



**Town of Brunswick, Maine**  
**CONSERVATION COMMISSION**

85 UNION STREET  
BRUNSWICK, ME 04011  
**CONSERVATION COMMISSION**

**- AGENDA -**

**Tuesday, March 3rd 2020**

**TOWN HALL**

**COUNCIL CHAMBERS**

**85 UNION STREET**

**4:30 P.M.**

**1. Call to Order**

**2. Approval of Minutes**

**3. Conservation Commission Activities**

- a) Welcome Will Almeida/Review 2020 Goals
- b) Sawtooth Additions, Next Steps
- c) Furbish Work by Parks and Rec
- d) Mere Brook - Ongoing Familiarization
- e) CC outdoor work 2020 — Fitzgerald (June?), Sawtooth, Maquoit (Resilience), Easements

**4. Coordination and Communication**

- a) Annual Report

**5. Other Business**

- a) Staff Report
- b) Next Meeting

**6. Adjourn**

## MISSION STATEMENT

*The mission of the Brunswick Conservation Commission is to serve the Brunswick community by advocating for conservation values and stewarding our ecologically rich natural communities and open spaces.*

### OBJECTIVES

*The Conservation Commission serves the community of Brunswick by promoting land conservation to benefit Brunswick residents and visitors; fostering the conservation of open space, habitat and ecological values; advocating for the appropriate protection, development, or use of open spaces in town; providing educational outreach to residents on local and regional conservation and ecological issues; coordinating with town departments, committees, and local organizations in support of conservation efforts; and overseeing the management of town-owned conservation lands and interests.*

### Primary Priorities for 2019:

1. Work on adoption of the draft Conservation Commission ordinance by Town Council.
2. Continue to assist in the conservation management, planning, and stewardship of Brunswick Landing Conveyance Properties, in particular the Western “Sawtooth” Parcel.
3. Continue to be involved in the conservation management activities for Captain Fitzgerald Park, including planning next steps for conservation management.
4. Continue to work on targeted invasive species efforts (current efforts: Fitzgerald Park, Furbish Preserve, Western Sawtooth), and on updating town policy as needed for appropriate invasive species treatments. Removal of Bittersweet from Western Sawtooth and closer look at if the knotweed in Fitzgerald meets the standards for herbicide usage. Learn more about what the Recreation Department plans to do with Fitzgerald property and to learn more about the best management practices for the use of herbicides.
5. Identify management and stewardship needs and priorities for other town-owned conservation properties, using the Conservation Commission’s Inventory for guidance. Regular review of town-owned properties that are not tied to the Recreation Department or other entity.

### Secondary Priorities

1. Follow up with the Council and Town Manager on short-term actions and priorities. Prepare and present the Annual Report.
2. Public Education project with Rivers and Coastal Waters and outreach opportunities. More information to the public regarding the value of open space.
3. Communications with other Brunswick Commissions, and affiliate conservation entities such as BTLT.



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4. Host a 2018 field day to promote Conservation Commission efforts and inform residents about specific conservation properties



# REC-1 Management Plan

## Western Sawtooth Parcel Goals and Management Principles

### *Management and Stewardship Vision*

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The Western Sawtooth Parcel will serve ecological and passive outdoor recreational functions, protecting important natural resources and enhancing the quality of life for local residents and visitors alike. The property will be managed to provide for the protection of the documented rare natural community (Sandplain Grassland) and a valued pitch pine forest, while accommodating passive recreational and trail-based uses.

Any signs or structures must impart a sense of appreciation for the resources shared and stewarded, welcoming users and advocating low-impact recreation practices. These materials could also educate users about the natural community and its management. Site improvements will be designed to minimize environmental and habitat impacts while allowing appropriate public access and passive recreation activities, including trail connections with the surrounding properties.

The site's ecological management approach will be periodically re-assessed by the Brunswick Conservation Commission to ensure that the goals of maintaining the important plant and animal species and overall habitat types are being met. Ecological management considerations will continue to be explored in cooperation with appropriate town departments, abutting property owners, and governmental and non-governmental partners.

