

SWAINS POND AND TOWNERS POND TASK FORCE

REPORT TO MAYOR ROBERT DOLAN

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Summary of Recommendations

1. Conduct a zoning review of the southeast region of Melrose in order to balance development with preservation needs.
2. Create an Open Space Committee charged with acquiring and preserving open space in the southeast region to maintain the natural integrity of the area.
3. Hire a part-time Agent for Conservation Land Management to manage conservation land in the City and coordinate conservation services with city departments.
4. Hire a part-time grant writer, or utilize a current city employee, to facilitate external funding for conservation land acquisition.
5. Create a volunteer Council to promote recreational use, preservation of the ponds, and environmental programs associated with the pond.

Introduction

Melrose residents can consider themselves fortunate to have the benefits of the beauty and diversity of the southeast corner of the City. Melrose is among a rare few cities that have retained these natural areas. With acres of woods, button bush swamps, geological formations and an area steeped in history, the southeast corner of the City is a gem.

Swains Pond, a natural formation, was so identified and mapped as early as 1795 before Melrose was formed as a Town. Like many of our ponds in Melrose, Swains Pond was used early on for ice production. Easy accessibility to Malden and points south, as opposed to Melrose to the north, suggests that residents in the area, and the related commercial ice operation, were originally dependent on the colonial economy of Malden proper.

In contrast to the long history of Swains Pond, Towners Pond is a relatively recent addition to Melrose. Mapping by the USGS in 1903 (presented below) show a small stream where, today, Towners Pond rests northeast of the clearly-shown Swains Pond. (See 1903 USGS map attached as **Exhibit A**, courtesy University of New Hampshire <http://docs.unh.edu/nhtopos/nhtopos.htm>).

USGS mapping in 1946 show Towners Pond in existence at its present location. Towners Pond was created and used intermittently in the early 1900s for the purposes of ice harvesting. (See 1946 USGS map attached as **Exhibit B**, courtesy University of New Hampshire <http://docs.unh.edu/nhtopos/nhtopos.htm>).

The topography of the southeast corner is hilly and rocky with extensive outcroppings of volcanic rock dating back an estimated 500 million years. A study conducted in 2001 by the

Massachusetts Audubon Society¹ determined that the area is made up of rhyolite, agglomerate and tuff of the Lynn Volcanic Complex. The area is rich in plant and wildlife. The survey found the area to be primarily a Mixed Oak Forest with six species of Oak. In addition, due to the rocky terrain, the area also contains extensive areas of grass, mosses and berry bushes.

Having upland forests in close proximity to wetlands, as seen in the southeast corner, provides for a diversity of habitats that many species benefit from and some absolutely need for portions of their life cycle. Many species of salamander use the wet areas only during breeding and spend the remainder of the year using leaf litter in upland forests. Without both types of habitat they would not survive. Many animals that typically use upland forests for their life cycles will come into the wetter areas to drink and hunt and many bird species utilize the edge habitats between the two resource types. The Massachusetts Audubon Society survey identified more than 20 bird species in the area and estimated that the animal inventory in the area would include eastern cottontail rabbits, grey and flying squirrels, moles, field mice, red fox, a variety of snakes, frogs, peepers, toads, and various turtles. Spotted on recent outings were also black squirrels, wild turkeys, and Jefferson Salamanders.

The most extensive wetland system in the City exists tucked away in this area. A large swamp associated with Towners pond receives water from the steeply sloped hills surrounding it and from the Mt. Hood golf course. The wetlands and ponds system in the area provide critical functions to the neighborhoods around them as they filter pollutants, store water during floods, slow down storm flows and provide groundwater recharge. Loss or damage to the wetlands in this area would result in flooding problems such as are seen elsewhere in the City where environmental degradation has occurred.

In addition to the environmental value of the southeast corner, the area provides a myriad of educational and recreational opportunities for the community. The conservation land is an excellent outdoor classroom and most schools are just a short ride away (some, like the Hoover, are just a short walk away). Additionally, the trails and ponds provide opportunity for hiking, fishing, cross country skiing, and other outdoor activities.

Defining the Area for Purposes of Conservation Planning

The Task Force was charged with delineating and assessing the Swains Pond and Towners Pond (SPTP) area for the purpose of making recommendations to the Mayor regarding its use and preservation. Both Swains and Towners pond are bounded by publicly and privately held land. After surveying the parcels and development in the area, the Task Force decided to focus its recommendations with respect to land conservation specifically on the area bounded on the north by Swains Pond Avenue as it enters Melrose from Malden, and Penny Road as it travels westerly from the southeastern corner of Melrose until it intersects Swains Pond Avenue. The southern and eastern boundaries are the Melrose City line. The area encompasses the largest number of undeveloped privately held parcels exists.

¹ *Inventory and Trail Recommendations for Towners Pond and Swains Pond Recreation Areas in Melrose, Mass.*, June 2001, Massachusetts Audubon Society.

