

Saint Paul Environmental Roundtable



Executive Summary and Recommendations

Presented to Mayor Coleman, the Saint Paul City Council,
and Sustainable Saint Paul

April 19, 2006



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www.eurekarecycling.org/environmentalroundtable

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Introduction

The Saint Paul Environmental Roundtable is a model of collaborative environmental planning designed to provide an effective way of gaining valuable citizen participation in policy creation. The Roundtable, made up of volunteers from throughout Saint Paul, was formed in 2005. The work of the Environmental Roundtable culminated in the passage of a Saint Paul City Council resolution on April 19, 2006, commemorating the 36th anniversary of Earth Day. The resolution help to set Saint Paul's policy direction on six environmental issues: zero waste, food systems, cleaner energy, green building, open space and water stewardship.

In 2005, Eureka Recycling and Council Member Lee Helgen joined forces to harness community interest in the environment. Fifteen volunteer Saint Paul residents stepped forward to serve as members of the Saint Paul Environmental Roundtable, providing a framework for the tremendous energy and community groundswell of interest in environmental issues. Over 500 residents of Saint Paul came together between September 2005 and April 2006 to make the city healthier and more livable by protecting and improving its environment.

Through open community meetings and forums, the Roundtable members collected the best ideas and resources and produced a series of thoughtful, pragmatic recommendations to help the city focus their efforts in the six chosen topic areas. Based on guidance from Sustainable Saint Paul, the internal working group of city staff established to address environmental issues for the city, The Roundtable members prioritized the attached recommendations on the basis of environmental impact, cost-effectiveness, and public support. In addition, the Roundtable has suggested a general timeline for each recommendation.



What was the Environmental Roundtable process?

Eureka Recycling, a nonprofit that has worked with the city on recycling and resource conservation issues for over two decades, convened the Roundtable in response to community interest and questions on a variety of citywide environmental issues.

The method for the Roundtable was determined by an advisory committee comprised of eight citizens. They developed criteria for selecting the Roundtable topics and recommended community members who could champion each topic. The advisory committee will evaluate the process, once complete, so that it can be replicated in the future.

Fifteen volunteers stepped forward to serve as Roundtable members. They oversaw the process, championed the progress of policy recommendations, and engaged the community. Using the criteria developed by the advisory committee, the Roundtable members began by selecting six topics to address: zero waste, food systems, energy, green buildings, green space and water stewardship. These six topics impact every resident within Saint Paul although there are disparities in how environmental issues affect specific communities. Before the roundtable was convened, there was no other public forum available to address these important issues. In making their topic selections, members also ensured that there was enough information and expertise available to fully address the economic, social, and environmental impacts of each topic.



Who was involved in the Environmental Roundtable?

Community

Community participation is at the heart of the Roundtable process, because the best and most sustainable solutions arise when they are worked out collaboratively, involving input from as many people from as many different perspectives as possible.

With this in mind, the Roundtable members led a series of open meetings designed to involve community members from all walks of life, with any variety of concerns about

the environment. Since September 2005, the Roundtable has hosted twelve such meetings, involving over 500 hundred members of Saint Paul’s community. As expected, Saint Paul residents are inquisitive about what is already being done and passionate about what more could be done to improve quality of life in Saint Paul.

Meeting attendees discussed and learned about the specific opportunities and obstacles for implementing Roundtable recommendations in the city. They also voiced their ideas about the topics and offered creative, useful suggestions for improvement to the recommendations. As hoped, attendees came for reasons that varied widely. Some were concerned about supplying the homeless with healthy food, while others were interested in turning their front lawn into a rain garden.

After each meeting, the Roundtable members worked to keep people informed about revisions through email and mail notices. Background and additional information is updated on the Roundtable website for easy access to those who want to stay involved.

Community members, environmental organizations, neighborhood businesses, and the city have come together to envision and articulate these positive recommendations. Through the Roundtable, people who were already doing good work to make these improvements gained a venue to combine efforts and interact with those working on other, interconnected environmental policies.

The Roundtable Members

The Roundtable consists of fifteen Saint Paul residents and individuals from throughout the city, who were personally inspired to volunteer their time to do something more to protect and improve Saint Paul’s environment. Some Roundtable members have professional ties to organizations that address environmental issues including Eureka Recycling, Environmental Ground, Inc., EcoDEEP, Friends of the Mississippi River, Science Museum of Minnesota, Minnesotans for an Energy Efficient Economy, Our Scenic Minnesota, St Bernard’s School, Upper Midwest Hydrogen Initiative, Great Plains Institute for Sustainable Development, Capital Region Watershed District Citizen Advisory Committee, Energy Systems Consulting, and Farm in the City. These Roundtable members do not represent these organizations, but themselves as residents with specific expertise. The Saint Paul Environmental Roundtable members are:

Brian Bates	Pat Hamilton	Colleen Monahan
Whitney Clark	J. Drake Hamilton	Rolf Nordstrom
Kathryn Draeger	Susan Hubbard	Shirley Reider
Kevin Flynn	Jon Hunter	Nilgun Tuna
Carlos Garcia-Velasco	Seitu Jones	Anna Wasescha

The Roundtable Advisory Committee

The Roundtable advisory committee is comprised of passionate Saint Paul residents, including some environmental experts and neighborhood leaders, from Saint Paul District 6, Saint Paul's West Side, Environmental Ground Consulting, Eureka Recycling, Macalester College, Neighborhood Energy Consortium, and the Minnesota Department of Natural Resources. The Roundtable advisory committee is:

Brian Bates

Kathryn Draeger

Tom Eggum

Amy Fredregill

Susan Hubbard

Mary Morse

Sharon Pfeifer

Brett Smith

Eureka Recycling

Eureka Recycling, a nonprofit that has worked with the city of Saint Paul on recycling and resource conservation issues for over two decades, convened the Roundtable to focus attention on a variety of citywide environmental issues. While Eureka Recycling launched the Roundtable process, the project has been a joint effort between many groups of people from many different backgrounds who bring specific expertise, connections and information on specific topics.

Community Sponsors

To coordinate the Roundtable, Eureka Recycling sought support from foundations and companies willing to invest their time and money to improve the local environment and quality of life in Saint Paul. Major sponsors include:

Abitibi Consolidated

Aveda Corporation

City Council Member Lee Helgen

The City of Saint Paul Public Works

Department

DeRuyter Associates

Eureka Recycling

Impressive Print

Industrial Electric Company

IPS Incorporated

Peace Coffee

Saint Anthony Park Community

Foundation

Western Bank

Additional financial and in-kind support was provided by:

A. Johnson & Sons Florists
Ancom
Artropolis
Bennett Material Handling
BioClean
Tim Brownell
By All Means
CB Richard Ellis—John Ryden
Chess
Coffee Mill
Culvers of Saint Paul
Tom Eggum
E-Z Recycling
Fleet Graphics Services, Inc
Fox River Paper
Amy Fredregill
Hampden Park Foods Co-op
HDR Engineering
Susan Hubbard
Jerabek's New Bohemian Coffee
House

Cheryl Kartes and Associates
Kowalski's Markets
Magney Construction
Midway Animal Hospital
Mike's Truck and Trailer
Minnesota Commercial Railway
Company
Mississippi Market Food Co-op
Neighborhood Energy Consortium
NRG/Specialized Environmental
Technologies, Inc.
Resource Recycling Systems, Inc.
Schechter Dokken Kanter
Dorothea Shay
Brett Smith
Trotter's Café
Tom Baumgartner Agency
United Employment
Ziegler Cat



Waste-Free Saint Paul

Recommendations of the Saint Paul Environmental Roundtable

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Overview

Saint Paul has been recognized as a national leader in the reduction of waste, setting and meeting aggressive goals. In 1995, Saint Paul set a goal to recycle 50% of the waste stream by 2005, which we are only 5% away from achieving. This is no small accomplishment – in just ten years we successfully reduced and/or recycled almost half of the waste we generated!

While we celebrate these successes, environmental concerns about sustainable energy, growing trash volumes and global warming are on the rise, and it is time to push forward with more aggressive and optimistic goals for the future of Saint Paul. Cities, countries and businesses all over the world have already adopted zero waste goals and now is the time for Saint Paul to put forth a visionary initiative.

WE RECOMMEND the city adopt a 75% recycling goal for 2010, and a *zero waste* goal for 2020. We recommend that the City convenes a team to create a zero waste plan comprised of community, nonprofits, business, and the city representatives who value zero-waste goals.

What is zero waste?

In a zero waste system, materials are designed and managed to be conserved and recovered, rather than destroyed, buried or transformed in ways that limit our ability to safely reuse them for productive purposes. Communities and businesses currently in the process of adopting zero waste goals look to examples of ecological systems, where the output of one system becomes the input for another system, the way decomposition and decay form the basis of nourishment for new organisms.

For over 150 years, our worldwide manufacturing, distribution, and disposal systems have developed under the illusion that our natural resources are expendable and that any amount of pollution can be absorbed by the land. Today, we know this is not true: the cost of maintaining and expanding landfills continues to rise, incinerators have been proven to decrease our air quality, and our once “endless” natural resources are showing signs of depletion.

We have the technology, and we can have the foresight to cost-effectively adapt this old system of using and disposing to a new system of conserving, reusing, and composting our resources. This will allow us to reinvest more of the “output” of our waste stream, rather than burying it in a landfill or burning it in an incinerator. Not only will our environment and our health improve, but so will our economy. According to the Institute for Local Self Reliance's report *Wasting and Recycling in the United States 2000*, "On a per-ton basis, sorting and processing recyclables alone sustains ten times more jobs than landfilling or incineration. [...] Each recycling step a community takes locally means more jobs, more business expenditures on supplies and services, and more money circulating in the local economy through spending and tax payments."

By adopting zero waste as our goal right now, we shift job creation to reuse, recycling, and composting industries that transform discarded materials into resources. Many people left out of the current economy will be able to find interesting and fulfilling work in these efficient and inventive businesses. We can change our economic measurements to support an abundant economy that rewards creativity, efficiency, community, healthy families and environmental protection.

Zero Waste initiatives are being adopted in Seattle, Washington; San Francisco and Del Norte, California; New Zealand; Canberra, Australia; Denmark; Edmonton, Alberta; Ottawa, Ontario; and Nova Scotia. Businesses like Hewlett Packard, the EPA green building program, and Mad River Brewing have achieved 95% and higher diversion rates. Zero Waste is being incorporated into the business functions of many organizations including Xerox, Sony, Mitsubishi, Interface Flooring Systems, The Beer Store, IBM, DuPont, Honda and Toyota, 3M, Anderson Windows, Aveda, and Pillsbury.

To put Saint Paul on the road to zero waste, the Zero Waste Team of the Saint Paul Environmental Roundtable has worked with the community to research and develop several recommendations. This team has identified key steps towards achieving zero waste in Saint Paul and offers these recommendations as timely actions that can be put into practice.

RECOMMENDATIONS TO ACHIEVE A WASTE-FREE SAINT PAUL

Recommendation #1: Residential Organics Recycling

Cities all around the county are already successfully collecting organic materials at the curb. The biggest step we can take towards achieving zero **residential** waste is by beginning the curbside collection of household organics (HHO) materials: food and non-recyclable papers for composting, and the proper handling of yard waste.

Recent changes in the residential recycling program, including adding plastic bottles, changing the sorting requirements, and providing weekly collection, have resulted in a 20% increase in the amount people are recycling. While this is the single largest recycling rate increase for a major city in the county in the last year, there is more we can do. Once all the recycling is removed, residents have little else left in their trash besides HHO, mostly compostable food waste and compostable paper. This material represents at least 25% of the waste stream. Once organics are removed, the remaining 25% (or less) of the waste can be more easily identified and eliminated through waste reduction, purchasing habits of the resident, product responsibility on behalf of manufacturers and retailers, and restrictions on the sale and or disposal of certain packaging and products.

Currently, an estimated 5-10% of Saint Paul residents are composting a portion of their organics on-site, through backyard or worm composting, but there is no organized collection or drop off area for residential organics for those unable to compost at home. Furthermore, a large amount of organics materials (including meat, food-soiled paper products, like pizza boxes and other nonrecyclable papers like tissues and paper towels) are difficult to compost without the use of a commercial composting facility.

Results from Eureka Recycling's study in Saint Paul showed that collecting organics can result in a 68% increase in the amount of materials collected citywide. 75% of the residents in the test found the method very valuable and 20% were able to reduce their garbage bills with a small group canceling garbage service.

Steps to achieve this recommendation

1. Expand the promotion and availability of on-site/at-the-source handling of material at homes and businesses. This includes access to backyard composting and vermiculture equipment and workshops. By significantly expanding composting at home, Saint Paul can increase the number of individuals who actively take responsibility for managing their waste.

2. Begin the weekly curbside collection of household organics, including food waste and non-recyclable paper. As demonstrated in the recently completed Saint Paul recycling Collection Methods Study, adding these materials to the existing recycling program, rather than starting a separate program, is efficient. It uses the education and collection infrastructure already in place.

2a. Examine the current subscription yard waste collection and public drop-off system for its effectiveness and efficiency. There are growing concerns over the proper handling of yard waste that is collected by haulers throughout the city. Haulers should be required to demonstrate to the city that materials are composted by reporting the volumes of yard waste collected and the location where the materials are delivered.

2b. Ban the use of garbage disposals and educate people about the alternatives. It is inefficient to manage organic materials through the water treatment facility, where organics materials are eventually separated for disposal. A comprehensive education campaign by the city should address the large number of residents who are unaware of the wasted resources due to the use of garbage disposals and raise their awareness of the value of composting organics. This

recommendation is designed to raise awareness and is not meant to focus on enforcement.

3. Study the access to and barriers for on-site composting for small commercial generators of organic wastes. There are large scale generators of organic wastes that have their materials composted, but the vast majority of the smaller businesses have limited or no opportunities for recovery of their organic waste streams due to costs. The study could provide feasibility of some scenarios (like grouping contracts) aimed at addressing these barriers.

Recommendation #2: Unit-Based Pricing for Trash

In order to truly make organics successful and economically viable, the city must refine and specify its required unit-based pricing for trash, or the Pay-As-You-Throw (PAYT) system. If residents can reduce the cost of disposal by reducing the volume of their trash, they will have significantly more incentive to recycle and to compost their organics. This will give them the opportunity to *actually eliminate their garbage bill* when they achieve zero waste.

Currently the Saint Paul ordinance requires unit-based garbage rates:

“which limit the total amount of mixed municipal solid waste to be collected and shall be in proportion to the amount or weight of mixed municipal solid waste collected and shall differ significantly and incrementally one from another.” (Sec. 357.05).

This ordinance provides for the basic structure of unit-based pricing, but because it does not specify increments between units of trash service or the fee structure for this service, it does not provide residents with real economic incentive to reduce the amount of trash they generate.

The Skumatz Economic Research Association (SERA) has completed several studies which, taken together, suggest the following: Pay-As-You-Throw programs (or unit-based pricing for trash) decrease residential disposal by approximately 17% in weight, with 8-11% being diverted directly into recycling and yard programs. 5-6% by weight is diverted into curbside and drop-off recycling collection programs. 4-5% by weight is diverted into yard waste programs, where available. 6% by weight is removed from the

waste stream via source reduction efforts (e.g. buying in bulk, selecting items with less packaging, etc.).

Research has shown that garbage collection rates that conform more closely to the actual percentage increase in service (e.g. twice the fee for twice the capacity) have a higher positive impact on the amount of recycled material than rates that progress less steeply than the percentage increase in level of service. In one SERA study comparing 30 and 60 gallon garbage service, low levels of percentage difference in fee structure (20% to 30% more for 60 gal. than 30 gal.) resulted in an increase in recycling tonnage that hovered between 0.4% – 0.6%. At higher levels of rate increase (e.g. an 80% increase for doubling garbage service capacity) the resulting increase in residential recycling is near 4.5%. **Clearly, steeper increases for higher levels of garbage service have a significant positive impact on residential recycling tonnage.**

Steps to achieve this recommendation

1. Adopt a true unit-based pricing ordinance governing trash service. Under this ordinance, the city should continue to require a minimum of three levels of service (30, 60 and 90 gallon weekly cart service) and should **require haulers to set their fees for service in direct proportion to the volume of trash service provided.** This ordinance would establish a formula for calculating fees, not fix the price. In addition to a flat fee that covers the fix costs of operation the service, a base unit would be charged for each unit of service (e.g. 30 gallon weekly service would equal the flat fee plus 1 unit of service, 60 gallon weekly service would equal the flat fee plus 2 units of service, 90 gallon weekly service equal the flat fee plus 3 units of service).

The following amendment, drawn from Boulder Colorado City Ordinance #7078, has resulted in rate differentials of \$7.50 to \$8.00 between levels of service, creating a significant economic incentive to reduce waste:

(www.ci.boulder.co.us/environmentalaffairs/newtrashprogram/ordinance.html)

(c) Each hauler shall provide to each residential customer a base unit of periodic garbage collection of a maximum of thirty gallons of garbage for each collection period. Each hauler may charge any amount for this base unit of service. Each hauler may additionally charge a flat periodic fee for the purposes of covering the operational costs of collecting garbage from a residential customer. This flat periodic fee may not exceed the charge for the base unit of service and shall be itemized separately on the billing statements of their customers. No hauler may charge less than a pro-rated portion of the unit charge for each additional and

equal volume of garbage that may be collected from a customer during one or more collection periods.

