

Minneapolis Environmental Report

Towards Sustainability

July 16, 2004

Minneapolis Environmental Report

The Minneapolis Environmental Report provides a link to the City's overall Environmental goal which states, "Preserve and enhance our natural and historic environment and promote a clean, sustainable Minneapolis".

More specific environmental goals and targets have been developed and are organized along the following categories:

- Green Neighborhoods
- Sustainable Transportation
- Air Quality
- Water Quality
- Energy Conservation in City Operations
- Environmental Justice

For each environmental goal, you will find details about the strategies and measures the City of Minneapolis has taken, or is planning – to address per these major initiatives. Finally, we've included a list of actions and resources to encourage all the people of Minneapolis to do their part for our city and our environment.

Minneapolis' Environmental Report is based on a few basic principles:

- First, we seek to provide clean air, clean water, clean soil, healthy homes and a good quality environment in every neighborhood throughout Minneapolis. All communities, regardless of income or ethnic background, deserve a healthy environment.
- Second, we believe that standards for clean air, clean water, clean soil, and healthy homes need to be set to protect the most vulnerable members of our community, including infants, children and elderly citizens.
- Finally, we believe that it is the responsibility of government to set an example for a sustainable community, in energy conservation, sustainable transportation and in minimizing the adverse impacts of government on the environment.

Some of the proposed actions may require additional financial resources and may be subject to constraints based on ability to secure grants, contribution of private sources or the City budget process. Many of these initiatives involve City advocacy and outreach working in partnership with other units of government, businesses or community groups. Only through collaboration can we make Minneapolis a clean, livable and sustainable city.

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CONCLUSION AND CALL TO ACTION

Green Neighborhoods

Our urban forest has a tremendous impact on the environment and makes Minneapolis more attractive and livable. A more sustainable Minneapolis will be built by greening all neighborhoods.

Goal 1: Increase the Tree Canopy in the City of Minneapolis

Trees reduce air pollution, provide habitat for wildlife, control water run off and actually cool the city. Increasing the number of trees planted is an important step for our environment now and for future generations.

What we've done

- Increased the City's tree-planting budget for 2004 by \$200,000.
- Developed an urban forest policy (approved by City in Feb. 2004, with the help of the Minneapolis Park Board and other stakeholders), that ensures best management practices to mitigate tree loss and tree damage and to promote the long-term health of urban trees.
- Secured \$100,000 in EPA funds for downtown tree planting in 2004. Additional partners in this effort including the Downtown Council, the Minneapolis Park Board, local businesses, and the Downtown Minneapolis Neighborhood Association (DMNA), which is leveraging Neighborhood Revitalization Program funds for additional tree planting projects in downtown.

Target: Plant 30,000 Additional Trees by 2014

What we're going to do

- The City and the Minneapolis Park Board are partnering to plant 5,000 trees in 2004. The Fire Department has committed to water the new trees over the summer. Neighborhood Revitalization Program (NRP) funds are also being provided by some neighborhoods to aid in the effort.
- Develop an inventory of the City's Urban Forest to more accurately calculate the positive environmental and economic benefits that trees have on the community (Minneapolis Park Board).
- Develop best practices and "state of the art" design criteria for surface parking lots, including possible use of permeable pavements, vegetative buffers/strips and other strategies that will help control storm water run-off and reduce urban heat-island effects. As part of this effort an inventory of downtown parking lots (public/private) will also be conducted to prioritize planting opportunities and determine how many acres of impervious parking surface the City has.

Goal 2: Improve Recycling and Yard Waste by Minneapolis Households.

Recycling and reducing waste saves energy and other resources when compared to disposing of garbage and keeps toxic chemicals out of air and water. Consumer packaging alone can make up more than 45% of a household's trash. In fact, each household in Minneapolis and throughout Minnesota throws away an average of about one ton (2,000 pounds) of garbage a year.

What we've done

- Offered a recycling credit starting in 1989 on garbage bills for households that recycle and a small garbage cart at a reduced price as an incentive to recycle more and produce less garbage.
- Helped neighborhoods hold "clean sweeps" to get rid of unwanted household items and trash in 2003.
- Provided the first municipal curbside collection of electronics (T.V.'s, CRTs and Computers) in the nation. From 2000-2003 more than 1,758 tons of electronics have been recycled.

Target 1: Increase recycling and yardwaste by 5% by 2014.

Year	Recycling/Yardwaste	Garbage	Total
2003	45,095 tons	114,749 tons	160,844 tons
2002	45,665 tons	115,825 tons	161,490 tons
2001	47,527 tons	116,754 tons	164,281 tons
2000	46,243 tons	113,580 tons	159,823 tons
1999	48,977 tons	111,248 tons	160,225 tons
1993	42,758 tons	104,112 tons	146,970 tons

Target 2: Reduce heavy metals from entering the solid waste stream.

What we're going to do

In 2004, the City is:

- Partnering with others such as Hennepin County to educate residents on how to produce less garbage and save money in the process.
- Strengthening public education to increase recycling participation; upgrade the City website to provide additional tips for recycling/reuse options.
- Continue to provide outreach and education to increase the recycling of electronics and other products (fluorescents, batteries) containing toxic materials.
- Develop collaborations to reduce mercury exposure and keep mercury out of the waste stream. An initiative to this effect is already being launched with the Minneapolis School District to remove mercury-containing thermometers and equipment from schools.

Goal 3: Reduce Noise and Environmental Impacts from the Minneapolis – Saint Paul International Airport

The Minneapolis Saint Paul International Airport plays an important role in our region's economy and livability. But the airport also creates environmental impacts, such as noise and air pollution and fuel dumping, which are of particular concern for those who live in neighboring communities. The City of Minneapolis is doing what it can to get the Metropolitan Airports Commission (MAC) to address these environmental issues.

