

Somes-Meynell Wildlife Sanctuary

Forest Management Plan



June 12, 2025

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Introduction

Founded in 1985 with an original land area of 32 acres on the south shore of Somes Pond, as of 2025 the Somes Meynell Wildlife Sanctuary (SMWS) owns almost 240 acres, land that is part of a larger, long-term conservation effort with private landowners to protect the Somes Pond Watershed. Sanctuary property consists of numerous habitat types, with much of it forested. The Sanctuary was created for charitable, educational and scientific purposes; namely: (a) the preservation, maintenance, management and enhancement of the natural and historic values and habitats; (b) the care and protection of the wildlife of the Sanctuary and its environs; (c) the education, enlightenment, and enjoyment of the residents of Mount Desert Island and the Public of the values of ecology, conservation and natural history through Sanctuary activities and nature interpretation; and (d) conservation of the Somes Pond Watershed; wildlife habitats and natural resources (taken from the By-Laws of the Sanctuary, Article II, Purposes).

Forest Management Plan Purpose

The Sanctuary bylaws outline the conservation and education objectives, but do not prescribe or call for specific management strategies of its properties. Land parcels in fee (sanctuary property) ownership or with conservation easements restrict some practices, such as timber harvesting and development. Abutting parcels of land on the west side of Somes Pond owned by SMWS are subject to two different but complementary conservation easements (Somes Pond, SMWS to Maine Coast Heritage Trust, 1994; and Oak Hill, Kauffmann to Maine Coast Heritage Trust, 1998; see references for links to documents).

This plan reviews upland forest resources, threats, and management strategies on Sanctuary lands during the next 10 years (2035). The long-term goal is to review and update the Plan periodically, but no less than every 10 years. Much of this plan complements and incorporates some of the Draft Land Use Policy (Appendix A. 2002, Brianne Press-COA) while updating the management goals and objectives.

SMWS manages lands principally for the ecosystem health of its natural communities. The sanctuary manages forests for a diversity of habitats that support wildlife, low-impact recreation, and educational activities.

Background

Land Use History

Indigenous peoples have lived on and utilized Pemetic, now known as the Mount Desert Island area, for thousands of years hunting, fishing, and foraging. Eastern Wabanaki people likely used the Somes Pond-Long Pond watershed as part of a cross-island canoe trail.

Abraham Somes arrived on Mt. Desert Island from Gloucester, Massachusetts in 1761. He chose what would become the village of Somesville as his place to settle due to the protected harbor,

plentiful forest resources, and the lakes, ponds, and streams that provided fish for food and potential to convert streamflow to hydropower. Abraham dammed the outflow of Somes stream at the head of tide and built the island's first sawmill on the bank of the new mill pond. There were many trees suitable for milling into boards for houses and for ship building. Oak Hill, to the west of Somes Pond was accurately named for the red oaks that provided materials for sailing vessels that were built on the banks of the cove below the mill pond.

By 1791, there was a woolen mill and grist mill along the bank of Somes Brook below the outlet of Somes Pond by 1791. A shingle mill, noted on the map in figure 1 and 2 as the "Somes & Co. Saw Mill," was present at the outlet of Ripples Pond by the mid-1800s. Somesville became the commercial hub of the island with blacksmith shops, a tannery, clothing stores, and a town office for many years, up until transportation to the island shifted from water-based to land-based. The presence of automobiles on Mt. Desert and an adequate road system shifted commercial activity to Bar Harbor and Ellsworth.

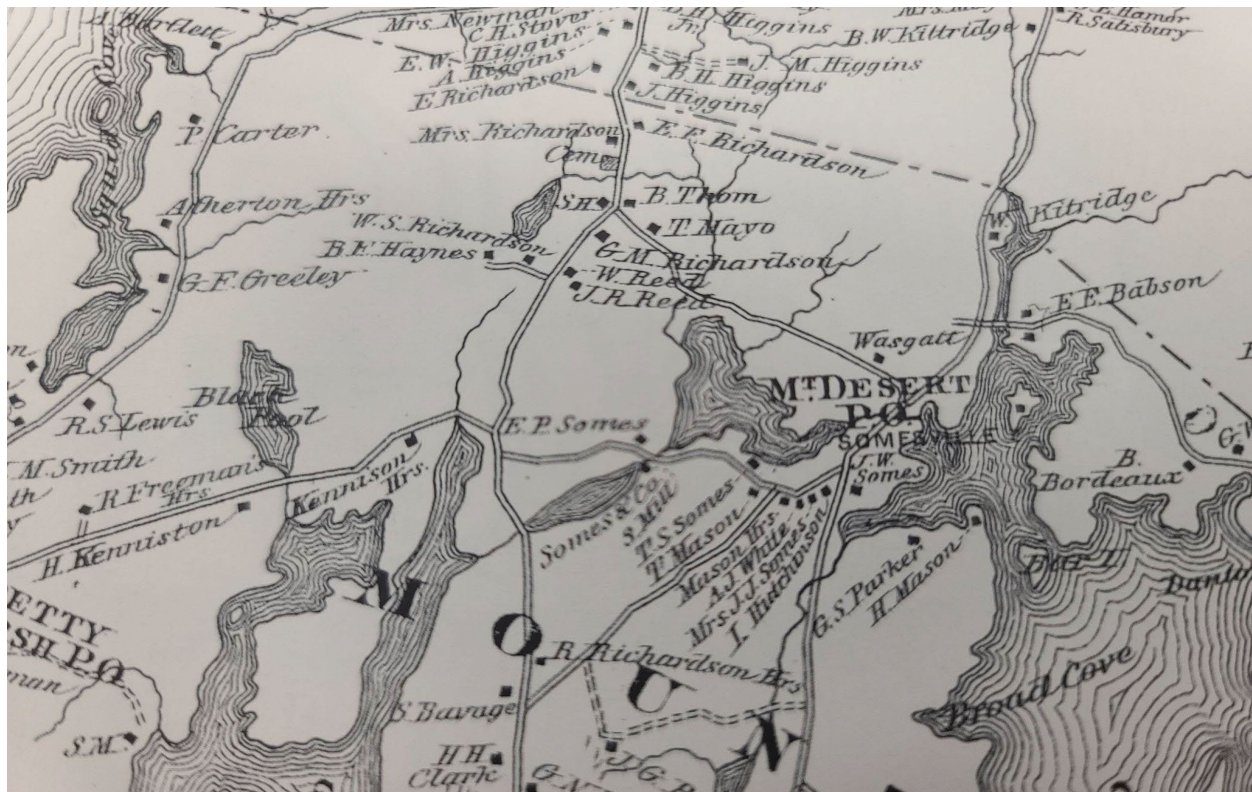


Figure 1. Late-1800s map of land largely in the Somes Pond-Long Pond watershed, with house locations and owner's names. Section of Island Map 1887, Published by Colby and Stuart, Assisted by Eben M. Hamor & Charles P. Simpson.