Example of the formula:

1 unit	30 gallons	Flat fee + 1 base unit	$\$8 + (1 \times \$8) = \$16$
2 units	60 gallons	Flat fee + 2 base units	$\$8 + (2 \times \$8) = \$24$
3 units	90 gallons	Flat fee + 3 base units	$\$8 + (3 \times \$8) = \$32$

2. As an alternative, unit-based pricing could be achieved through organized collection of trash and a pay per bag program that truly reflects the marginal cost of increased disposal. The city and county have revisited this initiative several times over the past decade without any successful implementation. It is unlikely that the political climate has changed in any way that would make this happen now, but if it did, it would ensure significant economic and environmental benefits. Several residents at the Environmental Roundtable community meetings favored organized trash collection to reduce the number of trash trucks in neighborhoods.

Recommendation #3: Business Recycling

Zero Waste strategies are being incorporated into the business functions of many organizations including Xerox, Sony, Mitsubishi, Interface Flooring Systems, IBM, DuPont, Honda, Toyota, 3M, Anderson Windows, Aveda, and Pillsbury. These strategies, which include recycling, help companies design waste out of their system, thereby saving them money.

Because recycling is only one component of an overall zero waste strategy, the cost savings to business are not always clear. However, in order to reach a zero waste goal, the city must take an active interest in requiring businesses to recycle, just like they require their residents to recycle. Most businesses could reduce their garbage by at least 35% by recycling! The average businesses would pay approximately \$60 per month for commercial recycling services. Much of this cost should be off-set by the garbage service savings.

Currently in Saint Paul, commercial properties set up waste and recycling services in an open hauling system, without recycling requirements and without a clearly supported infrastructure for commercial recycling.

According to the 2004 Metropolitan Council survey of metro residents, 11% of residents in the metro area live in apartment buildings. However, many buildings do not have an appropriate space for recycling containers or truck access for collection. In addition, design features like trash chutes make it more convenient to dispose of materials than to recycle them, creating a serious obstacle for the success of recycling. Cities have the ability to require builders and property owners to meet certain standards.

Currently in Saint Paul there is not a clear requirement to provide space for recycling storage and collection in either residential apartment buildings or commercial properties.

A foundation needs to be laid that requires commercial recycling through an ordinance. Several cities across the country have made the next move by requiring businesses within their city limits to recycle including Seattle, WA and Mecklenburg County, VA. Leading businesses could receive recognition from the city at events and in city publications, through awards, or financial incentives like a reduction in their business licensing fees.

Steps to achieve this recommendation

1. Create a new ordinance that requires commercial recycling. This ordinance should be modeled after Saint Paul's residential chapter to set high standards of recycling for commercial entities and other waste generators. The ordinance used in Mecklenburg County, NC is useful because it provides the most comprehensive definition of "commercial" businesses. By including all non-residential entities, they include places of worship, schools, etc.:

"All business entities (including all non-residential) which contract for 16 cubic yards or greater per week of garbage collection service, must separate corrugated cardboard and office paper for recycling and provide for the collection of these materials."

2. Identify and implement mechanisms to tie mandatory recycling plans to licensing. There are a number of ways the city can use licensing and permitting to compel businesses to recycle. For example, a recycling plan could be part of procuring liquor or food licenses for establishments that generate large quantities of glass and other recyclables.

3. Provide recognition as an incentive. The city needs to recognize and celebrate waste reduction efforts by businesses in a meaningful way. Leading businesses should receive

recognition from the city at events and in city publications. For example, an awards program could highlight the true waste reduction leaders.

4. Provide communications and assistance. The city will need to play a key role in partnering with organizations that provide services to businesses including waste reduction. Businesses are weary of city programs and regulations and need to understand how waste reduction programs can benefit their bottom line.

5. Specify minimum requirements for recycling space allocation and convenience through building licensing and construction. Examples of ordinances that have been passed to create spaces for recycling at buildings include:

California Recycling Access Act requires that ‘any new facility where solid waste is collected and loaded, or any improvements to an area of an existing facility used to collect and load solid waste,’ shall include minimum space for collection and storage of recycled materials. This state law went into effect in September, 1994.

City of Los Angeles ordinance (No. 171,687) was passed specifying recycling space allocation requirements for various sizes (in August, 1997) and is enforced through the Department of Building and Safety.

There are many studies, etc. that outline these requirements, including *Recycling Space Allocation Guide* by California Integrated Waste Management Board; *Trash and Recycling Enclosures Guide* from City of Fort Collins, CO (August 2004); and *Recycling Guidelines for Multifamily Housing Design*, Alameda County, CA

6. Provide incentives for building owners to add design improvements that help overcome barriers to recycling in larger and existing buildings, and to change designs that make disposal more convenient than recycling. The city should create financial incentives for property owners to encourage improvements on existing business and apartment buildings and promote more recycling-friendly design for new construction that go beyond the above mandated minimum requirements.

Multifamily Building Incentives

Currently in Saint Paul property owners pay \$14 per unit for recycling services and the average multifamily building in Saint Paul recycles 250 pounds/unit. A rebate system could reward multifamily building owners that achieved qualifying recycling tonnages per residential unit. Buildings that exceeded this average and recycled 350 pounds/unit would be eligible for a \$1/unit rebate on their property tax.

Commercial Building Incentives

The city could provide a nominal tax rebate (or subsidized recycling services) for businesses that demonstrate a 50% diversion rate through recycling and composting.

Provide education and technical assistance.

The City would need to market any incentive program and provide technical assistance resources for building owners to help accomplish the increased per unit diversion goal. Initially, the City could work with five new buildings to model the additional construction costs (if any), the potential diversion increases, and resulting cost savings to the owner. Eureka Recycling provides the city with detailed reporting of the amount of recycling at each multifamily building in the city.

Recommendation #4: Public Space Recycling

For lack of a better option in public spaces, people are needlessly wasting resources by throwing away more and more items that they regularly recycle at home. According to the Beverage Packaging Environment Council, 31% by amount (34% by weight) of all beverage containers are consumed away from home. Furthermore, according to the Container Recycling Institute, 86% of plastic water bottles used in the United States become garbage or litter.

Currently, the Saint Paul Parks Department provides recycling at all of the recreation centers in Saint Paul and has demonstrated an interest in making their recycling efforts more comprehensive, but no comprehensive effort to provide recycling in parks exists. There has also been no effort to provide public space recycling in highly visible commerce areas throughout the city.

Without a public space recycling program in place, residents receive a contradictory message about the importance of recycling. The city of Saint Paul mandates that *residents* recycle, but without the infrastructure for recycling in public spaces, recyclers may have serious doubts about the public commitment to recycling, and wonder about the efficacy of recycling at all.

Steps to achieve this recommendation

1. Continue to implement recycling in public spaces through pilots at various venues. Initial research indicates that there are no models, best practices or benchmarks

in place for public space recycling. A handful of entities currently manage a public space recycling program. These include several cities in Ontario, Canada, including Toronto, Markham, and Kingston; the country of Singapore, and the city of Seattle, Washington. It is likely there are more public space recycling programs in place; however, they are not well-publicized or well-known. These known locations have seen mixed results from their programs. Before implementing a public space recycling program, Saint Paul should understand the best practices for public space recycling, including what containers to use, what education is best (like using several commonly spoken languages and/or basic pictures), and how to cost-effectively incorporate the containers into a collection system infrastructure. A pilot at Como Zoo & Conservatory is currently planned and awaiting grant funding. This pilot should be followed by others that establish models for similar locations.

2. Enact a public space recycling ordinance that requires the collection of recyclable materials wherever trash is collected. An ordinance can be inserted in the legislative code, Sec. 357.09: Mandatory separation of recyclable materials and compostable materials. The language currently reads:

“(1) Recyclable materials--Residential property. Effective July 1, 1991, every owner, lessee or occupant of residential property shall separate recyclable materials from other mixed municipal solid waste and shall set recyclable materials out for collection in the manner and at such frequency as shall be prescribed by the city's director of public works, or shall deliver the recyclable materials to a recycling facility approved by the department of public works.

(2) Recyclable materials--Commercial/industrial property. Effective January 1, 1992, every owner, lessee or occupant of commercial and industrial property shall separate recyclable materials from other mixed municipal solid waste and shall set recyclable materials out for collection in the manner and at such frequency as shall be prescribed by the city's director of public works, or shall deliver the recyclable materials to a recycling facility approved by the department of public works.”

A section can be inserted to state the following:

(3) “Recyclable materials—City property. Effective _____, all trash collection bins on city property, including parks and sidewalks, must be situated near similarly sized but recognizably different bins used to collect recyclables such as paper, cans, and bottles.”

3. Incorporate public art into public space recycling and public recycling into public art spaces. Public space recycling should reflect the community in which it is situated

and adhere to the highest visual standard. This creates community ownership over the long-term success of public recycling efforts. Public space recycling in Saint Paul offers a unique opportunity to incorporate public art and local flare, or at least create recycling stations that are attractive and appropriate to the character of a neighborhood, park, or attraction. Cities that have tried to implement public space recycling containers with space for paid advertising have met serious resistance for the community.

Recommendation #5: Event Recycling at City Events

Large events generate a large amount of trash. Hundreds of tons of trash per year could be diverted away from landfills or incinerators by effectively managing these materials. Almost all waste can be eliminated before the event even begins by choosing only reusable and recyclable supplies and materials.

The city of Saint Paul is host to hundreds of events each year where hundreds of tons of waste are generated. Similar to that in public spaces all over the city, much of this waste, particularly beverage containers, is the same material that people recycle at home, but have to throw away at community events for lack of a better option.

Eureka Recycling and the city of Saint Paul have already demonstrated that waste reduction efforts at special events can result in a massive reduction in trash when event planners and vendors work with the recycler to achieve waste reduction goals. The Living Green Expo and the Saint Paul Classic Bike Tour are two annual events in Saint Paul that strive to be waste-free. At least 96% of the waste generated at these events is recycled or composted each year, demonstrating that event recycling can be done successfully with proper planning and involvement from organizers and vendors.

Instituting event recycling requirements can divert *at least 50%* of the waste generated at special events from disposal. If organic material is included, *over 95%* of the waste can be diverted from the landfill or incinerator.

The city of Saint Paul should require recycling and waste-reduction at events. As a start, the largest events in the city would be required to create a recycling and waste reduction plan and measure diversion rates to meet the goals set forth in the plan in order to get permits for the event.

Cities can require that certain conditions be met in order to receive a permit to hold an event and can also provide financial rewards for those events that meet certain waste

reduction goals. Currently nothing in Saint Paul's Legislative Code requires recycling at events or gatherings. Using these codes and the permit process, the city can limit the cost of implementing event recycling to the administrative cost of the permitting and the review process. Containers and service would be provided by the service provider and paid for by the permit seeker.

Steps to achieve this recommendation

1. Amend City Solid Waste Ordinance to require recycling at events. Recycling at events can be addressed in Chapter 357 by requiring recycling at any event in the city. The example ordinance language below was adopted from San Francisco's event recycling law. The language may also include a discount in the permit for events that can demonstrate at least a 75% diversion of material from the waste stream.

Additional language for Chapter 357 could read:

(a) Any applicant seeking permission for the temporary use or occupancy of a public street, a street fair or an athletic event within the city for an activity or special event that includes dispensing of beverages from glass, aluminum, or plastic containers, or which causes to be generated large amounts of other recyclable materials, shall be required to submit a plan to the Department of Public Works demonstrating a good-faith effort to provide a method to separate glass, aluminum and plastic beverage containers or other materials for the purpose of recycling.

(b) **Disposition of Recyclable Materials.** Prior to the review by Public Works of such application, the applicant shall submit a plan which describes the number and location of recycling containers which are necessary to ensure convenient utilization and protect public health and safety; and documentation that collection services shall be performed by a private or nonprofit source.

(c) **Collection of Recyclable Containers.** At the time Public Works considers the application, it shall determine that all of the necessary information has been submitted and that the measures proposed by the applicant shall provide for the collection and disposition of materials. The applicant shall pay a deposit in the amount of \$100, for each day of the event, to the Director of Public Works, at the time the application is filed, which shall be forfeited if applicant fails to collect recyclable materials and deposit said materials at a recycling facility. Such deposit shall be refunded in full to the permittee, by the Director of Public Works, upon receipt of documentation which verifies that the collected material was disposed at an appropriate recycling facility.

The Director of Public Works shall maintain records for a period of three years which document the recycling performance of the applicant when a temporary use of a public street is permitted. If an applicant for a temporary street closing, street fair or athletic event has been granted approval in the past pursuant to a permit issued by the City of Saint Paul and failed to collect and dispose recyclable beverage containers, the City may require the applicant to pay a deposit in an amount greater than that normally required, so long as the increased amount is reasonably related to the anticipated costs of collecting and disposing of recyclable materials. However, if an applicant who has failed to comply with a recycling plan in the past has, since that occurrence, temporarily used a public street, or sponsored a street fair or athletic event pursuant to a permit and has complied with a recycling plan, the amount of the deposit normally required of applicants shall apply.

The Director of Public Works shall promulgate any rules and regulations necessary or appropriate to carry out the purposes and requirements of this ordinance.

2. Institute mandatory waste reduction plans for top three city events and all city-owned special event venues. Saint Paul, through an amendment to Chapter 357, should require the top three waste generating events each year submit a waste reduction plan to the city. California's AB2176 (2004) law requires a waste reduction plan from each city's top 10% waste generators. The law encourages local governments to pass legislation requiring more in-depth reporting and recycling. The language above is based partially on the model ordinance language prepared by the California Integrated Waste Management Board.
(<http://www.ciwmb.ca.gov/Venues/Ordinances/ModelOrd/Default.htm>)

The organizers of these events would continue to submit plans biannually and each year the next three largest events would be required to submit a plan. This requirement should apply to city-owned venues, both to reduce waste and to demonstrate to private venues that waste reduction goals are attainable.

To attain baseline data, all event operators in the city should submit a report showing yearly totals for attendance, waste generation, and current disposal and recycling practices. The city can provide specified information to operators of large venues and large events when issuing a permit and provide an annual report including an estimate and description of the top three large venues and large events within the city limits,

based upon amount of solid waste generated, as submitted by operators at large venues and large events.

The ordinance should require the operator of a large venue or a large event to meet with recyclers and/or the solid waste companies that provide solid waste handling services to the large venue or event to determine the solid waste reduction and recycling programs that are appropriate for the large venue or event.

The city can provide technical assistance and tools with regard to implementing the bill's requirements, to the extent feasible under existing financial resources.

3. Revise Terms and Conditions for Parks and Recreation events. To rent a recreation center or park facility in the city, permit applicants must agree to the Recreation Center Private Events Permit Terms and Conditions. The Parks & Recreation Department controls the approval of food, beverages, handouts/giveaways and a limited number of approved caterers that can be used for the event. Therefore, it would be highly feasible to insert provisions requiring recycling and education for vendors and Parks & Recreation employees. New recycling requirements should be inserted into the Sanitation & Trash Removal and Concessions sections of the Terms and Conditions. These regulations should require the collection of papers, containers, organics, and anything else deemed recyclable.

4. Revise Terms and Conditions for neighborhood block parties, parades, and demonstrations. A Class A permit is required to hold a parade and a Class B permit is required to hold a block party in Saint Paul. A Class C permit is required for demonstrations and marches. These applications are approved by the Police Department. Each permit application includes a Terms and Conditions section. Part E of these documents concerns cleanup and states:

“Applicant(s) shall provide trash receptacles to prevent as much littering as possible. Applicant(s) shall be responsible for the pick-up or disposal of trash and garbage following the event...”

This rule can be amended to read:

“Applicant(s) shall provide trash and recycling receptacles to prevent as much littering as possible. Applicant(s) shall be responsible for the pick-up or disposal of trash and recycling following the event.” A copy of the invoice or agreement with the hauler could serve as proof of recycling.

5. Revise permit requirements. According to Chapter 366 of the City’s Legislative Code, a permit is required for the use of any public street, sidewalk or alley for a block

party, community festival or special event. Under Sec. 366.04, requirements for a permit, language can be added to require proof of recycling services or a recycling plan in order to receive a permit. In addition, each permit agreement's Terms and Conditions section can give detailed instructions on how and what to recycle based on the type of event.

Recommendation #6: School, College, University Recycling and Reuse

Schools

Currently, schools in Saint Paul are required by Minnesota state law to recycle. While many schools do have a recycling program, there are some that do not. Those schools that do recycle either do so through the school's recycling operation, through separate arrangement with Eureka Recycling, a volunteer (often a teacher) or some other provider. It is unclear what kind of participation is generated and whether the type of recyclables collected is comprehensive.

While recycling will cost around \$80 per ton for collection, garbage averages between \$120 -\$180 per ton for collection, so if contracts are well managed, recycling will actually save schools money. If all Saint Paul Public Schools recycled 50% of their waste, that would amount to 1,166 tons or garbage diverted per year! According to a study done by the California Integrated Waste Management Board, solid waste from schools is typically 53% recyclables (paper, glass, metal) and 32% percent organics. If the city could invest in helping schools go beyond recycling to divert the additional 32% of organic waste by establishing composting systems, the diversion could reach up to 1,981.8 tons city wide in Saint Paul.

Colleges and Universities

While it is true that the city has limited influence on the schools, colleges and universities within its boundaries there are a few incentives and requirements that can be established. Saint Paul is home to 12 colleges and university campuses, serving over 50,000 students. These institutions and their students, faculty and staff generate a significant amount of waste, much of which could be recycled or reused and can also benefit non-profit organizations from donations or by fundraising.

Currently, many colleges and university in Saint Paul take advantage of the cost savings from recycling programs on campus. Some coordinate special collection during the move out process, when bulky materials are disposed of en masse. Some also collect and donate reusable goods during move out days, but there is room for improvement.

All across the county, colleges and universities are setting the bar for recycling and waste reduction. The University of Richmond's Dump & Run project raised \$1200 for the Sierra Club in May 2000. The material collected filled the University's gymnasium. They estimate the amount disposed was cut in half as a result of this project. At Tufts University, there has been a significant spike in solid waste during their move out months. They registered as much as 50 tons more waste than the average 180 tons throughout the year (1993). Implementing a recycling collection as infrequent as once a week has diverted about 40% waste at the University of Colorado-Boulder.

