# Open Space Creation Task Force Strategy Memo

August 9, 2019

### **Table of Contents**

Open Space in Somerville: Our Reality, 1

Open Space Creation Task Force: Members & Process, 8

Open Space Definition, Vision, Values, and Goals, 8

Adding to Our Open Space, 10

Open Space Creation Implementation Strategies, 11

Financing Open Space Creation, 13

Prioritizing Parcels for Acquisition, 18

Community Roles in Acquiring New Open Space, 19

Creating High Quality Open Space, 22

Implementation Strategy Recommendations for Supportive Goals, 28

Summary, 32

Conclusions and Next Steps, 35

References, 37

Appendix

Open Space Maps, 38

Existing Open Spaces in Poor Condition, 44

Somerville is home to world-class, award winning open spaces from the new Lincoln Park to historic Nathan Tufts Park. These parks, playgrounds, plazas, gardens, and fields provide opportunities for Somerville's residents to play, relax, socialize, grow food, and commune with nature. They provide a wealth of benefits not only to Somerville's residents but also to the urban environment as they provide important ecological services such as stormwater management and pollinator habitat.

At the same time, as New England's most densely populated community, the percentage of land dedicated to open space in Somerville is small. In 2010, SomerVision, Somerville's comprehensive plan, established the goal of creating 125 new acres of publicly-accessible open space. From 2010-2019, 19.9 new acres have been created or are in the process of being created. Somerville is now in the process of updating SomerVision. In addition, several neighborhoods are slated for major redevelopment, creating a unique opportunity to partner with private developers to create more open space through privately owned public spaces (POPS). To make greater progress towards the SomerVision goal and to take advantage of new opportunities that come with redevelopment, Somerville needs a thoughtful strategy that grapples with the realities of open space creation and lays out implementable actions that will result in more open space for all residents.

The purpose of this strategy memo is to provide recommendations for what such a strategy should include. It is intended to inform the SomerVision Steering Committee's process in selecting goals and metrics related to open space creation, as well as City of Somerville staff as they are working to create new open space.

### **Open Space in Somerville: Our Reality**

Somerville currently counts 89 parks, plazas, gardens, and fields as open space, for a total of 162.99 acres. Seven of these spaces are privately owned public spaces (POPS), which total 5.76 acres. The eight largest spaces are owned by the Commonwealth of Massachusetts, which total 81.28 acres. So, while the City of Somerville owns the majority of parks (69 of 89), it only controls 47% or 75.68 acres of open space within the City.

Somerville is the most densely populated community in New England and almost all of Somerville was developed by 1930. Somerville is also very small in size- at 4.1 square miles. Fifty percent of today's housing stock was built between 1890 and 1910. According to U.S. Census records, Somerville's population reached its peak in 1930, with 103,908 residents. Somerville currently has around 80,000 residents. By 1900, only

52 acres (4.7%) of the city was dedicated to parks or playgrounds. Because open space was not prioritized during this period of rapid development, many of Somerville's open spaces were created after most of the city was developed. As a result, most parks are less than half an acre in size and are scattered throughout the city in an irregular pattern. Some of today's parks were undeveloped house lots, while more sizeable parks are typically former schoolyards or other municipal lands that were converted to parks in the latter half of the 20th century, as public demand for open space grew and housing needs declined.<sup>2</sup>

Today, many of Somerville's residents are calling for more open space because of the health benefits it provides. The Centers for Disease Control and Prevention found that only 25% of American adults are physically active at recommended levels and 29% engage in no physical activity. Only 27% of students in grades 9 through 12 engage in moderate to intensive physical activity. This lack of activity puts individuals at risk of obesity and the health risks associated with being overweight. A group of studies reviewed in the *American Journal of Preventive Medicine* documented that access to places for physical outreach combined with informational outreach led to a 48.4% increase in the frequency of physical activity and easy access to a place to exercise results in a 5.1% median increase in a range of health benefits related to physical activity.

Open space can also provide other health benefits. Community gardens provide both an opportunity for exercise and for growing healthy food. Trees in open spaces also contribute to human health. Evapotranspiration can help reduce peak summer temperatures by 2 to 9 degrees Fahrenheit according to the EPA. Trees also filter pollutants out of the air. Exposure to the natural world has also been linked to other health benefits such as shorter hospitalizations, improved mental health, and better concentration for children with Attention Deficit Disorder (ADD). Finally, open space can improve the social health of communities. Research has shown that residents with green common spaces are more likely to have stronger social ties than those with only concrete.

As part of the SomerVision comprehensive planning process that began in 2009, Somerville residents engaged in a discussion about how much new open space they would like to see created in Somerville between 2010 and 2030. Staff proposed 50 new

<sup>&</sup>lt;sup>1</sup> Zellie, 58.

<sup>&</sup>lt;sup>2</sup> City of Somerville, 29.

<sup>&</sup>lt;sup>3</sup> Trust for Public Land, 10.

<sup>&</sup>lt;sup>4</sup> Trust for Public Land, 13.

<sup>&</sup>lt;sup>5</sup> Trust for Public Land, 15-16.

<sup>&</sup>lt;sup>6</sup> Trust for Public Land, 17.

acres based on an analysis of what they believed was feasible given land and anticipated funding available. Residents advocated for a higher number and 125 new acres of publicly-accessible open space was adopted as the SomerVision goal. From 2010 to 2019, 19.9 acres were created or are in the process of being created, of which 5.76 acres are privately owned public spaces (POPS). A further 12.25 acres are planned based on neighborhood plans for Davis, Gilman, and Union Squares, Winter Hill, and expanding Somerville Junction Park. Developers are expected to create 3.7 of the planned acres. This means that an additional 92.85 acres need to be identified to reach the SomerVision goal.

**Table 1. Progress to Date Towards SomerVision Goal** 

Open Space Acres Created Since 2010: Public Space + POPS									
Public		Zero New Washington	Quincy St.	North St. Veterans	Chuckie Harris	Symphony	Baxter	Path (Cedar/ Lowell)	Total
	Acres	0.64	0.12	0.09	0.41	0.21	5.45	2.35	9.27
POPS		Block 2A Plaza	Maxwell's Green	50 Middlesex	Partners	Milbrook Park			
	Acres	0.33	0.46	0.29	4.60	0.08			5.76
In Progress		ArtFarm	5 Palmer	35 Richardson	Path Extension				
	Acres	2.1	0.04	0.13	2.6				4.87
								otal	19.9
							Remain	ning to 125	105.1
Planned		Gilman Square	Winter Hill	Union Square	Davis Square	Somerville Junction II			
	City Share	0.25	0.25	7.55	0.50	0.85			8.55
	Developer Share	0	0.85	2.00	0	0			3.7
	Total	0.25	1.10	9.55	0.50	0.85	Т	otal	12.25
							Remain	ning to 125	92.85

Based on recent acquisitions and park renovation projects, the City of Somerville estimates that the average acquisition cost today is \$4 million per acre and the average cost for design and construction is \$2.2 million per acre. These costs are expected to increase rapidly as a result of the demand for land in Somerville and the strength of the construction market. With 105.1 acres of open space remaining to create, Somerville will need to mobilize a minimum of \$651,620,000 at today's prices to reach its 125 acre goal.

Each year the City of Somerville has limited funds to contribute to open space acquisition and creation. Somerville's budget comes from tax revenue and a minimum amount of local aid from the state. The vast majority of these funds are committed each year to pay for staff salaries and the ongoing costs of providing vital services such as public education, fire and police services, and maintenance of the streets, sidewalks, and existing open spaces. The City is also facing the consequences of deferred maintenance on its infrastructure, which is over 100 years old and deteriorating rapidly. The City's Capital Investment Plan (CIP) contains the list of critical projects that must go forward in order to maintain the level of infrastructure services residents expect. The 19 projects on this list are expected to cost over \$500 million and an additional 32 projects are currently unscheduled and unbudgeted on this list. The cost of improving the City's 25 parks that are in need of renovation over the next ten years is not included in this list nor is the cost of reaching the 125 acre goal.

In addition to using funding through its operating budget, the City can seek grant funding for open space acquisition through two sources. The City's Community Preservation Act (CPA) program raises approximately \$2 million each year to fund affordable housing, historic preservation, and open space/recreational land projects. To date, CPA funds have been used to acquire two parcels that total 0.17 acres at the cost of \$710,000. Currently 20% of CPA funds are allocated to open space, which totals approximately \$400,000 annually. An additional \$200,000 is available in flexible funds, though open space projects compete with affordable housing and historic resources projects for these funds. CPA funds are awarded through an annual competitive application process. The City can also seek funding through grants like the state's Parkland Acquisitions and Renovations for Communities (PARC) program, which awards grants of up to \$400,000 and requires a 40% local match. The City has been very successful in receiving these grants which have been primarily used for park renovations, including Lincoln, Hoyt-Sullivan, and Prospect Hill parks. The City did use one year of PARC funding to acquire the land that is now Chuckie Harris Park.

Another strategy for creating new open space is partnering with developers to create privately owned public spaces, which are known as POPS. Somerville has the

opportunity to create a substantial number of new acres of open space through the creation of POPS as part of the development of the city's Transformative Areas, which are:

- Assembly Square
- Boynton Yards
- Brickbottom
- Grand Junction
- Inner Belt, and
- Union East.

Currently, the proposed zoning overhaul includes a 25% open space requirement for the Transformative Area overlay districts. In order to ensure that these POPS are successful, Somerville will need to learn from the experiences of other communities such as New York and San Francisco to ensure these spaces are designed with the community's needs in mind and are inviting spaces for all. Recommended strategies for creating successful POPS are included in the recommendations section below.