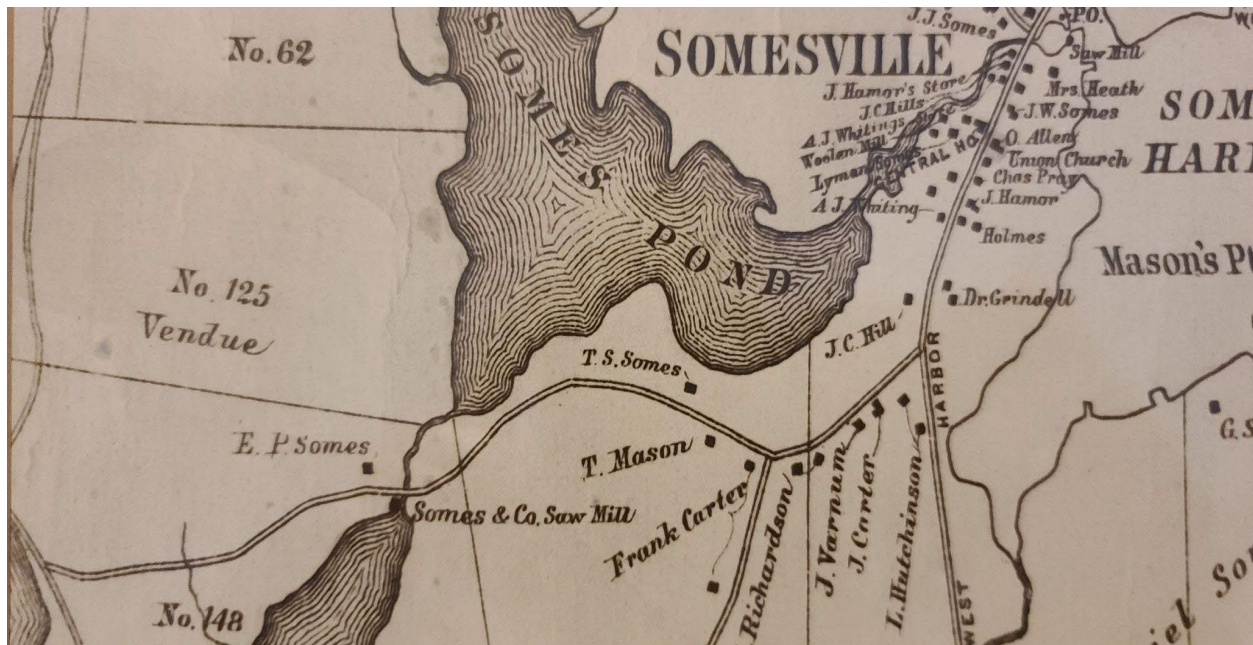


Figure 2. Mid-1800s map of land around Somes Pond with house locations and owner's names. T.S. Somes residence present on South Shore (original) parcel of SMWS. Section of Island Map 1887, Published by Colby and Stuart, Assisted by Eben M. Hamor & Charles P. Simpson.

Despite the early development of the village of Somesville, heavy logging in the watershed, and mill sites harnessing small scale hydropower, there was little residential or other commercial development on the lands comprising the current day SMWS. Penobscot people, forced from their homeland and with hunting and fishing restricted by state officials, continued to seasonally encamp in the area until the mid-1800s. Adelma Somes, great granddaughter of Abraham Somes writes, "I remember, it must have been around 1847, of several camps in my grandfather's pasture. They were on the edge of the pond (then called Lily Pond) now called Somes Pond. I can remember so well of going with my mother and several other women to their camps made of boughs..." (Prins and McBride, 2007. Asticou's Island Domain, Vol. 1).

Over the last century or so, the forest lands of the Somes Pond watershed have largely remained forested, with some areas reverting to forest from agriculture and other areas undergoing residential development, particularly north of the pond and Oak Hill Rd. Comparing these images from 1956 and 2025, we see fields off of Whitney Farm Rd. and Oak Hill Rd. are smaller or have disappeared altogether (Figures 3 & 4). Evidence of old roads and homesteads are found in the south shore parcel of SMWS (Figures 5 & 6).



Figure 3. Some active forestry operations are seen from logging patterns just south of Pretty Marsh Rd.(102) and east of Ripple's Pond in this 1956 imagery.

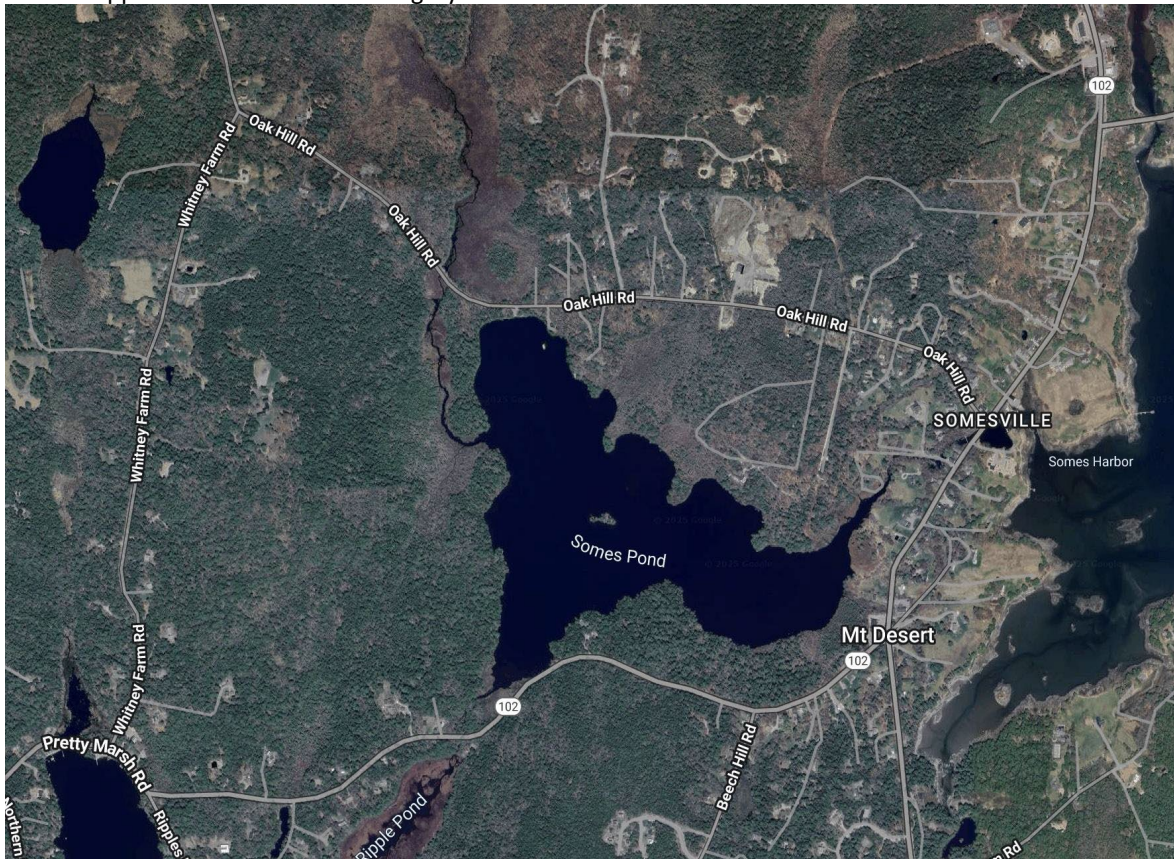


Figure 4. 2025 aerial imagery of Somes Pond and surrounding lands. Agriculture lands or meadows seen in 1956 are now reduced in size or have become forested. Notice how residential development off Oak Hill Rd., Whitney Farm Rd., and Pretty Marsh Rd. (Rt. 102) has increased over the 70-year span.



Figure 5. Photo of likely T.S. Somes residence foundation area near the bottom of Beech Hill Rd on the South Shore, original Sanctuary parcel. The resultant disturbed soils in the immediate area provide favorable conditions for invasive shrubs like the Japanese barberry shown here, March 2025.



Figure 6. Old road bed on the west end of the South Shore parcel running east-west, just north of the existing Pretty Marsh Rd. March 2025. This was likely the precursor to the current road.

