



## Improving and Protecting Open Space

Recommendations of the Saint Paul Environmental Roundtable

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### Overview

In any urban setting open space can be of great aesthetic, psychic, and consequently, economic value. Much open space represents the investment of past generations in our City. It is the responsibility of this and succeeding generations to respect, protect, preserve and enhance that investment. We recommend, generally, the City of Saint Paul identify and inventory its open space, protect both the quantity and quality of open space, and enhance public use of open space.

### Definition

We recommend defining “open space” broadly. Open space should include both public and private open space. Open Space should include both green space and some areas of the built environment. More specifically, open space should include, but not be limited to: parks, lakes, creeks, riverine flood plains, and other natural areas; streets, bridges, boulevards, medians; and cemeteries, college campuses, railroad right-of-ways, vacant lots, and brownfields.

## Value of Open Space

Most City officials and residents understand intuitively that open space has value. The City, through the **Saint Paul Parks and Recreation Department**, acknowledges this value. From that Department's web site:

### **Mission**

To enhance the lives of its citizens and visitors, Saint Paul Parks and Recreation will, within available resources, provide and facilitate safe, quality leisure services, programs and facilities while preserving and enhancing natural resources and stimulating the economic vitality of the community.

### **Vision Statement**

Saint Paul Parks and Recreation will create a comprehensive system of recreational programming, facilities and natural resource protection and enhancement that is of national quality. This system will utilize four basic principles:

- Stewardship of human and physical resources
- Innovation in programming and facility development
- Maximizing of community resources
- Facilitation and collaboration of and with community groups, agencies and businesses

These efforts will include the researching of the latest trends, the assessing of community needs and interests, the ongoing evaluation of all operations and the utilization of best practices in order to provide a healthy quality of life in our ever-changing community.

A recent study done by **Wilder Research** entitled **The Economic Value of Open Space**, October 2005, prepared by Paul A. Anton estimates increases in value of residential property caused by its proximity to open space. For example, a park increases the value of all residential properties within 500 yards by \$8,050 and a lake increases the value of residential properties within 500 yards by \$15,707. From that Report's Executive Summary:

Minnesotans value open space and that value is reflected in higher values for properties located in close proximity to open space amenities.

- Twin Cities research confirms that many types of open spaces, from parks and nature preserves to greenways, wetlands and lakes, have a positive effect on nearby property values.
- Moreover, the results of referenda conducted in Minnesota indicate that Minnesotans value open space enough to raise taxes to pay for open space acquisitions and preservation.

Local Government should take that value into account in land use decision-making, but are not always able to do so.

- Decisions-makers who understand the value of open space will be more likely to take the time to assemble the tools needed to implement their open space plans before priority lands are developed. They will pass ordinances and a land protection plan and will invest in a land protection fund.
- It is often hard to fully reflect the value of open space in the financial analysis underlying local land use decisions.
- The pressure for the development sometimes makes communities commit to development before they implement comprehensive open space plans, especially in areas at or beyond the urban fringe.

This paper puts forward a more complete framework for evaluating the value of open space in land use decisions by adding several more financial impacts:

- the added property taxes paid by nearby properties,
- the avoided costs of public services generated by alternative development, and
- the potential cost of savings from better storm water management.

Applying this framework can lead to better-informed local open space decisions, as several included examples show:

- A city making or updating its comprehensive plan may decide that it can afford to plan or protect more open space when it considers the cost savings on storm water management and the taxes generated from the higher values of homes located near open areas.
- A city considering a proposed subdivision may offer the developer a density bonus in exchange for the builder's ceding open space to the city, thus creating or protecting open space at a much lower cost to the city because of the reduced cost to acquire the land and the increased taxes to be paid by the additional housing units.
- A developed city that initially considers the purchase of a small, surrounded parcel of wooded land as too expensive may change its

decision when it considers the full financial implications of protecting it (and may be able to protect it at lower cost through purchase of the development rights or conservation easements.)

Communities that have a more complete understanding of the fiscal implications of open space will be better equipped to set priorities and strike a balance between open space and other objectives that will lead to a higher quality of life for their residents now and in the years to come.

## RECOMMENDATIONS TO ACHIEVE PROTECTION AND PRESERVATION OF OPEN SPACE

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### **Recommendation #1: Identifying and Inventorying Open Space**

Fundamental to the successful protection and preservation of open spaces is to know where they are, what they are, and who owns them. With this information in place, the city can develop and adopt a specific open space policy and land use plan.