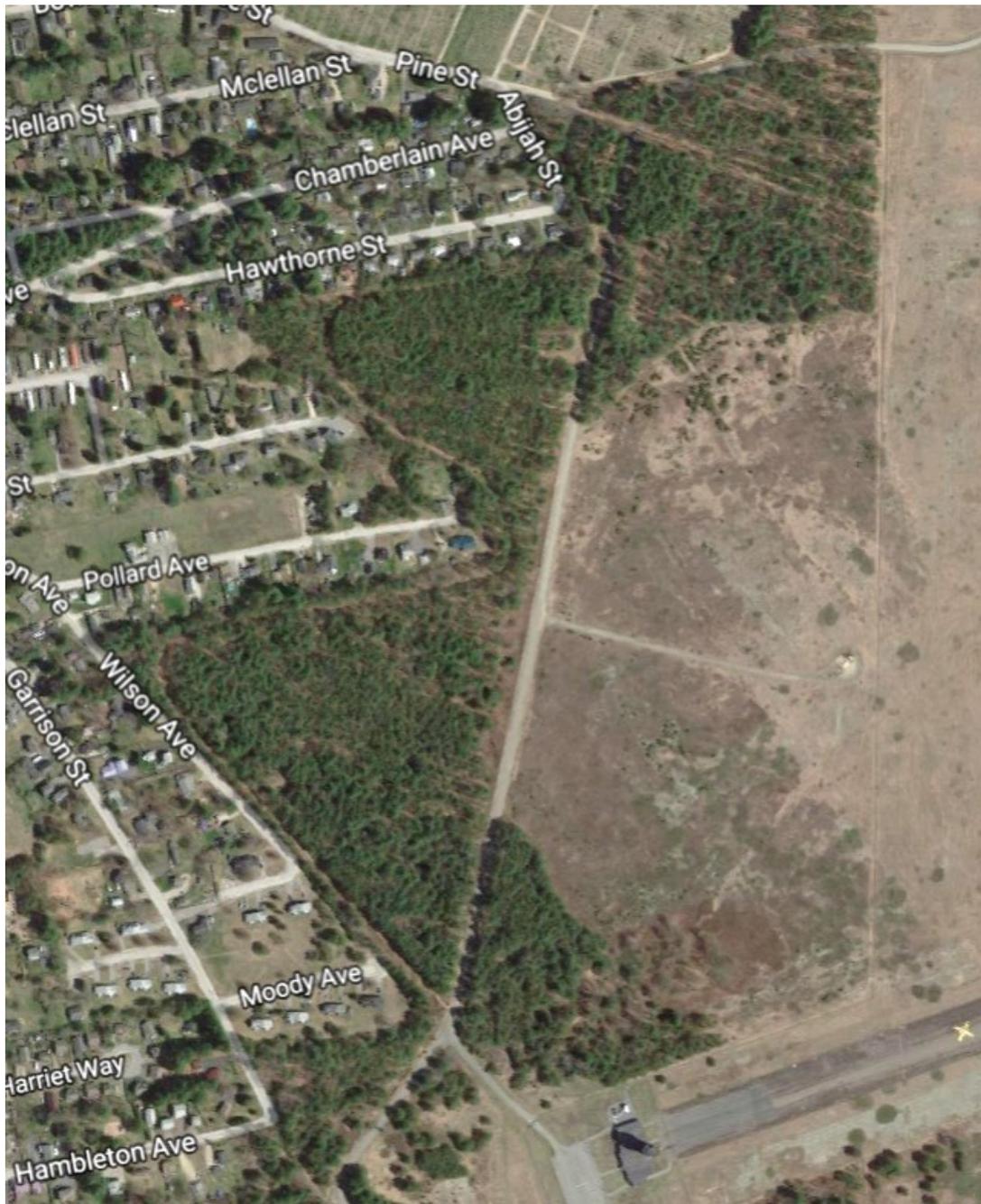
The overarching vision of this plan is that the Western Sawtooth Parcel will be retained as a conservation property with trail and low-impact passive recreation access, and as a property whose protection and management helps to maintain one of the town's rare natural communities.

