevent illegal access, but allow access to farm, stewardship and emergency vehicles. This will require installing posts, a new gate, and likely approximately 60 to 80 feet of fencing on either side of the gate to discourage unwanted vehicular access.

A rustic sign should be erected in the parking area identifying the preserve. A small kiosk should be installed near the tubular gate that identifies permitted and prohibited uses and provides maps of the preserve trail system.

It is recommended that access be permitted between one hour before sunrise and one hour after sunset to accommodate proposed hunting. Special provisions could also be made for limited overnight group camping and night programs, such as group camping and "owl prowls."

The boundary of the preserve needs to be marked to identify the lands owned by Frankford and highlight prohibited uses. A proposed boundary marker is shown in Appendix A.

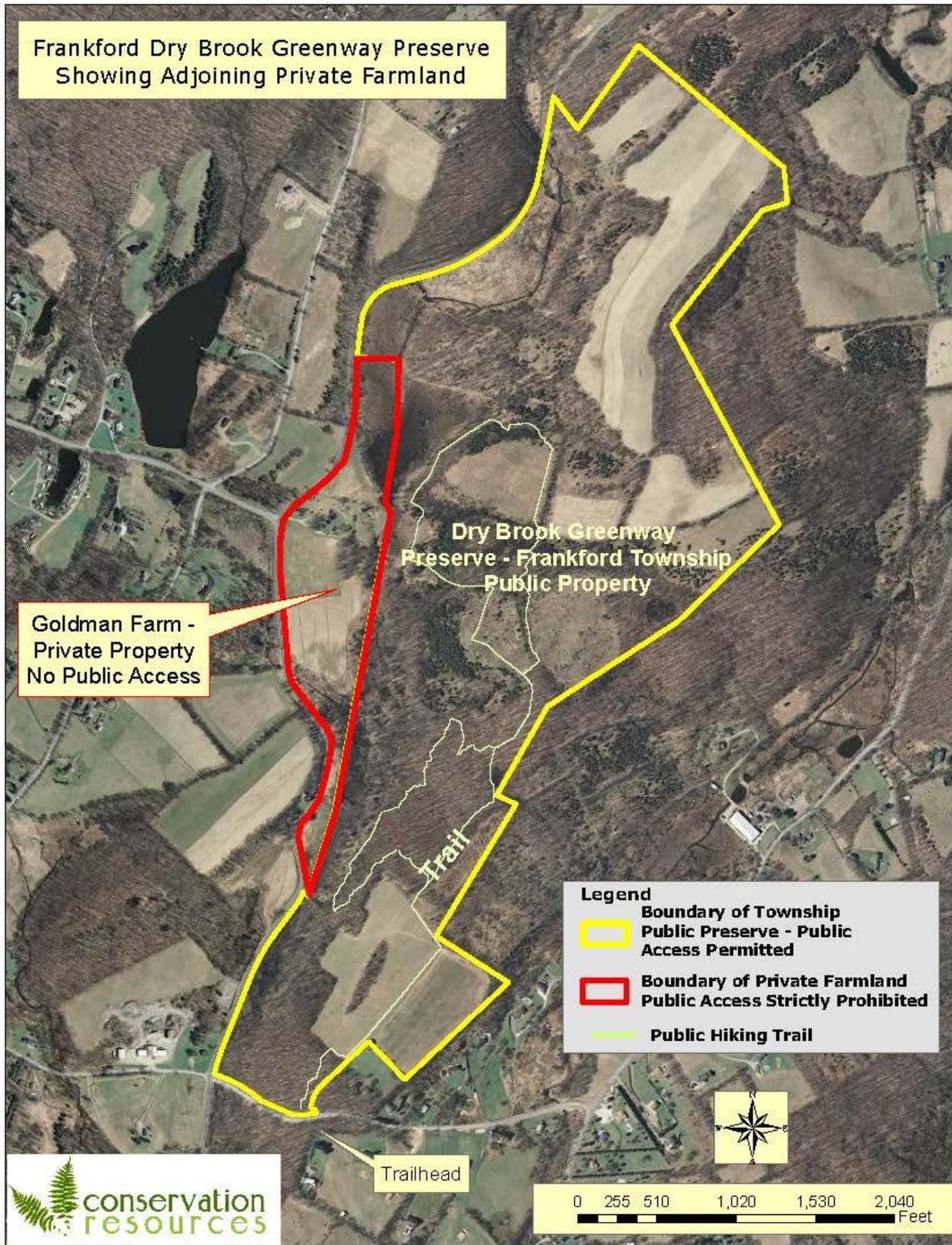


Figure 1. Location, boundary, and access to Dry Brook Greenway Preserve.

## **Farming**

The existing agriculture fields complement the scenic value of the preserve and enhance wildlife value by providing for grassland habitat for ground-nesting birds and hunting areas for raptors. The Township should consider entering into a lease with a farmer to allow continued farming of select areas and to provide assistance with maintaining several trail sections through farm fields and meadows. It is recommended that field production be limited to hay and other grain or cover crops such as oats, rye, barley, soybeans, corn and winter wheat, etc., and planting methods should be limited to no-till, at least on steep slopes found on the northern fields 5 and 6. Buffers should be retained around fields that may require