Steps to achieve this recommendation

1. Update the Saint Paul ordinance, Chapter 357 on Solid Waste so it reiterates the newly updated State requirement for schools and requires semi-annual reporting from schools that proves diversion in line with the city-established diversion rate.

New ordinance language:

- Effective <insert date>, every public, private and charter school in Saint Paul shall separate glass, paper, cardboard, boxboard, aluminum and steel from other mixed municipal solid waste and shall contract for regular collection of these materials or shall deliver the recyclable materials to a recycling facility approved by the department of public works.
- Effective <insert date>, all public, private and charter schools in Saint Paul will provide semi-annual reporting to the department of public works documenting diversion rates that meet or exceed the diversion rate set by the city of Saint Paul.

2. Establish a system by which schools can purchase carts and/or bins for internal collection systems "at cost" or for a reduced rate based on the city's price breaks for orders of quantity, from the city through their recycling partner, Eureka Recycling.

3. Explore ways in which the city can influence purchasing, recycling, and composting activities at school, college, and university campuses. The city has a relationship with schools that can be used to encourage zero waste practices.

Recommendation #7: Sustainable Purchasing Practices for the City

By substituting recycled/reusable/remanufactured products for products manufactured from virgin materials we promote waste reduction, energy conservation, natural resource conservation, pollution reduction, reduction in greenhouse gas emissions,

potential cost reduction and increased value for the materials the city is collecting for recycling.

Cities are large consumers of goods and they can help ‘close the loop’ by providing preferential purchasing policies for sustainable products. Through its centralized purchasing department, the city of Saint Paul buys large quantities of everything from paper to cleaning supplies to fleet vehicles. In other words, if the city chooses to buy products that are environmentally beneficial, it will have a very large and positive impact on the marketplace and the environment. In addition, the city sets an example for businesses, event-planners, residents, and other cities to follow.

Currently, the federal and state governments require certain recycled-content purchasing preferences. The city of Saint Paul has a basic, limited policy, currently offering a 10% price preference for recycled content products through Resolution 93-1398, meaning departments can spend up to 10% more on products that have recycled content.

There are many efficient and effective strategies to increase the demand for recycled/reusable/remanufactured products. Cities can modify specifications to include percentages of post-consumer recycled material content, or it can require that specific products be remanufactured or reusable. Cities can provide a set-aside that a certain percentage of all products purchased are products that have post-consumer recycled content or are remanufactured or reusable. Cities can also allow a price preference for products that have post-consumer recycled content or are remanufactured or reusable.

Currently, Saint Paul has a centralized purchasing department (Contract and Analysis Services), but city departments in Saint Paul have a high degree of purchasing autonomy, meaning they can easily purchase outside of the central purchasing department. Also, contracts are currently awarded to commodity vendors largely based on price, not criteria for sustainability. For these reasons, it has become the responsibility of department heads to ensure they are ordering the most environmentally preferable supplies from Contract and Analysis Services or outside vendors.

Steps to achieve this recommendation

1. Create a team of city employees that includes departmental purchasers, Contract and Analysis Services purchasers, department heads, and experts in sustainable products to determine the sustainability criteria. Possible criteria could include, but are not limited to: recycled content, reduced packaging, low VOC content, reduced

material use, recyclability, the absence of PBT's, and low toxicity. Criteria could also include socially sustainable tenants like requiring city vendors to extend the same benefits they would to employees with spouses to employees with domestic partners.

The sustainable procurement team should adopt and promote the city's goals already outlined in resolution 92-1941:

“to reduce waste, adopt a total cost perspective, and expand cooperative purchasing programs through environmentally and socially responsible procurement.”

They should create and provide tools, resources, and incentives for city staff to meet these goals. This involves auditing current purchasing practices, procuring bulk orders, consulting with departments on making sustainable decisions, and educating city employees about the city's purchasing goals and procedures at least twice a year. This may include hosting seminars, product demonstrations, securing pledges from department heads that they will strive to be waste-free, newsletter articles, etc. This role will be established through an ordinance that not only states these goals, but also provides for tools, resources and incentives for city staff.

2. Implement sustainable criteria and purchase sustainable products.

2a. Create an ordinance that dictates sustainability criteria for purchasing decisions and shifts the current price-only approach to a total cost approach.

Saint Paul should base its commodity selection process on a set of sustainability criteria, rather than price alone. This will create a holistic, best overall value approach to purchasing, rather than a cost only approach.

The current process is outlined in Resolution 93-1398:

“...the Purchasing Division and City Departments is authorized to purchase products made from recycled materials when the price of recycled material does not exceed the price of non-recycled materials by more than ten percent...”

This should be rewritten to include the sustainability criteria determined by the sustainable procurement team.

2b. Eliminate items that do not meet the criteria set forth by the sustainable procurement team from the list of items that are available through Contract and Analysis Services. Furthermore, disincentives should be provided to ensure that purchases are not made outside of Contract and Analysis Services. The city

should consider making purchasing outside of the purchasing division of Contract and Analysis Services no longer an option.

2c. Focus on paper and cleaning product purchases to demonstrate the feasibility of incorporating sustainability criteria into purchasing, with the goal of gradually expanding the criteria to include all other products.

Paper

The city should purchase copy paper with 100% postconsumer recycled content that was processed without the use of chlorine. Papers with no recycled content or processed with chlorine or chlorine by-products should not be available through Contract and Analysis Services and there should be disincentives for buying paper from an outside vendor. Limiting the paper choices to recycled papers will not only create an increase in demand for the paper, but the city should also be able to negotiate a better price break for the recycled paper since the quantity they purchase would increase. For example, the city of Boulder, CO helped their office products supplier find a relatively inexpensive source of 100% postconsumer recycled paper, and they negotiated a price cut by ordering in bulk. The city of Boulder then agreed to purchase all of the 100% postconsumer recycled paper their supplier purchased, significantly reducing the cost per carton, making it less than the 30% postconsumer paper they were already purchasing. 100% postconsumer paper purchased in bulk is available in the Twin Cities at prices that are comparable to virgin and 30% postconsumer recycled paper.

Cleaning Products

The state of Minnesota has added environmental specifications to the state cleaning supplies contract. The City of Saint Paul and the Neighborhood Energy Consortium received a grant from the Office of Environmental Assistance to pilot a project in 1997 in the city hall annex testing non-toxic cleaning products. This project was a huge success and city hall annex custodial staff chose to continue using these environmentally friendly cleaning products made by *Restore the Earth* due to their performance, cost-effectiveness, reduction in fumes, and reduced impact on the environment including water quality. Since the non-toxic cleaning products meet all of these criteria, there is no reason to continue using toxic cleaning products in any city building or private business or residence. These products have been proven to work as well or better than less environmentally friendly products, are comparable in cost, and protect the health of custodial workers. Like virgin-fiber copy paper, toxic cleaning products should no longer be available through Contract and Analysis Services.

Creating similar barriers to other harmful products will increase the use and demand for environmentally preferable products which will also help the city negotiate better contracts and prices for the preferable products as well as reduce the city's overall footprint on the environment.

3. Create a new ordinance to set up a sustainability fund. Saint Paul City Council has already made a proclamation creating a 10% price allowance for recycled content products. The problem is that departments are not compensated for the price differential and with their tight budget allocations, cannot afford to absorb the cost. A fund could be created that would pay this cost differential (up to 10%) to encourage city departments to buy recycled content products.

Recommendation #8: Construction and Demolition

Recovery of materials from deconstructing buildings and housing is greatly underutilized. Thirty percent of landfilled materials are construction and demolition waste. This is unnecessary given there are many developing markets to recover and reuse construction materials. Local examples include:

- The nonprofit Reuse Center's Deconstruction Services provides removal and/or on-site sales of materials from buildings being torn down. Deconstruction Services creates jobs, reusable materials and tax deductions.
- In the last five years, MNTAP's Materials Exchange program has helped businesses save about \$3 million and exchange over eight million pounds of material. The Minnesota Materials Exchange program is a free service that links organizations that have reusable goods they no longer need to those who can use them. By providing a business reuse network, the Materials Exchange program helps prevent usable materials from becoming waste.
- Clay County's local materials exchange program recovered a total of 45.7 tons of building material in 2004 alone. There is such a demand for their materials that they can't keep the materials stocked.

Currently in Saint Paul, there is no regulation that requires construction contractors to reuse or recycle debris from demolished buildings.

Steps to achieve this recommendation

1. Create regulation that requires all permitted construction projects to recycle certain materials and/or a certain percentage of the total structure.

Cities, counties, and states around the country are beginning to regulate disposal and recycling of construction and demolition waste. Businesses and governmental bodies have found that recycling and reusing building materials diverts large amounts of solid waste from the landfill and provides materials that must otherwise be sourced from virgin materials.

Massachusetts bans asphalt pavement, brick, concrete, metal, and wood from disposal beginning July 1, 2006. These materials were added to the list of items that are already banned from disposal in state solid waste permitting regulations (310 CMR 19.000). Wood can still be used as alternate daily cover or burned for fuel. Before implementing this ban, a subcommittee made up of architects, builders, property owners, landfill and transfer station owners, law firms, municipalities, and environmental groups created the language and identified markets for each type of material.

C&D reuse and/or recycling is required by over fifteen California cities, including San Francisco, Santa Monica, Oakland, San Jose, and three counties.

The City of Oakland requires a plan for recycling or reusing C&D waste as a part of the building permit application, needed for all new construction, demolition, and modifications to existing buildings. Permit seekers are required to fill out a Waste Reduction & Recycling Plan for approval by the city. Builders or demolition companies must track data for a Recycling Summary Report, which must be submitted before a final inspection takes place.

Portland, Oregon's building codes mandate that all construction projects over \$25,000 must recycle materials generated at the job site.

2. Require separation and recycling of all construction and demolition materials at all city cleanups.

Each year, the city financially supports neighborhood cleanup throughout the city. As a condition of reimbursement, the city should require that certain construction & demolition debris be recycled, including all types of metal, concrete, asphalt, rocks, clean wood and cardboard. In addition, the city should require them to salvage reusable building materials. These materials could either go to nonprofits or salvage businesses.

Recommendation #9: Green Collar Jobs

Green collar jobs add value without destroying natural resources, providing a long-term economic future for the city. The jobs can include value-added, low-impact jobs such as environmental technologies, repair, high tech, software, reuse and other services. Jobs through recycling and reuse are a significant portion of U.S. economy. Nationwide, the current industry employs over 1.1 million people for over \$37 billion in salaries with \$236 billion in revenue.

Therefore, waste prevention and recycling provides tremendous opportunity to create jobs and initiate new business ventures. The city has tools to help new business ventures and could apply special incentives to businesses that have a zero waste operation or significantly help the city to reach a zero waste goal. Part of the solution to reaching zero waste will have to come from enforcement of existing or imminent ordinances, which will create opportunities for growth in related fields.

The city should promote and encourage green collar jobs and industries that are healthy for both the workers, the community, and the environment in Saint Paul through tax-incentives and zoning requirements.

First step to achieve this recommendation

- 1. Identify geographic location to target for green economic development.** The city can create green collar industrial zones and incentives to bring the right type of economic development to the most needed communities, and eco-industrial parks to promote synergies, cost savings and economies of scale that will allow small, community based businesses to be green.
- 2. The Department of Planning and Economic Development should conduct research on models used throughout the country to attract sustainable businesses that positively influence the environmental health of Saint Paul's community.** These models should guide PED in helping them to accomplish their goals. Many studies show that cities with healthy environments also have healthy economies. Growth industries are drawn to environmentally intact places, places where people want to live. Green collar jobs provide for a diverse spectrum of skills (collection, processing, manufacturing, etc.) adding to the diversity of Saint Paul's workforce



Healthy Local Food Systems

Recommendations of the Saint Paul Environmental Roundtable

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Overview

The City of Saint Paul is an acknowledged national and international leader in creating a vision for a municipal food policy. Saint Paul is among six cities, including Los Angeles and Toronto, known to have invested time and resources in planning for a sustainable food system¹. The results of that process, which culminated in the 1987 Saint Paul City Municipal Food Policy, is a visionary and foundational document that can direct community and City efforts to this day. The St. Paul Commission on Food and Nutrition was appointed to implement the policy, but came to an end in 1999

¹ C. Clare Hinrichs and Thomas A. Lyson. In press. Food Policy Councils as a Tool for Sustaining Regional Food Systems. In *Remaking the North American Food System* University of Nebraska Press.

without realizing the whole vision of the Food Policy. Since then there has been no organized municipal attention to food policy in the City, until now...

The Saint Paul Municipal Food Policy is a seminal policy document that provides a firm foundation for environmental protection, public policy, community health, and economic diversity. Another foundation of local foods efforts in Saint Paul is the vital and active network of community gardeners. This policy, however, is much larger than community gardening. It touches on many of the critical issues that challenge our food system today.

The original comprehensiveness of the Saint Paul Municipal Food Policy is a real tribute to the forward thinking vision of the community and the City Council. As part of our work on the Environmental Roundtable, we organized our "healthy food systems" discussion around the 1987 Saint Paul Municipal Food Policy.

The Need for a Local Food Policy

The City of Saint Paul regulates many basic needs, such as safety, water, transportation, and housing, but the city has initiated very few food system planning efforts. The City and Ramsey County have several policies that affect food quality and food safety, but very few that affect food production, distribution, and consumption. Understanding all local policies can help community food security advocates be more effective, whether they seek to influence local policy directly or to manage projects affected by those policies. A municipal food policy can insure that all residents of Saint Paul will have access to safe, affordable and nutritious food.

Here are some of the reasons why we need to revive the St. Paul Municipal Food Policy:

Obesity: As a nation, and certainly in St. Paul, Minnesota, we face a looming obesity crisis. Medical experts agree that obesity shortens the lifespan, increases health care costs and, with particular reference to children, has led to a sharp rise in childhood onset of diabetes. Obesity is approaching smoking as the top preventable cause of death in this country.

National Security: There is a likely prospect of major food-related crises in the next 20 years. Additionally, as developing countries exert greater influence in the global food market there will be increased competition for food resources, just at a time when developed countries experience a decline in farmland and in the number of farmers.

Economic Development: The St. Paul Municipal Food Policy envisioned support for the creation of local businesses that facilitate the production, processing and distribution of food. A food policy can positively influence the development of small-scale, neighborhood-based food production, processing and marketing businesses and can work at the grassroots level to include food related businesses in small area development plans.

Environmental benefit: A food policy for the City of Saint Paul can encourage citizens to grow food in their own yards or collectively on public land as catalyst for beautifying neighborhoods and public open space. By diversifying the plant stock in the City, gardens significantly improve habitat for birds, pollinators and other insects. In addition, gardens are more efficient in absorbing rainfall than turf providing better management of rainwater.

Finally, increasing local food production and consumption decreases reliance on polluting transportation systems that daily stock the City's restaurants and grocery stores. The Leopold Center for Sustainable Agriculture calculated the average miles that food travelled from point of production to consumer—1,400 miles. Local production of fruits and vegetables, which consist largely of water, are an important component to reducing the amount of petro-chemicals used in the food system.

RECOMMENDATIONS TO ACHIEVE HEALTHY LOCAL FOOD SYSTEMS

Recommendation #1: Implement 1987 Food Policy

We recommend that the City of Saint Paul commit to implementing the previously approved 1987 Municipal Food Policy. We propose that Sustainable Saint Paul be charged to convene a diverse group of stakeholders to update the food policy in order to assist the City, in coordination with interested nonprofit and community groups, to evaluate the policy's merits and overcome the barriers to its implementation. *The 1987 Saint Paul Municipal Food Policy is attached to these recommendations.*

Sustainable Saint Paul and the local foods stakeholders group should conduct a food assessment of Saint Paul to determine baseline information, areas of growth and provide an evaluation tools to develop a comprehensive plan.

This study should create a baseline of food issues, such as hunger, nutrition, fast food consumption, organic food consumption, food related illness, culturally specific food consumption, economic development, community and backyard gardening, locally grown food, farmers' markets, race, transportation and environmental degradation.

Recommendation #2: Encourage Locally Grown Food

Through the food policy, the City should encourage the production of locally grown food not only for the health and nutritional benefits, but also because it will help the city meet its CO2 reduction goals, by reducing the distance our food travels from point of production to consumers.

Recommendation #3: Land Use Plans Incorporate Local Foods

- The City ensures the availability of Community Garden Space and works to make more community garden space available
- Identify community gardening space in all 17 planning Districts.
- Affordable housing developments are required to include space for community gardens and existing affordable housing units encouraged to allow community gardens.
- The City tree planting program should include offerings of fruit trees, particularly for school properties

Recommendation #4: Encourage Community Supported Agriculture

We recommend that the City of St. Paul encourage the development of cooperative Community Supported Agriculture (CSA)

- Facilitate CSAs for City employees. Such an arrangement could be an economical way by which the City enlivens its work environment by having weekly deliveries of healthy, locally grown, organic food delivered to its employees at their place of work. This would also strengthen the local foods system by significantly increasing the number of CSA shares sold and thus the amount of local, organic food produced. It could also enhance the economics of CSA by having multiple shares delivered to a reduced number of sites.

Recommendation #5: Develop Saint Paul Public Schools Wellness

We recommend that the City of St. Paul and the Ramsey County Board encourage and support the development of the St. Paul Public Schools Wellness policies.

- While the St. Paul Mayor and City Council have little control over what happens in the schools, they can provide city staff and equipment to facilitate the creation and maintenance of gardens, a low interest revolving loan fund to implement projects that get local, healthy foods into the school system.
- Sustainable St. Paul could recommend and perhaps financially support the use of the UMN Extension's Wellness Policy Resources for Schools as a tool to achieve greater nutrition and local foods in the St. Paul School District.