### *Purpose*

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The primary purpose of the Western Sawtooth Parcel Recreation, Trails and Open Space Management Plan is to guide the management of the property in a manner that protects its natural and cultural resources in perpetuity and provides passive recreational and educational opportunities. These goals and management principles are intended to direct

future management of the Western Sawtooth Parcel.



### *Management Goals*

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Specific management goals for the Town of Brunswick Western Sawtooth Parcel public benefit conveyance lands are as follows:

- Manage and conserve the identified critically-imperiled natural community (sandplain grassland) and important natural resources (pitch pine forest) of the Western Sawtooth property in perpetuity; and

- Provide and manage passive recreation use and trail resources on the Western Sawtooth property, to enhance the quality of life in the Greater Brunswick area.

ADD MAPS — Outline, Rare Communities

## Cultural and Historical Significance

To our knowledge, this site has no mapped archaeologically sensitive sites. It seems clear that the pitch pine forest along the western, or “sawtooth” side was planted. The trees are of uniform size and, in places, they are set in rows. Their age suggests planting during the early stages of the US Naval Air Station. Further research could be done on this forest.

## Natural and Ecological Resources

The property is 60+% forest cover, while remaining land is overgrown field. The property contains both Pitch Pine Heath Barren and successional shrubland/ Sandplain Grassland. The Sandplain appears to be predominantly grasses with lowbush blueberry, some patches of small shrubs and wildflowers, and scattered small pitch pine; the area is contiguous with maintained grassland surrounding abutting airfield. The pine barren contains predominantly pitch pine with white pine, some red oak and maple, some mixed hardwood trees colonizing from western edge (grey birch, locust, etc), and an extensive area of bittersweet along the western/perimeter woods road. Western pine stand sections are entirely enclosed with chain link/barb wire fencing, with two gated access points.

The Western Sawtooth Recreation and Conservation Area is situated on sand deposits that were associated with braided stream and braided delta environments that formed following the retreat of the last ice sheet approximately 12,000 years ago. During this time, part of the Androscoggin River flowed through the site to Thomas Bay on the New Meadows River. These deposits are typically located adjacent to larger sand deposits associated with marine deltas that are found throughout Brunswick, most visibly at the former Brunswick Naval Air Station, now known as Brunswick Landing.

These unique sand deposits are now associated with a rare natural community known as *Little Bluestem-Blueberry Sandplain Grassland*. A natural community is an assemblage of interacting plants and animals and their common environment and includes all of the plants and animals in a particular physical setting as well as the setting itself. The Maine Natural Areas Program ranks the rarity of natural communities and lists the *Little Bluestem-Blueberry Sandplain Grassland* as an S1 community, meaning it is critically imperiled in Maine because of extreme rarity (five or fewer occurrences, or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation.

Grassland barrens were more common in southern Maine historically, but most sites that might have supported this community have either been developed or have transitioned to other types due to lack of fire. Fire, either due to natural causes or intentionally set by Native Americans, was a historically important aspect of this natural community and modern fire suppression has resulted in incursions by white pine and red oak. Prescribed fire is used by The Nature Conservancy to manage grassland communities associated with the Kennebunk Plains Preserve and a similar sys-

tem of management would be appropriate for the The Western Sawtooth, Recreation and Conservation Area grasslands. Such management may be supplemented by mowing and brush cutting.

*Little Bluestem-Blueberry Sandplain Grassland* communities can include several rare plants, including clothed sedge, dry land sedge, northern blazing star, upright bindweed, and white-topped aster. Nesting habitat for several rare ground nesting grassland birds also potentially occurs, including grasshopper sparrow, upland sandpiper, and short-eared owl. These open grasslands may also provide excellent habitat for a rare snake, the northern black racer. Rare butterflies can include cobweb skippers, dusted skippers, and coral hairstreaks. Few surveys for rare species, however, have been done on the The Western Sawtooth Recreation and Conservation Area site, and such work should be part of the ongoing management of this site.

Due to its sandy soils, The Western Sawtooth Recreation and Conservation Area does not include wetlands, vernal pools, or other unique or regulated natural resources. The *Little Bluestem-Blueberry Sandplain Grassland* community, however, is of conservation concern to multiple State agencies and several non-profit conservation organizations. The site, with its easy access, also represents a unique educational opportunity for area schools as well as regional colleges and universities.