When City planners develop plans for new open space they seek both to ensure good urban design and to maximize the benefits of the open space for residents and the environment. There are four design principles that guide neighborhood planning, including the siting of open space:

- Walkable structure: Neighborhoods should be structured so residents can safely and easily walk to where they want to go, including open spaces.
- Spatial enclosure: People feel most comfortable when they are not in wide open spaces (think Boston's City Hall Plaza). Neighborhoods and individual open spaces should provide sufficient enclosure so people feel comfortable but not so closed in that it is not possible to see what is happening inside a park, which could lead to safety concerns.
- **Density and intensity:** Neighborhoods should balance the density and intensity of their buildings with their open space and other uses so that people neither feel overwhelmed by the space nor that the space is empty.
- Variety and activity: Residents want to be able to see and do a wide variety of things within their neighborhoods. This not only makes the experience of being in a space more enjoyable, but also safer as there are more people out and about on the street throughout the day and evening.

Given the limited space available in Somerville, parks planners seek to maximize the benefits each open space provides through maximizing the ecosystem services present. There are four ecosystem services<sup>7</sup>:

-

<sup>&</sup>lt;sup>7</sup> Millennium Ecosystem Assessment, 57.

- Food production: Being able to grow food provides a wealth of benefits, as such, the City seeks to provide opportunities for those without access to their own yards to grow food. This includes traditional community gardens and innovative spaces such as ArtFarm.
- Regulate natural phenomena: Parks do a lot of work above and below ground.
  Where feasible, parks include underground chambers that help regulate the flow
  of stormwater. The tree canopy helps to regulate the surrounding air
  temperature, filter air pollution, and sequester carbon. Parks also support
  pollination by including host plant species for general and native pollinators.
- Cultural services: Parks offer a range of opportunities for residents to
  experience the natural world, exercise and play, and interact with their neighbors.
  Given the limited number of open spaces in Somerville, many of them offer
  multiple opportunities in one location. For example, Lincoln Park offers playing
  fields, playgrounds, a dog park, a skate park, Parkour equipment, a walking path,
  and community gardens.
- **Supporting existing natural processes:** By including green spaces and plants, open spaces support soil formation and retention, production of oxygen, nutrient cycling, water cycling, and habitat.

# Somerville Open Space

## Our current situation

+



5.76 acres (3%) are Privately Owned Public Accessible Spaces (POPS) 81.28 acres (50%) are owned by the Department of Conservation and Recreation (DRC) Current Open Space 163 acres



100% of somerville residents live within a 10 min walk of open space.

This map shows open spaces in dark green, and all areas within a 10 min walk in light green.



## SomerVision Goal



Create 125 acres

Since setting this goal in 2010 we created 19.9 new acres of open space (6.19 City, 5.45 DRC, 5.76 POPS)

It costs roughly \$6.2 million to create 1 acre of open space

We need to mobilize over \$651 million dollars to create the remaining 105.1 new acres needed reach our goal.

## **Open Space Creation Task Force: Members & Process**

Somerville Mayor Joseph A. Curtatone convened the Open Space Creation Task Force (the "Task Force") in December 2018 with the purpose of bringing together representatives from community organizations and City departments working on open space issues to develop recommended strategies for creating new publicly-accessible open space in Somerville. The members are:

- 1. Daniel Bartman, City of Somerville Senior Planner- Zoning & Urban Design
- 2. Edward Bean, City of Somerville Director of Finance
- 3. Amber Christoffersen, Mystic River Watershed Association Greenways Director
- 4. Michael Fager, Conservation Commission member; Community Preservation Committee chair
- 5. Stephanie Hirsch, At-Large City Councilor
- 6. Luisa Oliveira, City of Somerville Senior Planner for Landscape Design
- 7. Kat Rutkin, Groundwork Somerville Executive Director
- 8. Renée Scott, Green & Open Somerville Co-Founder
- 9. Sunayana Thomas, City of Somerville Economic Development Planner

The meetings were facilitated by Kristen Stelljes, City of Somerville Community Preservation Act Manager/SomerStat.

The group met from January to June 2019. The group had eight meetings over a total of 42 hours. These meetings included learning sessions to develop a common understanding around the issues related to open space creation and working sessions to develop the outputs documented in this strategy memo.

The final draft of this memo will be shared with the SomerVision Steering Committee, including the Public Realm and Natural Environment Working Group, the organizations represented on the Task Force, and will be shared publicly.

## Open Space Definition, Vision, Values, and Goals

#### **Definition**

The Open Space Creation Task Force adopted the following definition for open space: Open space is any piece of land open to the sky that provides ecological, recreational, cultural, or social benefit, regardless of ownership or access.

Task Force members recognize all types of open space, from playgrounds to private green roofs, provide benefits to Somerville's residents, both human and non-human. As a result, this document provides recommendations for programs that could support owners of private open spaces such as yards, internal courtyards, and rooftops to maximize the ecological, recreational, cultural, or social services these spaces provide. However, this report will focus on recommendations for creating publicly-accessible open space, including publicly and privately owned public spaces.

#### Vision

One of the first tasks of the Task Force was to create a shared vision to articulate their hopes for Somerville's open space. The Task Force's vision is:

Somerville residents access a network of open spaces that provides a vibrant range of options within a safe, easy walk from their front door. Whether residents want to commune with nature, engage with neighbors or local culture, play boisterously, grow food, or share a quiet moment, there is open space for every mood and activity. Open spaces also support our natural environment. Somerville's open spaces provide visitors with a healthy environment that is cool, air that is breathable, and healthy trees and soil that can absorb stormwater. Open spaces allow residents to coexist with the natural world and the plants and animals that make up a healthy ecosystem.

#### Values

The SomerVision refresh expanded upon the values established in the original SomerVision document. The SomerVision 2040 values are as follows:

- *Protect* and foster the **diversity** of our people, culture, housing and economy.
- Celebrate the unique character of our neighborhoods and the strength of our **community** as expressed in our history, cultures and vibrant civic engagement.
- Invest in the growth of a resilient economic base that is centered around transit, generates a wide variety of job opportunities, creates an active daytime population, supports independent local businesses, and secures fiscal selfsufficiency.
- Promote a dynamic urban streetscape that embraces public transportation, reduces car dependence, and is accessible, inviting and safe for all pedestrians, bicyclists and transit riders.
- Build a sustainable future through climate leadership, balanced transportation, engaging civic spaces, exceptional educational opportunities, improved health, varied and affordable housing options, and the responsible use of our natural resources.

• Affirm our responsibility to current and future generations through continued **innovation** in business, technology, education, arts and government.

The Task Force's goals support these values by focusing on providing equitable, safe access to Somerville's open spaces for all residents. Creating new open spaces will strengthen the unique character of Somerville's neighborhoods and their social fabric by providing opportunities for residents to meet and interact with each other. Maximizing the ecosystem benefits of open spaces supports a sustainable future where all of Somerville's residents can enjoy the health and ecological benefits that their open spaces provide. Somerville's open spaces are innovative in their use of best practices in green infrastructure, promoting play and active lifestyles, and fostering social interactions. As a result, Somerville's open spaces have become a model for other communities.

#### Goals

To achieve this vision, the Task Force recommends the following goals, which are discussed in greater detail below:

- 1. Increase new publicly-accessible open space
- Increase the number of athletic fields to meet the demand for youth recreation hours
- 3. Increase the number of community garden plots
- 4. Provide a range of publicly-accessible open spaces within a 5 minute (0.25 mile) walk of every residential parcel in Somerville
- 5. Provide equal access to high quality open space across the city
- 6. Maximize the ecosystem benefits that open spaces provide to residents and the natural world

The Task Force sees the first goal and its related strategies below as the highest priority for open space creation. The other goals and their related strategies are designed to support the creation of open space that is equitably distributed and that provides high quality spaces. As a result, the remainder of the report is divided into two sections: Adding to Our Open Space and Creating High Quality Open Space.

## **Adding to Our Open Space**

The primary goal proposed by the Task Force is: *Increase new publicly-accessible open space*. The specific numerical target for this goal will be established by the SomerVision Steering Committee. The Somerville community set the goal of creating 125 new acres of open space in Somerville by 2030 during the first SomerVision process. While

progress has been slow, the City of Somerville remains committed to this goal. At the same time it recognizes that it may not be possible to reach 125 new acres by 2040 because it will take time to mobilize the over \$652 million needed to reach this goal. If members of the SomerVision steering committee reconsider the 125 acre goal, the Task Force encourages them to have these discussions with all stakeholders- open space advocates along with affordable housing advocates and those who want to see commercial development prioritized.

For each goal, the Task Force created recommended indicators to measure progress towards the goal. The recommended indicators for the *Increase new publicly-accessible open space* goal are:

Indicator	2019 Baseline
Number of new acres of publicly- accessible <sup>8</sup> open space, disaggregated by ownership (city, state, and POPS).	0 (19.9 acres have been created from 2010-2018)
Annual amount of capital investment in open space by the City of Somerville disaggregated by purpose (acquisition, renovation)	Total=\$12,326,044 <sup>9</sup> Acquisition=\$710,000 (5 Palmer, 35 Richardson) Renovation= \$11,616,044 (4 completed in calendar year 2018- Argenziano, Lincoln, Winter Hill, Hoyt Sullivan)

To achieve the goal of creating new publicly-accessible open space, the Task Force recommends a range of implementation strategies. This section is divided into two components: strategies to create new open space and strategies to support the creation of high quality, equitable open space. The summary section provides a list of all of these strategies with proposed groups responsible for their implementation.

#### Open Space Creation Implementation Strategies

The Task Force recommends the implementation of the following strategies to create new open space:

11

<sup>&</sup>lt;sup>8</sup> Publicly-accessible = An open space is considered publicly-accessible, if for at least part of the day, any member of the public can access it. For example, a schoolyard is publically accessible during non-school hours but a typical community garden and one athletic field are not because they are locked and only those with a plot/permit are allowed.