What we've done

- Negotiated an agreement with the MAC for completion of the Sound Insulation Program for single family homes inside the 1996 65 DNL (Decibel Noise Level) contour. This provides \$10 million in 2003 for 304 homes and \$10 million in 2004 to complete the remaining single family homes with a host of sound insulation measures.
- Supported the north/south runway to redistribute traffic and reduce noise impacts in South Minneapolis.
- Installed a new air pollution monitoring station at MSP to monitor criteria pollutants.
- Investigated and documented citizen complaints of fuel dumping.
- Participated on the Noise Oversight Committee and Joint Airport Zoning Board along with other noise-impacted or otherwise affected communities.

Target: Advocate for continuing the noise mitigation program in the 60-64 DNL impacted areas to improve approximately 4350 single family homes and over 1040 multi-family units in Minneapolis.

What we're going to do

- Direct air traffic from our neighborhoods by building a strong coalition of Minnesota cities with commercial air services to participate in a broader vision for a statewide airport strategy to provide cargo and passenger service (post 2020 the City anticipates an airport capacity problem).
- Monitor noise and pollutant trends at MSP to determine whether the situation is getting better or worse as traffic increases.
- Monitor advances in jet technology and advocate for newer, less noisy jets.

Goal 4: Reduce Contaminated Soils in Minneapolis

Minneapolis was among the first cities in the country to reclaim brownfields for productive uses. Environmental Services negotiates with federal and state agencies to obtain resources to remediate contamination, while CPED focuses on redevelopment, the Public Works Department cleans up properties owned by the City that may have been contaminated, and the Park and Recreation Board restores brownfield sites for a variety of open space uses.

What we've done

- Since 1987 over 1,021 brownfields have been listed (985 petroleum sites and 36 superfund sites). As of 2003, 84 percent of these brownfield sites have been closed (847 petroleum contaminated sites, 13 superfund sites).
- Since 1998, the private sector has contributed nearly \$77 million and CPED has committed over \$23 million in federal state and local funds to clean up 28 brownfield sites in the city. This effort has helped to retain 2,300 jobs and created nearly 900 new jobs.
- Provided \$25,000 in Community Development Block Grant funds to help launch Groundwork Minneapolis, a local nonprofit dedicated to converting vacant blighted properties into community use spaces.
- Worked with Hennepin County to obtain \$800,000 in grants from the EPA to clean up petroleum and hazardous materials in the Bassett Creek Valley, Midtown Corridor and Lowry Avenue Corridor—all areas that border lower-income neighborhoods.

Target: Continue to reduce brownfield sites overall while maintaining the ratio of new listed sites: closed sites.

Brownfields	
Year	Listed:Closed
2000	50:69
2001	42:44
2002	27:31
2003	46:43

What we're going to do

- Work with Groundwork Minneapolis to reuse blighted properties for recreational and open space with an additional \$90,000 and technical support coming from the EPA. Groundwork is currently working with the DMNA to obtain stewardship funds from the Middle Mississippi River Watershed Management Organization (MMWMO) to partner with the Star Tribune in an effort to redesign one of their parking lots in order to plant vegetation that reduces stormwater runoff.

- The Minneapolis Community Planning and Economic Development department (CPED) will continue to actively engage and facilitate public and private sector partnerships to redevelop brownfield sites in Minneapolis.

Sustainable Transportation

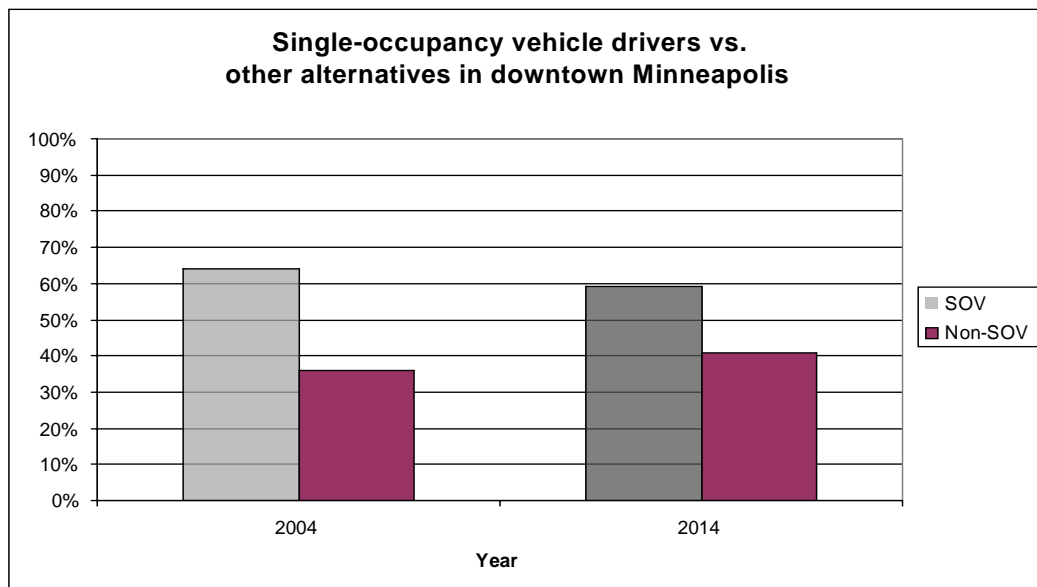
Walking, riding a bike, busing, rail transit, carpooling and vanpooling are alternatives to single occupancy vehicle use. Using fewer cars will reduce air pollution, ease traffic congestion and make Minneapolis a better place to live. The City can play an important role in advocating for transit alternatives and providing incentives for transit use.