In addition to scattered volunteer white pine and red oak, The Western Sawtooth Recreation and Conservation Area now also hosts several invasive plant species, including Japanese honeysuckle and bittersweet. At this time, however, invasive species are not yet abundant (except for the bittersweet along the western fence and perimeter road). This affords an opportunity to control or eradicate them before they become dominant on the site.

In addition, there is evidence of hawks and turkeys present on site.

1

Surficial Geologic Map of the Brunswick Quadrangle, Maine, by Thomas K. Weddle, Maine

Geological Survey. 2001.

2

Gawler, S. and A. Cutko. 2010. Natural Landscapes of Maine: A Guide to Natural Communities and Ecosystems. Maine Natural Areas Program, Maine Department of Conservation, Augusta, Maine.

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March 9, 2015

## Natural Resource Challenges

### Invasive Species

- There is an extensive and well-established infestation of Bittersweet (*Celastrus orbiculatus*) along much of the western edge of the property, along the perimeter road. It appears the road itself has become a sort of a boundary line for the encroaching vines, as little of the bittersweet has crossed beyond the road into the pitch pine forest. The likelihood of effectively removing the bittersweet stand (due to its profusion and origination on private

property) is very low, but with annual maintenance, it may be quite possible to keep the bittersweet from crossing the roadway and advancing into the pitch pine forest. It is recommended to remove bittersweet growing inside the perimeter road on the property by hand-cutting vines down to their base, and cutting or mowing shoots that grow within the perimeter road; bittersweet growth on the west side of the perimeter road may be left. The Conservation Commission has begun this work and hopes to continue it annually.

- Honeysuckle (*Lonicera*) is also present on the eastern portion of the property in the open field area and along the paved road. These shrubs can be hand cut for removal, and possibly controlled by mowing associated with maintaining the open field.
- Whenever other invasive plant species are encountered during trail or property management activities, locations should be recorded and stands treated as conditions allow.

## Trails

The Western Sawtooth Parcel is well accessed by both a paved road running north/south through the property, and a perimeter dirt road that zig-zags along the western edge (giving rise to the parcel's Sawtooth name). These existing roads from the former BNAS provide trail access to the envisioned Perimeter Trail System around all of Brunswick Landing. There is currently no area reserved for parking on the Western Sawtooth Parcel, and no parking to serve the site is proposed. Access is available via the Pine St. entrance to the Perimeter Trail where there's limited parking.

The paved road in part marks a line between a mature stand of pitch pine forest to the west and the overgrown field abutting the air field to the east, with access currently closed off at either end by gate/chainlink fence. The pavement is in fair condition and suitable as a multi-use trail. Future need for repaving may need to be considered if conditions for trail or emergency access use become an issue.

The perimeter road is unpaved and follows the western border through the pitch pine forest, connecting with the paved road at the north and south ends of the property. Neighboring houses are visible from this road in many places, but the entire road is separated from abutting properties by the existing chainlink fence from the former BNAS property. Currently, though the fence closes off any access from the neighborhoods, there are unofficial openings fashioned into it in a number of places. As this fence ages and fails, the town will remove it. This is consistent with town policy about fencing throughout Brunswick Landing.

The road base seems well constructed and should serve well as a trail suitable for pedestrian and some bicycle use (not paved), and for non-motorized winter recreation.

A plan has been developed and partially implemented to create and maintain a Perimeter Trail System around the entire lands of the former BNAS property. This trail will continue to be developed on Town of Brunswick, Bowdoin College, and MRRRA properties, using both some of the existing perimeter road from the former BNAS facilities as well as some new trail segments. The perimeter trail will also connect to the proposed trail system at the Kate Furbish Preserve at the southern end. Future connections are envisioned to the Androscoggin Bike Trail and to the trail

system associated with the Town Commons area on Harpswell Road. These trails will be planned and developed in phases, with cooperation from the three major property owners and other community abutters. The Western Sawtooth Parcel will serve as an important connector with the proposed Perimeter Trail and other noted trails in the area. Because the Sawtooth linking trails are already complete, no new trails are envisioned for this parcel.