tilling to minimize soil erosion to Dry Brook. If corn is grown, the tenant farmer should utilize a crop rotation schedule acceptable to the Township to periodically plant a suitable cover crop in specific fields or portions thereof to allow for the fixation of nitrogen and the restoration of soil fertility. Figure 2 shows the recommended fields to remain in agricultural production. The amount, timing and manner of herbicide and pesticide use, as well as the use of fertilizer and other soil amendments, should be limited to what is consistent with best agricultural management practices.

There are approximately 49 acres of land currently in production. This estimate was checked against the farmland assessment forms submitted for the property in August 2011 to confirm the size of the producing fields. A model farming lease should be developed for approval by Green Acres, as required by the Township's Green Acres grant which was used to purchase the property. The overall intent of the lease is to allow farming that recognizes and protects the environmental qualities of the preserve, and makes the farmer a partner in helping to maintain the preserve for wildlife and the public. The management of meadow areas could be added as an incentive for the lease, or the farmer could be engaged as a contractor to maintain the proposed meadow mowing schedule.

In exchange for farming rights, or as a part of his rental payments, the farmer could be required to mow trail sections that traverse fields. Mowing should be required a minimum of every two weeks during the growing season from May 1 to October 1. The paths should be mowed to minimum width of 12 feet, wider if equipment allows. Paths should be kept clear of agricultural equipment to the extent possible.