<sup>&</sup>lt;sup>9</sup> Figures provided for calendar year 2018, as calendar year 2019 has not been completed.

- 1. Develop an open space acquisition plan that identifies parcels for acquisition: In order to effectively plan for the creation of new open space, the City of Somerville needs to create an acquisition plan that identifies potential opportunities for acquisition and prioritizes them based on the benefits they would provide the community. The prioritized list of parcels will allow the City to develop an annual open space acquisition budget. The plan should also identify necessary staffing to ensure that progress is made in acquiring new parcels.
- 2. Develop at least 60 acres of new open space in the Transformative Areas: The Transformative Areas provide the greatest opportunity for the creation of new open space in Somerville. Through a planning exercise, the Task Force explored the amount of the Transformative Areas that could be converted to open space while still maintaining good urbanism and recommends creating a minimum of 60 new acres of open space as part of the development of these areas.
- **3. Prioritize proper siting of open space in neighborhood planning:** Ideal locations for open space in the Transformative Areas and other neighborhoods are established through the neighborhood planning process. As new neighborhood plans are created for neighborhoods such as Assembly Square, Brickbottom, and Winter Hill, City planning staff should prioritize the proper siting of open space in the neighborhoods to maximize open space in balance with other community priorities, including the creation of affordable housing and commercial development.
- **4.** Integrate open space into affordable housing and community organization sites: To create new open space while also bringing it to populations that have some of the greatest demand for open space, projects to develop new affordable housing and locations for the provision of community services should integrate the creation of new open space into their sites.
- **5. Convert excessive street space and underutilized parking lots to open space:** Though these interventions would not on their own add large amounts of additional open space, they would create new open space opportunities throughout the city and could incorporate features that would help mitigate the effects of climate change by helping to manage stormwater and provide shade. In addition to their open space benefits, these spaces could also contribute to traffic calming.
- **6. Purchase mid-block access outright or through easements to increase pedestrian access to open space:** Some residents can see a park or playground from their front doors but have to walk a relatively long way to reach it because they need to

walk around their block. Creating more mid-block access points for our open spaces could not only potentially create more publicly accessible open space through the creation of the paths themselves but also make our open spaces more accessible to more people and provide safer routes to our parks and playgrounds.

- 7. Explore back of sidewalk tree programs and secure front yard easements along streets to create Commonwealth Avenue style tree boulevards: While not providing traditional open space, creating tree boulevards would provide new green space for all of the public to enjoy and would help to mitigate urban heat island effects by providing added shade. Environmental justice neighborhoods should be prioritized for these interventions. A back of sidewalk tree program could include the City of Somerville distributing trees to residents to plant in their front yards along the sidewalk. Securing an easement involves creating a legal agreement between the Somerville Conservation Commission and a homeowner guaranteeing that trees could be planted and maintained in their front yards. The easement program could be particularly appropriate for the Transform Areas when new street grids are created.
- 8. Solidify efforts to create land trusts in Somerville: Local advocates are currently working to create a community land trust that is focused on creating more affordable housing in Somerville and has left the door open to be able to create new open space. Groundwork Somerville recently changed their bylaws to allow the organization to hold real property interest, enabling it to hold the perpetual conservation restrictions required for land purchased with Community Preservation Act funds. Both organizations could help increase the speed at which new open space is created by increasing the number of organizations working together on our creation goal and by mobilizing funding that is not available to the City of Somerville.

#### Financing Open Space Creation

Since the initial launch of SomerVision, Somerville has gained 15.03 acres of open space and additional 4.87 are underway, for a total of 19.9 new acres of open space. To reach the 125 acre goal, funding needs to be mobilized to create an additional 105.1 acres of open space. The City of Somerville estimates that today it takes \$6.2 million to create a new acre of open space-\$4 million for acquisition and \$2.2 million for design and construction. This is based on data from the last five years of parks renovation projects and the purchase prices for the recent Community Preservation Act open space acquisitions. Assuming these numbers, the Somerville community will need to mobilize over \$651 million to reach the 125 acre goal. Land values and construction costs are rapidly increasing, so it is expected that the cost for creating new open space will increase significantly over time.

Through the neighborhood planning process, a further 12.25 acres in open space is planned and the City is constantly monitoring parcels for acquisition that totals roughly five acres at any given time. That means that in addition to mobilizing funds, Somerville will also need to identify 87.85 acres of land to be converted to open space. Many of these acres will come from the Transformative Areas. The Task Force encourages City planners to strive for a goal of 30% open space in the Transformative Areas, which would create 60 new acres of open space, leaving an additional 26.85 acres to be located in existing neighborhoods.

In addition to working with private developers to create POPS, the City of Somerville will need to prioritize investing in open space creation to also increase the number of publicly-owned open spaces in Somerville. Currently, the City of Somerville has limited funds to invest in open space. The annual City operating budget is \$250 million and less than 10% of that amount is discretionary after paying for salaries, debt service, and other necessary expenses. There are many priorities competing for these funds.

Table 2. Time to raise funding to create 1 acre:

Annual investment	\$500,000	\$750,000	\$1 million	\$1.5 million	\$2 million	\$3 million	\$5 million
Years to save \$6.2 million	12.40	8.27	6.20	4.13	3.10	2.07	1.24

Because the City's primary source of revenue is property tax, it increases its budget through new growth- both property owners who make improvements to existing property and the creation of new buildings, both residential and commercial. As Assembly Square, Union Square, and the Transformative Areas develop, they will generate new revenue that could be put towards open space.

In 2017, the City of Somerville hired TischlerBise to explore the fiscal impacts of different land use types to inform the proposed zoning code overhaul. The fiscal impact analysis explored the revenue generation potential and the operating and capital costs associated with the provision of public services. "While fiscal zoning is illegal, the analysis can help inform an appropriate mix of land uses knowing that some land uses are "contributors" while others may be recipients." The study found that while mixed-use developments and non-residential land uses generate net fiscal revenue, residential units generate a net deficit of \$840 per unit. This is a result of the services residential

-

<sup>&</sup>lt;sup>10</sup> TischlerBise, 1.

units receive, including school services, and the residential exemption owner-occupied units receive on their property tax. A summary of the results is in the table below.

Table 3. Annual Net Fiscal Results by Land Use Type

Land Use Type	Neighborhood Residential (per unit)	Mixed-Use Residential (per unit)	Retail (per 1,000 sf)	Office (per 1,000 sfl)	Hotel (per room)
Annual Net Fiscal Impact	-\$840	\$337	\$1,352	\$3,142	\$7,964

The result of this study suggests that in addition to meeting the SomerVision goal of having a job located in Somerville for every resident of working age, integrating a mix of commercial uses into new development will lead to greater revenue that could be used to pay for new open space, as well as other significant needs in the city, such as affordable housing.

The City of Somerville Finance Department has developed a long range forecast that estimates revenue and expenses over the next ten years, drawing on projections of new development and the costs of providing excellent services to residents. For the first time, investment in open space acquisition has been added as an item in the City's long range forecast. The version below was shared with the City Council on June 26, 2019. Over the next ten years, the Finance Department estimates the City will be able to invest \$9.1 million from the City's operational budget in open space creation.

In addition to general funds, the City has two primary sources of grant funding for open space acquisition: the state's Parkland Acquisitions and Renovations for Communities (PARC) program, which awards grants of up to \$400,000 and requires a 40% local match, and the local Community Preservation Act (CPA) program. The annual CPA revenue is around \$2 million and 20% has been allocated to the open space/recreational land category over the last two years and 10% has been allocated to the flexible category. This means that around \$600,000 could be available for open space acquisition funds each year. However, there are typically demands for funds for renovation of existing open spaces beyond the annual open space budget and other affordable housing and historic resources projects also compete for the flexible funds.

Below the Task Force recommends increasing the CPA surcharge from 1.5% to the maximum of 3%. Doing so would double the amount of funding available for open space/recreational land. Assuming that the Community Preservation Committee, which manages the CPA funds, allocated half of the funding available in the open

space/recreational land category over the next ten years, CPA funds could contribute an estimated \$4 million to land acquisition.

Combining the City of Somerville general fund contribution of \$9.1 million and the \$4 million in CPA funds, would result in \$13.1 million available for new open space from our current fiscal year, FY20, to fiscal year FY29. Using the estimate of \$6.2 million per acre for acquisition, design, and construction, using only City resources, an additional 2.11 acres could be created over the next ten years. At this pace, it would take 498 years from today to reach the 125 acre SomerVision goal, using only City funding. If you assumed that from FY30 onwards, the City kept the pace of investing \$2 million a year in open space creation, that would reduce the time from FY20 to reaching the 125 acre goal of 329 years. This suggests that it is essential to mobilize other sources of funding, such as requiring developers to create privately owned public spaces, shifting from using PARC funds for renovation projects to acquisition projects, and engaging other partners that could tap into other sources of funding such as a community land trust.

Table 4. Estimated long range municipal contributions to open space creation

Source	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	Total
General Fund	0	0	500,000	750,000	850,000	1,000,000	1,500,000	1,500,000	1,500,000	1,500,000	9,100,000
СРА	200,000	200,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	4,000,000
Total	200,000	200,000	950,00	1,200,000	1,300,000	1,450,000	1,950,000	1,950,000	1,950,000	1,950,000	13,100,000

Because the high land values and rising construction costs in Somerville and the ambitions of our goals require such a substantial amount of funding, the Task Force is proposing strategies that will increase the funding available for open space creation by going beyond traditional funding sources and suggesting the creation of new community organizations that could support fundraising efforts. None of the proposed strategies alone will solve Somerville's open space financing needs. A full toolbox needs to be assembled in order to increase the speed at which open space is created. The strategies proposed by the Task Force for financing open space acquisition are:

1. Create a linkage fee that will support the creation of new publicly accessible open space: Linkage fees are charges paid by developers to ensure that new development in a community benefit its residents. Somerville currently has linkage fees that support affordable housing and workforce development. Adding a linkage fee for open space would increase the pace at which the City of Somerville could raise funds to acquire new open space.