Recommendation #6: Encourage Farmers Markets

We recommended that the City, where possible, encourage farmers markets. Buying fresh food from local farmers markets supports family farms and circulates money within the community. Organic production should be encouraged, if possible, since crops are grown with little or no artificial pesticides or fertilizers.

- City properties, such as recreation centers and public housing facilities are available for farmers markets

Recommendation #7: Purchase Local Food for City Events

We recommend that the City purchase local foods for their events, vending and food services. City staff will request local foods from food vendors and distributors. Many large Twin Cities food distributors are now offering local foods for their accounts, the City need only ask for local products and they will be provided in lieu of foods transported over great distances.

- City staff compile a list of food distributors, restaurants, caterers, and vendors who can supply local foods to City events and venues. This list will be distributed widely and city employees encouraged to use these vendors.

- Festivals and events include healthy, local foods. Event permits, such as for the Taste of Minnesota, would require that healthy, local foods are provided along with the usual fare.
- City requests that food vendors and distributors procure locally grown items when available. The City should set a goal of providing 5% local foods in their City-sponsored venues.

Recommendation #8: Encourage a Regional Food System

City of Saint Paul should evaluate and disseminate their efforts in encouraging a regional sustainable and local food system. As a leader in sustainability and local foods policy, the City of Saint Paul will document which policies were successful and what barriers were encountered. This will inform municipalities around the nation and internationally on how to effectively implement municipal food policies.

Acknowledgements

These recommendations would not have been possible without the help of Helene Murray, Director, Minnesota Institute for Sustainable Agriculture. She put in many hours with us working on the food policy, attended all of the meetings, and helped with editing. She really went above and beyond.

1987 Municipal Food Policy

SAINT PAUL FOOD & NUTRITION COMMISSION

MUNICIPAL FOOD POLICY

November 19, 1987

Room 365 City Hall
Saint Paul, Minnesota
(612) 298-4323

SAINT PAUL MUNICIPAL FOOD POLICY

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CITY OF SAINT PAUL

FOOD AND NUTRITION COMMISSION

Jim Scheibel, Chairperson
City Councilmember

Katheryn M. Anderson

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Consultants

Minnesota Food Association

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PREAMBLE

People, regardless of where they live, have certain basic needs—the need for shelter, for food, for health and for a sense of security. In the democratic community, these values are expressed as rights or entitlements accorded its citizens and deemed to be in the best interests of the total community.

Values are made real in the life of the community through the development of policies, the enactment of implementing laws and the adoption of practices which reflect those values. (Systems for fire and police protection are the most familiar of these arrangements.)

Most major cities have not taken responsibility for the development of policies addressing the basic need for food of their citizenry. The post World War II changes in the system which brings food to our table insulated the consciousness of urban leaders and citizens alike. The ongoing availability of safe, nutritious and affordable food was assumed.

This is no longer the case. The emergence of persistent hunger as an urban issue, expanding awareness of the connections between diet and disease, between agricultural production practices and the contamination of food products found on the grocer's shelves and the retreat of the Federal government from its role in the food policy-making process, are all factors contributing to a growing concern among urban dwellers for the security and fairness of their food system.

The Saint Paul Municipal Food Policy is an attempt by government leaders and citizen interests to provide a framework within which the City can take action to address the range of food policy and program issues identified during the life of the Food and Nutrition Commission. This policy is, in the final analysis,

- a statement of values.
- a declaration of responsibility.
- a call for action.

The primary value statement is that food, as a basic need for survival of the human community, is a right and a responsibility of the citizens of this City; the City declares that it will assume the responsibility to provide the leadership and direction required to give life to this value, and it proposes to establish the cooperative framework within which the City, as a government entity and as a community of people can take action to achieve the policy objectives set forth in this document.

SAINT PAUL MUNICIPAL FOOD POLICY

GOALS

- 1) Assure that all Saint Paul citizens have access to safe, affordable and nutritious food.

- 2) Protect and strengthen the region's capacity to supply safe, nutritious and affordable food to Saint Paul citizens.

- 3) Assure that the Saint Paul Municipal Food Policy is implemented upon its adoption by the City Council and that it is periodically reviewed and updated as appropriate.

STATEMENTS OF POLICY

GOAL 1:

Assure that all Saint Paul citizens have access to safe, affordable, and nutritious food.

I. ISSUE: GEOGRAPHIC ACCESS TO FOOD

It is the policy of the City of Saint Paul to assure that all of its citizens, regardless of where they live in the City, their income, physical disability, or ownership of private transportation, have to food outlets offering competitively priced, nutritious foods.

II. ISSUE: ECONOMIC ACCESS & FOOD AFFORDABILITY

It is the policy of the City of Saint Paul to assure that all of its citizens have their basic nutritional needs met without persistent dependence on the emergency food system.

III. ISSUE: FOOD SAFETY

It is the policy of the City of Saint Paul to eliminate the exposure of its citizens to hazardous substances and to substantially reduce its citizens' exposure to potentially hazardous substances employed in the production, processing and preservation of food.

IV. NUTRITION & HEALTH

It is the policy of the City of Saint Paul to promote and support the dietary recommendations made in "Healthy By Choice, the Minnesota Plan for Nutrition and Health" to raise awareness, increase knowledge, and improve overall food choices made by its residents.

V. ISSUE: COOPERATION

It is the policy of the City of Saint Paul to work cooperatively with its citizens, voluntary associations, regional farmers, the private food business sector, county and regional governments and government units concerned with the local resource base to realize the objectives of the City's food policy.

GOAL 2:

Protect and strengthen the region's capacity to supply safe, nutritious and affordable food to St. Paul citizens.

I. ISSUE: RESOURCES FOR FOOD PRODUCTION

It is the policy of the City of Saint Paul to pursue and support development policies that protect and enhance the capacity of St. Paul citizens to produce a portion of their own food supply, and of regional farmers to produce food for consumption in the City.

II. ISSUE: ENVIRONMENTAL & CITIZEN PROTECTION IN THE PRODUCTION OF LOCAL FOODS

It is the policy of the City of Saint Paul to assure that the environment is not degraded, nor its citizens exposed to environmental hazards in the production or processing of local foods.

III. ISSUE: MARKETING OF LOCALLY GROWN FOODS

It is the policy of the City of Saint Paul to pursue and support policies that maximize the percent of locally-grown foods in the City's food supply.

IV. ISSUE: EDUCATION ON THE FOOD SYSTEM

It is the policy of the City of Saint Paul to assure that its citizens have access to information and educational programs about the system of production, processing and marketing that supplies food to the City.

V. ISSUE: NEIGHBORHOOD DEVELOPMENT

It is the policy of the City of Saint Paul to include small-scale, neighborhood-based food production, processing and marketing businesses in its development plans.

VI. ISSUE: COMPOSTING/RECYCLING

It is the policy of the City of Saint Paul to cooperate with its citizens and with regional farmers to maximize re-use of yard and food waste generated in the City, and to minimize the generation of non-recyclable materials by the City's food system.

OBJECTIVES

GOAL 1

I. ISSUE: GEOGRAPHIC ACCESS TO FOOD

OBJECTIVES

- A. Increase the accessibility of competitively priced full service grocery stores to low income and disabled St. Paul citizens who do not have such stores in their neighborhoods.
- B. Increase the opportunities for lower income and disabled St. Paul citizens without access to private transportation to purchase groceries without leaving their homes.

II. ISSUE: ECONOMIC ACCESS & FOOD AFFORDABILITY

OBJECTIVES

- A. Create a competitive climate among food retailers regarding their pricing of ‘basic’ food items.
- B. Increase low income and limited mobility St. Paul citizens’ access to direct or wholesale buying.
- C. Reduce the number of St. Paul citizens routinely requiring emergency food assistance.
- D. Create and support economic opportunities for low income City residents, enabling them to afford to pay for basic needs such as food, shelter and clothing.

III. ISSUE: FOOD SAFETY

OBJECTIVES

- A. Increase the information available to consumers at point of sale regarding known and potentially harmful practices used in the production, processing and preservation of foods sold in the City.
- B. Reduce the availability of foods sold throughout the City that have been exposed to known or potentially hazardous substances and processes.
- C. Increase the availability of foods sold throughout the City that have not been exposed to known or potentially hazardous substances or processes.
- D. Increase consumer awareness of known and potentially harmful practices used in the production, processing, preservation and handling of foods sold in the City.

IV. ISSUE: NUTRITION & HEALTH

OBJECTIVES

- A. Improve the nutritional status of St. Paul citizens. Indicators of poor nutritional status include anemia, low birth weight and short stature among infants and children. By 1995, the following goals should be met: Reduce anemia among pregnant WIC (Women, Infants and Children Program) mothers by 40 percent; decrease low birth weights; and reduce short stature among infants and children entering nutrition program services from 13.8 percent to five percent (the normal percent found in the population at large).
- B. Reduce the incidence and prevalence of disease related to diet among St. Paul citizens.

V. ISSUE: COOPERATION

OBJECTIVE

- A. Provide incentives for individuals, organizations and institutions to take actions that contribute to realizing the goals of the City's food policy.

GOAL 2

I. ISSUE: RESOURCES FOR FOOD PRODUCTION

OBJECTIVES

- A. Provide neighborhood residents access to open space, water and light for purposes of raising food.
- B. Encourage City residents to raise a portion of their own food supply.
- C. Eliminate unnecessary legal barriers to City residents' raising plants and animals for food.
- D. To enhance individuals' ability to provide their own food supply, increase the availability of appropriate equipment and knowledge regarding processing and storage of home-grown foods to citizens throughout the City.
- E. Work with other appropriate public bodies to assure the continued availability of Metro area farmland for potential production of food consumed in the City.

II. ISSUE: ENVIRONMENTAL & CITIZEN PROTECTION IN THE PRODUCTION OF LOCAL FOODS

OBJECTIVES

- A. Reduce soil loss from agricultural production methods to *T* (the rate at which soil is naturally replaced) in the Metropolitan Area by the year 2000.
- B. Eliminate agricultural and lawn chemical pollution of surface and ground water in the City and in the Metropolitan Area.
- C. Increase the research and information available to Metro Area farmers and food processors on production and processing techniques that minimize use of synthetic chemicals.
- D. Increase the research and information available to St. Paul citizens on how to maintain healthy yards and gardens without use of synthetic chemicals.
- E. Protect St. Paul citizens from exposure to synthetic lawn spray chemicals.
- F. Eliminate the exposure of St. Paul citizens to toxic levels of lead in home and community gardening soil.

G. Protect St. Paul citizens from Dioxin and other toxic residues that can filter into the City's soils.

III. ISSUE: MARKETING OF LOCALLY GROWN FOODS

OBJECTIVES

- A. Increase the number and variety of outlets for locally-grown food in the City.
- B. Increase the number of regional and state farmers selling locally grown food within the City.

IV. ISSUE: EDUCATION ON THE FOOD SYSTEM

OBJECTIVES

- A. Increase the elementary/secondary students' exposure to information about the structure and process of the food and agriculture system through school curriculum and work/study opportunities.
- B. Increase adults' understanding of the food system.

V. ISSUE: NEIGHBORHOOD DEVELOPMENT

OBJECTIVES

- A. Increase the number of neighborhood-based small businesses related to the production, processing and/or marketing of nutritious, safe, affordable food in the neighborhood and the City.

VI. ISSUE: COMPOSTING/RECYCLING

OBJECTIVES

- A. Continue City support for, and seek opportunities to expand the composting of yard waste and other materials generated in the City that would make appropriate farm inputs.
- B. Reduce the use of non-recyclable food packaging materials in the City and increase the percent of recyclable food packaging that is actually recycled.



Smarter, Cleaner Energy

Recommendations of the Saint Paul Environmental Roundtable

Contact: Pat Hamilton, (651) 221-4761, hamilton@smm.org

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Overview

Energy drives all facets of the city of Saint Paul. It powers our homes, businesses and industries, schools and colleges, places of worship, and our government. Despite the great diversity of human enterprises and activities in our city, energy is the one element essential to all of them. We all use energy to heat, cool, light, and power our lives. Yet we usually take energy for granted. By and large, energy has been reliable and affordable for decades. Consequently, we have developed an urban infrastructure that does not value using energy efficiently, and that undervalues clean, renewable sources of energy.

Only in the 1970s and 1980s were the first steps taken to use energy more wisely; even those modest efforts yielded measurable results. Since the late 1980s, natural gas and electrical energy use in Saint Paul for the residential, commercial/industrial, and municipal sectors have grown more slowly than either population or employment. These figures suggest that energy efficiency measures required by statute, promoted by private non-profit energy organizations and by the City and implemented by a wide range of individuals and enterprises have been successful over the past two decades in tempering the rise in energy consumption. But clearly, much more needs to be done.

Few people in Saint Paul know about the City's pioneering work as part of the international Cities for Climate Protection program, through which global warming pollution has been reduced, and the City has saved millions of dollars. These energy and dollar savings must be ramped up as laid out in the Saint Paul Urban CO₂ Emission Reduction Plan, which calls for much more significant reductions in global warming pollution.

The Saint Paul Environmental Roundtable recommends that the City of Saint Paul join the U.S. Mayors Climate Protection Agreement, whereby cities are committing to: "urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012"; "urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation that includes 1) clear timetables and emissions limits and 2) a flexible, market-based system of tradable allowances among emitting industries";

and

"strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities".

http://www.seattle.gov/mayor/climate/PDF/Resolution_FinalLanguage_06-13-05.pdf

Recently, concerns about energy use as a national security issue have been sharp reminders about how important energy is to our lives and how imprudent it is to assume that conventional energy sources will always be cheap, plentiful, and dependable. Most forecasts portend significant increases in energy prices over the long term, for oil as it becomes depleted, and for coal as markets begin to include the costs of global warming caused by burning coal in the price of that energy source. Near-term price swings likely will cause considerable economic pain and uncertainty for St. Paulites.

The Smarter, Cleaner Energy Team believe that our community has the means to produce and use energy in much cleaner ways and that doing so will benefit our economy and enhance our quality of life. We propose identifying and capitalizing on *implementable* opportunities to develop new energy generation and energy efficiency technologies that improve St. Paul's air and water, help homeowners and renters keep down their housing costs, enhance the city as a place to do business, and create a reputation for the city as an incubator for innovative energy solutions.

RECOMMENDATIONS TO ACHIEVE SMARTER, CLEANER ENERGY

Use the Xcel Energy Franchise Agreements Negotiations to Achieve Energy Savings and Get More Renewable Electricity for Saint Paul

Recommendation #1: Restructure the Xcel Energy Franchise Fees

The City of Saint Paul and Xcel Energy every ten years renegotiate electricity and natural gas franchise agreements whereby the utility agrees to pay for the right to use city property and rights of way to deliver gas and electric service to its customers in the city. The current franchise agreements expire on June 30, 2006. The City and Xcel are in the midst of renegotiating these ten-year agreements, so now is the right time to press for a franchise agreement that lays out goals whereby the utility will more aggressively pursue the incorporation of energy efficiency measures into the buildings of its Saint Paul industrial, commercial, residential, and public sector customers.

A first step would be to restructure the franchise fee that Xcel posts on its monthly utility bills as a "city fee" from May through October. The appearance, disappearance, and reappearance of this fee from year to year inevitably create confusion. The "city fee" should be applied year round to eliminate the anxiety that arises in many city residents every May when the fee now makes its annual reappearance.

The word "conservation" does not appear in the current franchise agreement. The city fee as currently structured provides no market signal to customers to conserve energy. The fee is charged against the total amount of electricity and natural gas consumed by a residential customer, regardless of how modest or extreme this consumption might be. Electricity and natural gas are essential for a safe and comfortable quality of life. A certain number of kWhs of electricity per month (500?) and therms of natural gas (200?)

should always be free of the franchise fee. Amounts above these monthly allowances should be assessed a fee at an increasingly progressive rate to provide a market signal that helps encourage more awareness of energy usage.

A number of citizens who commented on these Roundtable recommendations noted that, if franchise fees are increased, the added revenue to the City should help support energy efficiency and conservation.

Recommendation #2: Set a Renewable Electricity Standard in the Franchise Agreement

The City should renegotiate the Xcel electricity franchise agreement, to phase in a requirement that Xcel provide clean renewable electricity for at least 25% of Saint Paul's electricity usage. Such a renewable electricity standard would be met by the development of new sources of electricity, such as wind power and solar power.

Recommendation #3: Work with Rock-Tenn on a Clean Energy Source

The Rock-Tenn Plant at Vandalia Avenue and I-94 recycles waste paper. Rock-Tenn is planning for the loss of its current supply of steam energy, now delivered from Xcel Energy's High Bridge Power Plant. The energy source will be lost when Xcel replaces that coal-fired plant with a natural gas-fired plant in 2008. If this energy problem forces the plant to close, the results would be the loss of jobs and a business that plays an important role in recovering otherwise wasted resources. Replacing Xcel Energy's coal-fired steam with another environmentally harmful energy source would not only erode the environmental benefits of the plant's recycling business, but would be contrary to the City of St. Paul's commitments to reduce its greenhouse gas emissions.

We recommend that the City of Saint Paul work closely with Rock-Tenn to aggressively investigate potential clean energy opportunities that would serve the needs of Rock-Tenn while conveying broader environmental benefits. These opportunities can be differentiated according to fuel source and energy efficiency:

- The supply of waste wood in the core Twin Cities metropolitan area is insufficient to support another major power plant in addition to District Energy St. Paul's combined heat and power plant. The transportation costs associated with delivering wood fuel by truck (as is the current practice with District Energy), furthermore, inhibit looking further out for wood supplies. But could waste wood or plantation-grown wood biomass (from rural Minnesota) be delivered to a new Rock-Tenn power plant economically by rail?