Natural Communities, Forest Types, and Wildlife Habitat

The National Park Service created a vegetation map of Acadia National Park and surrounding areas in 2003 (www.nps.gov/im/vmi-acad.htm). The Somes Pond watershed is included within the scope of this assessment where vegetation community types are categorized using the National and Maine vegetation classification systems, including associated tree species for each classification. For the purposes of this plan, we summarize the major forest type of each of the forest management zones described in Table 1 and Figure 7.

Table 1. Management zones of the Somes-Meynell Wildlife Sanctuary parcels, organized by location and use type.

Management Zone (current use)	Primary Forest Classification	Tree Species	Approximate size in acres
Southern Shore (public access & HQ)	White Pine - Hardwood	red oak, white pine, eastern hemlock	32
Peninsula (public access)	White Pine - Mixed Conifer	white pine, eastern hemlock, red spruce	6
West Shore & Oak Hill (limited access, sensitive habitats)	White Pine - Hardwood & Spruce - Fir (mixed and conifer phase);	red oak, red maple, birch, white pine & red spruce, balsam fir, red maple, birch species, eastern hemlock, northern white cedar	86
Northern Wetlands (limited access, sensitive habitats)	Spruce - Fir (mixed phase)	red spruce, balsam fir, red maple, birch species	114

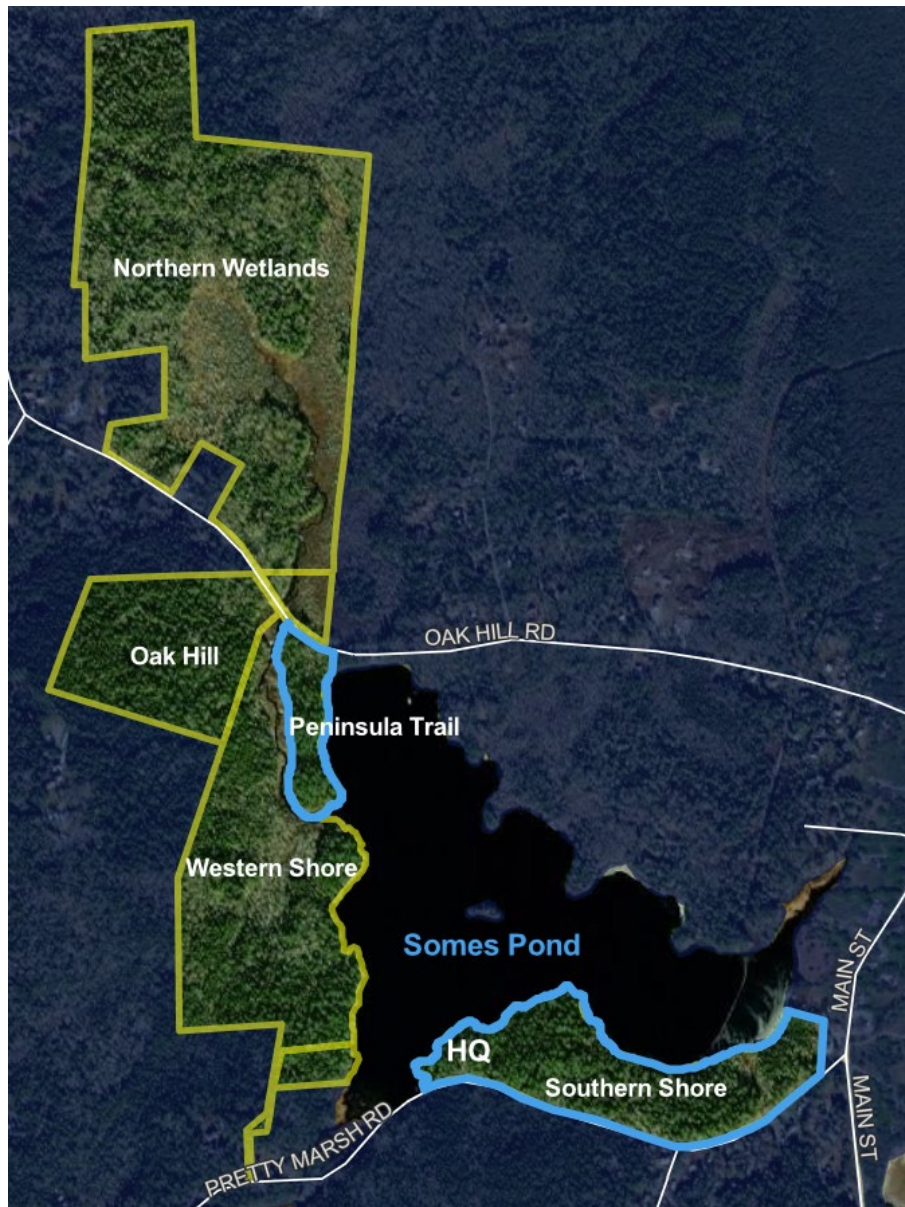


Figure 7. Trail map and Sanctuary uses and restrictions posted at the fire station trailhead on the South Shore parcel. Both areas are outlined in blue on the satellite view map of Sanctuary property.

Minor components of Conifer Swamp Woodlands border shrub dominated wetlands and pond shores; these are predominantly white cedar phase between Oak Hill and the Peninsula, red maple-hardwood swamp near the West Shore, and spruce-mixed phase along the east end of the South Shore.

Maine Department of Inland Fish & Wildlife's Beginning with Habitat maps delineate forest stands along the western shore of Somes Pond and Oak Hill as part of a 188 acres undeveloped habitat block and an 832-acre forest block that includes the northern wetlands sanctuary parcels (Figure 8). They also identified two important habitat road crossings linking undeveloped habitat blocks greater than 100 acres. These crossings have less than 2000 vehicles passing per day, but could contribute to wildlife road mortality. One crossing of Pretty Marsh Road links the southern pond shore with a 139-acre forest block just east of Ripple Pond under municipal conservation. The second road crossing along Oak Hill Road links the western 188-acre forest block with the larger 832-acre block. Adjacent to this road crossing is a riparian area for wetland

dependent species moving between waterways and wetlands (Maine Department of Inland Fisheries & Wildlife, 2022). The Gulf of ME Coastal Program maps highly valuable upland forest habitat and wetlands north of Oak Hill Road and near the western shore (Figure 9. Town of Mount Desert Natural Resources Map, www.mtdesert.org).

Beginning with Habitat maps the wetlands bisected by Oak Hill Road as Significant Wildlife Habitat for Inland Waterfowl and Wading Bird Habitat with 250 ft. forested buffer (Figure 9). The freshwater breeding, migration, feeding, and wintering waterfowl or wading bird habitat qualifies as significant under Maine's Natural Resources Protection Act (ME DIF&W, 2022).