# Management Priorities and Recommendations

## *Specific Natural Resource Priorities*

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### **Sandplain Grassland and Pitch Pine Forest Management Goals**

- Restore and maintain open field
- Maintain healthy stand of pitch pine

### **Managing the *Little Bluestem-Blueberry Sandplain Grassland Natural Community***

Manage the natural community to provide a mix of habitats, including scattered pitch pine and patches of shrubs within a matrix of grasslands and blueberries

Manage the natural community primarily through the use of controlled burns, brushing and mowing. To extent possible this should be coordinated with MRRA for the whole grassland community around the runway.

Coordinate any controlled burns with the MRRA, Maine Forest Service, The Nature Conservancy, the Brunswick Parks and Recreation Department and the Brunswick Conservation Commission, the Brunswick Fire Department, the Brunswick Police Department and MaineDOT

Burn when fuel loads are adequate to maintain desired fire conditions

Monitor post-burn responses in the plant community and use this information to plan future controlled burns

Maintenance of the site should consider fire management logistics, based on recommendations from the Brunswick Fire Department, Maine Forest Service, and The Nature Conservancy, including vehicle access and sources of water.

Use brushing and cutting to remove trees not associated with the natural community type, including white pine, gray birch and red oak.

Permit applications for any proposed development will require surveys for rare, threatened, or endangered species using inventory methods approved by the Maine Department of Inland Fisheries and Wildlife and the Maine Natural Areas Program



March 9, 2015 Burn at Captain Fitzgerald Park

### **The Western Sawtooth Parcel as Habitat for Rare, Threatened, or Endangered Species or Species of Special Concern**

- Surveys are seasonally-dependent and most should be conducted during the summer growing season;
- Volunteers may be interested in conducting surveys, potentially under the oversight of the Brunswick Conservation Commission;
- Surveys could potentially be conducted by academic institutions, such as Bowdoin College, for educational or research purposes;
- The Brunswick Conservation Commission, working in cooperation with the Maine Department of Inland Fisheries and Wildlife and the Maine Natural Areas Program, could maintain a list of potential rare, threatened, or endangered species and species of special concern.

### **As Habitat for Breeding Birds**

- The site's popularity as a birding destination is rapidly growing due to ease of access and unique breeding birds associated with the grassland communi-

ty;

A list of known breeding birds should be developed and made available to interested birders;

The Town of Brunswick could publicize the site as a birding destination on Town websites;

Local groups may be interested in organizing and leading annual birding trips to the site;



Breeding birds are sensitive to intensive human activities during the nesting season, particularly if the activity generates significant noise (e.g., ATV use), and recreational use planning should consider limits on certain activities.

**Invasive Species Management (See also Natural Resource Challenges)**

Invasive species already exist on the site, bittersweet, in particular, but have not been formally inventoried;

The location of invasive species should be monitored on an annual basis:

Public Benefit Conveyances RECREATION, TRAILS & OPEN SPACE MANAGEMENT PLAN

The Town of Brunswick should develop an invasive species control best management practices document to guide eradication or control efforts;

Invasive species control measures should be an ongoing priority to avoid further establishment. Limiting the bittersweet along the western fence is our current goal.

## Natural Resource Management Partners

The following are governmental and non-governmental partners and their roles with respect to management of the natural community present on the Western Sawtooth Recreation and Conservation Area.

**The Midcoast Regional Redevelopment Authority:** As the department tasked with overseeing the site and administering funds related to property management, this department is a key partner. Its responsibilities include coordination of site management activities, including coordinating controlled burns with management partners. ADD CONTACT INFORMATION FOR EACH

**Brunswick Conservation Commission:** Oversight of plan implementation regarding natural resources; conduct or supervise inventories for rare, threatened, or endangered species, species of special concern, or invasive species; oversee invasive species eradication or control efforts.