2. Increase the Community Preservation Act surcharge from 1.5% to 3%: Funds for the Community Preservation Act (CPA) program come from a surcharge on property tax. In 2012, Somerville adopted a 1.5% surcharge with an optional City match. Given the many competing demands for discretional City funding, including repairing our aging infrastructure, traffic calming, providing immigrant services, and affordable housing, the City has not been able to maximize its optional City appropriation since the first two years of the program. Increasing the surcharge from 1.5% to the maximum of 3% would double the amount of revenue that could be reliably generated. It would also have the benefit of increasing the match rate from the state, which provides a higher match rate to communities that have invested the maximum of 3% locally. The state match rate has been declining in recent years as the funding for the state CPA trust fund has remained flat while more communities have adopted CPA, including larger communities such as Boston and Springfield. Fortunately, the match rate for CPA will increase in fiscal year 2021 as a result of legislation just passed to permanently increase the registry fees that fund the CPA state trust fund. In addition to benefiting the creation of new open space, additional community investment in CPA would also benefit the other two CPA eligible categories- affordable housing and historic preservation.

Increasing the surcharge would require the passage of a ballot measure by the voters of Somerville. There are two pathways to putting a CPA question on a ballot: by City Council vote (90 days before a city election or 120 days before a state election) or by submission of a petition signed by at least 5% of the registered voters and filed with registrars (42 days before a city election and 67 days before a state election).

- **3. Explore using District Improvement Financing for the creation of open space:** District Improvement Financing (DIF) allows municipalities in Massachusetts to commit all or a portion of the tax increment for new developments to fund improvements in the established district. Somerville currently has a DIF in Union Square. Land acquisition is one of the allowable uses of DIF funds, which are generated through posting a bond.
- 4. Work with developers to create privately owned public spaces (POPS): Creating open space in the Transformative Areas presents the opportunity to have private developers create open space as they develop other projects in these areas. Because privately owned public spaces (POPS) create open space without costing existing taxpayers, they are a very appealing strategy for creating new open space in Somerville. At the same time, this approach should be balanced with efforts to increase the number of publicly owned open spaces because of the trade-offs that exist with POPS. For example, the cost of creating these privately owned publicly open spaces will be passed on to future residents through higher rents to new residents and businesses. POPS also need to be carefully planned in order to ensure they feel

welcoming to all and provide amenities that neighbors need and want. As a result, the Task Force is recommending that the City develop clear guidelines for the development of POPS in Somerville and a communication plan, including signage, so that residents know where POPS are and that they are welcome to take advantage of these spaces. The Task Force also encourages the City to have private developers turn over open space they create to the City while continuing to support maintenance so the City can more effectively ensure public access to these spaces.

- 5. Encourage the creation of a community foundation and friends groups for the city's open spaces: Community foundations help residents invest in their community and raise funds through donations and other gifts to support community priorities, which could include the creation of new open space. In addition, the creation of friends groups for individual open spaces or Somerville's open spaces as a whole, could tap into other sources of funding for open space. A local example is the Friends of the Community Growing Center, which maintains, operates programming, and raises funds for the Community Growing Center. As a governmental entity, the City of Somerville cannot access some types of grant funding. Creating new non-profit entities in Somerville that can access these funds could increase the opportunities for generating funding beyond asking taxpayers to support these efforts. See the section on community roles for further discussion.
- **6. Encourage private gifts in support of open space creation:** Individuals can leave funds and property to the City of Somerville or non-profit entities in their will or while they are still living. Residents should be made aware of the opportunities and be encouraged to consider them as they plan their personal philanthropy and for their estate.

#### **Prioritizing Parcels for Acquisition**

While at any given time there may be several different parcels that could be acquired for new open space, the Task Force realizes that funding may not be available to acquire them all at once. To help in decision making about which parcels should be prioritized for open space, the Task Force proposes the following key questions should be considered when deciding whether or not a parcel is a good candidate for new open space and when prioritizing among different potential parcels for acquisition:

Does the parcel fill in an open space access gap in the neighborhood?
 Consideration should be given to access gaps by type and use needs based on neighborhood demographics. Parcels should be given higher priority if they fill in an access gap in an environmental justice neighborhood.

- 2. Does the parcel provide the opportunity to add a needed open space type or feature? Currently there is a need for new athletic fields and community gardens, but these needs could evolve over time.
- 3. Does the parcel add area to an existing open space?
- 4. Is there a partnership opportunity to create and/or maintain open space on the parcel? For example, is there a developer or non-profit that could help fund the project? Does the parcel contribute to another project that serves a vulnerable population such as an affordable housing development or the home of an organization that provides social services?
- 5. What is the anticipated cost per square foot of the parcel?
- 6. What are the opportunity costs of converting the parcel to open space? For example, could the site also be used for affordable housing or commercial development? Is there an opportunity to combine these uses?

These questions should be paired with a physical site analysis that explores the feasibility of placing open space on the site. The analysis should explore: topography, solar analysis, local context, existing vegetation, potential for stormwater capture, need for environmental remediation, etc.

#### Community Roles in Acquiring New Open Space

The City of Somerville and private developers have been responsible for the creation of all new open space since the launch of SomerVision in 2012. While local government and private developers will continue to generate the largest amounts of open space in Somerville, progress will happen faster if the number and type of organizations working to create open space in Somerville expands to include non-profit partners and a community foundation.

For example, Northampton works with multiple non-profits and a community foundation to acquire open space. The Community Foundation of Western Massachusetts accepts donations from private individuals that are pooled together to purchase large parcels of land. Northampton also purchases open space with Community Preservation Act (CPA) funding. This funding comes with a requirement to perpetually preserve the land as open space. The City of Northampton partners with the Kestrel Land Trust and Mass Audubon to hold the restrictions on larger parcels. However, they also work with the Friends of Northampton Parks and Recreation, which holds restrictions on smaller properties, such as neighborhood parks. The Friends also raise funds for open space.

In addition, the City should consider expanding the role of the Conservation Commission to play a role in land acquisition, which is allowed for in their governing statue. For example, in Northampton, the Conservation Commission receives CPA funds to make purchases under \$20,000. This fund has mainly acquired conservation and agricultural preservation restrictions and small park parcels.

Below are the Task Force's recommendations for roles for open space acquisition in Somerville. The summary section of this report recommends organizations to involve in each of the recommendations included in this report, which is more extensive than the list provided here.

#### Local Government Entities

City of Somerville: The City of Somerville should take the lead in community efforts to expand access to open space. This will include developing a plan for which parcels should be acquired to meet the goals recommended in this report as well as establishing the guidelines and policies necessary to ensure POPS created by private developers address the open space needs of the neighborhood as well as meet Somerville's high standards. The City should actively invest in its land acquisition fund as well as maximizing the optional City appropriation to the Community Preservation Act fund while Somerville is a 1.5% surcharge community. The City should also hire a staff person or assign an existing staff person to reach out to the property owners of parcels that would be good candidates for conversion to public open space. This would help build relationships with these owners so they will consider selling their property to the City or donating it as open space when they are ready.

Community Preservation Committee: The Community Preservation Plan, established by the Community Preservation Committee currently prioritizes the acquisition of new open space. To date, CPA funds have supported the acquisition of 0.17 acres of open space. The Community Preservation Committee should continue to prioritize the acquisition of open space and contribute funds to the City's open space acquisition fund. The Community Preservation Committee could also work to integrate open space components into the other areas it funds- affordable housing and historic resources. The existing Committee could also be an asset in developing the campaign to gain support in increasing the CPA surcharge.

Conservation Commission: The role of the Conservation Commission should be expanded so the body could play a role in land acquisition. They could take on the program to acquire easements to create pathways through neighborhoods that could increase access to open space, establish tree boulevards, or to create community gardens in side yards.

#### **Existing Non-Profit Organizations**

Groundwork Somerville: Groundwork Somerville is currently partnering with the Community Preservation Committee to hold the conservation restriction on land purchased with Community Preservation Act dollars. As part of taking on this role, the organization amended their bylaws to allow Groundwork to hold real property interest. Groundwork could consider expanding their role in the city to including land acquisition and open space creation. As a non-profit organization, they would be able to access grant funds the City of Somerville cannot access as a government and some people may be more comfortable donating land to a non-profit.

Mystic River Watershed Association: MyRWA, based in Arlington, focuses on open space along the Mystic River and Alewife Brook Parkway. They are working closely with the Massachusetts Department of Conservation and Recreation to renovate open space along the river, including the Blessing of the Bay Boathouse Park. Where possible they should seek to expand the open spaces along Somerville's waterways.

Community Land Trust: Community members are developing a community land trust that is focusing on developing new units of affordable housing. They have expressed a desire to also support the creation of new open space. They could build on the real estate expertise they are gaining to support open space creation in conjunction with the creation of affordable housing.

#### Potential New Non-Profit Organizations

Community Foundation: The role of a community foundation is to raise local funds to support local projects. They can connect residents who want to invest in their community and are interested in pooling their resources with other residents to support work that is meaningful to them with projects in need of funding. A community foundation could help raise funds for open space in ways that the City or other non-profits could not. Somerville residents would likely be willing to contribute towards the acquisition of new open space. A new community foundation would give them a mechanism for doing so.