The following is again from the above-cited Wilder Research report:

Most cities and some townships have a land use plan and all of these plans have an open space component to them. However, with regard to open space strategy, not all of them have taken two steps that could improve policymaking. The two steps are:

- Conducting a Natural Resource Inventory and Assessment (NRI/A), and
- Prioritizing open space goals in the land use plan.

A Natural Resource Inventory is a thorough listing of natural resources in a city or county that incorporates existing disparate information and adds new information to form a complete picture of land and natural features inside an area. A Natural Resource Assessment is an evaluation of the relative importance of the natural resources identified in the inventory.

There are at least three possible ways in which undertaking these steps can improve open space policymaking. First, going through the NRI/A and translating the results into detailed plans can act as an impetus for communities,

alone or in partnership, to take action to initiate the implementation of elements of the open space plan proactively, rather than waiting later in the cycle of development. As a result of the community discussions involved in setting land use plans, government officials and residents may be better able to agree that certain actions need to be taken sooner rather than later.

Second, having set its priorities in advance, a community is better able to make effective, timely responses to private development plans. For example, knowing that a developer's proposed plan affects a planned future greenway will enable a city to make a timely response to the plan and negotiate any changes that might be necessary to preserve, or even complement, the city's open space plan.

Third, completing an inventory and assessment positions a community to partner with land conservation agencies and nonprofit organizations, and to compete for private and public funds for conservation. This work shows that the community is prioritizing, and thinking ahead pays off – literally and figuratively.

The City of St. Paul Division of Parks and Recreation has established a basic inventory of its primary assets including web-accessibility and GIS (Global Information System) mapping capability. The database includes:

- Bike Routes
- City Parks
- Gardens
- Paved Trails
- Regional Parks
- Roadside Trails
- Location and address

In addition, the Division's adopted 2005-2009 Strategic Action Plan includes updates to the inventory system in years 2005 and 2006. Among the scheduled enhancements are amenity classifications, completion of its GIS mapping and GPS of all facilities, utilities and amenities. The status of these changes is unknown at this date.

### **Steps to achieve this recommendation**

For the most part, the City uses its inventory system to more efficiently manage the maintenance, security and type of facilities required to meet the changing needs of its users. In order for this "tool" to be of significant value to preserving and protecting open spaces, a number of steps need to be taken by the Division.

**1) Additions to the inventory:**

- Private spaces including non-profit
- Railroad right-of-ways
- Ownership (title, deed, when and how acquired by the City)
- Environmental characteristics to enable natural lands to be targeted and prioritized for protection and stewardship.
- Integration with County of Ramsey
- Open space statistics (acreage, types of space per type of population, usage, ratios of
- space per population types and distance for each open space classification)
- Economic value “Capitalizing” to estimate incremental taxes collect from properties that are closer to parks and open spaces.

**2) Open Space Policy and Land Use Plan**

The City needs to establish a separate and specific policy and plan for its open spaces. This would ensure sufficient and viable open spaces are retained, enhanced, expanded and appropriately acquired. Such a policy is necessary to achieve the environmental, social, economic, health and aesthetic benefits that parklands and open space provide the City.

**3) New definitions and zoning categories for open space**

- Open space is presently zoned Residential (R-1 and R-2).
- The value of open space would be better preserved and protected when considering development proposals if the City had established special zoning categories.
- These zoning categories would be similar to the preservation of historic sites by the designation of Historic District Areas.
- These designations would make it much easier for future generations of citizens, developers and other stakeholders to understand the distinctions between lands dedicated to open space and those available for development.

There are a few communities that have adopted these types of steps to strongly demonstrate their commitment to their open spaces and parklands. They include The City of Boston, The City of Hamilton, Ontario, Canada and Montgomery County of Maryland.

### **Example-City of Boston**

The City of Boston has a long range policy and plan for open space, new zoning categories for open space and a city-wide “environmental inventory” including private and publicly owned assets. The following are excerpts from Boston’s work:

#### City of Boston Open Space Plan 2002 – 2006

As we start this new century, the City of Boston has developed a new citywide Open Space Plan to guide it in this vitally important facet of urban development. The Boston Parks and Recreation Division was the lead agency in drafting the Plan.

