



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 of 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