'Friends' groups: Somerville parks lack traditional 'Friends' groups that help with stewardship of parks, including maintenance and fundraising for improvements. The Friends of the Community Growing Center is a notable exception. Friends groups could be formed to improve and expand existing parks and could be formed to help create new parks. They could also be formed with a mission of supporting open space in a neighborhood or across the City. For example, the mission of the Friends of

Northampton Parks and Recreation is "to engage in fundraising and support, maintenance, labor and development of current and future recreation facilities, and to encourage interest and promote athletic and recreational activities and facilities in the city of Northampton."

# **Creating High Quality Open Space**

While the mandate of the Task Force was to focus on how Somerville can create new open space, through the course of its conversations, its members recognized that other goals are also important to work towards to ensure that the open space created is high quality and addresses the needs of the Somerville community. Accordingly, the Task Force recommends the following supportive goals:

- Increase the number of athletic fields to meet the demand for youth recreation hours
- Increase the number of community garden plots.
- Provide a range of publicly-accessible open spaces within a 5 minute (0.25 mile)
   walk of every residential parcel in Somerville.
- Provide equal access to high quality open space across the city.
- Maximize the ecosystem benefits that open spaces provide to residents and the natural world.

The Task Force sought to identify indicators that would provide a holistic view of the state of open space in Somerville with a focus on the creation of open space that provides equitable access to all Somerville residents. Proposed indicators to measure the progress of each of the five supportive goals are below. While the Task Force is proposing some supportive goals and indicators, it recognizes that it did not fully explore, and therefore is not proposing, indicators related to open space design and use of specific parks. The Task Force recognizes the value of having this information and encourages the City of Somerville and the SomerVision Steering Committee to explore adopting additional measures such as activity within public parks, their physical condition, and the Gehl Quality Criteria to track the use and quality of parks once they are created. The City should also considering developing partnerships with universities and researchers to regularly measure air quality and urban heat island and consider how the results from these studies should impact the creation and design of open space.

Goal 2: Increase the number of athletic fields to meet the demand for youth recreation hours.

Somerville's youth and adults who play team sports are currently underserved by the athletic fields in the city. The Task Force encourages the City to expand field capacity so that all teams that want to permit a field will be able to do so. The data suggests that the City can accomplish this by continuing with current plans to open the new Lincoln fields in 2019, expanding the playing time at Dilboy Auxiliary with the addition of lights, and creating a new athletic field as part of the new Somerville High School campus.

Indicator	2019 Baseline
Number of new athletic fields disaggregated by size	0
Number of athletic fields with expanded capacity disaggregated by size	0
Number of hours requested for athletic field time that do not receive a permit	3,000
Number of hours of permitted athletic field time	9,034

#### Goal 3: Increase the number of community garden plots.

The Somerville Conservation Commission currently manages 232 garden plots in 12 gardens. These plots are available to Somerville residents who can keep their plots as long as they remain Somerville residents and are actively using their plot. Community gardens are each managed by a volunteer community garden coordinator Eight of the 12 garden managers have shared their waitlist with the Conservation Commission. Combined there are 122 unique individuals on their waitlists. The Task Force believes that all residents who would like to have the opportunity to grow their own food in Somerville should have that opportunity. At the same time, they encourage the City and the Conservation Commission to explore new models for future community gardens that allow residents who do not have plots to also enjoy these spaces, as most of them are locked.

Indicator	2019 Baseline
Number of community garden plots managed by the Conservation Commission	232
Number of unique individuals on community garden waitlists	122 (8 of 12 gardens reporting)

# Goal 4: Provide a range of publicly-accessible open spaces within a 5 minute (0.25 mile) walk of every residential parcel in Somerville.

Standards used to determine how much open space a community needs has changed over time. In the 1980s organizations such as the Trust for Public Land and the National Parks and Recreation Association proposed standards of 6 and 10 acres per 1,000 residents respectively. However, both organizations have moved away from these recommendations as they recognized they are not feasible for many communities, particularly urban communities that have already been fully developed. As a result, both organizations have shifted instead to encouraging communities to consider access to parks within walking distance from home. They have partnered with the Urban Land Institute on a campaign to ensure everyone lives within a 10 minute walk of home. Somerville has already reached this goal. The Task Force is suggesting that Somerville adopt an even more ambitious goal of providing access to a range of parks within a five minute walk of home to all residents. The Task Force recommends measuring access to playgrounds because of the importance of play and active movement to children's development and to passive spaces because of the connections they provide to the natural environment. See the appendix for maps depicting the walkshed for each of the indicators below.

Indicator	2019 Baseline <sup>11</sup>
Percentage of Somerville residential parcels within a 5 minute walk of a publicly-accessible open space (all types)	94.4% (11,487/12,163)
Percentage of Somerville residential parcels within a 5 minute walk of a publicly-accessible playground	63.1% (7,675/12,163)
Percentage of Somerville residential parcels within a 5 minute walk of a publicly-accessible passive space	74.0% (9,000/12,163)
Number of publicly-accessible dog parks in Somerville	5
Number of publicly-accessible parks with skateboard elements in Somerville	2

<sup>&</sup>lt;sup>11</sup> The City of Somerville is currently refining its GIS data to ensure that all landscape use types are accurately reflected in the GIS layers for each park. As a result, the access numbers for the playground and passive uses may increase once all of the use types are reflected in the GIS open space layer.

# Goal 5: Somerville residents enjoy equal access to high quality open space across the city.

The Task Force firmly believes that all Somerville residents deserve equitable access to high quality open space to which they can safely and easily walk. Based on the 2010 U.S. census data. 55.5% of Somerville's land area is located in an environmental justice area. 12 Currently, 73% of Somerville's parks overall and 76% of the City's parks listed as being in poor condition are located in environmental justice areas, of which five of the twelve are in an active design process to renovate the park (see appendix for a list of parks in poor condition). While these numbers suggest that there is equal placement of parks and that current issues with the equitable access to quality parks are being addressed, there is not currently data on whether all of Somerville's residents can safely and easily walk to their neighborhood parks. For example, residents in the Mystic neighborhood are close to the Healey School, but have the climb challenging sets of stairs to access the school yard. They are also close to the Blessing of the Bay Boathouse and Park but need to cross under I-93 to access the park and river. To better understand access to safe routes to parks, the Task Force is recommending, in alignment with the Vision Zero Action Plan, the implementation of a Safe Routes to Parks program, which includes conducting a safe routes audit for each of Somerville's parks. The goal of the Safe Routes to Parks program is to "ensure that people can walk, bike, or roll to a park or green or open space in a way that is convenient, comfortable, appealing, and safe from traffic and personal danger." This is measured through a walk audit that looks at sidewalks, street crossings and intersections, driver behavior, safety, comfort, park appearance, and park features.<sup>13</sup>

Indicator	2019 Baseline
Number and percentage of open spaces listed in poor condition	# = 17 % = 19% (17/89)
(Numerator: Number of open spaces listed in poor condition; Denominator: Total number of open spaces)	(with an additional eight in active design; when these are complete = 10%)

<sup>&</sup>lt;sup>12</sup> Environmental justice areas are census block groups where 25% or more of residents are minorities, 25% or more are non-English speaking, or the median income is less than the state median. A block group is considered to be an environmental justice area if it meets one, two or all three of these criteria.

<sup>&</sup>lt;sup>13</sup> Safe Routes to School National Partnership.

Number and percentage of open spaces in environmental justice areas  (Numerator: Number of open spaces in environmental justice area;	# = 65 % = 73% (65/89)
Denominator: Total number of open spaces)	
Percentage of open space listed in poor condition located in an environmental	% = 76% (13/17)
justice area	(with six in active design; when these are complete = 41%)
(Numerator: Number of open spaces in poor condition located in an environmental justice area; Denominator: Total number of open spaces in poor condition)	
Number and percentage of open spaces that pass a Safe Routes to Parks audit.	New indicator: baseline needs to be established
(Numerator: number of open spaces that pass a Safe Routes to Parks audit; Denominator: total number of open spaces in Somerville)	
Percentage of open spaces that do not pass a Safe Routes to Parks audit located in an environmental justice area	New indicator: baseline needs to be established
(Numerator: Number of open spaces that do not pass audit located in an environmental justice area; Denominator: Total number of open spaces that do not pass audit)	
Number and percentage of open spaces that meet the accessibility requirements of the Americans with Disabilities Act.	# = 89 % = 100% (89/89)
(Numerator: Number of open spaces that meet ADA requirements; Denominator: Total number of open spaces)	

# Goal 6: Somerville's open spaces maximize the ecosystem benefits they provide to residents and the natural world.

Somerville's open spaces need to serve 80,000 people, their dogs, and the natural world. The City's parks planners should continue to work closely with residents to determine the right mix of uses for each new park and to incorporate as many features as possible that support natural phenomena and processes, including pollination, as well as plan for the changing climate.

Creating open space that supports native pollinators is vitally important to human health and the health of local ecosystems. Bees, butterflies, bats, and birds are essential to food production systems. Plant choices can have significant impacts on the health of these populations. There is currently little known about what native pollinator species are present in Somerville and the health of these populations. The Task Force calls for first establishing what species are present in Somerville or could be if we created more habitat for our native pollinators. Based on the results of these surveys and research being done by community organizations in partnership with pollinator experts, the Task Force calls for the development of a community-wide plan to support the health of our existing pollinators and encourage additional pollinators to make Somerville their home.

Indicator	2019 Baseline
Information on the range of ecosystem services <sup>14</sup> for each park are listed on the City's website	No
Number of public parks and POPS that include native pollinator host plants	New indicator: list of relevant native pollinator host plants to be developed following pollinator species survey and plants selected for appropriateness for a public park
Number of private residences and buildings on the City of Somerville pollinator friendly yard map	New indicator: list of relevant native pollinator host plants to be developed following pollinator species survey and plants selected for appropriateness for private yards
Number and health of bee and butterfly species found during annual survey	New indicator: baseline needs to be established

<sup>&</sup>lt;sup>14</sup> Food production, regulating natural phenomena, cultural services, and supporting existing natural processes)

27

#### Implementation Strategy Recommendations for Supportive Goals

To achieve the recommended goals to support the creation of high quality, equitable open space and make progress on the proposed measures, implementation strategies are proposed below for each of the goals that will support the creation of high quality open space.