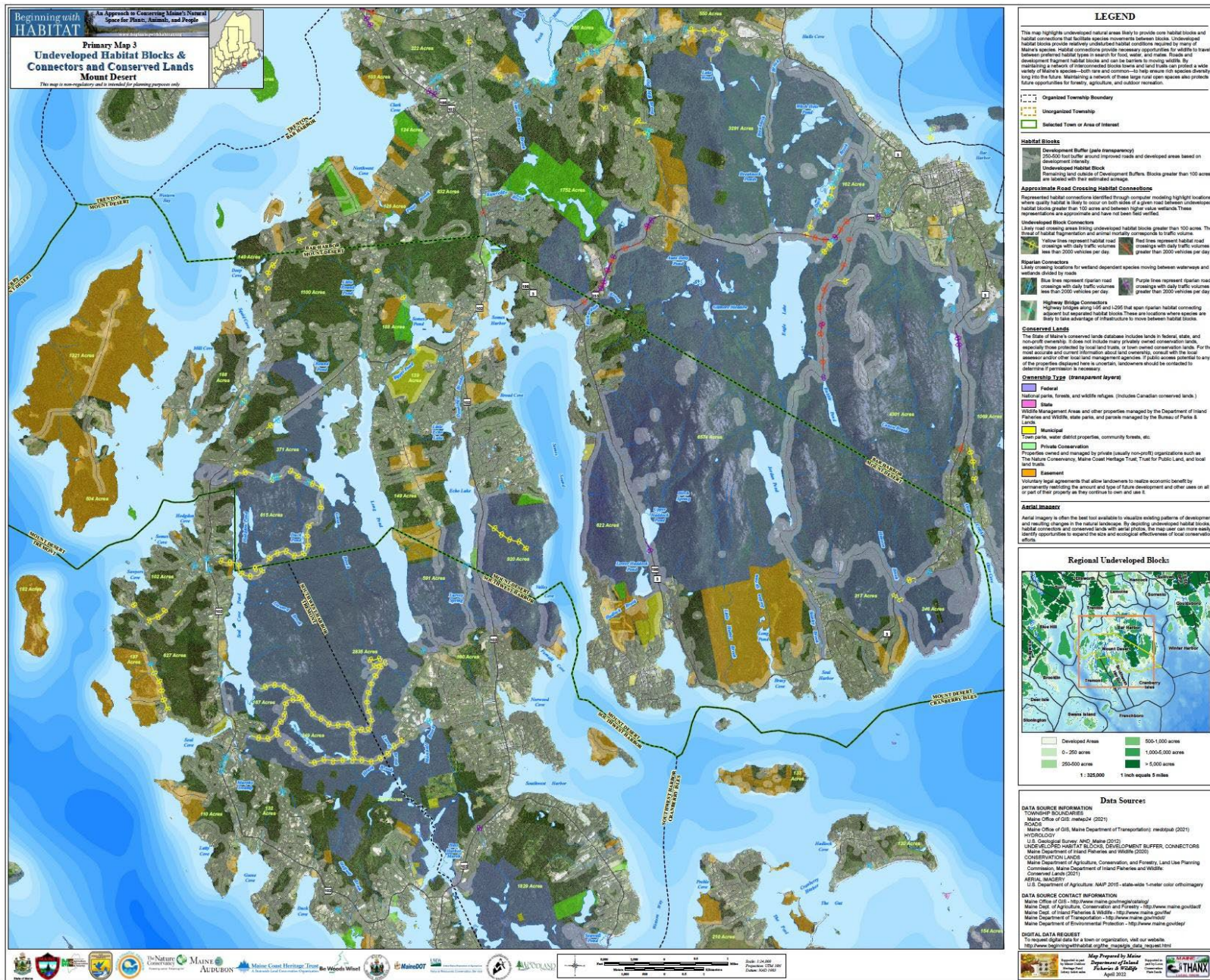


Figure 8. State of Maine's Beginning with Habitat map of Undeveloped Habitat Blocks and Conserved Lands of Mount Desert Island.

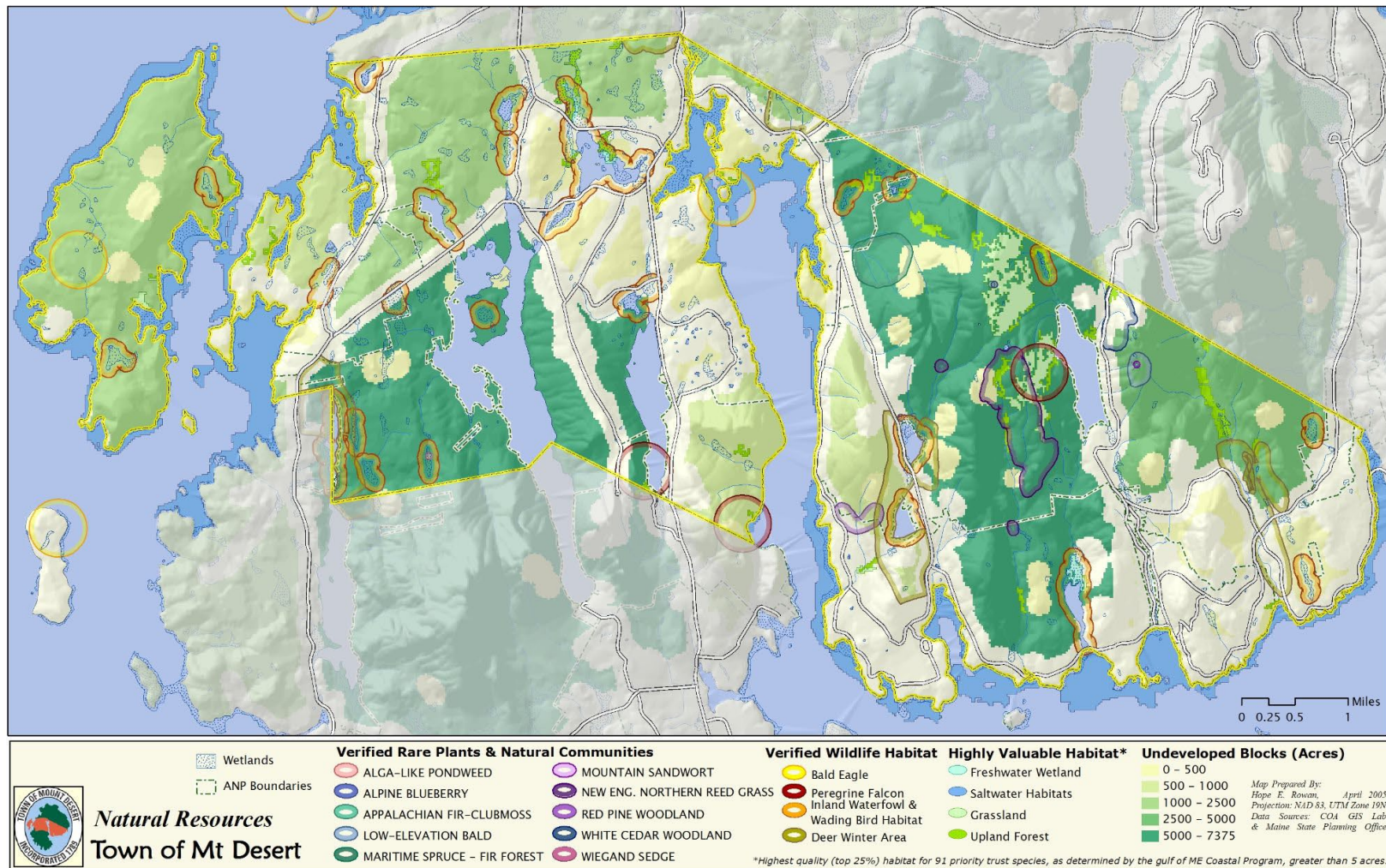


Figure 9. Natural Resources map for the town of Mt. Desert. The lands surrounding Somes Pond (upper-middle) show valuable wildlife habitat, undeveloped forest blocks, and inland waterfowl & wading bird habitat.