Goal: Increase the Use of Alternative Transportation Modes

What we've done

- Played a significant role in the development of the Hiawatha Light Rail line, which will open in 2004.
- Lobbied the State Legislature to build the North Star Rail Corridor, which would connect downtown Minneapolis to Saint Cloud.
- Worked with the Metropolitan Council and the Minnesota Pollution Control Agency so that future federal transportation funds can be used for transit alternatives that reduce ozone (smog) and fine particle pollution.
- Prohibited construction of additional surface parking in downtown

Target: Increase the use of alternatives to the Single Occupant Vehicle (SOV) to 41 percent of vehicles in downtown Minneapolis by 2014.



*Source: 2003 Cordon Count for a 12-hour period.
(A measure of all traffic coming into downtown on a given workday).*

What we're going to do

- Continue to work aggressively to secure other transit investments and enhancements, including additional recreational trails, bike racks and improving pedestrian friendly connections to transit alternatives.
- Implement Metropass for City of Minneapolis employees to facilitate greater employee involvement in taking the bus.
- Continue to encourage alternatives to single occupancy vehicle travel by working closely with employers and the Downtown Minneapolis Transportation Management Organization.
- Collaborate with State agencies to identify the regional and local environmental health consequences and costs of motor vehicle pollution, including impacts on vulnerable populations.
- Advocate for alternatives to single occupancy vehicles and promote non-SOV alternatives for City employees.
- Increase bicycle commuters from 2.6 percent to 5 percent by 2014 (Baseline 2003: 5,336 bicycle commuters).
- Advocate for stronger transit options and for analysis of environmental impacts in connection with major MN/DOT construction projects, such as 35W/Crosstown project.
- Advocate per the 35W/Crosstown the creation of a bus rapid transit system (BRT) that operates and extends fully throughout the 35W corridor.
- Develop a City-wide long-term plan for pedestrians, bicycles and transit systems.

Goal 2: Increase Bike Trails Throughout the City

Making parks, trails and bike paths available throughout the City can help reduce obesity and diabetes as well as improve the quality of life in diverse communities throughout the City. Bicycles are one of the most efficient and cheapest options available in urban settings. Compared to driving a car, urban bicycle trips of three miles or less can actually decrease your travel time. According to the United States 2000 Census Supplemental Survey data, Minneapolis is ranked #1 in the country among large cities for bicycle commuting with an estimated average of 5,366 people riding to work each day on a bike - 2.63% of commuters. It is estimated that there are 10,000 bikers in Minneapolis each summer day.

What we've done

- Developed over 81 miles of on and off street bikeways in the City.
- Developed in 2001 a Minneapolis Bikeway Master Plan, a community driven process, in order to develop a network of bikeways throughout the City.
- Partnership with a variety of organizations to promote bike riding – this includes everything from education, to providing bike racks/storage lockers, to ensuring that buses and the new LRT systems provide for bike transporting.

Target 1: Provide 35 additional miles of bike trails by 2010.

Baseline 2003: 81 miles of on and off street bike paths in the City.

What we're going to do

- Finish construction of the Midtown Greenway, a 5.6 mile bicycle and recreational path that will connect the core of South Minneapolis with both the Chain of Lakes and the Mississippi River.
- Develop bike trails to connect communities in North and Northeast Minneapolis to river amenities.
- Continue to partner and educate others about biking opportunities in the City.
- Ensure that bikes are integrated into other transportation opportunities in the City.

Air Quality

Air quality in Minneapolis is among the best of major metropolitan areas in the United States. Still, Minneapolis and the entire Twin Cities face occasional air quality alerts for ozone and fine-particle pollution, creating a risk of future violations of federal air quality standards and the burdensome expense of regulatory compliance.

According to the Minnesota Pollution Control Agency, even ozone and fine particle levels that do not violate federal standards can cause adverse health effects, particularly among vulnerable groups, such as children and the elderly. Ozone can exacerbate asthma and reduce lung function in children. Fine particle pollution can lead to lung and heart disease and even death. Toxic air pollutants in Minneapolis and most other Minnesota cities are at levels high enough to begin to cause health problems, including cancer.

Goal 1: Reduce air pollution throughout the City of Minneapolis.

What we've done

- The City of Minneapolis played a key role in getting approval for the conversion of Xcel's Riverside coal plant to natural gas, a cleaner alternative. When completed in 2009, conversion of the Riverside coal plant to natural gas will have the following impacts on air pollution (MPCA, Review of Xcel Energy Metropolitan Emissions Reduction Proposal, 12/30/02, p. 35):

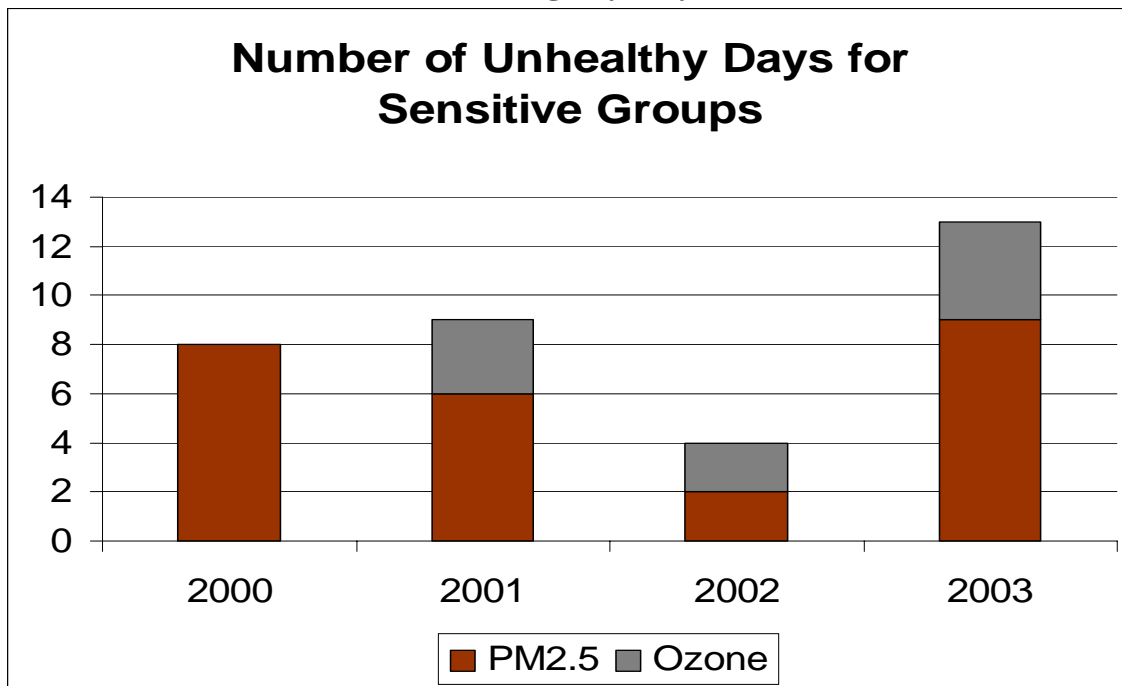
The following chart shows how switching fuels at the Riverside plant will reduce air pollutants:

Pollutant	Current Emissions Tons/year	% Reduction Projected	Amount Reduced Tons/year	Projected Emissions Tons/year
Sulfur oxides	9,950	100	9,950	0
Nitrogen oxides	9,669	98	9502	167
Carbon monoxide	287	29	64	223
Particulate matter (PM10)	579	100	579	0
Totals	20,485	98	20,095	390

- Minneapolis was the first city in Minnesota to require gas stations to reduce vapors by 95 percent when fuel storage tanks are filled. As a result of the initiative taken by Minneapolis, the State of Minnesota passed a law requiring stage I vapor recovery at gas stations throughout the Metro Area. By 2007, this law will reduce emissions of volatile organic compounds by 3 percent throughout the Twin Cities, cutting pollution that causes ozone by about 3,000 tons per year or 9 tons during the ozone season. This vapor control requirement will also reduce Twin Cities benzene emissions by about 2 percent or about 68,000 pounds per year. At elevated levels, benzene increases the risk of leukemia, particularly for children.
- In 2003, the City of Minneapolis intervened when the Minnesota Pollution Control Agency initiated a new procedure to evaluate the risks of air emissions. The City helped ensure that the new assessment would consider dangerous pollutants like mercury and fine particles and would not allow more pollution than had been found to be safe.
- Regulatory oversight and voluntary initiatives have resulted in almost 50 percent reductions in emissions from large stationery polluters (Toxic Release Inventory facilities) in Minneapolis since 1998.

Target: Reduce number of unhealthy air pollution days for ozone and particle pollution and reduce air toxics below State health benchmark levels.

Source: Minnesota Pollution Control Agency May, 2004



Note: PM 2.5 means particulate matter of 2.5 microns or more in size. Additionally, the Environmental Protection Agency defines an unhealthy air pollution day as conditions that rate above 100 on its Air Quality Index.

What we're going to do

- Further reduce emissions from small gasoline engines (e.g., gas-powered lawn mowers, leaf blowers, and snow blowers through education and regulation.
- Work with bus companies and schools and update codes and ordinances as needed to reduce diesel pollution from buses and other vehicles.
- Play a lead role in State rulemaking on air permits and continue to work aggressively with the State to protect air quality when permits are issued for Minneapolis facilities.
- Update codes and ordinances as needed to minimize air quality impacts from diesel-powered generators.

Goal 2: Reduce Carbon Dioxide/Greenhouse Gases

Carbon dioxide (CO₂) contributes to global climate change, threatening ecosystems throughout the State, the nation and the globe. Begun as a United Nations project, the CO₂ initiative asked municipalities to set a goal of reducing emissions by 35 percent by 2005. For Minneapolis that goal equates to reducing CO₂ by 3.59 million metric tons, and is consistent with reduction limits established under the Kyoto Protocol.

In Minneapolis, greenhouse gas reductions have been achieved via energy efficiency initiatives predominately in City buildings/operations and the commercial/industrial sector. Minneapolis is now three-quarters of the way toward reaching it's goal. In addition to reducing greenhouse gases, these strategies also result in reductions of other air pollutants harmful to the environment and human health, since burning coal releases several toxins.