- Would bio-oil made from any of a wide range of sustainable biomass feedstocks be a suitable substitute for waste wood?
- Would a high-temperature fuel cell deliver the electricity and process heat needed by the plant at a reasonable cost, assuming a clean energy source was identified for the fuel?
- Regardless of the new energy source, can the city, the company, and citizens work together to ensure the maximum utilization of this energy? What will happen to the waste energy inevitably generated? Might it be available to serve as the basis for a local district heating system headquartered at Rock-Tenn but also supplying energy to neighboring commercial and residential customers?

In deliberations around the future of Rock-Tenn, planners should consider any direct impacts on the surrounding neighborhood from net increase in traffic, noise, and emissions caused by the fueling and operation of a new energy source. For example, if biomass is used, that should not mean the use of refuse-derived fuel (RDF), since the burning of processed trash produces dioxins and emits mercury, and yields a toxic ash that must be managed as a hazardous waste. A thorough assessment of the plant's current and projected environmental impacts should be made, including issues of environmental justice, in a determination of whether the benefits of any repowering of the plant outweigh any increase in environmental and human impacts.

Recommendation #4: Encourage Ground-Source Heating and Cooling

Using the thermal inertia of the earth to heat buildings in the winter and cool them in the summer is a proven technology. It is also highly energy efficient. Because ground-source systems do not produce energy, but merely move it around, they can achieve energy efficiencies far above conventional heating and cooling technologies.

Ground-source heating and cooling systems typically are designed and installed to serve individual buildings. It is time for the City of Saint Paul to encourage the wider adoption of this technology and to facilitate the development of ground-source systems that serve multiple buildings. Commercial/residential complexes being developed in the City could be ideal sites for ground source heating and cooling systems.

Regulatory barriers, however, likely would inhibit the innovative use of ground-source technology. The Minnesota Department of Health (MDH) oversees the drilling of wells for ground-source heating and cooling systems. The City should work with the MDH and other state agencies to minimize the regulatory hurdles that would inhibit the wider installation of ground-source heating and cooling in the City.

After maximizing conservation and efficiency to preclude the development of unnecessary new energy sources, the City should seek to implement a showcase multi-building ground-source heating and cooling system to demonstrate the effectiveness and efficiency of this technology.

As part of Xcel Franchise Fee negotiations, City negotiators should seek a significant utility rebate for new ground-source systems.

Recommendation #5: Run the City Fleet on Renewable Fuels

The motor pool for the City of Saint Paul currently has approximately 100 E85 (85% ethanol)-ready flexible-fuel vehicles. The City's fuel pumps, however, do not dispense E85 fuel, thereby completely negating the environmental and economic value of having flex-fuel vehicles. The City should promptly install an E85 fuel tank at its motor pool operations at the Department of Public Works and Parks and Recreation and mandate that all City flex-fuel vehicles be fueled with E85 exclusively. The fuel savings and other benefits of this simple fuel switch should be advertised widely to City residents and businesses, along with encouragement for private individuals and businesses in the city to follow suit by burning only E85 in flex-fuel vehicles.

Recommendation #6: Implement a Home Energy Rating System

The City of Saint Paul currently is enjoying a re-energized housing market, with the construction of thousands of new units of housing in the past few years. This trend is likely to continue as empty nesters and young professionals choose the conveniences of urban living.

Long-term operating costs, especially heating and cooling, almost always receive short shrift compared to home purchase costs. Consequently, new home buying seldom receive information on the anticipated costs of heating and cooling their new homes,

and contractors have no incentive to maximize energy efficiency. The end result is that housing is built without regard for lifetime energy (and environmental) costs.

The City should implement a residential energy rating system. The purchasers of new homes should be provided information on the anticipated annual costs to heat, cool and run the appliances in their home; this should be done by an independent energy auditing entity. Furthermore, this entity should rate new residential properties according to whether or not they meet the requirements of the Energy Star home rating system. The Neighborhood Energy Consortium (NEC) currently offers HERS ratings and ENERGY STAR designations to residences in Saint Paul. Contractors and realtors would be required to disclose that their produce does—or does not—meet ENERGY STAR requirements.

In addition, the City of Saint Paul should enforce the PED/HRA's recently adopted Sustainability Initiative for new residential units receiving city subsidies, perhaps by making it a requirement for new home permitting.

Recommendation #7: Establish a Clean Energy Coordinator for the City of Saint Paul

The City of Saint Paul has steadily pursued energy efficiency and conservation measures in municipal buildings for many years and supported other energy initiatives with dramatic energy and dollar savings. These accomplishments should be touted, as our twin city to the West already does. However, much more needs to be accomplished. Saint Paul still spends millions of dollars annually on energy bills; efforts to use energy more efficiently need to be promoted city wide. The City should sponsor a campaign, via the City's website, to educate residents about how to take advantage of ongoing and short-term energy saving incentives. A first example could be wide promotion of the energy tax incentives now available to taxpayers via the federal energy law passed in 2005; information on tax incentives is available at www.energytaxincentives.org

Leading Saint Paul to become a cleaner energy city ought to be a city employee's full-time responsibility. This position should be structured to be revenue neutral or even positive. Savings on municipal energy bills ought to be credited to this position, as should state and/or federal grants secured to pursue new energy initiatives. The Clean Energy Coordinator would work closely with businesses, nonprofit organizations, state agencies, and citizens interested in making St. Paul a showcase of enlightened energy policies and practices.

Mayor Coleman's recent appointment of a Deputy Policy Director—Environment is an excellent step toward a better environment in Saint Paul. The Environmental Roundtable will be seeking clarification of the duties of the Deputy Policy Director—Environment; we are interested in how much of that staff person's time will be devoted to achieving smarter, cleaner energy goals.



Greening the Built Environment

Recommendations of the Saint Paul Environmental Roundtable

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Overview

Why Is What We Do With Our Buildings and Environment Important?

Why are we concerned as citizens about the types of buildings that are designed and constructed in the City of Saint Paul? Buildings, in their design, construction and operation consume vast quantities of energy and have tremendous impacts on our local environment and planet.

- Every day the worldwide economy burns an amount of energy that the planet required 10,000 days to create. Between 40 and 50% of that is used in the United States.
- In America -the world's largest energy consumers and a country in which there are more registered drivers than there are voters - the building and construction industry uses over 50% of the nation's primary energy and 60% of the nation's electricity. We use 16% of the world's fresh water. We

- contribute over 30% of the nation's greenhouse gas emissions and generate 40% of the nation's solid waste.
- From 1975 to 1995 – the space of one generation – the world lost 30% of its natural wealth of forests, wildlife and marine and freshwater species.
 - Every single living system on this planet is in decline and the rate at which they are declining is increasing. Don't take our word for it – ask the National Union of Scientists. They've been saying this repeatedly for the last 20 years plus.
 - Increasing material recycling to 60% could be the equivalent of 315 million barrels of oil per year. (This would equal having NO cars on the road in the nation for 40 days out of the year. None.)
 - The first cost of a building represents only 6-8% of its total cost over its lifetime. 92% of a building's cost is devoted to its operation and maintenance. The cost of people working inside that building is between 100 and 150 times that of the building itself. If we can make our buildings more energy efficient, easier to operate and maintain, and keep our people healthier and more productive, we can save enormous amounts of money – enough to pay for the cost of the building many times over.
 - Sustainably designed, high performance buildings are those that, through their siting, orientation, design, construction, and operation, are highly energy efficient, have lower operating costs, are better for the environment in broad and specific terms, and promote whole health for their users and occupants with measurable results.
 - Climate sensitive design using available technologies in the US could cut total energy use by 60% in commercial buildings, reduce material and water use, reduce waste and save owners, companies and our government billions of dollars every year in maintenance and operating costs, assessments, fees and taxes.

Sustainable Design offers a way to balance our continued growth and development with goals for the healthy ecology and well-being of our community and the planet, allowing us to create safe objects of long term value. It is an integrated, holistic way of designing and operating buildings that mitigates the negative impact our buildings have on the environment. Buildings should not make us, our land, our water, or our air, sick.

We have the ability to change the way in which buildings behave. We can do that through better design. Buildings can become better environmental performers and the City of Saint Paul has the opportunity to join cities such as Portland, Seattle, Chicago, Austin, New York and many others to become environmental stewards through the

introduction of Sustainable or Green Building Requirements and Practices for all new and existing construction within the City.

Here's the good news – this doesn't need to cost more. There are certainly strategies that if selected can add cost to a project, most notably those dealing with renewable energy systems. However, most of the strategies found within the sustainable design guidelines offered for consideration here are readily available, "off the shelf" items that do not add additional cost to a project. A sustainably designed building – depending on the strategies employed - will allow savings of 30-50% or greater of a building's annual operating costs through the use of more efficient systems and equipment. These savings represent millions of dollars over a building's lifetime, capital that can be saved or spent elsewhere. These cost-savings can be easily predicted early in the design process and the performances measured during occupancy of the building.

The costs to incorporate these strategies and highly efficient systems can vary. For most projects, if one is already doing a quality building, there really are no additional costs to institute many sustainable design strategies, or, at most, 1 – 4% additional first costs. The payback period for these systems is generally 3 –7 years.

Sustainable design strategies include more than just energy efficiency concerns. The recommended guidelines include topic areas relating to neighborhoods and sites, water efficiency, materials and resources, indoor environmental quality and waste. Utilizing the collection of these strategies will help improve exterior air and water quality and can lead to social and societal improvements as well.

Caution: This is not business as usual. We need to think.

Sustainable design is a holistic, interdisciplinary process that is not satisfied with single strategies. Simply using less energy in a building doesn't necessarily mean that we've done better for the site, the neighborhood or made our homes and workplaces healthier. Installing carpet with recycled content in it is a good thing to do in and of itself, but doesn't help save a lot of energy or make a building easier and less expensive to maintain. In order to be truly effective, one must look at and use a collection of strategies that impact each other and work together to provide deeper, stronger solutions that are beneficial to everyone and everything. We are not separate from nature.

Not all of this is easy. This is not business as usual and requires us to think and act differently than we have been – not always significantly, but differently none the less.

Not every strategy and solution will work or be affordable for every project. An environmentally sound design process involves the development of a series of environmental strategies or options that are reviewed and analyzed in detail for specific applicability, first cost, life cycle cost, long-term environmental impact, energy conservation and pre-construction and post-construction emissions. These should then be prioritized and the selected strategies integrated into the building's design and support systems.

RECOMMENDATIONS TO ACHIEVE GREENING THE BUILT ENVIRONMENT

Recommendation #1: Establish Building Guidelines

WE RECOMMEND the city create, establish or adopt a set of building guidelines that are environmentally and economically sound for all new construction, major renovations and existing buildings within the city.

There are at least two ways in which the city can approach this recommendation:

a. Establish Sustainable Building Guidelines.

Create a process through which experts in the sustainable design industry work with the City to create sustainable design guidelines for new and existing buildings. The consultant team should consist of architects, civil, mechanical and electrical engineers, landscape architects, ecologists, comparative energy modelers and a cost-planning/financial analyst at minimum. The panel the City convenes should include representatives from The Mayor's Office, Planning and Economic Development, Code Enforcement, Public Works, BOMA, Labor Unions, Chamber of Commerce, Banking and Lending Institutions, Developers, Contractors and the Design Build Institute.

The guidelines created should holistically consider the entire planning, design and construction of our places and buildings while balancing environmental, economic and community impacts, costs from a value driven view point (first cost and ongoing operation costs) and Life Cycle benefit analysis.

b. Utilize Existing Guidelines.

There are a number of guidelines already in use and accepted within the design and construction professions. Utilizing one or any of these guidelines and rating systems

will enable a sense of parity and be easier for the industry to incorporate into their design and development process. It may also make sense for the City to adopt one guideline as a standard, but also allow other “pre-approved equals” to satisfy the requirements.

Example: Perhaps the Minnesota Sustainable Building Guide becomes the City standard. People wishing to use the Green Communities or LEED Guidelines instead, for whatever reason, could do so without penalty.

Suggested Pairings of Guidelines to Project Type:

- **New Construction and Major Renovations:**

Offices, Schools, Commercial or Multi-Family Housing: Minnesota Sustainable Building Guide (B3), OR, Leadership in Energy and Environmental Design Guidelines and Rating System (LEED-NC v2.2) for New Construction or Manor Renovations.

Retail: B3 Guide OR LEED – Retail Application Guide

Core and Shell: B3 Guide OR LEED-CS

Commercial Interiors: B3 Guide OR LEED-CI

Laboratories: LEED – LABS Application Guide or Labs 21

Mixed-Use, Neighborhood or Urban Design: B3 or LEED-ND or SITESS

Single Family Homes, Duplexes, Twin Homes or Town Homes: LEED-Homes, or MN Green Communities

- **Existing Buildings:** B3 or LEED-EB

Steps to Achieve this Recommendation

1. Convene a Team of Experts to Facilitate the Creation or Adoption of Guidelines:

The team/panel should consist of architects, civil, mechanical and electrical engineers, landscape architects, ecologists, comparative energy modelers and a cost-planning/financial analyst at minimum. Also to be included are representatives from city administration, city staff, Code Enforcement, Public Works, BOMA, Labor Unions, Chamber of Commerce, Banking and Lending Institutions, Developers, Contractors and the Design Build Institute.

The guidelines created should holistically consider the entire planning, design and construction of our places and buildings while balancing environmental, economic and community impacts, costs from a value driven view point (first cost and ongoing operation costs) and Life Cycle benefit analysis.

This team or some semblance of it should reconvene a minimum of once a year for the first three years after the building guidelines have been established in order to measure the success of the implementation of the guidelines and to make updates and revisions as needed.

2. Establish Environmental and Economical Performance Baselines.

a. The benefits of building in this way need to be clearly stated and measurable. The minimum standard allowed (code or permitting requirements perhaps) should become part of the building baseline – both in terms of the environmental performance as well as economic considerations.

Any individual or entity who may request assistance (financial or otherwise) from the city should be required to demonstrate exemplary performance beyond the baseline standards.

b. Understand that there are some additional up front costs (they should generally be minimal – in the range of 1-4% - depending on the strategies inherent in the design) when doing high performance buildings. The developers do not always see the financial benefits gained from implementing these decisions (many of the savings and benefits are derived from long term operational cost savings. Consider assisting developers to bridge the gap between the baseline and the proposed solution.

c. The baseline may in part be market driven (There is a cost difference between vinyl flooring and wood flooring.) The city should not pay more for wood flooring if the market demands wood flooring. Wood flooring in and of itself does not make a project “green”. The cost difference between wood flooring and sustainably harvested wood flooring is minimal – and supply driven.

3. Require the Use of the Guidelines to Be Part of the Permitting Process.

a. Don't call the guidelines “green” or “sustainable”, thereby making them appear to be extra or ancillary – simply establish them as a normal part of the process.

b. Make it a requirement that in order to build in Saint Paul, in order to obtain a building permit, projects must demonstrate minimum compliance with the building guidelines.

c. Make compliance measurable – while LEED certification may not be the goal, it does allow for an objective 3rd party verification of a building's performance within stated goals and requirements. This helps “hold one's feet to the fire”. The City of St Paul

may benefit from developing a way to require objective 3rd party verification of a developer's claims as a requirement for either permitting or receipt of financing, etc.

Referenced here is an example of a green building ordinance from the City of Pleasanton, CA

<http://www.ci.pleasanton.ca.us/pdf/greenbldg.pdf>

An index of their documents is located at:

<http://www.ci.pleasanton.ca.us/business/planning/index.html>

They are looking at updating the ordinance by adding residential development. See info at:

<http://www.ci.pleasanton.ca.us/business/planning/green-bldg-info.html>

4. Provide Incentives for Developers to Go Beyond Minimum Requirements and Provide Projects with Significant Environmental Benefits.

a. Faster Approval/Permitting Process

The faster a developer or building owner can navigate through the approval process and get a project to market, the less carrying costs they will bear. This improves their bottom line. Find a way to make the approval process faster when projects meet certain green building standards. This may be difficult to balance - as claims by building owners as to their project's green or environmental benefits and performance will need to be verified.

b. Tax Incentives (additional financing, tax reduction over first few years)

Any project seeking TIF money will need to meet green building standards. Simple. High performers should be eligible to receive additional financing at reduced rates or reduced tax rates for the first 1-3 years after completion of construction. These savings can flow directly to the building owner's bottom line, help pay for additional commissioning or otherwise reduce any increase in project costs due to "green components".

c. Greater FAR Incentives

A goal common to all the guidelines is to increase density and retain/improve open space (this is also a "hot topic" at many neighborhood group meetings – where density is seen as anathema to quality living environments). If developers (residential or commercial) meet sustainable design goals then perhaps the city could allow them greater density through FAR (floor area ratios) increases allowing the developer to get more "product" to the market – allowing for greater profit potential at a lower cost.

d. Reduce or Eliminate SAC and WAC Charges

The city should institute a policy that charges building owners for the amount of sewage conveyance (both storm and sanitary) they use and a flat charge to access potable water. If owners demonstrate that their building will use less water and produce less sewage through on site water conservation, management and treatment strategies – owners should see the benefit of implementing those strategies by a reduction or elimination of their sewer and water access charges.

e. Rebates

Who doesn't like a good rebate?

5. Find and Work with Synergetic Partners

Work with the Greater Minnesota Housing Fund to incorporate its “Minnesota Green Communities” practices into the City of Saint Paul’s affordable housing projects. Minnesota Green Communities will support the production of affordable homes with markedly reduced energy costs and greater environmental air quality, among many other environmental benefits.