**Brunswick Fire Department:** Expertise regarding planning and execution of controlled burns.

**Maine Forest Service:** Expertise regarding planning and execution of controlled burns.

**The Nature Conservancy:** Expertise regarding planning and execution of controlled burns.

**Maine Department of Inland Fisheries and Wildlife:** The Department has conducted town surveys for rare butterflies and may conduct future inventories for rare, threatened, or endangered species or species of special concern; the Department would also specify survey methodologies to use for rare species in support of any development permit applications.

**Maine Natural Areas Program:** The Maine Natural Areas Program has conducted limited surveys for rare plants and may conduct future inventories for rare, threatened, or endangered plants; the Program would also specify survey methodologies to use for rare plants in support of any development permit applications.

**Bowdoin College:** Potential partner for rare species inventories.

### *Habitat Restoration*

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The overgrown field on the Western Sawtooth Parcel was formerly maintained as part of the airport function and safety, but has not been maintained (mowed) since the Town acquired the property. As such a rare habitat type, this neglected portion of the larger open field area should be restored to grassland and annually maintained consistent with the maintenance of the abutting field, in order to best support the plant and animal types associated with Sandplain Grassland. The initial restoration of the field, including shrub removal and mowing, and the ongoing maintenance of the field, should be considered for possible opportunities to partner with the maintenance of the abutting airport field.

### *Public Access*

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Public Access to the Western Sawtooth Parcel and trails is via abutting Bowdoin College property, and would be coordinated with Bowdoin College in terms of hours of use and any conditions for allowing access to trails. No additional access is proposed from the neighborhood to the west, until such time that the neighbors are in favor of access points to allow pedestrian connections.

### *Recreation Trails Layout and Use*

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No additional trails or trail segments are recommended; only the existing former roads shall be maintained for trail use, other than incidental trail connections needed for off-property access. The paved road should be maintained as a paved, multi-use (shared-use) trail. The perimeter road should be maintained as an unpaved trail for use by pedestrians, mountain bikes, and for non-motorized winter recreation.

### *Uses and Management Issues*

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#### ***Motorized Recreation***

Motorized recreation vehicles are **ONLY** allowed on the property for management, emergency or maintenance activities. Access is not allowed for ATV's, snowmobiles and golf carts.

#### ***Bicycles***

Bicycles will be allowed on the property's trails, though the dirt perimeter trail will not be specifically maintained for road bicycles (versus mountain bikes).

#### ***Dogs***

Dogs must be leashed. Dog owners must pick up after their dogs.

### **Hunting and Trapping**

Hunting and trapping will not be permitted on the Western Sawtooth Parcel.

### **Horses**

No horses allowed

### **Camping**

Camping and campfires are prohibited on the Western Sawtooth Parcel. Any fire rings found will be dismantled and “Kindle No Fires” signs will be posted. “No Camping” signs will be posted if illegal camping becomes a problem.

### **Hours of Operation**

As per town ordinance — 1 hour before sunrise to half-hour after dusk. per KF

### **Fencing (Consult Tom F Here)**

The overall goal for much of the former BNAS properties is to remove the fencing to allow both wildlife and residents access. However, as removing the fencing is not considered a high priority for the Western Sawtooth Parcel, the property’s surrounding fencing should not be removed until such time as the fencing fails. The abutters – including the neighborhood to the west, Bowdoin College to the north/south, and the Executive Airport to the east – should be notified in advance about its removal. As sections of fence are removed, abutters/neighbors would also have option of erecting a fence on their own property. Where necessary, signs would be erected asking the public to respect private property.

### **Signage**

Ensuring proper signage for directing and instructing users, displaying park rules and to clearly mark trail locations will be provided as needed to support the management objectives for the Western Sawtooth Parcel.

### **Trash**

Trash will be managed with the “carry-in, carry-out” practice. All trash brought into the Western Sawtooth Parcel or created by uses in the Western Sawtooth Parcel must be carried out.

### **Structures**

Unauthorized temporary or permanent structures are not permitted in the Western Sawtooth Parcel. Memorials, unauthorized signs and posters, tree houses, forts and deer stands are examples of structures not permitted.

### **Baseline inventories**

The Brunswick Conservation Commission may conduct or commission baseline inventories to understand the natural resource values of the property and maintain data collected in a format readily viewable by interested staff and residents.