Inventory of Forest Plant and Wildlife Species

Sanctuary forests are used by various wildlife species including seasonal residents/breeding bird species on the Maine list of species of greatest conservation need

(SGCN; https://www.maine.gov/ifw/docs/SGCN_Draft_List_20250304.pdf). Most are in the moderate priority category and some in the high priority group (#2s). The rankings are highest (1), high (2), and moderate (3). Criteria for categories:

https://www.maine.gov/ifw/docs/SGCN_Criteria.pdf. Bird species include several warbler species, purple finch, all three accipiter hawks (with goshawks requiring large forested blocks, Cooper's and sharp-shinned are the other two), great blue heron, swamp sparrow, and ruffed grouse. Many bat species fall into the high or highest priority listing and mature trees with flaky bark/cavities are important to several of them as potential roost sites. There are old (100 years+) trees on the west side of Somes Pond that may serve this function and as shelters for other arboreal mammals like flying squirrels.

Pileated, hairy, and downy woodpeckers are common in Sanctuary forests and their tree cavity creation helps provide shelter and nest sites for many other species. Pileated woodpeckers create large cavity holes that are essential for tree nesting duck species including wood ducks, common mergansers, and hooded mergansers, all of which nest in our watershed. Some of these larger cavities are created in live trees, particularly large white pines and northern white cedar, and some are in dead trees (snags) that are important to maintain in place.

Barred owls are regular residents of the forest on Sanctuary and nearby property and find plentiful prey in red and gray squirrels, chipmunks, voles, and mice species. Saw-whet owl nest boxes were placed in two locations on the Southern Shore parcel in April 2023, but they have not been used by saw-whets yet. Another box is on the forested slope on the east side of Ripples Pond.

The relative remoteness of the forest blocks to the west, north, and south of Somes Pond provides suitable habitat and lack of disturbance for larger mammals including coyote, white-tailed deer, and fisher. These species move from block to block and are vulnerable when crossing roads in between. Important road crossings in our watershed include Oak Hill Rd. just west of Somes Pond and Pretty Marsh Rd near the inlet of Ripples Stream (Figure 8. Beginning with Habitat map). Otter and mink regularly move up and down the watershed between Somes Harbor and Long Pond primarily following streams and lake shores, but also use forested shorelines to travel, mark territories, and give birth.

Several large vernal pools are located on the Oak Hill and western shore land offering amphibians (wood frogs, spotted salamanders, spring peepers) needed breeding and rearing habitat. We know that it is not just the pools themselves that are important to the success of these species, but a healthy, leaf litter covered, forest floor is critical for the nonbreeding season for foraging and hibernation. Each species moves considerable distances away from their breeding pool, sometimes over a quarter of a mile during the year for wood frogs (Morgan & Calhoun, 2012).

Overstory trees provide shade that keeps forest floor temperatures down and help retain moisture - factors likely to become more important as air temperatures rise.

<https://maineaudubon.org/wp-content/uploads/2017/03/Maine-Municipal-Guide-to-Mapping-and-Conserving-Vernal-Pool.pdf>

Recreational & Educational Uses

In managing its lands, SMWS's objective is to balance its commitment to educating students and the public with its commitment to resource conservation and protection (Figure 10). These considerations result in different management approaches across SMWS lands, notably where visitor use is supported (Peninsula & Southern Shore) and where regular visitor access is not encouraged (Northern Wetlands & Western Shore/Oak Hill). Some areas are used primarily for educational activities and public recreation, while use of other areas is highly restricted due to habitat/wildlife sensitivity or other conditions.



Figure 10. Trail map of the Southern Shore trails and welcome message to ensure visitors responsibly enjoy the sanctuary lands.

Areas Available for Educational Programs and Public Recreation

Educational uses include activities such as interpretive nature walks open to the public, teacher and naturalist training sessions, and science-based classes for students from local and more distant schools. Educational uses on SMWS property are conducted by SMWS or by third parties with permission from SMWS. Potential resource impacts are considered when determining the permissible activity's nature, scope, group size and location.

Allowable public recreation activities focus on minimizing the impact on resources while accommodating moderate public access. Activities include self-guided use of established trails

and nature observation activities such as birdwatching and plant identification. Group use is allowed subject to size limitations to protect resources. Parking is permitted in designated areas.

SMWS areas open to use for educational programs and public recreation are:

- Headquarters & Southern Shore - Land including the sanctuary headquarters and adjacent lands extending east to the Somesville Fire Station and west to the Somes Pond road pullout.
- The Peninsula - Lands immediately adjacent to the Peninsula trail located on the northwest shore of Somes Pond and accessed from Oak Hill Rd.

Sensitive Areas of Highly Limited Access

Sensitive areas designated for limited or no public access and rarely used for educational programs. Educational or research use of sensitive areas may be granted by the Executive Director on a case-by-case basis. SMWS sensitive areas are:

- Northern Wetlands - Wetland parcels north of Oak Hill Road.
- Western Shore & Oak Hill - All lands to the west of Somes Pond, excluding the point of land with the “Peninsula” trail off of Oak Hill Rd.

Managing Landscapes with Climate Change

Maine’s climate, particularly along the coast, is becoming wetter and warmer due to human induced climate change and will continue to do so in the coming decades (Maine’s Climate Future, Fernandez et al. 2020; <http://climatechange.umaine.edu/climate-matters/maines-climate-future/>). Annual patterns are becoming more unpredictable, with higher intensity precipitation events followed by periodic droughts, and more rain than snow in winter. Warming winters in particular will allow more invasive species, particularly forest pests, to spread across the region and lead to mass mortality of host trees. More intense droughts and warmer summers will reduce suitable habitat for many native species, including many of our most common trees like spruce, cedar, birch, and fir. Climate also affects forests indirectly through altered, new, and interacting stressors. For example, warming temperatures appear to contribute to the presence and magnitude of stress from earthworms, deer herbivory, and invasive plants (Fisichelli and Miller 2018).

As we manage our forests in the face of climate change, our climate adaptation strategies should include methods that reduce non-climatic stressors, like human disturbance in the form of forest fragmentation or introduction of invasive plants. We should also consider how to meet our objective of a functioning forest ecosystem that supports a variety of native species, even when the current composition may not be viable in a warmer climate.

Managing for change while ensuring ecosystem function is difficult and requires long timescales to measure success. One example could be replanting another shade tree behind mass mortality of hemlock from HWA. Another example might be more intensive fire risk mitigation if summers become drier and hotter and disease or pest killed trees add to fuel loading. Of course,

there may be climate refugia on a smaller scale, such as cooler sites with continuous coniferous tree cover that could sustain marten, goshawks, or other boreal wildlife species.

We recommend the Sanctuary focus on mitigating non-climatic forest stressors during the scope of this plan (approximately 10 years), while planning for climate driven forest impacts.

Forest Management Objectives & Practices

To meet our mission, the Sanctuary manages the forests under natural succession patterns that support varied native habitats and maintain ecological integrity. Sanctuary staff, interns, and volunteers actively manage the forest to 1) accommodate visitor access, 2) Protect native ecosystems by limiting invasive species, 3) deter overuse, 4) prevent fire encroachment and potential fire risk, 5) prevent soil erosion and pollution into Somes Pond, and 6) minimize forest fragmentation. Some of these management objectives may differ between the two major use zones, a) large undeveloped forest blocks with limited access (Northern Wetlands, Western Shore & Oak Hill), and b) the Southern Shore and Peninsula with developed trails and visitor infrastructure (Headquarters and parking).