It is an integrated plan for open space protection and development. The Open Space Plan looks at all public open space, regardless of ownership, including non-traditional open spaces such as urban wilds, community gardens, cemeteries, greenways, trails, thoroughfares, traditional parks, playgrounds, squares and malls. It also examines open lands under private ownership, such as non-profit institutions, so as to understand their role in the citywide open space system, and looks at the city’s people to understand demographic and socio-economic trends of our residents and open space users.

As part of the data collection, the Division compiled an environmental inventory to enable natural lands to be targeted for protection and stewardship in a priority plan. Boston has different methods of protecting open space including zoning, historical designation, environmental regulations, conservation restrictions and the ‘100-foot rule.’ Further, the City of Boston Zoning Ordinances includes zoning for types of open spaces.

#### City of Boston Zoning Code Article 33. Open Space Sub districts Section 33-1. Preamble.

This article supplements the creation of an open space district (OS) designation, which can be given to public lands or, with the written consent of the owner, to private property. The open space district and nine open space sub-districts, taken together, present a comprehensive means for protecting and conserving open spaces through land use regulations.

#### Section 33-2. Statement of Purpose.

The purposes of this article are to encourage the preservation of open space for community gardens, parkland, recreation, shore land, urban wild, waterfront access area, cemetery, and urban plaza purposes; to enhance the quality of life of the city’s residents by permanently protecting its open space resources; to

distinguish different open space areas in order to provide for uses appropriate to each open space site on the basis of topography, water, flood plain, scenic value, forest cover, urban edge, or unusual geologic features; to restore Boston's conservation heritage of parks; to coordinate state, regional, and local open space plans; to provide and encourage buffer zones between incompatible land uses and mitigate the effects of noise and air pollution; to promote and maintain the visual identity of separate and distinct districts; to enhance the appearance of neighborhoods through preservation of natural green spaces; and to ensure the provision of adequate natural light and air quality by protecting the supply of vegetation and open space throughout Boston.

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## **Recommendation #2: Protecting the Quantity of Open Space**

Saint Paul, through the leadership of public officials and Friends of the Parks and Trails of Saint Paul and Ramsey County has enacted "no-net-loss" protection for Saint Paul open space. Section 13.01 of the City Charter limits the disposal or diversion of park property. Park property is broadly defined and requires replacement for any disposal or diversion.

Friends of the Parks has now proposed a "Parks Dedication" ordinance which would require the creation of additional open space as new residential developments are planned. A park dedication ordinance requires developers which increase the density of the population of the city to provide land for parks or open space to accommodate the recreational needs of the new residents. Many, or all of the suburbs surrounding the metro area, have had requirements like this for many years. The City of Minneapolis has asked the Minneapolis legislative delegation to authorize the Minneapolis Park Board to institute such an ordinance in Minneapolis. That bill is now in the legislature.

When the City of St. Paul was laid out, large parcels of land were set aside to accommodate the recreational needs of the new city. With the increase in population the park system is being stressed and there needs to be a way to provide amenities for new residents. A park dedication ordinance will help in providing badly needed recreation land for the increased population.

Other opportunities for creating additional open space should be a higher priority than has traditionally been the case. Increasing the priority of open space is supported by both economic and environmental analysis. Examples of opportunities include:

## Green Roofs

There are broad expanses of the city of St. Paul that are wholly constructed, or have minimal natural elements. Such expanses contribute to a variety of environmental problems. In several cities in the United States and around the world, communities have turned to using flat or gently sloping roofs as a setting to introduce natural environmental elements to the urban landscape. Green roofs come in two forms: intensive or extensive.

The intensive green roof involves a deep overburden that permits rooftop gardens with a variety of plant types, including trees. Such constructed spaces involve the same type of maintenance as any well planned city garden. It can include play areas and other recreational spaces. The extensive green roof involves only a thin overburden and focuses on the use of drought tolerant plant types. Maintenance costs are much less but the variety of environments that can be constructed and uses for the space are more limited.