# Monitoring and Evaluation

## *Annual inspections and reporting requirements*

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The Western Sawtooth Parcel will be inspected annually for indication of trespass, natural damage, safety hazards, environmental impacts, boundary infringements, and other issues. A written record of the inspection will be kept on file. If management problems are identified, the Conservation Commission will develop a plan for addressing these problems in a timely manner, in coordination with the Planning Department and MRRA

## *Boundary Marking*

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Nearly all of the boundaries on Western Sawtooth Parcel have been posted by the Navy. The boundary of the property should be monitored yearly to check for violations and to make sure the boundary signs are intact. The boundary should be brushed and re-signed as necessary.

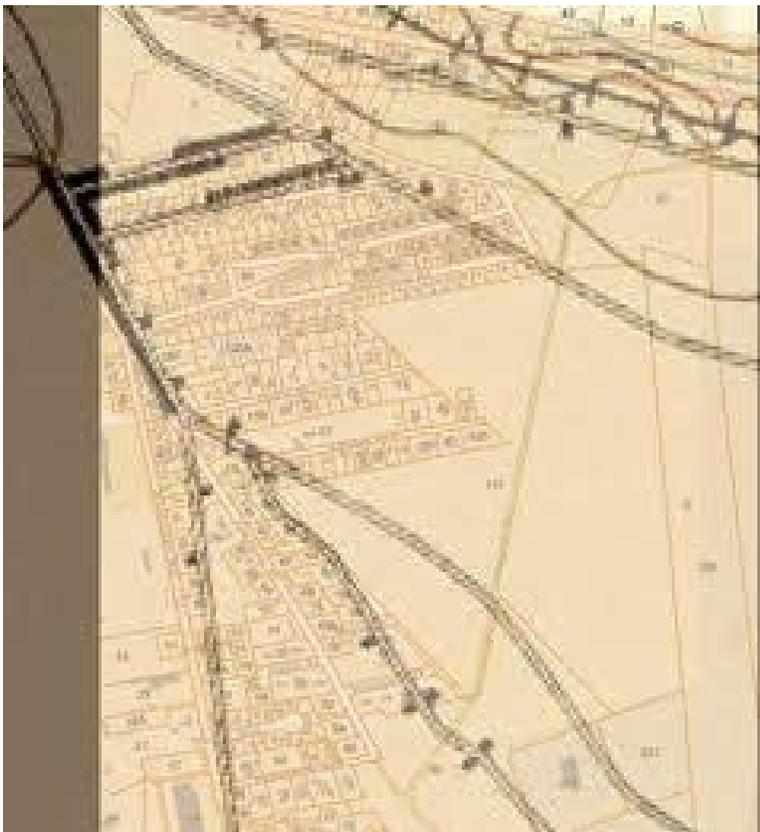
## *Updating and Amending the Recreation, Trails and Open Space Management Plan*

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The Management Plan is a living document that will need to be amended to ensure proper management of the lands over the long-term. MRRA with input from the Conservation and Recreation Commissions will be responsible for making recommendations for amendments to the plan. Amendments to the plan should be vetted through a public process with final approval on amendments to be made by the Town Council.

The sawtooth area was originally the northern parcel of the 1000-acre Town Commons that was granted in 1719. Late in the 18th Century 200 acres were offered to Bowdoin College if it located in Brunswick, and the sawtooth parcel would have been owned by Bowdoin until the onset of World War II. In the development of a municipal airport in 1930, Bowdoin leased a portion of that land-grant back to the Town of Brunswick. When the US Military took over the airport facility as part of the WWII war effort, Bowdoin's parcel and most of the remaining Town Commons were acquired by the Navy.

A 1945 map does show about 11 structures within the sawtooth parcel coming off Abijah Road and Pollard Avenue extension. This was an area where people built very modest houses during the Depression. The soils are very thin and could not support a self-sustaining agriculture effort. The earlier maps show no occupation in that area.



1894 US Geodetic Survey with current map overlay



1945 US Geodetic Survey with overlay



1954 aerial photo with overlay



Undated tree inventory map that likely was created between 1900 and 1926