Extensive development in the southeast corner of the City, particularly the western and northern sections, over the past 25 years has significantly reduced the natural area in the SPTP area. Development has taken place along many of the roads that were previously designated as only paper streets on the map. This loss of open space in the southeast corner, particularly at the northern and western borders, is evidenced by a 1981 report on the southeastern region of Melrose, which defined the natural area as a much larger portion of the city than what the Task Force is considering the natural area of the southeast region today.

Findings

Development in the Southeast Corner

The southeast region of Melrose has historically been the least populated given its overall topography and location. However in recent years the area has seen more active development as housing prices in the City have risen dramatically. Now, the area consistently sees the most proposed new development activity in the city. The Planning Board is now regularly reviewing proposal for developments, particularly subdivisions, in this area.

The Task Force estimates that in the SPTP section of Melrose alone there exist 45 acres of privately held undeveloped property. Currently, there are plans to develop approximately 10 of those acres, which is a further indication of the need to address conservation issues now. Given the current zoning laws, the amount of available property could result in more than 100 new units being built in this area alone, or significantly more if 40B legislation is utilized.

There have been extensive studies on the cost and benefit associated with retaining open space versus developing in cities. Consistently these studies have shown that building houses in areas that are not easily accessible, that are not located near public transportation and that require significant infrastructure development result in a net cost to the municipality despite the receipt of new property tax revenue. Furthermore, studies have shown that open space actually raises property values of surrounding houses, thus resulting in a net gain in tax revenue. The SPTP area is, on the whole, extremely rocky with poor drainage, which suggests that significant deforestation and ledge removal (re-grading) would exacerbate existing flooding problems or create new ones. Additionally, such a loss of native vegetation would mean a loss of animal habitat, in a place which provides one of the few animal corridors in the area.

Conservation Land:

Conservation holdings in the SPTP area, a minority of the undeveloped parcels, present the City with significant issues and challenges in planning. Swains Pond and Towners Pond are designated as conservation areas. Both ponds have abutting conservation land, including Flagg Acres around Towners Pond. However, both Ponds also have privately owned parcels surrounding their borders. There exists a handful of larger parcels of conservation land that create a noncontiguous strip of land stretching from the south side of Swains Pond Ave to the Malden border. A few other parcels of conservation land are located sporadically throughout this area. In addition, the City owns the Mount Hood Golf Course and recreation area and the Hoover School. The remaining land in the southeast corner is mostly large, privately owned

parcels, most of which are either sparsely developed or entirely undeveloped. The map attached as **Exhibit C** shows the privately versus publicly owned parcels in the area.

One of the most striking findings of the Task Force's study was the poor condition of the conservation holdings. The area offers a relatively extensive, yet dilapidated trail system. Trails run in various directions around the area and are not effectively laid out to create easy entry and exit points. There is only one designated parking area – at Flagg Acres – which forces roadside parking and leads to erosion, litter and spur trails. Trail markers are sporadic and confusing. Fallen trees and overgrowth block trails in many locations. Numerous side trails have been created, which has resulted in increased erosion and deforestation. In addition, litter is strewn around the area, discarded fishing paraphernalia lines the pond shores, and several areas appear to be night-time gathering spots for youths, with fire pits and litter pervading.

Conservation Land management is the charge of the Conservation Commission. Unfortunately, the Conservation Commission has not been able to devote adequate resources or personnel (all Commissioners are volunteers) to performing this work. The Commission's regulatory function of project permitting and enforcement of the Wetlands Protection Act takes up most of the Commissioners' time, and the Commission's annual funding does not allow for the hiring of staff. The Commission has been able to solicit volunteer help on an ad-hoc basis, but such assistance is sporadic and cannot act as a substitute for a regular maintenance program. Regular maintenance requires more frequent attention and, often times, greater expertise than a group of volunteers can provide.

Recommendations

As described in the introduction the natural resources found in the southeast corner provide significant benefits to the community and the City must take proactive steps to protect and enhance these resources. Consequently, this task force believes 1) development should be guided to ensure minimal destruction to the natural framework of the area, 2) land which provides critical environmental purposes should be acquired as conservation land or protected through the use of other conservation tools, 3) Conservation land should be cared for in order to increase its environmental, educational, and recreational value to the Community. Based on the findings of this report, the Task Force has developed the following objectives to meet these three goals.

GOAL 1: Development should be guided to ensure minimal destruction to the natural framework of the area.

Objective 1a: *Zoning Review.*

The Task Force recommends that the Office of Planning and Community Development conduct a zoning review of the area delineated in this Report to consider changes and additions to the existing zoning ordinance, which would encourage low-impact development that would minimize deforestation and habitat destruction. Smart growth principles and policies should be considered in this study.

GOAL 2: Land which provides critical environmental purposes should be acquired as conservation land or protected through the use of other conservation tools.

Objective 2a. *Creation of an open space committee.*

The Task Force recommends that the Mayor create an open space committee, made up of volunteers and a Conservation Commissioner, to serve in an advisory function to the Conservation Commission, with the specific charge of focusing on preserving undeveloped land in the southeast region of the City.