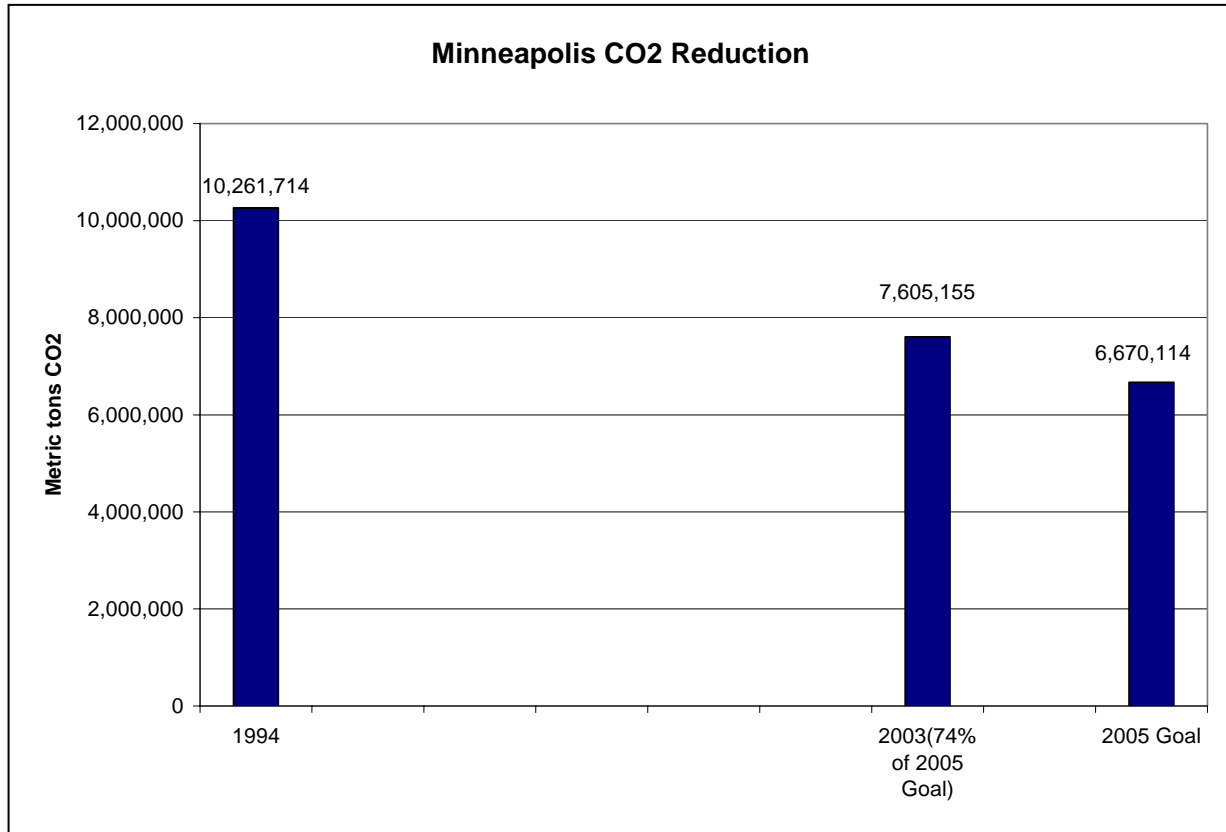
What we've done

Converting the Riverside coal plant to natural gas will reduce CO₂ emissions at the facility by more than 37 percent or 800,213 tons per year starting in 2009, while providing an increase in electric generating capacity of approximately 60 megawatts. (MPCA, Review of Xcel Energy's Metropolitan Emissions Reduction Proposal, December 30, 2002, p. 35). It is likely that this target will be achieved by 2009 once the Riverside plant conversion is complete.

- As a result of achieving CO₂ reduction goals, due to energy efficiency in City Buildings, Residential, Commercial/Industrial and Solid Waste, Minneapolis has also significantly reduced other pollutants that affect health and the environment (also applicable for Air Quality- Goal 1):

Pollutant	Emissions Reductions (metric tons)
Sulfur oxides	6,408
Nitrogen oxides	4,510
Carbon monoxide	1096
VOC	125
Particulate matter	1,040
Total Reductions	Metric Tons 13,179

Target (set in 1993): Reduce Minneapolis greenhouse gas emissions by 35 percent by 2005.



What we're going to do

- Reduce CO2 by increasing the energy efficiency of City buildings and operations such as fleets (See Energy Conservation in City Buildings and Operations).
- Continue to track CO2 and pollutant reductions associated with energy conservation measures in the public and private sector (Xcel/Minnegasco Conservation Improvement Programs).
- Increase the City's use of renewable energy, cleaner alternative fuels, distributed generation, and co-generation.
- The City joined the Minnesota Million Solar Roofs Initiative in early 2004 (a Department of Energy program hosted locally by the MN Department of Commerce). The partnership will provide technical expertise to help the City identify regulatory and administrative barriers to solar installations, eliminate the barriers, create new regulatory or administrative incentives, and identify potential public realm investments in solar projects.
- Design and implement new incentive programs for private developers to provide higher energy efficiency standards. An example is the City's Floor Area Ratio bonus which provides builders with more floor space if they incorporate energy standards above state guidelines into their building design.

- Designate pilot projects designed to demonstrate sustainable building techniques and the value of greener energy supplies.

Water Quality

The City of Lakes should have lakes that are environmentally healthy and clear for swimming, fishing and other recreational use.

Impermeable surfaces like streets, roofs and driveways/parking lots increase stormwater runoff after rains, which can cause erosion, flooding and sanitary sewer overflows. Runoff also gathers sediment and pollutants, which can make their way into lakes, streams and the Mississippi River, increasing the growth of algae and other plants and degrading water quality.