There are multiple reasons for using green roofs in a city-scape:

- Aesthetics - adding beautiful green spaces where asphalt previously existed – views from windows or a place to enjoy green space
- Reduces the urban heat island effect - temperatures within cities are often 7-10 degrees higher than surrounding suburban and rural area; such increases influence air pollutants and weather; a 90 degree day in the city can mean 150 degree temperatures on a rooftop; a green roof keeps the rooftop temperature at the ambient temperature
- Reduces the impact of carbon dioxide in city environments and therefore smog – plants absorb carbon dioxide; European cities promote green roof technology as a means to counteract the greenhouse effect that leads to global warming
- Reduces air conditioning costs in summer and heating costs in winter - the technology acts as additional insulation; the increased retention of water in summer gives the solar energy something to work on - as the water evaporates it helps to cool the building and the surrounding atmosphere; green roofs are documented to keep buildings 19-31% cooler in the hot part of the day and 14-19% warmer in the cool part of the day
- Lengthens the life of a building's roof by two or three times (from 15-20 years to 50 or 60 years)
- Removes nitrogen pollution from rainwater - plants utilize the nitrogen which prevents the nitrogen from being washed into surface waters; the

- runoff from roofs is significantly cleaner than from standard roofs;  
neutralizes acid rain effect
- Reduces noise - the plant material buffers city noise that would otherwise bounce off hard walls and roofs
  - Reduces stormwater runoff - the plant and soil material retain rainwater and release it at a slower rate and reduced amount, helping to alleviate flooding of storm sewers and overwhelming water treatment plants during periods of heavy precipitation
  - Provides songbird habitat - along with green corridors within cities, green roofs help to restore more of a balance to the range of species present in the city-scape

Atlanta, Chicago and Toronto all have green roofs on their City halls. Seattle and Portland also strongly support green roof technology. Tokyo requires green roofs on all new construction and Germany offers incentives or government grants to install green roofs. Germany is said to have 10% of all its buildings with some form of green roof installed. In Chicago, Millennium Park is a 24.5 acre green roof park located on top of a parking structure. In the summer of 2005, Chicago had 80 green roofs in the city. Atlanta's City Hall green roof is 3300 sq ft of garden outside a fifth floor cafeteria.

### **Rails to Trails**

As Saint Paul becomes more residentially intensive and less industrially intensive all possible opportunities to convert rail road rights of way to linear open space should be fully investigated. Necessary to this effort is to identify and delineate all existing rail road rights of way and identify the underlying land owners. From the Rails to trails web site:

The growing popularity of outdoor recreation activities, such as cycling, inline skating, walking and running, combined with the loss of community open space, has increased the need for quality recreational facilities such as rail-trails.

Rail-trails provide places for cyclists, hikers, walkers, runners, inline skaters, cross-country skiers and physically challenged individuals to exercise and experience the many natural and cultural wonders of the Country's urban, suburban and rural environments. Rail-trails not only serve as independent community amenities, they also enhance existing recreational resources by linking neighborhoods and schools to parks, waterfronts, recreational centers and other facilities.

There is no doubt about the strong link between exercise and good health. By providing a place for so many types of recreational use, rail-trails can greatly help to improve public health.

- Accessibility - Level grades and obstacle-free design make rail-trails ideal destinations
- Horseback Riding - Multi-use trails for long- and short-distance equestrian activities
- Bird watching - Continuity of intact environments make for natural bird watching opportunities
- Inline Skating - Hard surface rail-trails that let you glide for miles
- Cross-country Skiing - Rail-trails offer long, flat surface and natural escapes ideal for winter recreation
- Running - Trails provide uninterrupted scenic corridors for training and solitude
- Cycling - By far the most common form of rail-trail recreation
- Snowmobiles – Some northern trails allow for the usage of these vehicles
- Fishing - More than 350 rail-trails nationwide provide access to favorite angling spots
- Walking - Walk to socialize, exercise or find solace
- Health and recreation - Americans are turning to trails to be healthy, happy and fit for life.

### **Brownfields**

Again, as our city becomes more residentially intensive and less industrially intensive opportunities to create additional open space exist. Brownfields should be seen as such opportunities. Again an initial step is to identify and delineate the city's brownfields. From the Minnesota Pollution Control Agency (MPCA) web site:

Brownfields are abandoned, idled, or underused industrial and commercial properties where expansion or redevelopment is complicated by actual or suspected environmental contamination. By investigating and cleaning up brownfield sites, many of which are abandoned properties in inner-city areas, redevelopment can take place without fear of potential environmental liabilities. This benefits Minnesota communities by bringing new businesses, jobs and an improved tax base to areas where brownfield sites have been unused and unproductive.