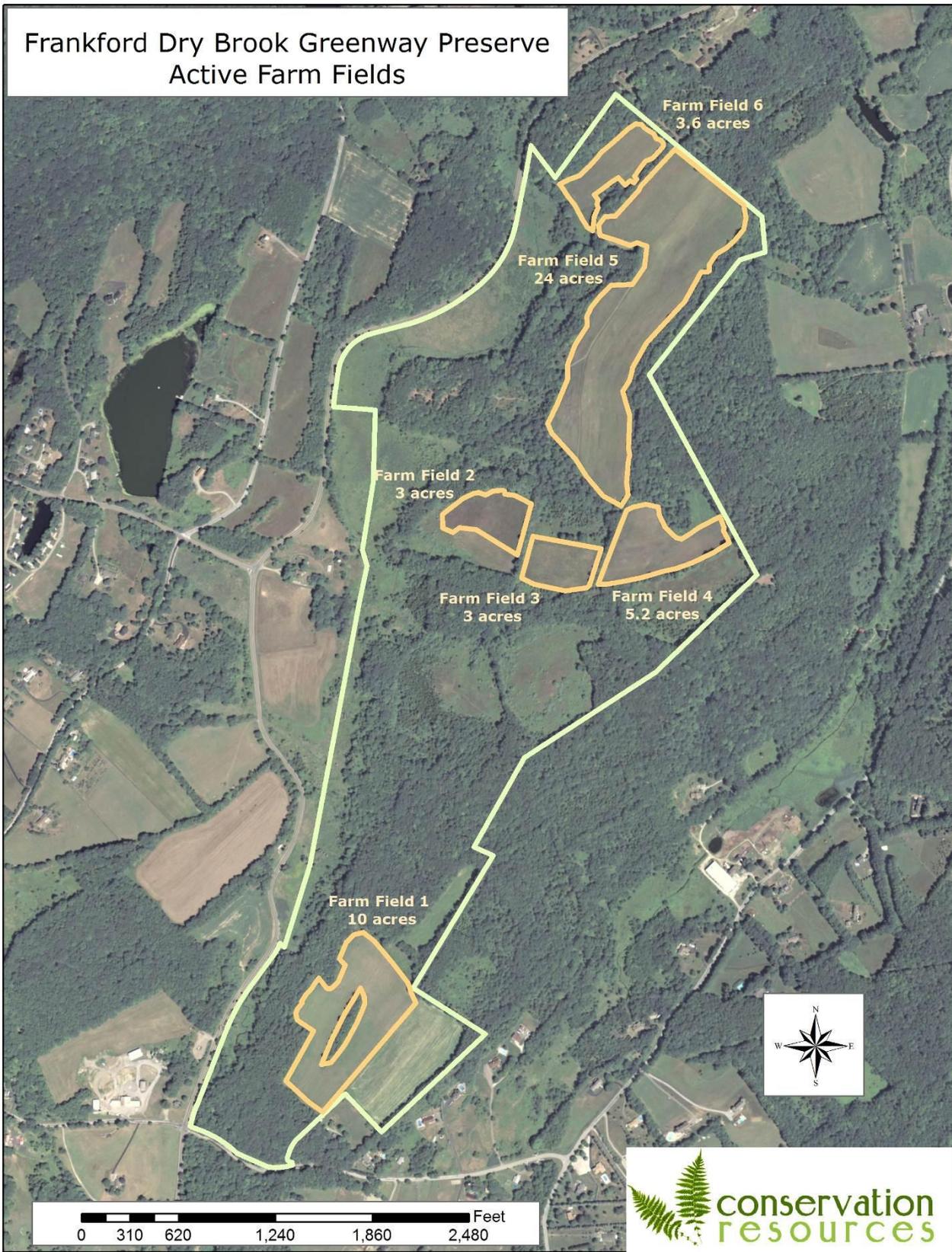


Figure 2. Fields recommended for continued farm use.

## **Meadows**

The preserve contains several former agricultural fields that have gone through natural succession to wild meadows. These meadows contain a variety of native wildflowers, including golden rod, bee balm, ironweed, daisies, milkweed, butterfly weed, and others that are important to pollinators such as honey bees, butterflies, dragonflies, and moths, and cover for ground nesting birds. Unfortunately several of the meadows have been invaded by non-native woody species, including multi-flora rose, Russian olive, and Ailanthus. These invasive plants should be eradicated to the greatest extent possible so as not to compromise the environmental value of the meadows.

The locations of the meadows and a numbering system to facilitate a mowing maintenance schedule are shown in figure 3. Currently, there are approximately 27 acres of meadow are in need of periodic mowing. It is recommended that mowing be done on a 3-year rotating schedule, meaning that 1/3 or 9 to 10 acres of meadow should be mown each year. Mowing should take place in early spring, typically the end of March to the beginning of April, to avoid eliminating important winter ground cover and impairing the scenic quality of the meadows.