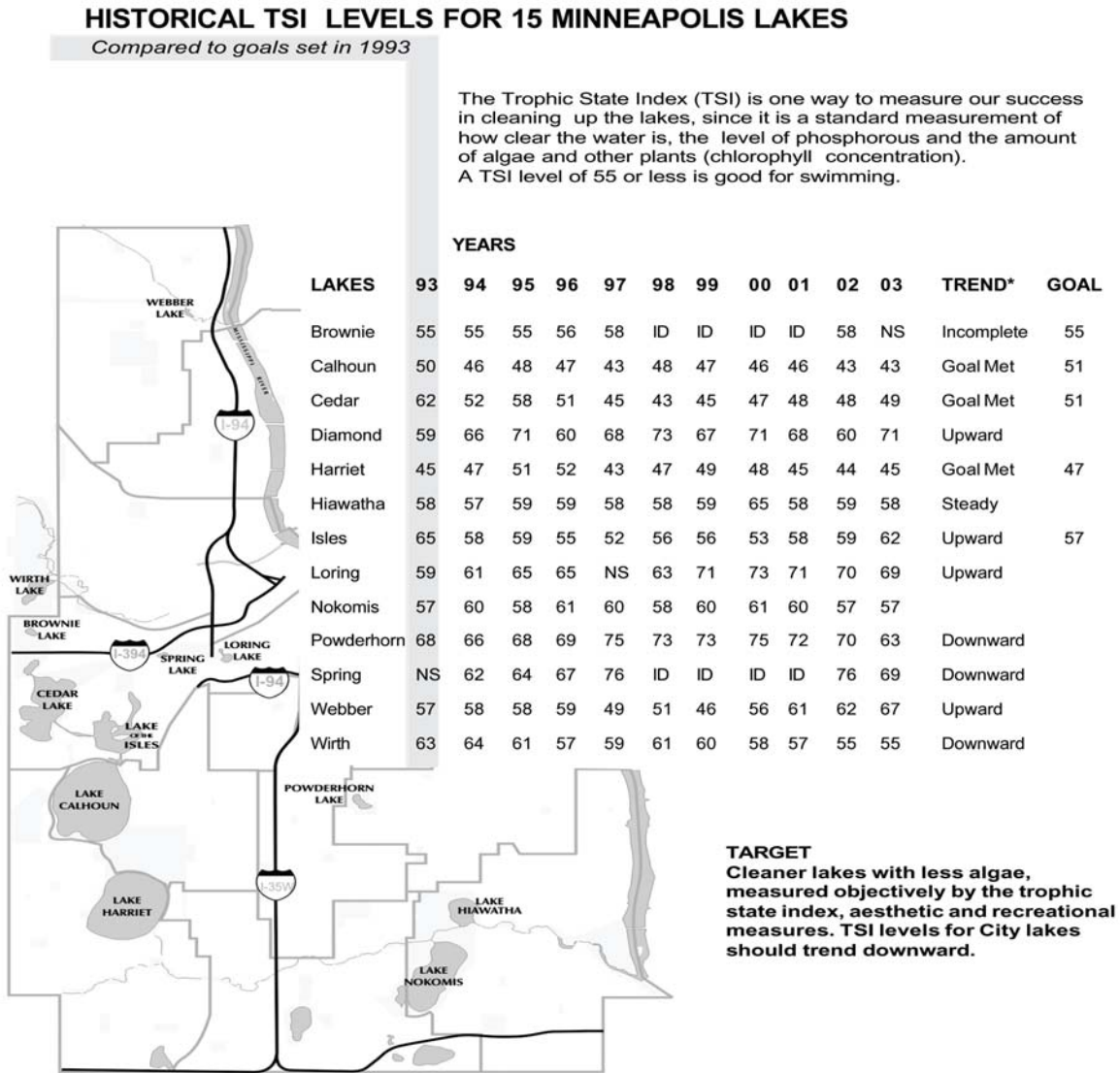
Goal 1: Improve Water Quality in Minneapolis Lakes, Streams and the Mississippi River.

What we've done

- Minneapolis was the first major city in the United States to ban the sale of phosphorous as a fertilizer. With less use of phosphorous on lawns, there is less run-off of chemicals that cause algae blooms.
- Minneapolis has adopted and enforces new and stronger regulations to reduce erosion, stormwater runoff and pollution entering water bodies.
- Minneapolis incorporates Low-impact Development design principles for City buildings and facilities to reduce the amount of rain entering the storm sewers and reduce pollution in the water. Examples of following these design principles include: 1. Use of pervious pavement (pavement that allows some water to flow through) at the new Animal Care and Control Facility parking lot; 2. Development of rain garden filtration strips at the 3rd Police Precinct to filter rain.
- The City maintains and operates 109 Grit Chambers (structural stormwater treatment devices) to capture sediment and other debris before it enters lakes, wetlands, ponds, streams and the Mississippi River.
- The City improved street cleaning efforts to use better equipment, methods and new technologies using sand and fewer chemicals to control snow and ice.
- The City of Minneapolis has created natural ponds and wetlands to help filter stormwater, reducing the rate of runoff, and the amount of sediment deposited in other water bodies by up to 90 percent.

- In 2003, the Minneapolis Water Quality Monitoring Task Force was formed with representatives from the City, MPRB and the Watersheds to address methods for improving water quality.

Target 1: Trophic Status Index (TSI) levels (a measure of lake environmental health) for City lakes should meet goals or trend downward.



What we're going to do

- Continue monitoring, modeling and further study of the City's stormwater treatment system to increase its performance and efficiency.
- Complete a comprehensive Local Surface Water Management plan in coordination with the City's four watersheds, to protect water bodies.
- Enhance public outreach to prevent erosion, runoff and use of chemicals that harm lakes and other water bodies.

Goal 2: Provide Healthy Swimming Beaches

Across the nation, communities are becoming more attuned to the public health implications of public beaches for those who swim and play in the water. The Minneapolis Parks and Recreation Board monitors public beaches on a regular basis for bacteria levels, to prevent health risks for the swimming public.

High bacteria levels can come from a variety of sources, including animal and bird waste collecting in yards, streets, parks and beaches. During rainfall these wastes either wash directly to the beach area or through the storm drain systems, which often empty into water bodies. Ensuring healthy beaches requires extensive monitoring as well as reduction of sources for bacteria.

In 2003 Lake Harriet's main beach was closed once and Lake Hiawatha was closed twice due to high bacteria levels. Lakes that exceed health benchmarks are tested every day till it can be opened again.

What we've done

- Increased monitoring of water quality at beaches to ensure public safety.
- Reduced sources of bacteria through a goose management program. In 2003, the Minneapolis Park Board removed 217 geese.
- Began coordinating with partners including the Park Board, watershed organizations, Hennepin County and the State to evaluate and make recommendations to reduce bacterial contamination.

Target: Reduce the number of days beaches are closed due to health concerns.

What we're going to do

- Establish recreational/aesthetic grades (ex.: A,B,C,D, F) of City lakes by determining an overall average grade for each respective lake and comparing it from one year to the next.
- Develop a stronger public education campaign targeting beach users about what they can do to protect swimming areas.
- Continue to refine research and develop strategies to ensure that city lakes do not exceed EPA geometric mean guidelines for *e.coli* during the swimming season at authorized public beaches by working with our partners through the Water Quality Monitoring Task Force.