#### **Goal 1: Increase New Publicly-Accessible Open Space**

- 1. Allow for creation of green roofs, courtyards, and forecourts: While green spaces in private residential developments may not be public, they still provide substantial environmental benefits. So while the Task Force recommends the City's efforts focus on creating new publicly-accessible open space in Somerville, it encourages all efforts to increase the amount of green space in Somerville.
- 2. Engage the Department of Conservation and Recreation (DCR) to plan and design public space improvements in partnership with the City: DCR owns a higher percentage of open space in Somerville that the City of Somerville does and several DCR owned open spaces are listed as being in poor condition and are in environmental justice neighborhoods. As a result, the City of Somerville needs to work closely with DCR to make improvements to the DCR owned open space in Somerville and to seek opportunities to increase the amount of open space along the Alewife Brook and Mystic River.
- 3. Allow private homeowners to open up their yards to community gardens: The proposed zoning overhaul would allow private homeowners to open up their yards to their neighbors by providing garden plots. The Task Force is supportive of this effort and encourages the City to advertise this new opportunity to encourage residents to share their yards for community garden uses. The City should also consider subsidizing water for the program.
- 4. Create City-sponsored programs and incentives for residential and/or commercial owners to provide more green and open space: In order to encourage Somerville's residents and businesses to green their own spaces, the City of Somerville should create a range of programs and incentives to celebrate efforts to green private spaces. These efforts should encourage the use of host plants for native pollinators. These incentives could include:
  - Greenest Street in Somerville contest to encourage neighbors to work together to create green spaces that could serve as pollinator corridors on their blocks.

- Native pollinator host plant give-aways to help residents get started in creating native pollinator habitat in their yards.
- Walking tours of pollinator-friendly gardens to allow people to teach others about what they have done to create pollinator habitat in their yards.
- Create a map on the City of Somerville website that will allow private property owners to add their open space to the list of pollinator friendly sites.
- 5. Develop fee for service programs that help residents and businesses make their green space more pollinator friendly: Community organizations such as Groundwork Somerville and Green & Open Somerville that are already working to create more pollinator habitat in the city could develop programs to support the effort of residents and businesses to make more green space on their property and make that green space friendly to native pollinator species. Organizations could use these programs to generate revenue to support both the pollinator habitat program and their other programs.
- 6. Plan and budget for effective maintenance of current and new open space:

  Somerville's open spaces are unique- each with their own features and plant palettes.

  Their designs have become increasingly complex over the years as green infrastructure and native plantings have been integrated into the designs of each of the city's new parks. As a result, the maintenance of Somerville's open spaces now requires more time and specialized skills than in the past. The staffing levels and expertise within the Department of Public Works, which maintains the City's parks, needs to be increased to effectively maintain the City's existing parks and to be able to take on the additional work of new open spaces. Some strategies to support funding for open space maintenance include:
  - Increasing the budget and staffing for open space maintenance as new open spaces are created to keep pace with the growing demands on the Department of Public Works.
  - Partnering with developers to ensure ongoing and efficient maintenance of open space created through redevelopment. For example, the developer who is creating the new open space at the former Powder House School will be responsible for maintaining the new park for a set establishment period so the necessary care and attention needed for the new plantings to flourish can be provided.
  - Using the Business Improvement District (BID) approach to generate funds for maintenance. BIDs allow property owners to vote to accept an additional levy that supports improvements within the established district. BID funds could

- generate additional funds from commercial properties that could be used to improve and maintain nearby open spaces.
- Working with community partners to maintain open spaces. For example, the City
  of Somerville could engage the Groundwork Green Team to support the
  maintenance of open space while also providing employment for youth.

# Goal 2: Increase the number of athletic fields to meet the demand for youth recreation hours

Provide opportunities for open play on the city's athletic fields: The Task Force recognizes the great demand for athletic field playing time for the city's organized youth and adult sports teams and the need to manage how our natural grass fields are used to maintain safe playing conditions. It also recognizes the value of having open spaces to play catch, fly a kite, run with abandon, or twirl in circles on the grass. Therefore, the Task Force encourages playing fields to be left unlocked when not in use by permitted sports teams. It also encourages factoring in the need for opportunities for open play when planning for the amount of fields needed in the community in addition to the needs of the city's organized sports teams. The hours that parks are available for open play should be posted so families can know when they can make use of the fields.

#### Goal 3: Increase the number of community garden plots

Find ways to include more public accessibility in community gardens: Community gardens provide wonderful opportunities for residents to be able to grow their own food and be part of a community. At the same time, the existing approach to community gardens in Somerville can feel exclusive as those without a plot are locked out and waitlists are long because gardeners can hold their plots for their lifetimes. The Task Force encourages the City to explore innovative approaches to designing community gardens that allow more residents to benefit from them.

# Goal 4: Provide a range of publicly-accessible open spaces within a 5 minute (0.25 mile) walk of every residential parcel in Somerville

Install signage noting when schoolyards and fields can be used by the public: In a community as small and dense as Somerville, open spaces often need to serve multiple purposes for multiple populations. In Somerville, schoolyards are open to the public after school hours and athletic fields can be used when not permitted. To help the public understand when they are able to use the facilities, signs should be placed at the City's schoolyards and fields with information about when they are available for use and how to reserve them, if applicable.

#### Goal 5: Provide equal access to high quality open space across the city

- 1. Implement a Safe Routes to Parks program as called for in the Somerville Vision Zero plan: Residents cannot fully enjoy the city's open spaces if they cannot safely walk, bike, or roll to them. The Task Force is aware of challenges accessing some of the city's open spaces safely. For example, to reach the Dilboy complex, one must cross Route 16. To comprehensively understand how accessible open spaces are to residents, the Task Force proposes the City of Somerville implement a Safe Routes to Parks program and improve the accessibility of its open spaces based on the results.
- 2. Prioritize creation and maintenance, as well as balancing of type, of open space in environmental justice areas: The Task Force encourages the City of Somerville and its partners to ensure that its most vulnerable residents have access to high quality open space. As a result, the Task Force proposes that when the City of Somerville has the opportunity to create new open spaces and renovate existing open spaces it priorities those opportunities within environmental justice communities. Part of this prioritization should include providing access to a range of open space types.

# Goal 6: Maximize the ecosystem benefits that open spaces provide to residents and the natural world

- 1. Work with experts to develop a list of host plants for native pollinator species that would count towards a pollinator friendly designation and develop a plan for supporting native pollinator habitats: In order for the efforts to create habitats that are friendly to native pollinators described above to be effective, the City of Somerville and community organizations need to learn more about the pollinators that are currently present in Somerville, the health of these populations, and pollinator species in surrounding communities that could expand to Somerville if given the proper conditions. Surveying pollinator species and their health will require working with entomologists and biologists who are experts in pollinators native to Massachusetts. Once there is greater understanding of local pollinator populations, a plan should be developed to support the health of the city's native pollinators.
- 2. Develop citizen science programs to monitor the health of Somerville's bee and butterfly communities: Once the presence and health of local native pollinator species has been determined, community organizations should work to develop citizen science programs that will teach residents, especially youth, about local pollinators, and train them to survey existing populations to track their health over time. These organizations

should partner with the City of Somerville to regularly refine strategies for supporting the health of native pollinator populations.

- 3. Include as many ecosystem benefits as possible within each park, including designing for residents at all stages of life: City of Somerville parks planners should continue to maximize the ecosystem benefits that each open space in the city provides. This work should include considering the needs of residents at all stages of life and ensuring that within each neighborhood there are open spaces that will appeal to young children, teens, young adults, families, and seniors.
- 4. Design open spaces with climate change in mind: The Task Force encourages the City of Somerville to design parks that take air quality, stormwater infiltration, and urban heat island into consideration. The Task Force encourages the City to develop relationships with university partners who can help monitor air quality and urban heat island effects on a regular, ongoing basis.
- 5. Design open spaces that will be well used and well loved: In addition to serving the natural environment, Somerville's parks should be designed to meet the needs of residents. Many people in the city do not have access to a yard, so the city's open spaces provide residents with the opportunity to spend time outdoors and access all of the benefits of doing so. One way of measuring the success of open space designs is the Gehl quality criteria of protection, comfort, and enjoyment. Regular assessments of the use of open space should be done and the results should be used to inform the design of new parks and the renovation of existing parks.

## **Summary**

To summarize the Task Force's recommendations on creating new publicly-accessible open space, the tables below lists the related strategies and proposed institutions to be responsible for implementing the recommended strategies.