The Township should consider retaining the services of a qualified ecological management provider to bring a forestry mower to the preserve to remove much of the woody invasive plants. This will require a significant investment initially, on the order of \$10,000 to \$20,000, as the equipment used is highly specialized and the area that needs to be addressed is large. Once a significant percentage of the invasive plants are removed from meadows, are at least from close proximity to trails, the meadows should be able to be maintained through conventional mowing. Mowing could be undertaken by Township employees, and it should be possible to utilize open space funds to offset this cost. The proximity of the Township public works facility to the preserve is fortuitous in this regard.

Frankford Dry Brook Greenway Preserve  
Meadows

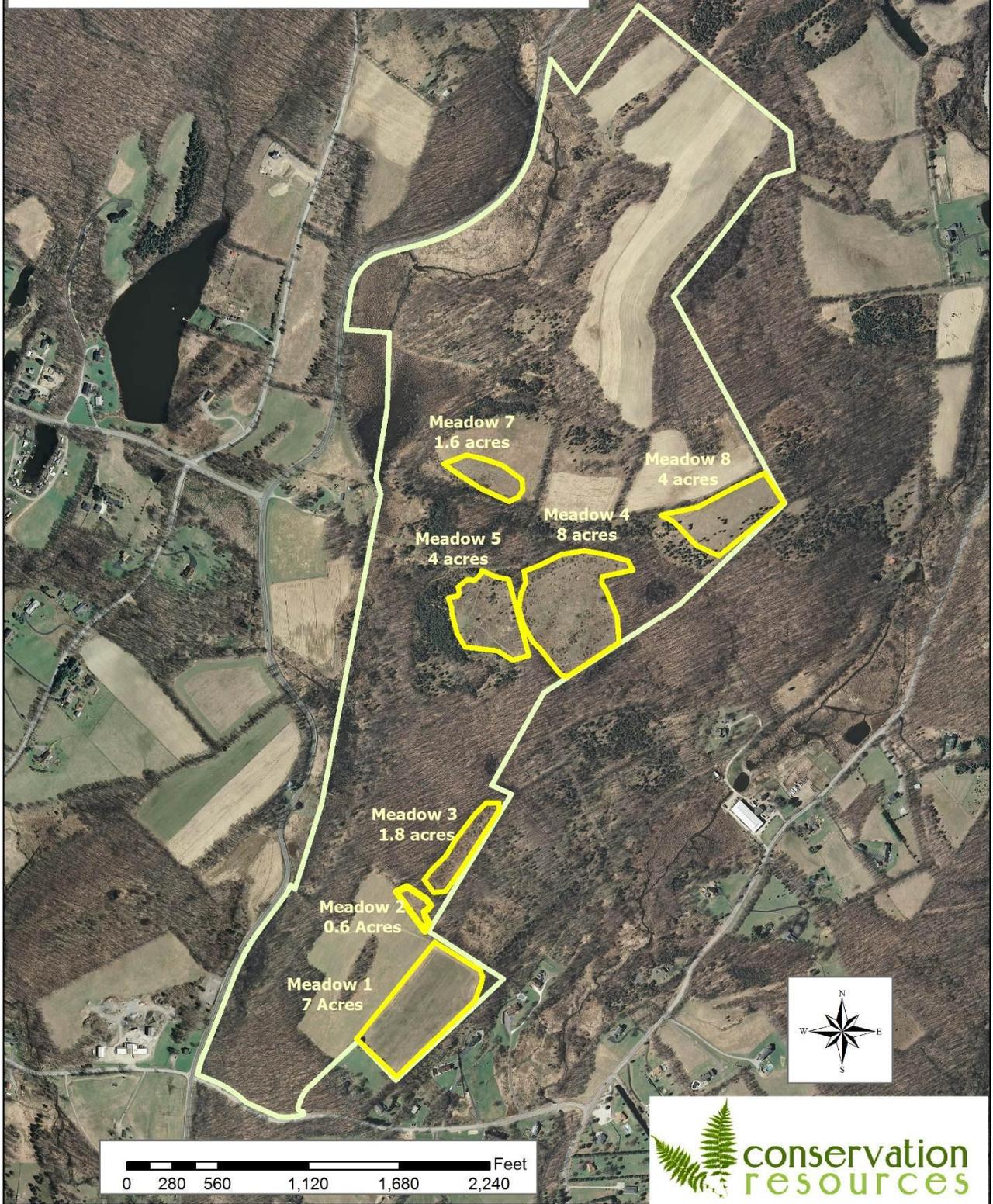


Figure 3. Meadows to be maintained by periodic mowing.

