



# Reservation Plan (Mini)

Reservation	North Common Meadow	Completed by	Russ Hopping Tim Silva Dick O'Brien
Location	Petersham	Date	3/15/00
Acreage	25	Considered for management	25
Supporting reports and materials	<ul style="list-style-type: none"> <li>• Land Use, Biophysical, and Sociological Information on the James W. Brooks Woodland Preserve (Aikenhead et al 1995).</li> <li>• 1993 b&amp;w ortho photo</li> <li>• 1998 Heritage data on rare species</li> <li>• 1999 May /June site visits including breeding bird survey (R. Hopping)</li> </ul>		

## Step 1. Property Profile

### Ecological Features:

#### 1. Summary:

North Common Meadow is approximately 25 acres. Grassland covers about 20 acres of the reservation. Approximately half of the grassland is hayed annually while the other half (the lower half) is mowed annually. The remaining acres are forested wetland and mid successional forest along the eastern edge. A small, (< .5 acre) shallow pond is also located near the middle of the reservation.

Exotic cool-season grasses, clover and dandelions dominate the hayed grassland. The mowed portion is more diverse with some woody plants including low blueberry and ferns. Wetland plants are common near and around the pond's edge and include the carnivorous sundew. Grassland nesting birds breed in the grassland and include bobolinks, meadowlarks, red-winged blackbirds and Savannah sparrows.

#### 2. Describe the regional landscape, including missing or declining habitats.

Much of the surrounding landscape is forested. Petersham center is adjacent to North Common Meadow. Roads and houses occur to the west and south of the reservation. Agricultural lands, especially hay fields occur along route 32 and to the east of Brooks Woodland Preserve. Several additional isolated grasslands occur throughout the immediate landscape. Early successional habitat is scarce. The Swift River drains much of the area and several small ponds have been created by damming the river.

### **3. Are there any rare species present?**

Fringed gentian (*Gentianopsis crinita*), a Watch-Listed species was introduced to a damp area by the pond (Bob Clark, personal comm. 1998).

### **On adjacent lands?**

Jefferson salamander and northern spring salamander have been reported from the adjacent Brooks Woodland Preserve. The four-toed salamander, wood turtle, beaverpond clubtail (a dragonfly), climbing fern and ginseng occur in the vicinity.

### **4. Are there priority plant communities present?**

No

### **On adjacent lands?**

Unknown

### **5. Are there any uncommon or decreasing regional communities present?**

Yes, grasslands which cover about 20 acres of the reservation. This field may be the most productive and thus significant grassland habitat in Petersham as a result of late-cut management practices. A visit to the property on 6/19/99 clearly suggested an increase in the number of bobolinks using the field compared to two previous visits on 6/5 and 5/13. Investigation of the hayfields to the east revealed they had been cut and haying was in progress. Birds displaced by early haying of nearby fields likely attempt to re-nest at NCM. As a result, the value of NCM as habitat for grassland birds is greatly increased due to the extended breeding season at this field. Breeding could feasibly occur throughout July and possibly into August. At least 1 fledgling bobolink was observed on 6/19.

### **6. How fragmented is the habitat?**

The grassland is fragmented by mowed trails only.

### **At the landscape level?**

Forest dominates with pockets of agricultural lands and development. Petersham center is adjacent to North Common Meadow. In general there are few roads and houses beyond the center area.

### **7. Does the reservation connect “large” areas of open space or act as a stepping stone between large areas of open space?**

The reservation abuts the more than 500 acre Brooks Woodland Preserve. While the reservation does not connect protected open space, it should be considered an integral part of the vast collection of protected open space in the Petersham area, mostly because it is maintaining viable grassland habitat which is rare and declining in this mostly forested region.

## **8. What landscape ecology functions does the reservation provide?**

- The reservation may contribute to water quality and quantity protection for the Swift River (this depends on the quality of run-off from the hay field and drainage).
- It provides important grassland habitat, which is rare throughout the adjacent and nearby protected lands.

## **9. Are non-native or invasive species a problem?**

Invasive plants including multiflora rose and bush honeysuckles are present, as are many typical agricultural exotics, but none appear to represent a threat to the grassland habitat or scenic quality of the reservation at this time.

### **At the landscape level?**

Unknown

## **Historic Features:**

### **1. Summary:**

The 19th century (1825) Brooks law office is located near Main Street. This small, one room wood frame building is an important feature on the reservation and to Petersham center. Signage should be kept to a minimum to maintain historic and scenic landscape values.