#### Implementation Strategies

Recommendation	Organizations Involved
Develop an open space acquisition plan that identifies parcels for acquisition	City of Somerville Office of Strategic Planning & Community Development- Economic Development, Planning & Zoning, Public Space and Urban Forestry Divisions

2. Develop at least 60 acres of new open space in the Transform Areas	<ul> <li>City of Somerville Office of Strategic Planning &amp; Community Development- Planning &amp; Zoning and Public Space &amp; Urban Forestry Divisions</li> <li>Somerville Redevelopment Authority</li> <li>Private developers</li> </ul>
3. Prioritize proper siting of open space in neighborhood planning	City of Somerville Office of Strategic Planning & Community Development- Planning & Zoning and Public Space & Urban Forestry Divisions
4. Integrate open space into affordable housing and community organization sites	<ul> <li>City of Somerville Office of Strategic Planning &amp; Community Development- Planning &amp; Zoning and Public Space &amp; Urban Forestry Divisions</li> <li>Somerville Planning Board</li> <li>Somerville Affordable Housing Trust and the Community Preservation Committee</li> <li>Somerville Community Corporation, Preservation of Affordable Housing (POAH), Community Land Trust, and other affordable housing developers</li> </ul>
5. Convert excessive street space and underutilized parking lots to open space	City of Somerville Office of Strategic Planning & Community Development- Mobility, Planning & Zoning, and Public Space and Urban Forestry Divisions
6. Purchase mid-block access outright or through easements to increase pedestrian access to open space	<ul> <li>City of Somerville Office of Strategic Planning &amp; Community Development- Planning &amp; Zoning and Public Space &amp; Urban Forestry Divisions</li> <li>Somerville Conservation Commission</li> </ul>

7. Purchase front yard easements along streets to create Commonwealth Avenue style tree boulevards	<ul> <li>City of Somerville Office of Strategic Planning &amp; Community Development- Planning &amp; Zoning and Public Space &amp; Urban Forestry Divisions</li> <li>Somerville Conservation Commission</li> </ul>
8. Solidify efforts to create land trusts in Somerville	<ul><li>Groundwork Somerville</li><li>Community Land Trust</li></ul>

# **Funding Strategies**

Recommendation	Organizations Involved	
Create a linkage fee that will support the creation of new publicly-accessible open space	<ul> <li>City of Somerville Mayor's Office</li> <li>Somerville City Council</li> <li>City of Somerville Office of Strategic Planning &amp; Community Development- Planning &amp; Zoning Division</li> </ul>	
2. Increase the Community Preservation Act surcharge from 1.5% to 3%	<ul> <li>Somerville City Council</li> <li>City of Somerville Mayor's Office</li> <li>City of Somerville Finance         Department     </li> <li>Community Preservation         Committee     </li> <li>Community advocates</li> </ul>	
3. Explore using District Improvement Financing for creation of open space	<ul> <li>City of Somerville Finance         Department</li> <li>City of Somerville Office of         Strategic Planning &amp; Community         Development- Planning &amp; Zoning         Division</li> </ul>	
4. Work with developers to create privately owned public spaces (POPS)	<ul> <li>City of Somerville Office of Strategic Planning &amp; Community Development- Economic Development, Planning &amp; Zoning, Public Space and Urban Forestry Divisions</li> <li>Somerville Planning Board</li> </ul>	

5. Encourage the creation of a community foundation and friends groups for the city's open spaces	Community advocates
6. Encourage private gifts in support of open space creation	<ul> <li>City of Somerville Finance         Department</li> <li>City of Somerville Office of         Strategic Planning &amp; Community         Development- Public Space &amp;         Urban Forestry Division</li> </ul>

# **Conclusion and Next Steps**

Somerville residents currently have access to award-winning open space within walking distance of their front doors. One hundred percent of residents live within a 10 minute walk of open space in Somerville. The national average is 54%. While this achievement is definitely something to celebrate, the community recognizes the need to create significantly more open space in order to meet the needs of residents and the natural environment. The Open Space Creation Task Force met over six months to learn together about zoning, municipal finance, urban and open space design, ecosystem services, and much more and use this shared learning to make recommendations as to how the City of Somerville can increase the amount of open space in Somerville as well as ensure equal access to high quality open spaces across the city. The result of this shared learning and discussion is captured in the pages of this report. The Task Force hopes that both the City of Somerville and the SomerVision Steering Committee will find the recommended strategies and measures both practical and implementable as well as inspirational, encouraging new and creative ways to create open space with more partners than are currently involved.

This report will be shared with the City of Somerville administration and organizations that are represented on the Task Force: City Council, Conservation Commission, Community Preservation Committee, Green & Open Somerville, Groundwork Somerville, and the Mystic River Watershed Association. If requested, the Task Force will present the findings and recommendations from this report to these institutions.

The Task Force will also share this report with the Public Realm & Natural Environment Working Group of the SomerVision Steering Committee. This working group is tasked with writing the chapter of the SomerVision 2040 report on the public realm and natural environment, including open space creation, and will be participating in discussions on

what measures and targets related to open space should be included in the SomerVision report. The Task Force welcomes the opportunity to share their learning and recommendations with the Working Group.

The Task Force challenges the City of Somerville and its boards and commissions, community organizations and advocates, and all of its residents to consider what steps they each can take to turn the recommendations within this report into a reality- from purchasing new acres to choosing to depave a portion of a backyard and plant host plants for native pollinators. It is only in working together that the open space vision articulated in this report will be achieved:

Somerville residents access a network of open spaces that provides a vibrant range of options within a safe, easy walk from their front door. Whether residents want to commune with nature, engage with neighbors or local culture, play boisterously, grow food, or share a quiet moment, there is open space for every mood and activity. Open spaces also support our natural environment. Somerville's open spaces provide visitors with a healthy environment that is cool, air that is breathable, and healthy trees and soil that can absorb stormwater. Open spaces allow residents to coexist with the natural world and the plants and animals that make up a healthy ecosystem.

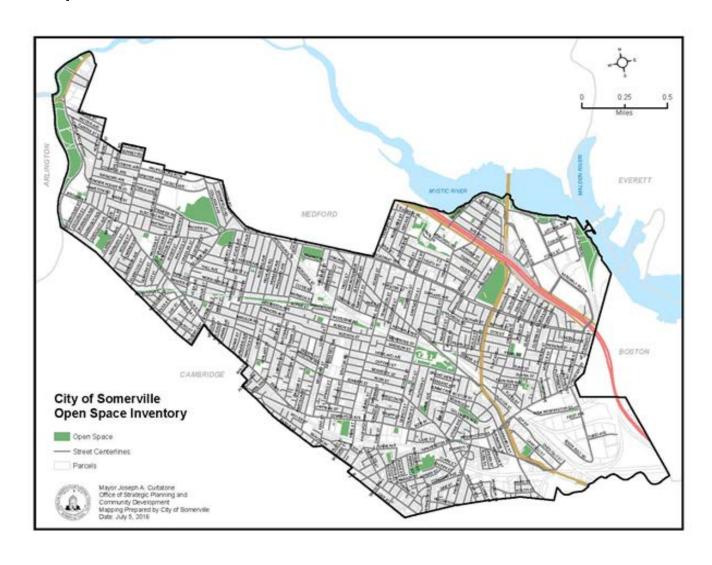
### References

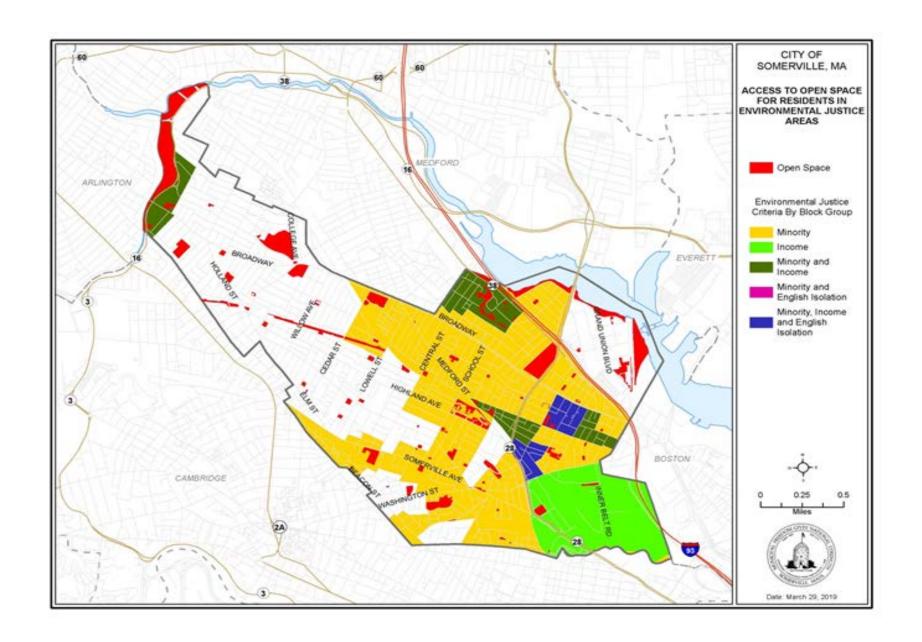
- 10 Minute Walk Campaign. Accessed 2 May 2019. https://10minutewalk.org/.
- City of Somerville. <u>Somerville Open Space & Recreation Plan 2016-2023 (OSRP).</u> 2016. Accessed 2 May 2019. https://s3.amazonaws.com/ifa.somervillema.gov/documents/OSRP\_Final-BOOK.pdf.
- Environmental Protection Agency. "Using Trees and Vegetation to Reduce Heat Islands." Accessed 2 May 2019. <a href="https://www.epa.gov/heat-islands/using-trees-and-vegetation-reduce-heat-islands">https://www.epa.gov/heat-islands/using-trees-and-vegetation-reduce-heat-islands</a>.
- Gehl Institute Twelve Quality Criteria. Accessed 2 May 2019. https://gehlinstitute.org/tool/quality-criteria/.
- Gies, Erica for the Trust for Public Land. "The Health Benefits of Parks." 2016. Accessed 2 May 2019. http://cloud.tpl.org/pubs/benefits HealthBenefitsReport.pdf.
- Kahn, Emily B. et al. and the Task Force on Community Preventive Services. "The Effectiveness of Interventions to Increase Physical Activity," *American Journal of Preventive Medicine*. 2002. 22, no 4S.
- Millennium Ecosystem Assessment. <u>Ecosystems and Human Well-being A Framework for Assessment.</u> 2003. Accessed 3 August 2019. <a href="http://pdf.wri.org/ecosystems">http://pdf.wri.org/ecosystems</a> <a href="http://pdf.wri.org/ecosystems">human\_wellbeing.pdf</a>.
- Safe Routes to School National Partnership. *Taking Steps Toward Equitable, Safe Park Access A Toolkit for Planning and Conducting a Safe Routes to Parks Walk Audit.* Published January 2018. Accessed 29 May 2019.