Forest Management Objectives

1. Visitor access - Sanctuary trails are lightly used for recreation and education. They are generally maintained as single lane corridors that tread lightly on the landscape. When streams or wetlands can't be avoided, they contain bog bridging, water bars, and other erosion control features that keep people from disturbing the soil. Shrubs, tree branches, and fallen trees are cleared as soon as practical. Excessive brush is distributed into the surrounding forest while avoiding vernal pools, wetlands and large debris piles. Shrubs and herbaceous growth is trimmed back so that trail walkers are less likely to come in contact with ticks waiting for a mammal to pass, hitch a ride, and complete their life cycle at the expense of their host.
2. Protect the diversity of native species by limiting invasive species -
 - a. Monitor all lands, especially forest edges and disturbed areas, for invasive plant species. Remove invasive plants as soon as practicable.
 - b. Monitor host trees for invasive forest insect pests, such as hemlock woolly adelgid (hemlock), emerald ash borer (ash), Asian longhorn beetle (hardwoods, maple), browntail moth (oak, cherry, apple, birch). Respond to documented pests with the methods most practicable. This could include biological control (e.g. predator beetles for HWA), insecticide stem treatments (e.g. specimen ash trees), physical removal (e.g. removing browntail winter webs), mitigating the spread to other areas, documentation, or no action.
3. Deter human & pet overuse -
 - a. Encourage official trail use only through signage or filling in social trails and illegal trails with brush or revegetation. Keep road shoulder and Headquarters parking limited to current footprints and condition.
 - b. Prohibit pet use on Sanctuary property to protect wildlife and water quality.

4. Prevent fire encroachment & reduce fire risk to developed areas- Trim overhanging tree branches, remove hazard trees, and reduce large quantities of dead wood immediately adjacent to trails, the headquarters & parking area envelope, and along Pretty Marsh and Oak Hill Roads (cigarette butt ignition potential). Reducing fire risk through fine & medium fuels management (removal of woody material) is only necessary to prevent spread from human caused fire ignition or spread of fire to the headquarters or operations buildings.
5. Prevent erosion and pollution - Use shoreland zoning best practices by encouraging vegetation buffers around waterways and limit development (structural or trails) in these areas. Maintain trails, driveways, road shoulders, and parking lots that reduce runoff, erosion and sedimentation into Somes Pond and adjacent wetlands. Discourage pet and human waste in forests to protect water quality.
6. Minimize forest fragmentation - Encourage conservation of intact forested blocks as these landscape features are one of the natural features/values we want to protect and are illustrated in the Beginning with Habitat Map that we have in figure 1. Blocks are shrinking due to development, particularly on the west side of the island, north of Long Pond-Somes Pond. There is considerable continuous acreage protected within ANP to the south but the corridors at the Sanctuary's latitude and above are narrowing, making it likely tougher for some animals like pine marten, fisher, & coyotes to migrate onto the island from the mainland and move down the western lobe of the island (west of Somes Sound).

Forest Stewardship Goals, Threats, & Strategies

We address the six forest management objectives below by outlining tangible goals, threats to resources, and specific strategies to meet our goals and objectives. Some strategies may incur extra cost, or may not be feasible in the timeframe of this plan. Each goal is listed in order of importance to the sanctuary mission, but the strategies will need to be prioritized by the sanctuary staff and board of directors and incorporated into annual work plans.

Goal 1: Support native plant and wildlife species (Addresses Objective 2).

Threats: Invasive species, loss of habitat, increased frequency and duration of drought or warming from climate change, human impacts

Strategies:

1. Remove invasive plants and manage invasive forest pests.
2. Do not import soil, potted tree saplings or other plants, wood chips, or mulch from off site sources which may have fire ants, earthworms, jumping worms, invasive insect larvae within.
3. In the event of mass tree mortality from forest pests, consider replanting seedlings of resilient tree species if there is no regenerating cohort of tree species present. This strategy should generally be implemented if the trajectory of forest succession has been severely curtailed and/or native, resilient trees aren't sufficient to replace the canopy. The area affected is larger than 1-2 acres.

Goal 2: Preserve forest soil health and protect adjacent waters (Addresses Objective 5)

Threats: Loss of vegetation or increased runoff leading to erosion.

Strategies:

1. Promote understory shrubs, herbs, and trees through plantings (or fencing to prevent browse) and natural regeneration to slow erosion.
2. Mitigate runoff from roads, trails, and impervious surfaces through erosion control and stormwater runoff best practices.
3. Keep downed trees and directionally fell logs along the contour of the slope to catch intense rainfalls, slowing down the runoff, and reducing inputs to waters.
4. Do not import soil, potted tree saplings or other plants, wood chips, or mulch from off-site sources which may have earthworms, jumping worms, or fire ants within.

Goal 3: Improve forest resiliency through climate change adaptation planning (Addresses Objective 2, 4, & 6).

Threats: Climate change negatively affects some tree species performance and could decrease forest resiliency (ability to accommodate change) through a combination of factors.

Strategies:

1. Encourage a diversity of tree species growing in all age classes on Sanctuary lands.
2. Continue to plan for, and respond to, emerging forest insect pests & diseases.
3. Plan for periods of drought and potential for increased fire risk.
4. Plan for increased storm and wind intensity & frequency, leading to tree blowdowns.

Goal 4: Support low-impact, human-powered recreation that doesn't interfere with forest health or wildlife (Addresses Objective 1, 3 & 5).

Threats: Pets (leashed or unleashed), too many people, and users who fail to follow low impact practices, leading to damaged resources.

Strategies:

1. Continue No Pets policy on sanctuary lands.
2. Encourage people to stay on established trails with signs, if needed.
3. Keep group size under 12, except for school education programs that take place in the South Shore-headquarters area (Acadia National Park requires a special use permit for groups over 12; coordinated hikes, etc. are usually kept to below 20).
4. Post information at trailheads and boat launches about low impact practices.

Goal 5: Forest structure approaches late-successional stages for increased complexity & diversity. This goal is consistent with other land management organizations on MDI, such as Maine Coast Heritage Trust and Acadia National Park (Addresses Objectives 2 & 4).

Threats: Forest pests & pathogens, invasive plants, large scale disturbances (e.g. fire or wind).

Strategies:

1. Passive forest management that promotes snags and coarse woody debris. This strategy allows live and dead trees to remain, except for hazard trees or trees afflicted by pests or pathogens. This strategy supports forest structural complexity and diversity of wildlife.
2. Accommodate small-scale disturbances, like windthrown canopy gaps, to develop a mosaic of habitats. Leave fallen trees where they are, unless they restrict trail access or create hazards. This strategy promotes the next generation of tree recruitment and diversifies tree species through sun & shade loving plants.
3. Prevent human-caused fires by not allowing kindled fires, and clearing combustible materials from trail sides, road sides, or places where humans frequent. This strategy reduces the risk of fire ignition, potentially leading to large scale disturbance.

Goal 6: Ensure Somes-Meynell Wildlife Sanctuary forests contribute to large unfragmented forest blocks (Addresses Objective 6).

Threats: Fragmentation from development or intensive tree harvesting.

Strategies:

1. Align conservation & land acquisition strategies and practices with Acadia National Park and Maine Coast Heritage Trust. This strategy prioritizes conservation of intact, unfragmented forests or other sites managed as forests for the long-term within the Somes Pond watershed.
2. Prevent fragmentation & encourage wildlife corridors. No harvesting of timber for commercial or early-successional “wildlife” value. This strategy aims to reduce edge effects along non-forest areas. Maintaining forest wildlife corridors along wetlands, streams, tree canopy cover by reducing disturbances, clearings, roads, or stream crossings.
3. Protect nearby parcels within the watershed by fee ownership (deeded Sanctuary property) or conservation easement when opportunities arise. Conduct outreach to landowners in the watershed to develop a shared vision related to this and other ecological goals. Work independently and with partners to achieve this goal.