Goal 3: Improve Mississippi River Water Quality

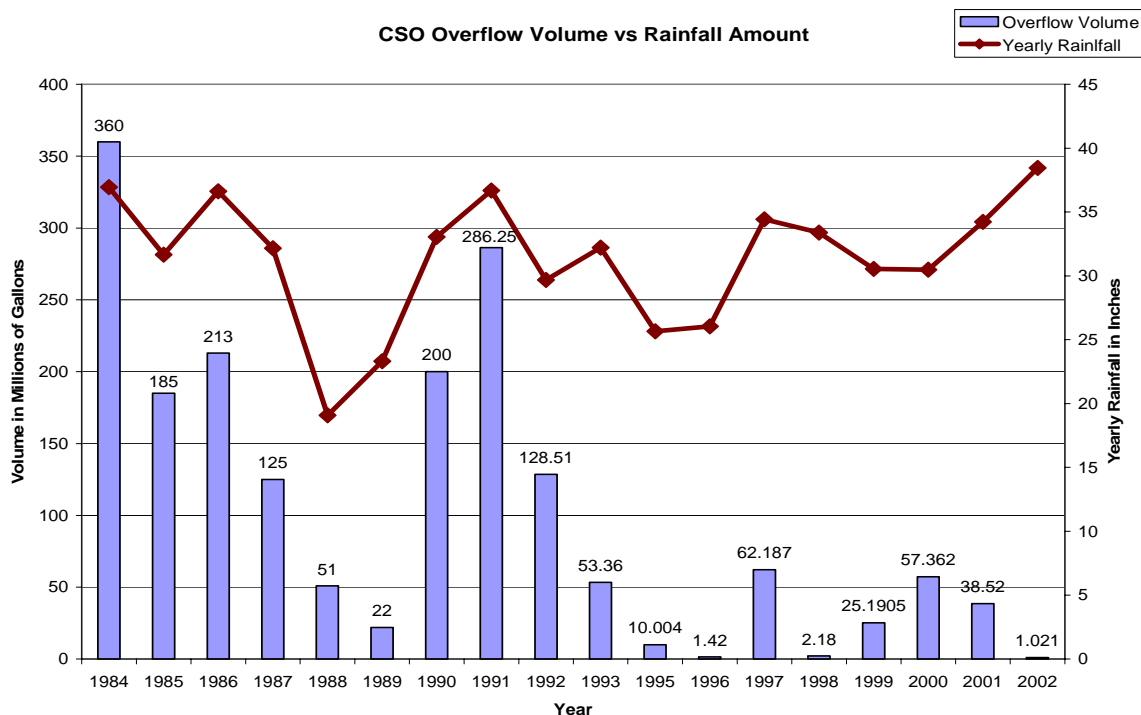
Protecting the Mississippi River from contamination is important. The Combined Sewer Overflow (CSO) Program was created to eliminate overflow of the sanitary sewer system. This can occur when heavy rain or melting snow causes sanitary sewers to overflow into stormwater drainpipes, which then empty into the Mississippi River. The City began aggressively

addressing the issue in 2003. Compared to many other cities, CSOs are now relatively rare in Minneapolis, yet overflows although greatly reduced, continue to exist.

What we've done

- Since 1985, more than 4,600 acres of the City served by combined sewers have been separated and over 2,500 commercial and residential roof rainleaders have been disconnected. Less than 5% of the area within the City limits still requires sewer separation.
- Completed a joint study in 2002 with the Metropolitan Council that provided recommendations that we are using to further reduce CSOs.
- Passed an ordinance in 2003 that requires property owners to separate all building roofs, area drains and other stormwater connections to the City's sanitary sewer system. City crews have been conducting inspections of public and private property and buildings to identify problems and ensure compliance.
- In 2003, we began educating concerned residents and businesses about how they can separate their stormwater connections. This includes a grant to provide free materials for qualifying households.

Target: Meet or exceed the Environmental Protection Agency's (EPA) current sewer overflow policy by eliminating combined sewer overflow contamination wherever feasible to the Mississippi River by 2007.



What we're going to do

- Disconnect remaining private sector inflow sources: rainleader, area drain or other clean water discharges to the sanitary sewer system.
- Complete remaining combined sewer separation work known at this time (catch basin inlets and storm drains connected to the sanitary system). Total approved funding for the CSO capital improvement projects (CIP) is \$10 million dollars: \$2 million per year allocated from 2003-2007.
- Build a hydrologic model to evaluate sanitary sewer system improvements. One use of the model would be to determine if inline storage (pipe baffles that slow sewage flow) is viable as a means of averting sewer overflow events.

Goal 4: Protect Groundwater and Sources of Drinking Water

Federal law enacted in 1996 requires states to analyze existing and potential threats to the surface and ground water supplies of public drinking water. State law, passed in 2001, requires that Minnesota standards for groundwater protect children with a reasonable margin of safety.

What we've done

- In 2001, as part of protecting drinking water in Minneapolis, a Source Water Assessment was completed which outlined the area upstream of the City's water intake that needs to be assessed for chemical/biological risk in order to complete a protection plan.
- In 2003, a dye trace study was conducted on the Mississippi River and its tributaries to estimate time of travel for possible contaminants to the Minneapolis water intake.
- Taken a lead role in working with the Minnesota Department of Health to support tougher rules for groundwater protection.

Target: Reduce the number of Water Works shutdowns annually due to contamination of the Mississippi River. –

What we're going to do

- In 2004, a source water assessment will be completed for all Minneapolis Non-Community Water Supply Wells to determine potential contamination to wells.
- By 2005, develop a comprehensive Source Water Protection Plan to deal with potential threats to the City's water supply.
- Ensure that upcoming State groundwater rules take into account the vulnerability of fetuses infants and children to toxic chemicals.