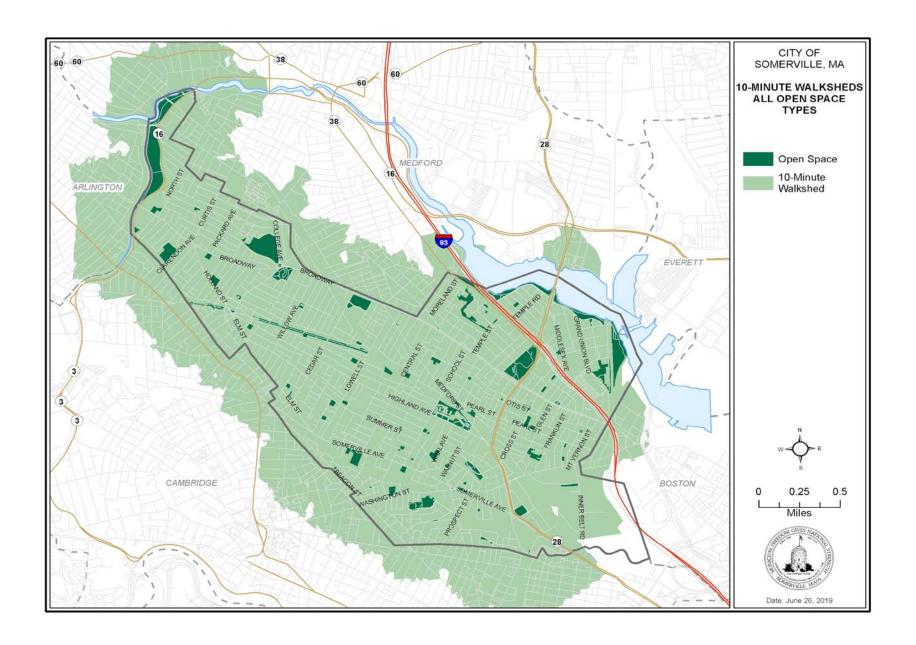
  <a href="https://www.saferoutespartnership.org/sites/default/files/resource\_files/safe\_routes\_to\_parks\_walk\_audit\_toolkit.pdf">https://www.saferoutespartnership.org/sites/default/files/resource\_files/safe\_routes\_to\_parks\_walk\_audit\_toolkit.pdf</a>.
- TischlerBise. Cost of Land Uses Fiscal Impact Analysis of the Proposed Somerville Zoning
  Code Overhaul. 2017. Accessed 3 June 2019. http://3pb8cv933tuz26rfz3u13x17wpengine.netdna-ssl.com/wp-content/uploads/sites/2/2017/02/Cost-of-Land-UsesFINAL-1.pdf.
- Zellie, Carole. <u>Beyond the Neck: The Architecture and Development of Somerville, Massachusetts.</u> Randy Garber, ed. Landscape Research, 1982.

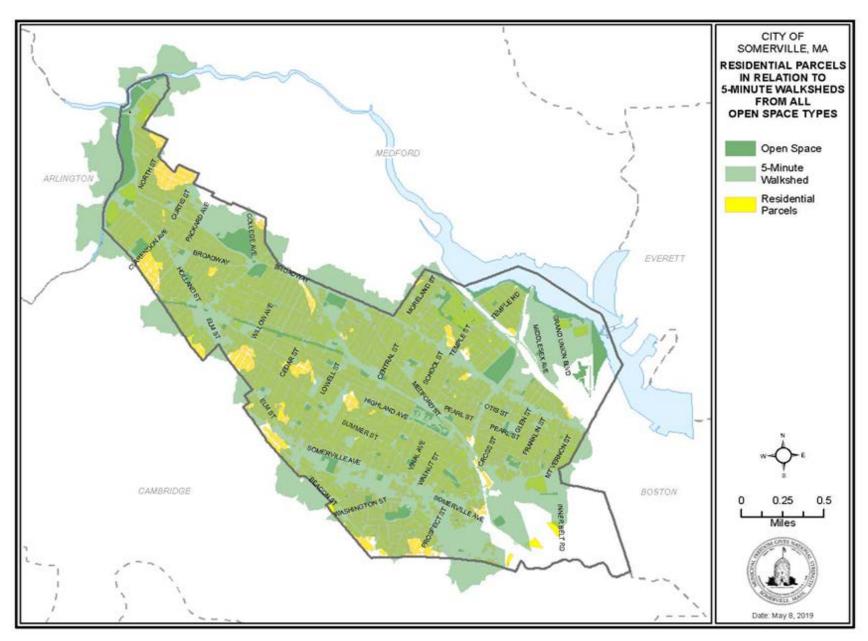
# **Appendix**

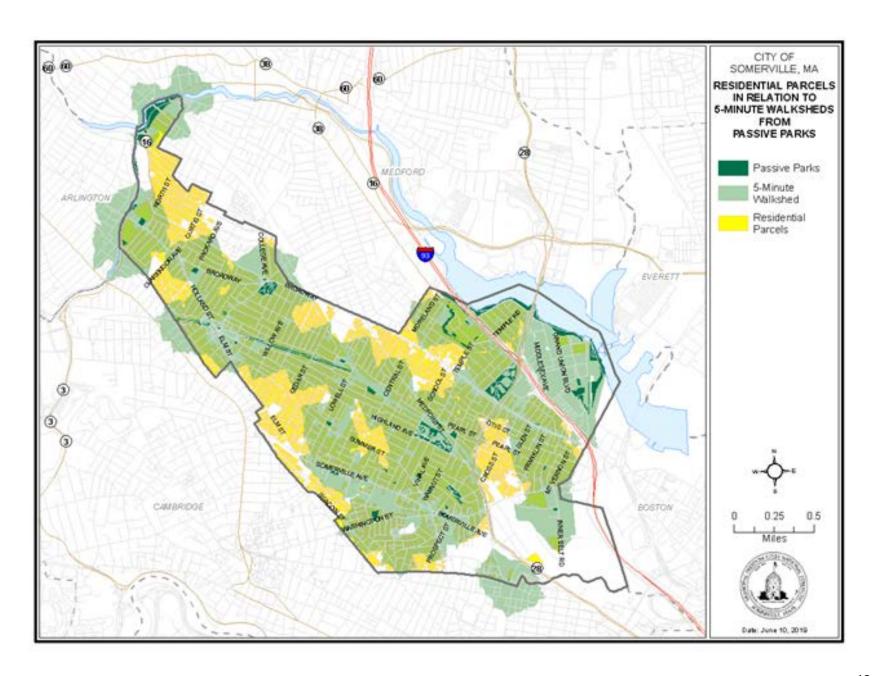
# **Open Space Maps**

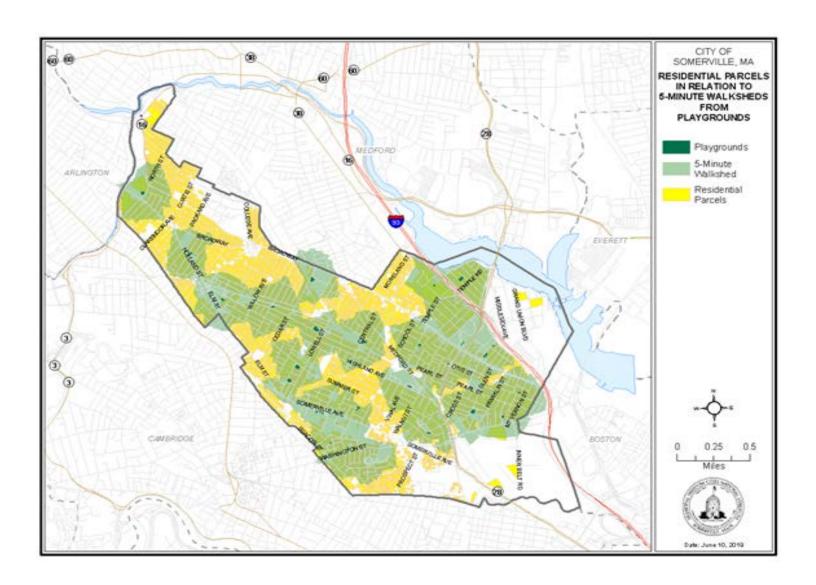












# **Existing Open Spaces in Poor Condition**

Open Space	Owner	Environmental Justice Area	Renovation Status
ArtFarm	City of Somerville	Yes	Design being finalized
Avon Street Community Garden	Somerville Home	Yes	Unscheduled
Bailey Park	City of Somerville	No	Unscheduled
Brown Schoolyard	City of Somerville	No	Design underway
Cummings Playground	City of Somerville	Yes	Unscheduled
Dilboy Auxiliary Fields	DCR	Yes	Design underway
Draw 7 Park	DCR	No	Design funding underway
Edgerly Schoolyard	City of Somerville	Yes	Unscheduled
Florence Playground	City of Somerville	Yes	Unscheduled
Foss Park	DCR	Yes	Partial improvements planned
Hansen Park	City of Somerville	Yes	Design being finalized
Harris Playground	City of Somerville	Yes	Design being finalized
Mystic River Reservation/ Blessing of the Bay Park	DCR	Yes	Design underway
Osgood Park	City of Somerville	Yes	Unscheduled

Tufts Community Garden	Tufts University	No	Unscheduled
West Somerville Community Schoolyard	City of Somerville	Yes	Design underway
Veterans Memorial Cemetery	City of Somerville	Yes	Unscheduled