References

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Fischelli, N.A., Miller, K.M. Weeds, worms, and deer: positive relationships among common forest understory stressors. *Biol Invasions* **20**, 1337–1348 (2018).

<https://doi.org/10.1007/s10530-017-1630-y>

2025 draft update of the Maine wildlife action plan: <https://www.maine.gov/ifw/fish-wildlife/wildlife/wildlife-action-plan/2025-plan-revision.html>

2025 Draft List of Species of Greatest Conservation Concern:
https://www.maine.gov/ifw/docs/SGCN_Draft_List_20250304.pdf

Criteria for Species of Greatest Conservation Concern Categories:
https://www.maine.gov/ifw/docs/SGCN_Criteria.pdf

Morgan, D.E. and Calhoun, A.J.K. Audubon Vernal Pool Guide, (2012):
<https://maineaudubon.org/wp-content/uploads/2017/03/Maine-Municipal-Guide-to-Mapping-and-Conserving-Vernal-Pool.pdf>

Conservation Easement on Somes Pond, Town of Mt. Desert, Hancock County, Maine to Maine Coast Heritage Trust from Somes Meynell Wildlife Sanctuary, Hancock County Registry of Deeds, December 14th 1994, Book 2341, Page 154
<https://records.hancockcountymaine.gov/AcclaimWebLive/Document/DocDetails?incomingTransactionItemId=wA9vm1DErwNVXSsHnewV5A5S6gEFZio2pZJo2V4GjTUD9Cdh3sBTL3kBYJJqzdw2&rowId=10>

Conservation Easement on Oak Hill in Somesville, Town of Mt. Desert, Hancock County, Maine to Maine Coast Heritage Trust from John M. Kauffmann, Hancock County Registry of Deeds,

Appendices

Appendix A: 2002 Draft Land Use Policy (Brianne Press, College of the Atlantic, text formatted from original copy). This draft policy contains an inventory of the flora of the Sanctuary lands. Some parcels to the north and west of Somes Pond were acquired after 2002 and were not evaluated.

Sanctuary Overview

The Somes-Meynell Wildlife Sanctuary headquarters is located on Pretty Marsh Road in the village of Somesville with property around Somes Pond. The northern section of the property sits directly across from the pond on Oak Hill Road. The Sanctuary is comprised of just over 200 acres of land on and around Somes Pond. The land is in three non-contiguous portions. The southern property, donated by Dr. Virginia Somes Sanderson in 1985, was the original sanctuary land. Julia Smith and John Kauffman donated the western shore properties in 1993. In 1992, John and Betty Fernald deeded over an additional piece of land now called the northern property to the sanctuary in a land exchange. The parcels can be seen on the maps in the appendices. The original land has a summer cottage that now serves as the sanctuary headquarters, with an attached deck for educational programs and general public use. There is access to the headquarters, Daniel H. Kane trail system, and a parking area off Pretty Marsh Road and up the loop driveway.

The original property (32 acres) is bordered by Pretty Marsh Road, Somes Pond and the fire station. The land ranges from hilly and wooded to low and marshy. The Daniel H. Kane Trail System consisting of the Spring and Nature Trails are open to public use during daylight hours. The Nature Trail is a shorter interpretive trail while the Spring Trail extends around the entire original property with a spur trail to link the village of Somesville to the trail system. Remains of early stonewalls and structures exist on the property. The shoreline is lined with a strong vegetative buffer.

The western shore property is heavily wooded with the Peninsula Trail as its only public trail. This trail follows the pond shoreline around then follows along the stream that separates the peninsula from the rest of the western property. The rest of the property, with the exception of a private trail along the boundary between sanctuary property and neighboring landowners, is still in the state it was in when the land was acquired. Stonewalls and foundations remain, along with boundary markers and rustic foot trails with log boardwalks. Private trails have been maintained through the property to the pond by neighboring landowners who have historically used the pond to fish,

canoe, and swim. A 20 ft. wide right-of-way from the Pretty Marsh Road extends through a neighboring property to the Sanctuary property. The right-of-way extends ten feet wide on either side of the center of the right-of-way. A conservation easement was placed on the western shore property to ensure lasting protection of the resources. Maine Coast Heritage Trust, the holder and monitoring agency of the easement, established the main objectives of the easement:

It is the purpose of this Conservation Easement to preserve the Protected Property in its undeveloped condition as a scenic and natural area, to assure the continued availability of the Protected Property as a habitat for the American Bald Eagle (*haliaeetus leucuphalus*), an endangered species, and to assure that the Protected Property will be managed for the benefit of the general public as a part of the Somes-Meynell Wildlife Sanctuary, or other similar preserve.

The northern parcel is the largest property (98.3 acres) and is situated on the northern side of Oak Hill Road from Somes Pond. A stream runs through the marshy area near the road and continues onto the western shore property. The western border of the property has stonewalls, stone structures, remnants of small household dumps with bottles and rusted pottery, and rail fencing, which demonstrates the historical attributes of the property. Exploration of the marshy areas in the southeastern portion of the property require proper gear or attempted at times when the land is extremely dry or frozen. These are state recognized and protected wetlands. Much of the rest of the property is heavily wooded with patches of marshy areas that can be identified in the proceeding maps.

Land Acquisition History and Deed Restrictions

Dr. Virginia Somes Sanderson started the Somes-Meynell Wildlife Sanctuary in 1985 with land that she owned on Somes Pond. Land acquisitions were made in the following years through directly buying at fair market value, outright donations, and land trades. Upon the death of Virginia in the late 1980's, she left in her estate her private home on Somes Sound. There are currently no restrictions to the use of this land. After Virginia's death, the Board of Directors was encouraged to protect more of the land surrounding Somes Pond. John Kauffman and Julia Smith, who were on the board at the time, offered the shorefront portions of each of their properties. At the time of acquisition, conservation easements were placed on the properties to restrict the development of the natural area. The restrictions included:

- The property may not be subdivided or transferred except in its entirety
- No construction of structures outside of boundary markers, public safety measures, those that enhance low impact public use, nature observation, and study.
- No excavation, filling, dredging, grading, or surface alterations
- No cutting of standing timber or live vegetation as except necessary for the maintenance of pedestrian low-impact trails
- No dumping, storing, or burial of waste materials of any nature
- The right-of-way will remain open for public use unless threatened by uncontrolled public use.

Facilities

Virginia Somes Sanderson's cottage serves as the headquarters for the sanctuary. The cottage is situated on the shore on the southern property of the sanctuary. There is an observation deck facing the pond, which is open when the headquarters is open. The cottage has not been winterized, and is closed during the winter months, reopening in the spring. The cottage is the only permanent structure on sanctuary property with the exception of the Somes Sound property. The loop driveway leads to the only official parking for the sanctuary and access to the trails.

Land Policy and Role of the Sanctuary

The Somes-Meynell Wildlife Sanctuary does not have a General management plan. At the first annual meeting in 1985, by-laws were created and approved. The Sanctuary follows these objectives from their written by-laws:

- The preservation, maintenance, management and enhancement of the natural and historic values and habitats of the Wildlife Sanctuary on Somes Pond, Town of Mount Desert, Hancock County, Maine;
- The care and protection of the wildlife of the Sanctuary and its environs;
- The education, enlightenment, and enjoyment of the residents of Mount Desert Island and the Public of the values of ecology, conservation, and natural history through Sanctuary activities and nature interpretation;
- Conservation of the Somes Pond Watershed, wildlife habitats and natural resources in cooperation with the Town of Mount Desert, government agencies concerned with the watershed area, other property owners, and conservation organizations.