## **Forest Management**

The preserve includes a mosaic of habitats, ranging from early succession of fields dominated by red cedar, gray birch, and alder, to mature, diverse hardwoods characteristic of the Appalachians, including oak, hickory, maple, hornbeam and ash. Several specimen size trees were observed along what appear to be former woods roads through the site, and appreciation of these trees will become a part of the hiking experience.

Active management of the forest areas does not appear to be necessary and is therefore not recommended at this time. The existing species diversity and closed forest canopy is already impressive, and merely needs to be maintained by appropriate forest stewardship. Removal of mature species would compromise the canopy, allowing the invasion of non-native species, which would make site access and management more difficult. In addition, intrusion by machinery to carry out forestry would adversely impact the soils on the steeper forested areas of the preserve, which have developed a desirable moss and lichen cover. This could lead to erosion and impoundment of water in machine tracks that would encourage mosquito breeding. In the event that active forest management proves to be necessary or desired in the future, it is recommended that this be done in accordance with an approved Forest Stewardship Plan.

The greatest need with respect to improving the forest habitat on the site is management of white-tailed deer. As indicated below in the section on hunting, deer browse has suppressed the regeneration of the forest understory, including native shrubs and tree seedlings. The loss of native shrubs adversely affects certain native bird species that rely on the shrubs for cover. Elimination of the understory also provides an opportunity for non-native, invasive plants to gain a foothold. Attempting to control the deer population and reduce it to manageable levels will benefit the forest in the long run.

## **Recreation**

Because the property was acquired as open space intended to remain in its natural state, passive recreation would be the most compatible way to allow the public to use the preserve. Passive recreation includes hiking, hunting, birding, wildlife observation, cross-country skiing, snow shoeing, photography, art, nature study, scientific study, and reasonable equine uses. Site access is so restricted as to not permit parking and turnaround for horse trailers, so equine uses by people other than neighbors does not appear to be practical at this time. With the ultimate goal of connecting Dry Brook Greenway Preserve to the Township park and developing a trail system in the northern part of the preserve, in the future there may be a greater opportunity to access the preserve on horseback.

The recreational uses likely to attract most interest are hiking, hunting and birding. A trail system that accesses the preserve will facilitate these uses.

## Trails

The preserve lends itself to a system of hiking trails and possibly equine trails that take the user through a variety of habitat niches and provide breathtaking views of Kittatinny Ridge, the Dry Brook Valley, and New Jersey Highlands. It is recommended that initially a system of trails be developed in the southern half of the preserve, for the following reasons:

1. The access point is on the southern end.
2. The southern end is accessible to the lease farmer from both the south and west.
3. There are more woodlands, where trails require minimal maintenance, in the southern part of the preserve.
4. Farming is likely to be more intense in the northern part of the preserve.

The Township has expressed a long-term goal of connecting the preserve to the Township Park, which is located north of the preserve. A trail system leading to the north end of the preserve can be developed in the future should the demand arise and/or should a property be acquired on the north end of the preserve to which the Dry Brook Greenway Preserve can be connected.