The committee would have the following roles:

1. Review all publicly held parcels in the southeast corner to determine their conservation value.
2. Assess the need for ensuring the preservation of those publicly held parcels deemed to have conservation value.
3. Work with other public agencies (city and state) to transfer identified public land to the Conservation Commission to ensure long-term preservation.
4. Review all undeveloped privately held parcels to determine conservation value.
5. Identify and prioritize privately held parcels for City acquisition.
6. Work with funding organizations, such as land trusts and private foundations, to acquire funds to purchase property for conservation.
7. Work with City residents to solicit individuals who are willing to donate, sell or place conservation restrictions on their land to ensure long term preservation.
8. Negotiate and execute land transactions to place land into permanent conservation.
9. Create educational literature and develop an awareness campaign to help residents recognize the value of community preservation.
10. Conduct fundraising to support land acquisition.

Objective 2b: *Creation of a land bank.*

The Mayor and Board of Aldermen should consider establishing a land bank to be used for the purchase of highly valuable conservation property. While there are sources of funding that exist that could help fund land acquisitions, many require matching or a percentage payment by the City to be eligible for funding. The City would be in a much better position to take advantage of these opportunities if it had an established fund. One way of accomplishing a land bank is through the Community Preservation Act, which would permit the City to add an assessment onto property taxes. Another method could be through a percentage assessment on every home sale to be paid into a land bank specifically designated for purchasing property for conservation. Many towns currently utilize this method and the Task Force recommends that the City study the various options for creating such a land bank.

Objective 2c: *Grant writing.*

In order to facilitate the acquisition of conservation land without requiring significant expenditure by the City, the Task Force recommends that the City hire a part-time grant writer to write grant applications for conservation funding. This could also be accomplished by incorporating grant writing into a current City employee function.

There exist numerous organizations that provide funding to assist with land acquisition and preservation, from state organizations, to non-profits, to private foundations. The Task Force came across numerous opportunities for funding and/or conservation assistance in its brief survey of the available resources, including:

1. Trust for Public Land
2. Massachusetts Department of Conservation and Recreation
3. The Trustees of Reservations
4. The Massachusetts Audubon Society
5. Massachusetts Executive Office of Environmental Affairs
6. Massachusetts Department of Environmental Management
7. Massachusetts Land Trust Coalition
8. Private Foundations

GOAL 3: Conservation land should be cared for in order to increase its environmental, educational, and recreational value to the Community.

Objective 3a: *Agent for Conservation Land Management.*

The Task Force recommends the City hire a Conservation Agent to manage conservation land. Having an expert who can 1) perform a centralized planning function, 2) work with various city and community organizations, and 3) oversee conservation land management, results in significantly more efficient use of resources and gets results where volunteer groups fail. Many cities employ a conservation agent, either full or part-time, to conduct conservation land management. This includes Stoneham, Wakefield, Saugus, Reading, Quincy and many more.

The Conservation Agent would be responsible for coordinating the following tasks:

1. Monitoring conservation land for illegal use and dumping, and residential encroachment.
2. Conducting a study of the entire trail system to determine how to create an integrated trail system. This would involve creating a plan to
 - a. Identify and connect major trails
 - b. Close off minor trails
 - c. Identify viewing spots and incorporate them into the trail system
 - d. Recommend parking areas to enhance access
 - e. Create a trail marking system with entry point signage as well as markings on the trails themselves the help delineate specific trails
 - f. Create a comprehensive map of the trail system.
3. Creating a maintenance program to ensure that obstructions are regularly removed and debris and brush are cleared.
4. Working with the Melrose public works department to enhance the access areas to the trails as well as maintain paved areas (like that abutting Swains Pond) that currently serve as part of trails.
5. Coordinating conservation management with other City departments.
6. Organizing and sponsor semi-annual clean-ups of the area.

7. Creating a walking map of the area and publicizing passive recreational opportunities in the area to encourage use and educate the public.
8. Acting as a steward of conservation land and working with the Conservation Commission, the schools and the City to encourage full utilization of the area.

Objective 3b: *Creation of a Swains and Towners Pond Improvement Council.*

Similar to the organization that has been created to oversee Ell Pond, the Task Force recommends the creation of a governing council to oversee the use and care of the ponds, which would include assuming responsibility for general oversight, recreational use management and long-term planning. The ponds have many potential recreational and educational uses, but with those uses comes a need for management. The governing council would be responsible for creating regulations and facilities to ensure proper use of the resources as well as creating and publicizing events that promote utilization of the area. A neighborhood association already exists, which could provide the building blocks for this type of organization.

Conclusion

Given the diversity and uniqueness of the natural resources in the Swains Pond and Towners Pond area, it is critical that dissection of the natural areas does not occur. One poorly placed development in the center of the forest or through a wetland would disrupt the whole ecosystem and lead to its decline. From an ecological stance, we strongly recommend a plan of consistent stewardship of critical parcels in the area. And the time for action is now. With the amount of development the City is seeing today, if action is not taken to protect this unique resource, it will be lost.