The Sanctuary is currently in the process of developing a strategic plan, which will include a mission statement. The plan will guide the Sanctuary's management decisions in terms of land use, education, finance, and wildlife management.

Somes-Meynell Wildlife Sanctuary Land Use Management Plan

Management Objectives

Somes-Meynell Wildlife Sanctuary contains varied species of flora and fauna. The 200 acres include mixed hardwood and coniferous forests, wetlands, cedar swamp, fresh water pond, and streams. These different ecological areas are habitat for wood ducks, American Bald Eagles, songbirds, amphibians, deer, squirrels, loons, osprey, and many more. A variety of plant

species are also found, some locally rare. Based on analysis of the by-laws, the mission of the Land Management Committee, and land management plans for comparable sanctuaries, objectives for the future management and use of the Somes-Meynell Wildlife Sanctuary are to:

1. Recognize natural communities living and thriving within the sanctuary
2. Inventory each species living within the communities
3. Establish land use management zones that take into consideration the health and benefit of the flora and fauna within the surrounding areas.
4. Devise a land use plan for the sanctuary that will draw upon one of the following land management tactics:
5. No active land management. Plan for the natural success of the community to mature.
6. Actively manage the land and the communities to alter or maintain the state that is desired.
7. Implement management policy and monitor progress of the project.

Wildlife and Natural Resource Inventory Needs

Multiple flora inventories have been done within the sanctuary as it has expanded and changed.

The summer intern in 2001 conducted the latest flora inventory for the sanctuary during the months of June and July (appendix). The inventory only surveys the original parcel and the western shore property. She has suggested that the sanctuary conduct more inventories to keep the lists up with the changing vegetative communities. A very broad vegetative map can be found in the appendix examining the different types of vegetation according to the Maine Office of GIS.

An official fauna inventory has not been done. There is a list of commonly seen species within the sanctuary (appendix). These species are those recognized as frequenting the area to feed, nest, reproduce, or just wander through. No species are considered threatened or endangered, but within the western shore property is an area that is known to have been the site of a nesting American Bald Eagle. Some plants are locally rare and only found within the bay marshes of Somes- Meynell.

The following schedule is an example of a wildlife census schedule prepared by Maine Audubon. Other wildlife preservation areas use similar inventory schedules. The months chosen coincide with breeding seasons or periods of time when the animals are not hibernating. The schedule is the first step in keeping an accurate inventory of the changing communities within the sanctuary.

Wildlife Inventory Schedule			
	Spring	Summer	Fall
Small Mammals		August	
Birds			
Breeding	May-June		
Migrating	April-May	August-October	
Winter Resident			November-February
Amphibians and Reptiles			
Breeding (aquatic)	April-May		
Adult Census	May-June		
Breeding (terrestrial)		June-August	
Adult Census	May-July		
Other Aquatic Invertebrates		June-August	

An inventory of this detail may not be pertinent to a land use plan for a sanctuary of this size, but a complete inventory will be helpful in establishing what is living within different habitats. This is relevant when making decisions to remove non-native species, habitat rehabilitation, and when fulfilling other management objectives. Completing an inventory of this size would require additional temporary staff, volunteers, or interns investing many hours.

It is my opinion that a complete land use inventory is not needed at this time. With an area of 200 acres, it can clearly be seen from most vantage points what is going on within the sanctuary at all times. A land use inventory is useful for larger areas with specific uses or restrictions that may need enforcement. There are currently no land uses established on any of the Somes-Meynell property. The land use plan will establish the possible future uses to the areas.

Land Use Zones

Establishing zoning areas for the sanctuary will provide a clearer and more descriptive boundary for management and land use assessments. These zones will control visitor use patterns, assist specialized habitat management, and halt incompatible uses for areas that may be fragile or unsuitable for what their current uses are. A map in appendix illustrates the proposed zoning districts as defined below:

Interpretive Area:

The interpretive area is managed to promote the use by and for public education. The area will facilitate moderate use through interpretive trails, guided programs, nature observation, and other self guided activities. Within the interpretive area is: parking, trails, sanctuary headquarters, and other public spaces that may enhance the interaction of humans with the natural environment of the wildlife sanctuary. The southern or original property would fall under the category of an interpretive area, along with the Peninsula Trail on the western shore property.

Sensitive Area:

The area of the sanctuary where public access is limited to the highest degree due to sensitive habitats, unsuitable human conditions, lack of adequate or established facilities (e.g. parking or trails), or features that must be monitored, are classified as a sensitive area. Case by case decisions will be made on such things as replanting, selective cutting, pruning, and reintroduction of native species. Recreational use of this area would be limited, Educational use would be permitted on a case-by-case basis at the discretion of the sanctuary director. The northern property is an example of the restricted area due to its marshy areas and sensitive vegetation, along with the lack of previous development.

Unsafe conditions prevent this property from being used by any other activities than wildlife management or educational purposes. The western shore property is also a restricted management area because of lack of proper public access, sensitive cedar swamp, the former use of the habitat as an Eagle nesting site, and sensitive vegetation along the shoreline.

Specific Land Use Issues and Management Recommendations

Certain areas within the sanctuary are sensitive habitat for the many species of flora and fauna of the sanctuary. Other issues such as trails and use of the sanctuary for domesticated animals such as dogs are frequently addressed. Specific recommendations should be made for these key areas and issues. Wetlands and forests are the most dominant habitats surrounding the pond. Both provide key elements in the survival of the wildlife, the pond, and its watershed.

Forests:

Currently there are a mix of spruce, birch, aspen, red maple, and white pine in the area. The western shore property is similar in composition to the southern property, while the northern property is mixed wetlands and forests with no shorefront property.

The forest provides many necessary aspects to a healthy watershed. The shade that the trees provide on the shoreline keeps fish habitats at a steady temperature. The presence of vegetation also filters pollutants from road runoff, herbicides, or naturally occurring phosphates from polluting the watershed or pond. The water quality is then maintained at a healthy level.

Fallen branches often represent fire hazards. In the occurrence of fallen branches, a few options are present. If the branch has not yet fallen from the tree and is just a snag, it is fine to be left, as it represents shelter for birds, squirrels, and insects. If too many branches and snags accumulate on the ground, a portion of the wood should be removed to prevent a fire from having fuel to move through the forest floor. Another option is to selectively cut dead or dying trees before they have a chance to accumulate as snags and dead wood on the forest floor. This method of fire control is preventative, but also takes necessary habitat from wildlife.

Non-native and invasive species have been of particular interest within the sanctuary. According to the inventory completed by Melanie Schori, summer intern for 2001, barberry, honeysuckle, Norway maple, Japanese knotweed, and multiflora rose are the invasive and non-native species within the Sanctuary. She recommended the removal of these species because even though they provide habitat and food for wildlife, they hardly provide the nutritional value that some species that they have forced out have provided for the wildlife. Removal of the species would involve yearly maintenance by hand pulling seedlings and cutting grown plants.

Objectives

1. Allow natural succession to transpire among the mature and early successional forests, minimize human interruption of natural processes whenever possible.
2. Improve forest dependent wildlife diversity.
3. Minimize fire hazard within and around the sanctuary.
4. Monitor non-native and invasive species.

Specific Recommendations

- ❖ Minimize the cutting of trees to those that are diseased, dead, or impair the enjoyment of the sanctuary or viewsheds by obscuring or preventing passage through trails.
- ❖ Leave fallen limbs and stumps that pose as suitable habitat for small wildlife.
- ❖ Clean up some fallen limbs that are not suitable for habitat or nesting material. Leave branches and snags that are still in the trees as nest and wildlife habitat.