6. Educate City Staff

As with any new policy or set of requirements, education of City staff will be required to enable and enforce effective use of the guidelines. This education will be necessary to ensure that all staff and approach the requirements in a similar fashion. Alternatively or additionally, create a position or department to specifically deal with sustainable design issues and management of projects and process.

7. Provide Resource Information to the Public

Develop an Informational Clearinghouse or Portal Website to provide developers, builders, architects and other design professionals with current information and case studies to sustainable design issues. This can be as simple as a page with web links to other sources of information or something tailored specifically for the City of Saint Paul.

8. Encourage the Use of Renewable Energy.

As a means to promote the use of renewable energy sources, the City may consider providing an additional incentive for those projects incorporating on-site renewable energy sources (solar photovoltaic, solar hot water or wind energy). This could be done in conjunction with State and Federal tax rebates and other incentives.

Recommendation #2: Improve Energy Efficiency of Existing Buildings

WE RECOMMEND the city improve the energy efficiency of all existing buildings and housing within the city.

Let's face it – designing new buildings to be happier, more effective environmental stewards is important and an attractive notion and ideal. Equally important and more pervasive are the again buildings that exist within our community. Existing buildings have tremendous impact on our infrastructure and community use of resources. The continued operations and maintenance of buildings matters – and if we can reduce the energy and resources use in existing buildings by even a small fraction, we will be responsible for significant savings – both environmentally and financially, thereby lessening the

Steps to Achieve this Recommendation

1. Establish a Data Base for Energy Use on Buildings and Homes.

You can't improve what you don't measure. One way to improve energy efficiency in buildings is to provide comparative analysis relative to energy use for new and existing buildings. This enables facility managers, building owners and homeowners to compare their energy use with others and take corrective actions if their own energy use appears to be beyond average consumption and/or stated energy use goals.

The State of Minnesota is conducting the B3 Energy Benchmark Study wherein all public buildings in the State of Minnesota are tracking their energy consumption – normalized on a per square foot basis.

The City of Saint Paul can utilize this information when completed. The City could also consider conducting a similar benchmarking study for all privately owned buildings - both existing and new.

2. Find and Work With Synergetic Partners.

The of Saint Paul can work with Xcel Energy to promote their Energy Design Assistance Program (suitable for new construction as well) and Homesmart Program to provide information and resources for individuals seeking to improve the energy efficiency of their buildings or homes.

Additionally, the of Saint Paul should work with and assist the Neighborhood Energy Consortium (NEC) in the expansion and marketing of its Peak Performance Homes

Program, which is aimed at improving the energy efficiency and comfort of Saint Paul homes while lowering their heating, cooling and operating costs.

Recommendation #3: Net Zero Greenhouse Gas Emissions

WE RECOMMEND the city require that any new building receiving public financing or municipal bonds must result in net-zero increased energy use and greenhouse gas emissions over the life of the bonds or building.

Any new building project funded with municipal bonds needs to result in net-zero increased energy use and greenhouse gas emissions over the life of the bond or building. From a cost perspective, meeting the revenue/climate neutral requirement will mean that the building will have to be designed and built to operate in a very energy efficient manner (or have its energy needs met by renewable energy sources). Upfront investments in efficiency will be the cheapest way to reduce CO₂ from the operation of the building.

For the remaining energy use, greenhouse gas offsets will have to be purchased or acquired to negate the emissions. It would be up to the city or state to decide how to specifically deal with any CO₂ offset projects. Our preference is to require that the offsets be done within the bond issuer's geographic jurisdiction. So if St. Paul adopted the policy and was building a new building funded with bonds, the offset projects (eg. efficiency, fuel switching, renewable energy purchases/development, carbon storage/sequestration, etc.) would have to be completed inside Saint Paul, or, the State of Minnesota.

This requirement challenges city financed projects to not incur additional long term operational, financial and energy consumption burdens on the City of Saint Paul. The model resolution is tailored for cities that have signed on to the U.S. Mayor's Climate Protection Agreement – which has already occurred in the City of Saint Paul. How great is that?

For more information – The model resolution for cities is at:

<http://www.newrules.org/de/climateneutral.html>

Recommendation #4: Up Front Economic and Environmental Costs

WE RECOMMEND the city require that the true economic and environmental cost of development be paid for up front.

We do not pay for the true environmental (or economic) costs of our decisions and building practices during the design and construction period of any given building. The ongoing maintenance and operations of our buildings, places and communities have an inherent embodied energy within them. (A building located within the city, utilizing existing infrastructure has a lower embodied energy than the same building located outside the city limits utilizing no existing infrastructure.) Buildings that use less energy, take advantage of natural energy flows, support environmental practices and stewardship through their operations and provide for users and occupants health in broad and specific terms are better performers and cost us less as a society than those that do none of those things.

A modest proposal: The cost of obtaining a building permit will increase. Consider adding an environmental/societal impact fee for any building project of 10% of the value of construction. This fee can be waived/reduced if the project meets certain building standards:

- LEED CERTIFIED: Fee reduced to 5%
- LEED Silver: Fee Reduced to 2.5%
- LEED GOLD or Higher: Fee Waived

Recommendation #5: Revise Zoning and Code Requirements

WE RECOMMEND the city revise local zoning and building code requirements to work with environmentally sound building guidelines.

There are some zoning and code requirements that inhibit sustainable design practices. These issues have nothing to do with life safety requirements. Rather, many of the issues have to do with parking, size of streets, roadways and storm water management requirements. Others are more building and systems oriented and are focused on plumbing, HVAC or vapor barrier requirements. We encourage the City to revisit these requirements and make adjustments or provisions within the zoning and building code to allow for a more holistic and environmentally sound approach to some building practices.

Step to Achieve this Recommendation**Meet with State and Local Building Code Officials and Trades People:**

Some of the current codes and ordinances inhibit alternative approaches and better environmental performance. This is most noticeable in certain areas of the zoning ordinance with respect to density and open space requirements, size of roadways, types of paving required; stormwater management, rainwater or graywater harvesting and alternative waste/plumbing solutions. Meet with state and local building code officials and trades people to determine win-win solutions for all parties involved.

Recommendation #6: Establish Common Metro Area Requirements

WE RECOMMEND the city work together with the City of Minneapolis and other metro-area counties/communities to establish common programs and requirements.

Rules, rules, rules. Everybody's got rules. It would be nice if they were the same from place to place to keep everyone on even footing and to minimize confusion and competition from city to city. A number of other communities and local government agencies are beginning to develop sustainable design guidelines and strategies for their communities (North Oaks, Roseville, Dakota County, Apple Valley, etc.). Establishing a common plan will help to minimize confusion between requirements of different communities.

Steps to Achieve this Recommendation**Meet with Other Local Government Agencies:**

Meet with other local government agencies (city and county) to determine where similarities and synergies exist between current plans - proposing and making revisions where needed and appropriate (each city may have rationale for slightly different needs).

Thoughts and Resources**How to Begin?**

When considering the types of Sustainable Design or Green Building Strategies to propose for the City of Saint Paul it is important to recognize that there are already a number of Sustainable Design Guidelines in existence and in use within the State of

Minnesota and the Nation. We propose that rather than recreating a new set of guidelines, the City of Saint Paul select an existing guideline or set of guidelines within which to work and make effective changes to the way buildings, developments, neighborhoods and community open space are conceived and made.

The guidelines most applicable and useful to be considered for use are the following:

LEED Sustainable Design Guide and Rating Systems

- LEED NC (Leadership in Energy and Environmental Design for New Construction and Major Renovations)
- LEED EB (Leadership in Energy and Environmental Design for Existing Buildings)
- LEED CS (Leadership in Energy and Environmental Design for Core and Shell)
- LEED CI (Leadership in Energy and Environmental Design for Commercial Interiors)
- LEED – Homes (Leadership in Energy and Environmental Design for Single Family Residential)
- LEED ND (Leadership in Energy and Environmental Design for Neighborhood Development)

For links to these guidelines, refer to the website www.usgbc.org (United States Green Building Council)

MSDG/MSBG

- Minnesota Sustainable Design Guideline
<http://www.sustainabledesignguide.umn.edu/>
- Minnesota Sustainable Building Guideline (B3)
<http://www.csbr.umn.edu/B3/>

NOTE: Because the State of Minnesota currently requires that any new building project receiving state funding or bond financing follow the Minnesota Sustainable Building Guideline (B3), it may be wisest to simply adopt this guideline as the standard for any commercial development project with a set of “approved equals” should individuals prefer to use other guidelines listed herein.

SITESS (Systems Integration Tool for Environmentally Sustainable Sites) draft rating tool.

http://host.asla.org/groups/sddpigroup/SITESS_Working_Draft_0826051.pdf

<http://host.asla.org/groups/sddpigroup/documents.htm>

Regional and local site sustainability issues are addressed for both site development and ongoing management of sites where buildings are a not a central feature or are not present.

(Currently being developed by the ASLA and Lady Bird Johnson Wildflower Center).

MN Green Communities: <http://www.greencommunitiesonline.org/minnesota/>

MN Affordable Green Housing Guide:

<http://www.greenhousing.umn.edu/guide.html>

Building Green: <http://www.buildinggreen.com>

Additional Notes

Any of the above guidelines are good in and of themselves – however, the City may wish to append to the guidelines several additional requirements such as:

- Requiring adequate physical space be provided in all buildings for the collection and storage of recyclable materials.
- Where available and applicable, projects connect to the Saint Paul District Energy System.
- That all projects seeking to satisfy renewable energy/green e-tag certificates do so from local sources wherever possible. Xcel's Windsource program provides local benefit and should be given preference over out of state providers when and wherever possible.
- Perhaps the City of Saint Paul could lead by example and enact key elements of the recommendations in their own buildings and operations.



Improving and Protecting Open Space

Recommendations of the Saint Paul Environmental Roundtable

Contact: Brian Bates, (651) 690-9671, brianbates@uswest.net

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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

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.

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.

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.



Clean Water Stewardship

Recommendations of the Saint Paul Environmental Roundtable

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Overview

"Can we afford clean water? Can we afford rivers and lakes and streams and oceans which continue to make possible life on this planet? Can we afford life itself? Those questions were never asked as we destroyed the waters of our nation, and they deserve no answers as we finally move to restore and renew them. These questions answer themselves."

"Our planet is beset with a cancer which threatens our very existence and which will not respond to the kind of treatment that has been prescribed in the past. The cancer of water pollution was engendered by our abuse of our lakes, streams, rivers, and oceans; it has thrived on our half-hearted attempts to control it; and like any other disease, it can kill us."

We have ignored this cancer for so long that the romance of environmental concern is already fading in the shadow of the grim realities of lakes, rivers and bays where all forms of life have been smothered by untreated wastes, and oceans which no longer provide us with food."

- Senator Ed Muskie of Maine arguing for the passage of the Clean Water Act in 1972, CRS, 1972 Legislative History, pp 164, 161-62

In 1972 when congress passed the Clean Water Act our nation's waters were in serious decline. Our Great Lakes were dying, our rivers were catching fire and entire communities were being evacuated due to groundwater contamination. Here in Saint Paul, there were essentially no fish in the Mississippi River. In the thirty-three years that have passed since the Act became law we have made great strides toward restoring the health of our precious water resources. Major sources of pollution such as factories and wastewater treatment plants have come under federal regulation and have been forced to clean-up their act. In the process, pollution from these fixed or "point" sources has been surpassed by what is known as "non-point" sources or polluted runoff from ubiquitous sources such as agricultural lands and city streets.

Unfortunately, despite significant improvements the Mississippi River in Saint Paul still does not meet federal standards for swimming, fish can't be eaten without limitation and the "turbidity" or cloudiness of the water impairs aquatic life. Our lakes are also under assault. Fish consumption is severely restricted for city lakes and Como Lake is listed by the Minnesota Pollution Control Agency as impaired because excess nutrients make the lake green with algae.

As one of the first large cities along its length, Saint Paul contributes significant polluted runoff to the Mississippi River. Because it is a fully developed urban area, Saint Paul's primary impact on the health of our lakes and rivers is due to it's high coverage of so-called "impervious surfaces" such as streets, parking lots and roof tops. Instead of soaking into the ground as it once did, rainfall and snowmelt runs-off into the city's storm drains and is routed directly to our lakes and the Mississippi. As it runs-off that "stormwater" picks-up pollutants such as the following:

- Nutrients from things like soil, leaves, grass clippings and fertilizer
- Bacteria from animal waste and pet droppings
- Sediment from soil erosion, construction sites and poor landscaping
- Toxics from automotive products, pesticides, solvents and illegal dumping

In order to reduce such pollution, it will be necessary for the City of Saint Paul to adopt an entirely new approach to managing its stormwater. Instead of the old methods which stress removing water to gutters, drains, pipes and eventually lakes and rivers, state of the art stormwater management emphasizes recreating the natural hydrologic characteristics of any given site. This means allowing water to infiltrate naturally into the soil by utilizing a range of practices such as reducing impervious surfaces or purposely directing runoff to rain gardens where it can be cleansed and infiltrated.

Where hard surfaces continue to be necessary we must practice good housekeeping by working to keep them free of pollutants that the next rain will carry away.

Saint Paul's citizens want swimmable, fishable, drinkable waters and they expect their elected leaders and professional managers to take reasonable and pragmatic steps to bring that about. The City should strive to be a national leader in pursuing policies and practices that set a high standard for stewardship of our waters.

First and foremost the City should set a strong example on it's own projects. Whenever the City breaks ground on a new library, repaves a community center parking lot or replaces an existing street it should seize the opportunity to the extent feasible to disconnect the project from the storm drain network by naturally infiltrating as much water as possible.

Secondly, Saint Paul must show leadership by requiring new developments to meet much higher standards for reducing runoff pollution.

With political leadership and strong professional administration Saint Paul can very quickly become a national leader in reducing the impact of urban stormwater runoff on our waters. Saint Paul's citizens expect it, our lakes and rivers need it and future generations deserve nothing less.

The following recommendations are intended to offer constructive, practical suggestions for how to begin to move toward that goal. This is an approach to protecting the health of our lakes and rivers by becoming a national leader in implementing strategies to reduce runoff pollution.

RECOMMENDATIONS TO ACHIEVE CLEAN WATER STEWARDSHIP

Recommendation #1 & #2: Stormwater Standards

#1 We recommend that the City of Saint Paul support and incorporate local Watershed District goals, objectives and standards into its local water plan and should amend its ordinances to be consistent with these standards.

#2 We recommend that the City of Saint Paul incorporate clean water designs and best practices into its own projects such as park facilities, libraries, streets, etc.

In a fully developed urban area like Saint Paul the opportunities to reduce the City's impact on our local lakes and rivers present themselves primarily when we re-develop. When new businesses, houses or infrastructure such as streets, sewers or light rail lines are constructed the public has an opportunity to exercise some influence over how those projects manage stormwater.

So, what are stormwater standards? Simply put, stormwater standards set performance requirements for new developments to limit the impact they have on water quality. These standards derive from Federal Clean Water Act requirements and are set out by local watershed districts or watershed management organizations. In Saint Paul two watershed districts cover most of the City. They are the Capitol Region Watershed District and the Ramsey-Washington Metro Watershed District. Once standards are set by watershed districts Minnesota law then requires cities to conform to these standards by making them part of their water plan and ordinances. Major categories of the standards include:

- Wetland Management
- Floodplain Management
- Erosion Control
- Stormwater runoff quantity management

Recommendation #3: Construction Site Erosion Control

#3 We recommend that the City of Saint Paul create an effective construction site erosion control program that applies to sites of all sizes.

Most people are surprised to learn that in developed areas that are served by storm sewers polluted runoff from construction sites is one of the primary sources of sediment and nutrient pollution to our lakes and rivers. Construction sites have extremely high erosion rates. According to the US Environmental Protection Agency, construction sites erode at a rate of 75 tons per acre per year compared with 7.5 tons per acre per year for row crops and 0.4 tons per acre per year for urban lawns.



Construction sites are landscapes in transition with one land use giving way to another. One of the first activities at construction sites is demolition of any former structures and re-grading of the site. This process necessarily loosens and exposes soils and sometimes other pollutants which are then subject to months or sometimes even years of disturbance by heavy machinery traffic, rainfall and snowmelt. Over the years many very effective measures for preventing construction site erosion have been developed along with special professional training and certification for practitioners. Silt fencing, site grading and berming, mulching, erosion blankets and many other best practices can be utilized to minimize polluted runoff from construction sites. Here in Minnesota training and professional certification are provided by the Minnesota Erosion Control Association and the University of Minnesota's Erosion and Sediment Control Certification Program.



Currently, Saint Paul ordinances and construction permits require developers to control and manage erosion from construction sites but unfortunately compliance is only as good as inspection and enforcement activities. To be effective, the City must establish a vigorous inspection program and back it up with the willingness to implement enforcement measures that motivate compliance. The City should also consider implementing simple measures that would increase public awareness of erosion control issues and make it clear how citizens can report violations.

Steps to achieve this recommendation

- Raise fee on construction site erosion control to pay for adequate inspections. Each construction permit should be inspected regularly.
- There should be clarity/ accountability about who is responsible for each site. Permit holders should be required to publicize the name and contact information for a compliance contact person for each site. The State of California, for instance, requires all construction sites to post a sign with the project's permit number and the project compliance officer's phone number.

Within the City, each construction site permit should be assigned to a specific inspector who can be held accountable for performing the required inspection and enforcement activities on the site.

California Erosion Control Signage



- Permit holders should be required to publicize the conditions under which the site would not be in compliance. For instance a sign could be required on each site which states clearly “If you notice dirt, mud, or dirty runoff water leaving this site please contact...”
- All construction site erosion control permits, regardless of site size should be inspected regularly and enforced. The City should ensure sufficient staffing levels to accomplish the required inspections.
- Create adequate escrow accounts to cover fines and the costs of correcting problems.
- Apply meaningful short-term consequences for non-compliance with permit requirements. For example, sites which are inspected and found to be out of compliance should be given a short period of time to correct the problem.