CRI walked the site and laid out a preliminary trail system on August 24, 2011. The trail system starts at the southern access point. A general description and highlights of the proposed trail route are as follows:

- ❖ The trail follows the divide between the cultivated field and meadow in the southern part of the preserve.
- ❖ The trail cuts through open woodland with rock outcrops, around a vernal pool, to a dramatic high wooded hill the center of the preserve.
- ❖ The trail traverses meadows in the center of the preserve, and then follows an old lane along the wetlands along Dry Brook.
- ❖ The trail follows existing equine trails to a grassy knoll in a meadow with a sweeping view of the Kittatinny Ridge.
- ❖ The trail reconnects with the high wooded hill, and then follows the western woodlands along Dry Brook reconnecting with the first trail stretch between the field and meadow.

Figure 4 shows the proposed trail routes. The total length of the trail system is approximately 13,000 feet or about 2.5 miles. The variation in terrain make the trail more challenging than this distance indicates. Several points along the trail lend themselves to picnicking due to their level nature and spectacular views. The placement of table at one or more of these locations would be helpful. As indicated above, mowing of several segments of the trail will be necessary to keep it open. A proposed trail marker is shown in Appendix A.

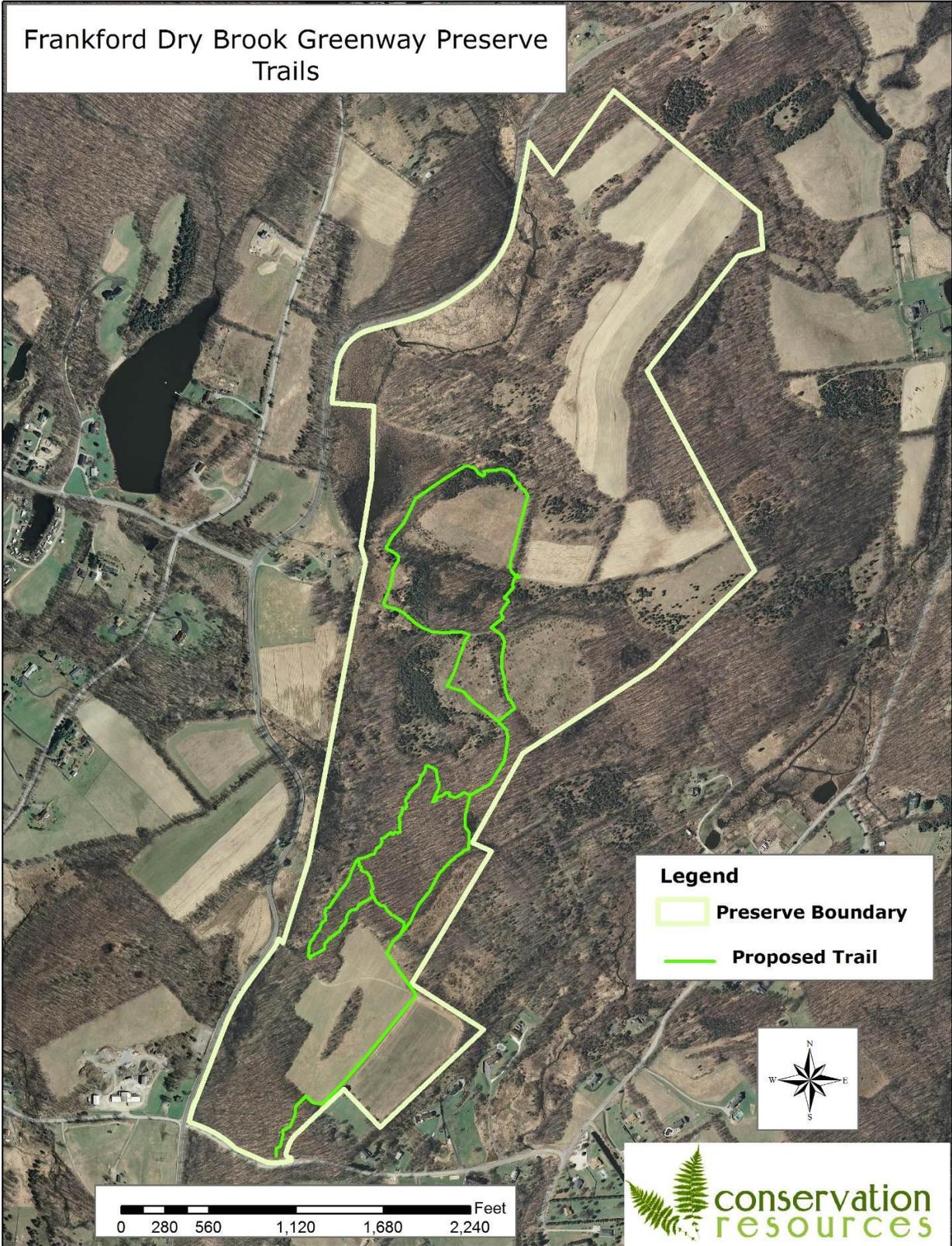


Figure 4. Proposed trail routes.

## Hunting

Hunting is a traditional activity in Frankford Township. The Township Committee has directed that hunting and trapping be allowed in a manner consistent with the New Jersey Game Code.

Management of the deer population at sustainable levels is particularly important from several perspectives:

1. Sustaining the health of the deer population by decreasing competition for food supply.
2. Regenerating forests by decreasing deer browse of seeding trees and understory plants. Over-browsing of native plants and shrubs has removed many native species from the forest, preventing natural regeneration and replacement of trees.
3. Protecting farm crops on the site.
4. Helping to control invasive plants quickly, as, the spread of invasive plants such as barberry, autumn olive, stilt grass, garlic mustard, and many others is increased by deer overpopulation.
5. Minimizing exposure to Lyme and other tick-borne illnesses.
6. Lessening the impact on neighboring properties from deer living at the preserve.

Control of the deer population will help achieve these goals and provide additional recreation opportunities for township residents and others.