## **Scenic Features:**

### **1. Summary:**

The grassland itself is very scenic, especially since it is part of the center of Petersham. The reservation also provides a view of the surrounding forested landscape and Mt. Wachusett to the east. This view is visible from route 32. The primary reason The Trustees is preserving this field is to protect the rural character of Petersham center.

## **Land Use History:**

### **1. Summary:**

North Common Meadow was pastured in the distant past. The "meadow" was next used as a golf course for the Nichewaug Inn across Main Street. The small pond at the bottom of the field is an artifact from the golf course. Following the close of the Inn the property was grazed once more.

## **Visitor Use:**

### **1. What are the primary visitor activities?**

Walking, dog walking, and nature study. Scenic viewing from Main St.

## 2. Are there prohibited activities?

No hunting, fishing, motorized vehicles or camping

## 3. Are there visitor issues including visitor conflicts?

None known

## 4. Trails: what are their condition and how many miles?

There are approximately .5 miles of mowed trails through the grassland. All are in excellent condition.

## 5. Presentation Elements

Essentials:	Does it Exist?	Should it Exist?
Entrance sign	Y	
Information bulletin board	N	Y small
Welcome sign	N	Y
Property map	N	Y
"Rules and Regulations" sign	N	Y
<i>Join us!</i> Brochure dispenser	N	Y
Other:		
Trail makers or other helpful signs...	N	Y, sign indicating location of entrance to Brooks Woodland
Cultural and natural history interpretive signs	N	
Other brochures or printed material	N	
Suggestion box	N	
Donation tube/cylinder	Y	
Roadside directional signs	N	
Guide/ranger station	N	
Interpretive visitor center/museum	N	

## 6. Are there facilities including restrooms?

No facilities exist

## 7. What interpretive material exists?

A trail map with a brief description of the property is available. However, it is not clear how a visitor would know this. Visitors can get a copy of the map at the Petersham country store, The Trustees' regional office and HQ.

## Buildings & Structures:

### 1. List and describe each building.

- Brooks Law Office - a one room 19th century law office.

## **2. List and describe each structure**

- Field stone edge and earthen berm to create pond (created in 1970s). This may include a culvert as well. A cement weir (dam at outlet of second pond)

### **Economic Considerations:**

#### **1. What activities generate income? List activities with approximate \$s**

None. Current lease does not charge farmer a fee for hay.

#### **2. Other economic considerations?**

A local farmer currently hays the upper half of the field. If this farmer is unwilling to wait until birds have fledged their first brood to cut, than it is likely that The Trustees will need to mow the upper half. This should add little additional expense to property management since staff currently cut the lower half. However, habitat value may decline if material is left on site since ecological surveys suggest the hayed portion supports the greater diversity of grassland species (1999 Breeding Bird Survey).

### **Anything else?**

Breeding bird survey locations should be permanently marked for monitoring grassland birds.

## **Step 2: What are the most significant features of the reservation based on Step 1:**

1. Grassland habitat
2. Scenic vista
3. Brooks law office
4. Walking opportunity near town that is part of a well used route

### **Are there important management opportunities associated with the reservation?**

- Visitor access should consider the above significant values.
- Improve awareness and knowledge of The Trustees, the reservation and its property management goals.

### **What is the most significant feature of the property?**

Grassland habitat

**Step 3: Identify existing or potential threats to the reservation.**

**Describe the source of each of the following threats and impacts if present:**

**E = ecological, H = historical, S = scenic, V = visitor use, B = buildings & structures, \$ = economic**

<b>E</b>	<b>Fragmentation</b>	Trails are likely facilitating the access of house cats into the field where they prey on birds (see below)
	<b>Pollution</b>	
<b>E</b>	<b>Invasive species</b>	They could degrade grassland habitat
	<b>Disease/infestation</b>	
<b>E</b>	<b>Cutting</b>	Early cutting of the field would threaten grassland birds and cutting too late may facilitate the growth of woody plants.
<b>E</b>	<b>Recreational use</b>	Too much may interfere with grassland birds
<b>H,B</b>	<b>Storm damage</b>	Tree falling on Brooks Law Office
<b>E</b>	<b>Cats and dogs</b>	Neighborhood and unleashed pets could impact wildlife, especially grassland birds. One house cat was observed using the mowed trails on 6/19/99. Later that day a male bobolink was found dead and half-eaten in the trail.

**Additional Comments:**

There may be additional threats to Brooks Law Office.

**Step 4: What are the management goals and objectives based on the above?**

Goal 1. Maintain aesthetic and scenic elements important for the visitor experience.