Then if it is not corrected, work at the site should be shut down while the City corrects the problem at the permit holder's expense.

- Apply meaningful long-term consequences for non-compliance with permit requirements. For example, construction firms with a history of non-compliance should receive lower priority status for permit review, larger escrow deposits or costlier permit fees.
- Inspectors should receive training on erosion control best practices. Numerous professional training resources are available in Minnesota. Training programs include those offered by the Minnesota Erosion Control Association and the University of Minnesota's Erosion and Sediment Control Certification Program.
- The City should partner with the Ramsey Conservation District and Watershed Districts to establish and implement the program.

Recommendation #4: Street Reconstruction

#4 We recommend that the City of Saint Paul implement stormwater volume control and water quality practices such as rain gardens and infiltration trenches to meet watershed standards as standard practice on all street replacement projects.

Over the years Saint Paul's landscape has been radically transformed by the addition of streets, parking lots, roof-tops and other so-called "impervious surfaces" that prevent rain and snowmelt from soaking into the ground as it once did. Because that water is no longer infiltrating into the soil it needs to go somewhere so curbs, gutters, catch basins and storm sewers have been constructed to deliver stormwater as efficiently as possible to our lakes and the Mississippi River.

Unfortunately, Saint Paul's streets contribute some of the highest concentrations of pollutants to local surface waters. Additionally, the volume of stormwater runoff that is carried by streets and storm sewers to the City's lakes, wetlands and the Mississippi River has a very detrimental affect on the ecological health of those waters.

Mean Concentrations of Pollutants in Stormwater Runoff from Urban Source Areas

Source Area	Total Phosphorous (Mg/L)	Solids (Mg/L)	Bacteria (c/100ml)	Zinc (ug/L)	Cadmium (ug/L)
Residential Street	1.31	662	92,000	220	0.8
Commercial Street	0.47	232	9,600	508	1.8
Residential Roof	0.15	27	290	149	nd
Commercial Roof	0.2	15	1,117	330	nd
Residential Lawns	2.67	397	42,000	59	nd
Driveways	1.16	173	34,000	107	0.5
Commercial Parking	0.19	58	1,758	178	0.6

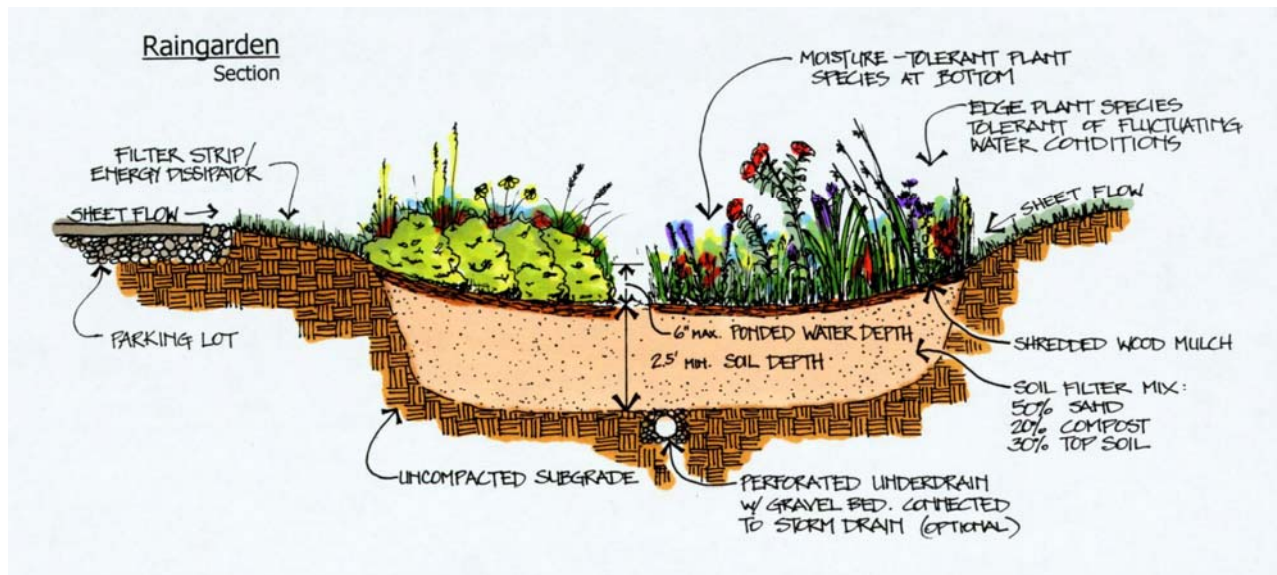
Source: Bannerman et al, 1993

In order to reduce the volume of water and the concentrations of harmful pollutants running off of streets many cities are beginning to introduce new practices such as rain gardens and infiltration trenches that infiltrate stormwater as part of their regular street replacement program. In Saint Paul all streets are on a 30-year replacement schedule. Many higher traffic collector and arterial streets are reconstructed more frequently.

Rain Garden – City of Burnsville, MN



A rain garden is a shallow, constructed depression that is planted with deep-rooted native plants & grasses. It is located to receive runoff from hard surfaces such as a roof via a downspout, a sidewalk, driveway or street. Rain gardens slow down the rush of water from these hard surfaces, hold the water for a short period of time and allow it to naturally infiltrate into the ground.



In a demonstration project in Burnsville, MN, rain gardens that were installed and monitored on a residential street demonstrated an 82% reduction of volume against a control area with standard curb and gutter. Pollutant reduction exceeded 82 %.

In locations where soil conditions, available space or aesthetic considerations prevent the use of rain gardens many communities are deploying infiltration trenches. An infiltration trench is a rock-filled trench that receives stormwater runoff. Runoff is then stored in the voids of the stones and slowly infiltrated through the bottom and into the soil matrix over a few days.



While Saint Paul has begun to experiment with rain gardens on a demonstration basis, the City has not yet committed to employing infiltration best management practices as standard procedure where feasible when streets are replaced.

Of course, new technologies should always be adopted prudently and potential negative impacts of infiltration must be carefully managed. The potential to pollute groundwater with improperly designed or located infiltration practices is a legitimate concern but in general should not be used as a reason to avoid infiltration.

The increased cost for installation and maintenance of rain gardens and infiltration trenches is another commonly heard criticism of progressive stormwater management. However, when installation occurs as part of the normal street replacement cycle, the marginal cost difference is under 5%. Moreover, these comparisons do not calculate the cost to society of waters that are not swimmable or fishable.

Recommendations #5-8: Coordination, Accountability and Training

#5: We recommend that the City of Saint Paul identify and empower an environmental coordinator at the City to lead a Clean Water Coordinating Team, representing key City departments, and personnel.

#6 We recommend that the City of Saint Paul integrate water quality best practices into comprehensive plans for City departments and neighborhood District Plans; and, create a special review process for the water quality components of proposed developments that requires adoption of recommendations before preliminary plat approval.

#7 We recommend that the City of Saint Paul create consistent, meaningful permit language in Saint Paul's new NPDES permit, incorporate the recommendations of the St. Paul Environmental Roundtable and include watershed districts, key stakeholders the public in the permit planning/writing process.

#8 We recommend that the City of Saint Paul provide relevant training to city employees, elected & appointed officials, reviewers, district councils, etc.

In addition to implementing best management practices on the ground, Saint Paul must set-out clear and measurable goals and establish effective internal management structures to deliver on them.

A management level Clean Water Coordinating Team with key decision makers from Public Works, Planning & Economic Development, Parks & Recreation, Licensing, Inspections & Environmental Protection as well as staff from the Mayor's office and the City Council is essential if the City hopes to make clean water stewardship a priority.

The best intentions of elected officials and city staff will not improve the health of the Mississippi River if specific goals, objectives and procedures are not incorporated into the plans that guide City departments and District Councils. Furthermore, we suggest that it would be helpful if all development applications in the City were to undergo a special review for consistency with the City's water quality objectives before preliminary plats are approved and projects begin to harden.

Saint Paul is currently operating with an expired stormwater (NPDES) permit. As the City moves ahead with the task of drafting a new permit a wonderful opportunity presents itself for the City to set a new standard of inclusiveness and openness to work with stakeholders and citizens to write a permit that can be a model for cities around

the country. A stormwater permit may be a required regulatory document but it also represents the commitments a city is willing to make to protect water quality and this opportunity should not be missed.

Managing stormwater as if we cared about the health of our lakes and rivers will require the understanding and active cooperation of people at all levels of city government from the Mayor and Council to seasonal maintenance staff. All relevant City employees should receive training on non-point source pollution issues and management strategies.

Many of the land use decisions that are made by elected officials or city staff are made based upon a range of important considerations that don't have to do with water quality. Affordability, equity, aesthetics, density and a range of dynamic political factors all bear on these public decisions. Unfortunately, all too often the water quality impacts of these decisions are not well understood and alternate choices or simple modifications are not seriously considered. The highly acclaimed national program Non-Point Education for Municipal Officials or "Project NEMO" as it is known, was founded for this reason. NEMO tailors water quality education to elected officials and city staff who are not water quality experts but whose work and decisions have a great impact on the health of our waters.

At each level of City government appropriate education and training should be systematically administered. City planners, engineers, inspectors, street sweepers and lawn mowers all have a valuable role to play in protecting and improving the health of our waters but if they haven't been specifically trained their efforts may be counterproductive.

Steps to achieve these recommendations

- Clarify existing project review and approval processes and revise them to be more accessible, effective and adaptive.
- Create financing strategies that support the additional costs of implementing these recommendations such as dedicated funding from fees and fines.
- Participate in partnerships that leverage expertise and funding (e.g., Metro Watershed Partners, Non-Point Education for Municipal Officials.)

Recommendations #9 & #10: Watershed Education

#9 We recommend that the City of Saint Paul partner with its local Watershed Districts to fund a City-wide “Clean Water Coordinator” position to work with District Councils and non-profits to deliver watershed education and best-practices implementation.

#10 We recommend that the City of Saint Paul partner with its local Watershed Districts to fund a city-wide Best Management Practice cost-share program for homeowners & businesses.

One of the most cost effective ways to reduce runoff pollution in urban settings is through robust public education that focuses on behavior change. Small choices such as those a resident makes regarding lawn and garden maintenance are magnified into major issues when multiplied by thousands of people making those choices.

Watershed educators are now stressing the importance of very grassroots, neighbor-to-neighbor modalities for affecting behavioral change that benefits our water quality. This approach known as “community-based social marketing” emphasizes that people are most likely to adopt behavior changes such as sweeping grass clippings off of the sidewalk if the information comes from sources that are known and trusted.

For many years Saint Paul has underwritten a stormwater education program that utilizes volunteers to stencil a message next to storm drains that reads “Please Don’t Pollute – Drains To Mississippi River.” The volunteers also distribute door hangers with additional information. The City has also been an active member of the Metro Watershed Partners which is a coalition of over forty public and non-profit organizations that coordinate efforts to educate the public on watershed issues. The City should be commended for its work in this area.

We suggest that the City should establish a “Clean Water Coordinator” position that can work with existing community structures such as schools, district councils, churches and civic groups to disseminate the important messages about reducing runoff pollution. It may be possible for the City to collaborate with its watershed districts to share the cost of such a position.

Some of the important changes that homeowners and businesses might adopt in their landscaping or property maintenance will require them to make an investment. Studies show that many home and business owners would be willing to spend money on improvements that they know will reduce their property’s impact on water quality but

they are far more likely to make the investment if a public agency can share the cost with them. Rain gardens, rain barrels, native plantings, porous pavement and green roofs are just some of the appropriate technologies that can be employed at a small scale. In order to encourage these practices and leverage private investment, the City should consider establishing a cost-share program, perhaps on a pilot basis. Again, the local Watershed Districts may be willing to partner with the City to even further defray the City's costs for implementing such a program.

Steps to achieve these recommendations

- The City should Support all new water quality regulations with effective public education efforts.
- The City should provide better education resources for homeowners and businesses on the topic of watershed-friendly landscaping and lawn & garden practices.

Additional Resources

The Stormwater Manager's Resource Center is designed specifically for stormwater practitioners, local government officials and others that need technical assistance on stormwater management issues. Created and maintained by the Center for Watershed Protection the SMRC has everything you need to know about stormwater in a single site. <http://www.stormwatercenter.net>

Center for Watershed Protection is a non-profit that provides local governments, activists, and watershed organizations around the country with the technical tools for protecting some of the nation's most precious natural resources: our streams, lakes and rivers.

<http://www.cwp.org>

The Capitol Region Watershed District is a special purpose unit of local government. Its area is based on watershed boundaries and its purpose is to manage water resources. By managing water resources on a watershed basis, communities can better work together to prevent and correct such problems as flooding, polluted lakes, and eroding stream banks. The watershed covers 40 square miles and includes portions of the cities of Falcon Heights, Lauderdale, Maplewood, Roseville, and St. Paul.

<http://www.capitolregionwd.org>

The Ramsey-Washington Metro Watershed District (RWMWD) is a special purpose governmental unit responsible for protecting the water resources of the watershed, located in the eastern portion of Ramsey County and the western edge of Washington County, Minnesota. RWMWD covers approximately 56 square miles that ultimately drain into the Mississippi River. The watershed includes six actual small watersheds that each drain to the Mississippi River; the Phalen Chain of Lakes, Beaver Lake, Beltline Interceptor, Battle Creek, Fish Creek, and the Blufflands area. There are 5 major creeks, 11 lakes and thousands of wetlands within the RWMWD.

<http://www.rwmwd.org>

The Mississippi Watershed Management Organization is one of about three dozen watershed organizations in the Twin Cities Metropolitan area. It's boundaries include the Mississippi River as it runs through Minneapolis, as well as the land that drains to the River. The MWMO contains portions of the cities of Lauderdale, Minneapolis, St. Anthony, and St. Paul. The MWMO provides for the long-term management of its water and associated land resources through the development and implementation of projects, programs, and policies that respect ecosystem principles and reflect changing community values. The MWMO will assist and cooperate with member cities, other units of government, non-profit agencies, and a variety of groups in managing its water resources to achieve this vision.

<http://www.mwmo.org/about.html>

Friends of the Mississippi River is a non-profit organization that works to protect and enhance the Mississippi River and its watershed in the Twin Cities area.

<http://www.fmr.org>

The Minnesota Pollution Control Agency – Water Pages

<http://www.pca.state.mn.us/water/index.html>

The Minnesota Stormwater Manual is a valuable tool for stormwater managers; it helps professionals and newcomers manage stormwater in a way that conserves, enhances, and restores high-quality water in our lakes, rivers, streams, wetlands, and ground water, ensuring a high quality of life for all Minnesotans.

<http://www.pca.state.mn.us/water/stormwater/stormwater-manual.html>

The US Environmental Protection Agency - Watersheds

<http://www.epa.gov/OWOW/watershed>

The US Environmental Protection Agency – Stormwater Pages
<http://cfpub.epa.gov/npdes/stormwatermonth.cfm>

US Environmental Protection Agency – Model Ordinances to Protect Local Resources
<http://www.epa.gov/owow/nps/ordinance/index.htm>

Metro WaterShed Partners is an innovative, dynamic coalition of over forty public, private and non-profit organizations in the Minneapolis/St. Paul, Minnesota metropolitan area that, through collaborative educational outreach, teaches residents how to care for area waters. The mission of Metro WaterShed Partners is to promote a public understanding that inspires people to act to protect water quality in their watershed. <http://www.cleanwatermn.org>

Project NEMO - Nonpoint Education for Municipal Officials is a University of Connecticut education program for land use decision makers that addresses the relationship of land use to natural resource protection.
<http://nemo.uconn.edu>

The Minnesota Erosion Control Association - works to communicate erosion and sediment control techniques and practices, and encourage the use of those practices. Since storm water management is such an integral part of erosion and sedimentation control, MECA also actively promotes new and innovative storm water management practices.
<http://www.mnerosion.org/index.htm>

The Low Impact Development Center is a non-profit organization dedicated to the advancement of Low Impact Development technology. Low Impact Development is a new, comprehensive land planning and engineering design approach with a goal of maintaining and enhancing the pre-development hydrologic regime of urban and developing watersheds.
<http://lowimpactdevelopment.org>

Acknowledgements

These recommendations were developed over the course of more than six months and could not have been accomplished without the valuable expertise and input of the following individuals.

- Cliff Aichinger, Administrator – Ramsey Washington Metro Watershed District
- Janette Brimmer, Legal Director – Minnesota Center for Environmental Advocacy, Saint Paul resident
- Mark Doneaux, Administrator – Capitol Region Watershed District
- Jack Frost, Metropolitan Council
- Patrick Hamilton, Director of Environmental Science – Science Museum of Minnesota, Saint Paul resident
- Michael McDonough, Senior Planner/Landscape Architect - Metropolitan Council, Saint Paul resident
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- Doug Snyder, Administrator - Mississippi Watershed Management Organization, Saint Paul resident
- Ron Struss, Educator – University of Minnesota Extension, Saint Paul resident
- Scott Vreeland, Commissioner – Mississippi Watershed Management Organization
- Jenny Winkleman, Education Outreach Coordinator - Mississippi Watershed Management Organization, Saint Paul resident



Priority Rankings

Recommendations of the Saint Paul Environmental Roundtable

To facilitate the implementation of the Roundtable recommendations, the Roundtable members have prioritized the recommendations based on the following criteria. These items were ranked on a scale of 1-4, with 4 =the greatest and 1=least.

- **Environmental Benefit**
- **Cost-Effectiveness**
- **Public Support**

The **Priority Total** is the addition of these rankings, a number between 3 and 12. The higher the score, the higher the priority this recommendation should be for the city.