Hunting can, but need not be, a controversial activity. Noise associated with shotgun and black powder methods can be intrusive to neighbors. Balancing passive activities such as hunting and hiking poses some challenges in terms of managing the open space for the safety of all users, especially given the size and shape of the preserve. Enforcing hunting activities against abuse may require the intervention of authorized personnel (such as DEP conservation officers and State Police) who are not responsible to the Township.

The Township should provide users of the preserve with a map delineating hunting areas and safety areas which will be established based on the proximity of neighboring residences and other property uses, such as trails or wildlife observation points. As provided by applicable state law, there would be no Sunday hunting.

We also recommend that all preserve users be asked to provide volunteer service on the preserve, consisting of activities such as boundary posting, debris removal, trail marking, construction and maintenance, and similar stewardship activities. The Township would be responsible for notifying volunteers of stewardship labor opportunities and tracking volunteer hours. The Open Space Committee may also wish to organize several volunteer work days a year, and to identify specific work projects for those workdays, as a way of providing some direction for volunteers.

Compliance with State hunting regulations and this management plan can be facilitated by cooperation with State conservation officers and the State Police. The Township

should track and catalogue any complaints or incidents associated with permitted hunting activities on the property to allow for re-evaluation of the program on a periodic basis.

**Appendix A – Boundary Sign and Trail Markers**

**Dry Brook Greenway Nature Preserve**  
**Property of Frankford Township**  
Preserve Open to The Public from One Hour Before Sunrise  
To One Hour After Sunset

**Permitted Uses**

- Birding
- Horseback riding
- Farming (by special lease)
- Fishing
- Hiking
- Nature study
- Picnicking
- Snow shoeing and cross-country skiing
- Walking of dogs on leashes
- Hunting and trapping (as allowed by the New Jersey Game Code)

**Prohibited Uses**

- Camping
- Disturbance of wildlife
- Dumping
- Collecting or removal of native plants and animals
- Fires
- Logging and firewood cutting
- Mining of soil and rock
- Motorized vehicles, including ATV's (except for management and emergency purposes)
- Snowmobiling
- Target practice and skeet shooting