Objective: Maintain scenic vista

Goal 2. Maintain important ecological features.

Objective: Maintain grassland habitat

Goal 3. Provide visitors with access to the property and The Trustees.

Objective: Maintain trails in good condition for visitor safety and ecological integrity

Objective: Improve awareness and knowledge of The Trustees, the reservation and it's property management goals

Goal 4. Maintain important historical features.

Objective: Maintain Brooks Law Office as an historic building

**Which is the most critical goal? Why?**

The maintenance of grassland habitat. Grassland habitat is uncommon in the area and what does exist is typically managed in a way that prevents grassland bird productivity. Also, by maintaining the grassland habitat the scenic vista will also be maintained.

Management Objectives and Recommended Actions

(What are the objectives that will address these issues and what action steps are needed to achieve these objectives?)

Objective:	Action Steps:	Resources Needed to do the work:	Completion Date
Maintain scenic vista	<ol style="list-style-type: none"> <li>1. Maintain current footprint of grassland</li> <li>2. Prevent trees from establishing in grassland</li> </ol>	<ol style="list-style-type: none"> <li>1. No additional resources needed</li> <li>2. No additional resources needed</li> </ol>	<ol style="list-style-type: none"> <li>1. Ongoing</li> <li>2. Ongoing</li> </ol>
Maintain grassland habitat	<ol style="list-style-type: none"> <li>1. Maintain current footprint of grassland</li> <li>2. Develop and implement grasslands management plan that includes: <ul style="list-style-type: none"> <li>• survey and monitor field for birds annually</li> <li>• cut after birds have fledged young, use meadowlarks if possible since they fledge later than bobolinks. Monitoring is better than set cut date (e.g. July 15).</li> <li>• fields should not be converted to row crops</li> <li>• minimize woody plants</li> <li>• minimize human activity in field during nesting, post signs asking people to stay on trails and to leash their dogs during nesting season (May to August), also, consider posting information on the adverse impact of cats on</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>1. No additional resources needed</li> <li>2. Survey/monitor for birds by RE or PM, ~ 2 half days.</li> </ol> <p>Development of grassland management plan by RE and PM, ~ 1 day.</p> <p>Coordinate plan with farmer. PM ~ .5 days.</p> <p>Relocation of trail by PM ~ .5 days</p>	<ol style="list-style-type: none"> <li>1. Ongoing</li> <li>2. Spring of 2000 - ongoing</li> </ol>

	<p>grassland birds</p> <ul style="list-style-type: none"> <li>relocate the trail to East St. so it follows the southern property boundary to Main St.</li> <li>mow and hay fields from the inside out</li> </ul>		
<p><b>Objective:</b></p> <p>Maintain Brooks law office as an historic building</p>	<p><b>Action Steps:</b></p> <p>1. Develop management plan for building.</p>	<p><b>Resources Needed to do the work:</b></p> <p>1. Hire historic resources consultant and/or Historic Resources staff</p>	<p><b>Completion Date</b></p> <p>Ongoing</p>
<p><b>Objective:</b></p> <p>Improve awareness and knowledge of The Trustees, the reservation and its property management goals</p>	<p><b>Action Steps:</b></p> <p>1. Install Presentation Elements including: small bulletin board, brochure rack, "Welcome To" sign, regulation sign, a Brooks Woodland Preserve entrance sign and replacing the donation cylinder sign.</p> <p>2. Install map of reservation on bulletin board.</p> <p>3. Install interpretive material about the reservation and its management. This should include information on grasslands and their wildlife as well as on the Brooks Law Office.</p> <p>4. Consider signs that prohibit unleashed dogs from "fields only" seasonally to prevent disturbing nesting birds</p> <p>5. Consider using Brooks Law Office for visitor center.</p>	<p><b>Resources Needed to do the work:</b></p> <p>1. Bulletin board \$500 Brochure rack \$150 "Welcome To" sign \$180 Regulations sign \$180 Donation cylinder sign \$180</p> <p>2. Staff time</p> <p>3. Staff time</p> <p>4. New signs and posts, staff time to install. Signs \$180</p> <p>5. Staff or volunteer time</p>	<p><b>Completion Date</b></p> <p>1. Spring 2000</p> <p>2. Spring 2000</p> <p>3. Spring 2000</p> <p>4. Spring 2000</p> <p>5. When resources become available</p>

**Are there other limitations to achieving objectives?**

No

**Is a more detailed management plan needed?**

No

**Other comments:**