The Roundtable members also ranked each recommendation in terms of timing for the city to provide further direction. The **Timing Priority** was selected from these four options:

- Yesterday: Everything is already in place to implement this recommendation and it could have been implemented by the city yesterday.
- Immediate: This recommendation could be implemented in less than 12 months. It would take little time, coordination or additional resources to implement this recommendation.
- Near-Term: This recommendation could be implemented in 1-3 years, or 12-36 months. It will take some effort to implement, but some progress has already been made.
- Longer Term: This recommendation could be implemented in 3-5 years or more. It will take additional research and resources to implement, or the necessary resources or path are unknown.

Saint Paul Environmental Roundtable Recommendations
Priority Rankings

RECOMMENDATIONS	ENVIRONMENTAL BENEFIT	COST EFFECTIVENESS	PUBLIC SUPPORT	PRIORITY TOTAL	TIMING PRIORITY	PAGE NUMBER
WASTE-FREE SAINT PAUL RECOMMENDATIONS (See Appendix A)						
1. Residential Organics Recycling	4	4	3	11	Yesterday to Mid-term	A3
Promote on-site composting at homes & businesses	3	4	2	9	Yesterday	A4
Begin weekly curbside collection of household organics	4	3	2	9	Mid-term	A4
Examine yard waste collection for effectiveness and efficiency	2	2	2	6	Yesterday	A4
Ban use of garbage disposals	2	2	1	5	Immediately	A4
Study on-site composting for small businesses	2	3	3	8	Immediately	A5
2. Unit-based Pricing for Trash	4	4	2	10	Yesterday to Mid-term	A5
Adopt a true unit-based pricing	4	4	3	11	Yesterday	A6
Alternative: explore organized collection of trash	4	4	1	9	Mid-term	A7
3. Business Recycling	4	4	2	10	Mid-term	A7
Ordinance to require commercial recycling	4	4	2	10	Mid-term	A8
Tie mandatory recycling plans to licensing	4	3	1	8	Mid-term	A8
Provide recognition as incentive	4	3	4	11	Mid-term	A8
Provide communications and assistance	4	2	4	10	Mid-term	A9
Require recycling space allocation	4	4	2	10	Immediately	A9
Provide incentives for recycling convenience	4	2	4	10	Mid-term	A9

Saint Paul Environmental Roundtable Recommendations
Priority Rankings

RECOMMENDATIONS	ENVIRONMENTAL BENEFIT	COST EFFECTIVENESS	PUBLIC SUPPORT	PRIORITY TOTAL	TIMING PRIORITY	PAGE NUMBER
4. Public Space Recycling	3	2	4	9	Immediately	A10
Continue public space recycling pilots	4	2	4	10	Yesterday	A10
Require recycling wherever trash is collected	4	3	4	11	Immediately	A11
Incorporate public art	3	3	4	10	Immediately	A11
5. Event Recycling at City Events	3	3	3	9	Immediately to Mid-Term	A12
Require recycling at events	3	3	4	10	Immediately	A13
Institute waste reduction plans for 3 city events	3	3	4	10	Mid-term	A14
Revise terms and conditions for parks and recreation events	3	3	3	9	Yesterday	A15
neighborhood block parties, parades, and demonstrations	2	3	3	8	Yesterday	A15
Revise permit requirements	2	3	3	8	Yesterday	A15
6. School, College and University Recycling & Reuse	3	2	4	9	Yesterday	A16
Reiterate State requirement for school recycling	3	4	3	10	Yesterday	A17
System for school purchase of carts and/or bins	2	4	4	10	Yesterday	A17
Explore areas of influence	3	4	4	11	Yesterday	A17

Saint Paul Environmental Roundtable Recommendations
Priority Rankings

RECOMMENDATIONS	ENVIRONMENTAL BENEFIT	COST EFFECTIVENESS	PUBLIC SUPPORT	PRIORITY TOTAL	TIMING PRIORITY	PAGE NUMBER
7. Sustainable Purchasing Practices for the City	3	2	3	8	Immediately to Mid-Term	A17
Create team and sustainability criteria	4	3	4	11	Yesterday	A18
Shift to total cost approach	4	2	3	9	Mid-term	A19
Eliminate items that do not meet criteria	4	2	3	9	Mid-term	A19
Focus on paper and cleaning products	4	2	3	9	Immediately	A20
Create sustainability fund	3	1	2	6	Long-term	A21
8. Construction and Demolition	4	2	2	8	Long-term	A21
Require C&D recycling for construction projects	4	2	2	8	Long-term	A22
Require C&D recycling at city cleanups	4	4	3	11	Yesterday	A22
9. Create Green Collar Jobs	3	2	2	7	Long-term	A23
Identify geographic location	4	4	4	12	Yesterday	A23
Identify national models	4	3	4	11	Yesterday	A23
HEALTHY LOCAL FOOD SYSTEMS RECOMMENDATIONS (See Appendix B)						
1. Implement 1987 Food Policy	4	4	4	12	Yesterday	B3
2. Encourage Locally Grown Food	4	4	4	12	Yesterday	B4
3. Land Use Plans Incorporate Local Foods	4	4	3	11	Yesterday	B4
4. Encourage Community Supported Agriculture	4	3	3	10	Immediate	B4
5. Develop Public Schools Wellness	4	2	3	9	Immediate	B5
6. Encourage Farmers Markets	4	3	3	10	Immediate	B5
7. Purchase Local Foods for City Events	4	4	3	11	Mid-term	B5
8. Encourage a Regional Food System	4	2	3	9	Mid-term	B6

Saint Paul Environmental Roundtable Recommendations
Priority Rankings

RECOMMENDATIONS	ENVIRONMENTAL BENEFIT	COST EFFECTIVENESS	PUBLIC SUPPORT	PRIORITY TOTAL	TIMING PRIORITY	PAGE NUMBER
SMARTER CLEANER ENERGY RECOMMENDATIONS (See Appendix C)						
2. Set a Renewable Electricity Standard in the Franchise Agreement	3.6	3.4	3.6	11	Immediate	C4
7. Establish a Clean Energy Coordinator for the City of Saint Paul	3.2	3.4	2.9	10	Mid-term	C7
6. Implement a New Home Energy Rating System	2.3	3.2	3.0	9	Mid-term	C6
3. Work with Rock-Tenn on a Clean Energy Source	2.5	2.8	2.6	8	Immediate	C4
4. Encourage Ground-Source Heating and Cooling	2.5	2.9	2.4	8	Mid-term	C5
1. Restructure the Xcel Energy Franchise Fees	2.0	2.7	2.7	7	Immediate	C3
5. Run the City Fleet on Renewable Fuels	0.7	2.3	3.2	6	Yesterday	C6
GREENING THE BUILT ENVIRONMENT RECOMMENDATIONS (See Appendix D)						
1. Establish Building Guidelines	4	4	4	12	Immediate	D4
2. Improve Energy Efficiency of Existing Buildings	4	3	3	10	Immediate	D9
3. Net Zero Greenhouse Gas Emissions	3	3	2	8	Mid Term	D10
4. Up Front Economic and Environmental Costs	4	2	2	8	Mid Term	D11
5. Revise Zoning and Code Requirements	2	4	2	8	Mid term	D11
6. Establish Common Metro Area Requirements	3	3	2	8	Longer Term	D12

Saint Paul Environmental Roundtable Recommendations
Priority Rankings

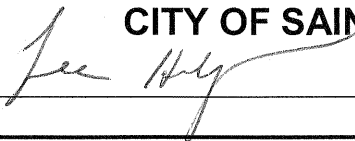
RECOMMENDATIONS	ENVIRONMENTAL BENEFIT	COST EFFECTIVENESS	PUBLIC SUPPORT	PRIORITY TOTAL	TIMING PRIORITY	PAGE NUMBER
IMPROVING AND PROTECTING OPEN SPACE RECOMMENDATIONS (See Appendix E)						
1. Inventory Recommendations						E4
Additions to Inventory	3	2	3	8	Yesterday	E6
Open Space Policy and Land Use Plan	3	4	4	11	Yesterday	E6
New definitions and zoning categories for open space	3	4	4	11	Yesterday	E6
2. Quantity Recommendations						E8
Pass "Parks Dedication" ordinance	4	4	4	12	Yesterday	E12
Pass Green Roof Resolution	3	4	2	9	Immediate	E12
Adopt policy of identifying potential future open space	3	3	3	9	Mid-term	E12
3. Quality Recommendations						E12
Adopt the IDA model ordinance	2	4	2	8	Longer Term	E14
Give meaning to Saint Paul's ban on advertising signs	3	4	4	11	Yesterday	E14
Provide adequate funding of all existing open space	4	2	4	10	Longer Term	E14
CLEAN WATER STEWARDSHIP RECOMMENDATIONS (See Appendix F)						
Stormwater Standards						F3
1. Incorporate local Watershed District goals, objectives and standards into its local water plan	4	4	4	12	Immediate	F3
2. Incorporate clean water designs and best practices into its own projects	2	4	4	10	Immediate	F4
Construction Site Erosion Control						F4
3. Create an effective construction site erosion control program	4	4	4	12	Mid-term	F4

Saint Paul Environmental Roundtable Recommendations
Priority Rankings

RECOMMENDATIONS	ENVIRONMENTAL BENEFIT	COST EFFECTIVENESS	PUBLIC SUPPORT	PRIORITY TOTAL	TIMING PRIORITY	PAGE NUMBER
Street Reconstruction						F8
4. Implement water quality practices on all street replacement projects.	4	4	2	10	Immediate	F8
Coordination, Accountability and Training						F12
5. Identify environmental coordinator to lead a Clean Water Coordinating Team	2	3	2	7	Yesterday	F12
6. Integrate water quality best practices into comprehensive plan and create a special review process	2	2	3	7	Immediate	F12
7. Create consistent, meaningful permit language in St. Paul's new NPDES	3	3	2	8	Immediate	F12
8. Provide relevant training	2	3	2	7	Immediate	F12
Watershed Education						F14
9. Fund a City-wide "Clean Water Coordinator" position	2	3	4	9	Immediate	F14
10. Fund city-wide Best Management Practice cost-share program	2	3	4	9	Mid-term	F14

**RESOLUTION
CITY OF SAINT PAUL, MINNESOTA**

Presented by _____



Resolution for the Saint Paul Environmental Roundtable Recommendations

1 WHEREAS, the City of Saint Paul and its citizens are committed to improving the quality of life in the
2 Capital City and maintaining recognition as one of the greenest cities in the nation; and
3
4 WHEREAS, the Saint Paul Environmental Roundtable has outlined and prioritized recommendations for
5 City action in six environmental areas, including:
6 • **zero waste** – materials are designed and managed to be conserved and recovered, rather
7 than destroyed, buried, or transformed in ways that limit our ability to safely reuse them for productive
8 purposes.
9 • **food systems** – increasing our safe and local food supply, encouraging community gardens, supporting
10 the farmers’ markets, reducing our exposure to hazardous substances in food, improving the nutritional
11 value of our food and much more.
12 • **energy** – fighting global warming and getting cleaner air and water, through the support of smarter,
13 cleaner energy.
14 • **green buildings** – policies that encourage sustainable, high performance design for commercial and
15 residential buildings.
16 • **green space** – improving the quality and quantity of green space.
17 • **water stewardship** – protecting and cleaning the water our health and quality of life depend on; and
18
19 WHEREAS, the City established an Environmental Working Group consisting of City staff, named
20 Sustainable Saint Paul, and directed that group to develop an action plan for implementing the
21 recommendations of the Saint Paul Environmental Roundtable to the fullest extent feasible, and evaluate
22 the success of those actions annually; and
23
24 WHEREAS, the Saint Paul Environmental Roundtable tapped into the talent and expertise of our
25 community and engaged the hearts and minds of Saint Paul citizens who have consistently supported
26 actions that protect and improve the environment; now therefore be it
27
28 RESOLVED that the Mayor and City Council acknowledge that they must continue to provide leadership
29 and reaffirm their commitment to protect and enhance the long-term health of Saint Paul’s citizens, the
30 natural environment, economy and community in commemoration of the 36th Anniversary of Earth Day;
31 and be it
32
33 FURTHER RESOLVED that the Mayor and City Council hereby direct Sustainable Saint Paul to develop
34 a zero waste plan and policy involving recommendations from the Environmental Roundtable and input
35 from the community at large and establish measurable goals for the next 20 years; and be it
36
37 FURTHER RESOLVED that the Mayor and City Council direct Sustainable Saint Paul to review the 1987
38 Saint Paul Municipal Food Policy and engage community stakeholders to create solutions that improve the
39 availability of, and access to, local, healthy foods; and be it
40

41 FURTHER RESOLVED that the City of Saint Paul will strive to attain 25% of its total electricity from
 42 renewable sources of energy by the year 2020; and be it
 43
 44 FURTHER RESOLVED that the City's total carbon dioxide emissions in 2020 be 20% lower than those in
 45 the baseline year of 1988; and be it
 46
 47 FURTHER RESOLVED that the Mayor and City Council direct Sustainable Saint Paul to develop
 48 sustainable design and building guidelines for new and existing buildings, which will promote the creation
 49 of buildings that, through their location, design, construction or remodeling, operation and maintenance
 50 will:

- 51 • be more energy efficient than the State of Minnesota Code
- 52 • be effectively managed and conserve water
- 53 • use material resources responsibly
- 54 • generate less waste
- 55 • have lower operating costs
- 56 • promote the well-being of their users and occupants; and be it

57
 58 FURTHER RESOLVED that the Mayor and City Council recommit to maintaining open and park space
 59 for the benefit of future generations of Saint Paul residents; and be it
 60
 61 FURTHER RESOLVED that the City of Saint Paul shall strive to be a national leader in stormwater management
 62 by collaborating with its watershed districts to develop strong standards and working to exemplify responsible
 63 stewardship of the great Mississippi River by integrating best management practices and policies into its plans
 64 and ordinances and applying those practices in its own projects; and be it
 65
 66 FURTHER RESOLVED that the Mayor and City Council direct Sustainable Saint Paul to include in its
 67 annual report to the Council a progress summary of the suggestions from the Saint Paul Environmental
 68 Roundtable; and be it
 69
 70 FINALLY RESOLVED that, with great appreciation, the Mayor and City Council acknowledge and
 71 recognize the work and commitment of the Saint Paul Environmental Roundtable and all those who
 72 participated in the Roundtable process, to improve the quality of life for the citizens of the City of Saint
 73 Paul.

	Yeas	Nays	Absent
Benanav			
Bostrom			
Harris			
Helgen			
Lantry			
Montgomery			
Thune			

Requested by Department of:

By: _____

Form Approved by City Attorney

By: _____

Adopted by Council: Date _____

Adoption Certified by Council Secretary

By: _____

Approved by Mayor: Date _____

By: _____

Form Approved by Mayor for Submission to Council

By: _____

**RESOLUTION
CITY OF SAINT PAUL, MINNESOTA**

Presented by _____

Resolution Recognizing Eureka Recycling for Their Leadership in Organizing and Facilitating the Saint Paul Environmental Roundtables and Thanking the Members of the Roundtables for their Participation

1 **WHEREAS**, in September 2005, Eureka Recycling convened The Saint Paul Environmental Roundtable
2 to focus attention on a variety of citywide environmental issues; and

3

4 **WHEREAS**, the Roundtable convened a series of community meetings to address important issues
5 regarding Saint Paul's environment, particularly those issues where local action can make a positive
6 impact; and

7

8 **WHEREAS**, the Roundtables have concluded their discussions and developed and forwarded a series of
9 recommendations to the City of Saint Paul for consideration; now, therefore be it

10

11 **RESOLVED**, that the City of Saint Paul would like to recognize and thank Eureka Recycling for their
12 leadership and sponsorship of the Roundtables, as well as the other sponsors including Aveda Corporation,
13 Abitibi Consolidated, The City of Saint Paul Public Works Department, DeRuyter Associates, Impressive
14 Print, Industrial Electric Company, IPS Incorporated, Peace Coffee, Saint Anthony Park Community
15 Foundation, and Western Bank; and be it

16

17 **FURTHER RESOLVED**, that the City of Saint Paul would like to recognize and thank the following
18 members of the Roundtable Advisory Committee for their leadership in creating and launching the
19 Roundtable process:

- 20 Brian Bates
- 21 Kathryn Draeger
- 22 Tom Eggum
- 23 Sharon Pfeifer
- 24 Brett Smith
- 25 Amy Fredregill
- 26 Susan Hubbard
- 27 Mary Morse; and be it

28

29

30

31

32

33

34

35

36 **FINALLY RESOLVED**, that the City of Saint Paul would like to express its appreciation to the following
 37 members of the Saint Paul Environmental Roundtable for the time, energy and thoughtful consideration
 38 each member put into the discussions and recommendations which are being presented to the City of Saint
 39 Paul:

- 40 Brian Bates
- 41 Whitney Clark
- 42 Kathryn Draeger
- 43 Kevin Flynn
- 44 Carlos Garcia-Velasco
- 45 Pat Hamilton
- 46 J. Drake Hamilton
- 47 Susan Hubbard
- 48 Jon Hunter
- 49 Seitu Jones
- 50 Colleen Monahan
- 51 Rolf Nordstrom
- 52 Shirley Reider
- 53 Nilgun Tuna
- 54 Anna Wasescha.

	Yeas	Nays	Absent
Benanav			
Bostrom			
Harris			
Helgen			
Lantry			
Montgomery			
Thune			

Requested by Department of:

By: _____

Form Approved by City Attorney

By: _____

Adopted by Council: Date _____

Adoption Certified by Council Secretary

By: _____

Approved by Mayor: Date _____

By: _____

Form Approved by Mayor for Submission to Council

By: _____