Brownfields assistance is available from many sources. The MPCA offers technical and financial assistance to parties involved with brownfield sites. The

MPCA can also issue liability assurance letters through its VIC and Petroleum Brownfields (formerly VPIC) programs.

### **Steps to achieve this recommendation**

**1) We recommend passage of the “Parks Dedication” ordinance.**

**2) We recommend passage of a Green Roof Resolution:**

“The city of St. Paul will provide tax credits for those buildings/businesses that install green roof technology in its retail and industrial areas. The City sees such technology as a positive step that we can take to help ameliorate the effects of global warming, air and water pollution, and energy needs, as well as providing open green spaces for residents.”

**3) We recommend adoption of a policy of identifying potential future open space such as rail road rights of way and brownfields and dedicating all or a portion as open space.**

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## **Recommendation #3: Protecting and Enhancing the Quality of Open Space**

Threats to the quality of Saint Paul’s open space are numerous and constant. Threats can come in the form of visual pollution, noise pollution, light pollution and most ominous of all under-funding.

### **Light pollution**

From the Mission Statement of the International Dark Sky Association:

The mission of the International Dark-Sky Association (IDA) is to preserve and protect the nighttime environment and our heritage of dark skies through quality outdoor lighting. It’s goals are to:

1. Stop the adverse effects of light pollution on dark skies, including
  - Energy waste and the air and water pollution caused by energy waste
  - Harm to human health
  - Harm to nocturnal wildlife and ecosystems
  - Reduced safety and security
  - Reduced visibility at night
  - Poor nighttime ambience
2. Raise awareness about light pollution, its adverse effects, and its solutions

3. Educate everyone, everywhere about the values of quality outdoor lighting
4. Help stop other threats to our view of the universe, such as radio frequency interference (RFI) and space debris

To achieve these goals, IDA takes an award-winning unified approach that supports the individual efforts of our members and of others who advocate dark skies. In fighting light pollution we work with communities, astronomers, ecologists, and lighting professionals; we are active on local, national, and international stages. We have already accomplished much, but our work is not yet done. With your help, in time we will succeed in conserving, preserving, and restoring our natural dark skies.

The IDA is in the process of writing a model ordinance to control municipal light pollution.

### **Advertising pollution**

If public spaces attract the public they will also attract advertisers. Saint Paul, through the leadership of city officials and Scenic Saint Paul, adopted a ban on any new advertising signs in 2000.

Section 64.420 of the city Legislative Code reads:

“Advertising signs.(a) Advertising signs prohibited. No advertising signs are permitted in any zoning district in the city. The purposes of this prohibition are to enhance views of the natural and built environments of the city, to improve aesthetically the fusion of residential and commercial areas, to promote community pride on the part of property owners, to encourage beautification and investment in the city, to protect property values, and to reduce cluttered and chaotic signage, which draws attention away from the identification signs of businesses and institutions located in the city.”

This is a great policy statement but exceptions take much of the potential benefit from the ordinance. There is an exception for “a professional sports facility with permanent seating for more than ten thousand (10,000) spectators ...”

And unfortunately, the City restricted the application of this ban to Chapter 64 of the zoning code. Section 64.103.of the city Legislative Code defines an advertising sign as:

“Advertising sign. A sign which directs attention to a business, profession, commodity, service or entertainment which is conducted, sold or manufactured elsewhere than on the premises upon which the sign is placed. It shall be considered as a nonaccessory sign except that an advertising sign on a

professional sports facility with permanent seating for more than ten thousand (10,000) spectators shall be considered as accessory.”

Billboards are a form of advertising sign. Advertising signs located on bus stop shelters, courtesy benches and newsstands are regulated under other chapters and are not subject to the requirements of this chapter.

The ban on advertising signs must be city-wide and enforced in all public spaces with no exceptions. As permit, franchise, or lease agreements terminate they must not be renewed.

### **Steps to achieve this recommendation**

**1) Adopt the IDA model ordinance to control Saint Paul’s light pollution.**

**2) Give meaning to Saint Paul’s ban on advertising signs by:**

- lobbying aggressively to recover the city’s traditional right to amortize billboards;
- eliminating all possible advertising signs in public spaces by non-renewal of any billboard leases controlled by the City; by non-renewal of all permits and franchises agreements for bus shelter and bench advertising and all other advertising agreements which allow advertising in public space.

**3) Adequately fund the preservation and enhancement of all existing open space.**