Energy Conservation in City Operations

The City is committed to preserving and enhancing its environment and seeks to lead by example in finding environmentally-friendly ways to conduct its business and showcase emerging technologies.

The City is making strategic efforts to reduce energy demand (consumption) by making retrofits and improvements in Public Works in streetlights, traffic lights, water pumps and office lighting. These have an average return on investment of six years.

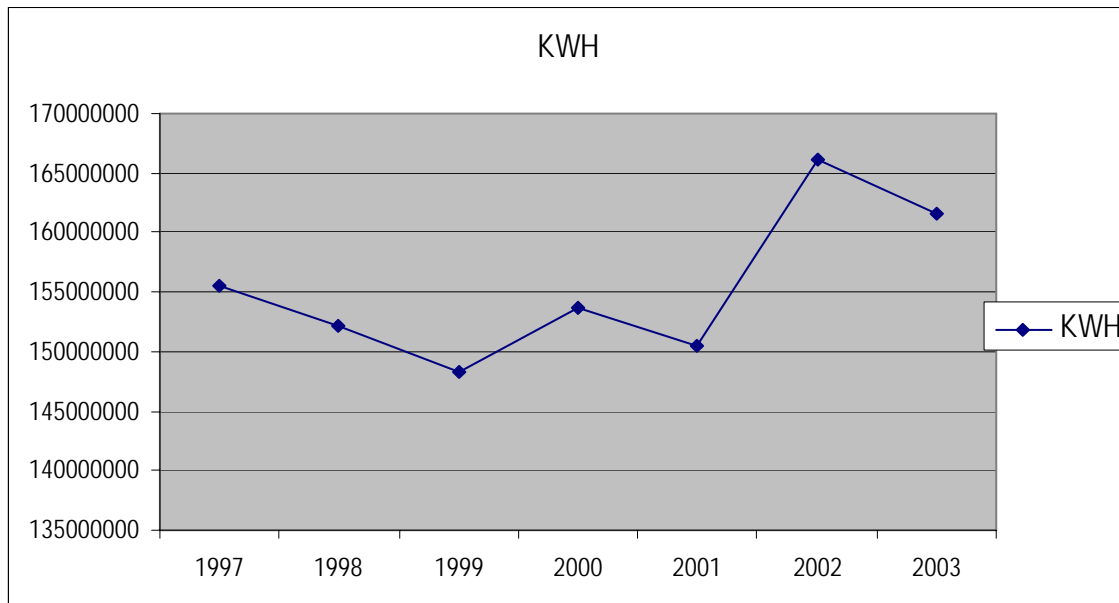
Goal 1: Reduce Energy Use at City Facilities

What we've done

- In 2003, we adopted and began using Minnesota Sustainable Design Standards for all City owned new construction and renovation projects. All future building systems will be designed and installed to exceed the current Minnesota Energy Code by 30%. The Sustainable Design Standards have other resource conservation benefits beyond energy consumption such as water usage reduction and other activities that result in lower impacts on the environment.

Target: Reduce the electrical energy consumption of City department's by 10% by 2014.

The graph below illustrates City energy consumption in Kilowatt Hours from 1997-2003:



What we're going to do

- Develop an energy tracking database to establish a baseline for the City's energy consumption. This baseline will help inform decisions about future strategies for reducing electrical consumption in city facilities.

- Identify no cost or low cost operational changes to reduce City energy use, such as programming personal computers to shut off automatically, which as part of the City's new XP computer rollout will save an estimated \$140,000 annually. Additional operational measures include standardizing temperature settings for all City-owned facilities or simply turning lights off.
- The City will adopt a standard method to periodically evaluate the effectiveness of existing facilities and upgrade them to maximize energy efficiency when warranted.
- The City will provide low-interest financing to retrofit all of the City's public housing units.

Goal 2: Reduce Environmental Impacts from City Fleet Operations

In 2003, the City's fleet (including Police, Fire, Park Board, Solid Waste and heavy on road equipment) included about 2,000 vehicles and used about 1.7 million gallons of fuels (unleaded and diesel). Improving the fleets' environmental performance can help improve health and environmental impacts (largely air quality), showcase new technology and reduce reliance on nonrenewable resources, such as oil.

What we've done

- Evaluated and reduced the number of vehicles (approximately 152 vehicles eliminated since January 2002) operated by the City's fleets.
- Required regular maintenance on all vehicles to get the highest level of performance and minimize environmental effects.
- Procured cleaner burning fuels and vehicles.
- Installing equipment to capture vapor gases on unleaded gasoline fuel tanks at City operated fueling stations (ahead of 2007 mandate).

Target: Increase the use of alternative vehicles and fuels by 50% by 2014.

In 2002: The City operated 11 alternative fueled vehicles, with 760,000 gallons of alternative diesel fuels used (B2 – 2% biodiesel).

In 2003: The City 31 alternative fueled vehicles, and used 760,00 gallons of alternative diesel fuels (B5 – 5% biodiesel).

In 2004: The City started using Ultra low sulfur, unleaded, E10 Gasoline (Blue Planet) -details at the end of the year.

What we're going to do

- Increase use of cleaner burning fuels and equipment to reduce pollution and purchase vehicles that are more fuel efficient, including hybrid vehicles as they become more available.
- Increase education to City employees about alternatives to using single occupancy vehicles for conducting City business and the pollution excessive vehicle idling causes.

Environmental Justice

Historically, low income communities and communities of color have borne a disproportionate burden of environmental harms from toxic chemicals. Low-income communities and communities of color have also had less access to environmental amenities, like parks and playgrounds. These communities are less likely to enjoy healthy food and indoor environments. These contribute to health disparities like higher rates of asthma, lead poisoning and diabetes.

Minneapolis is a national leader in reducing toxic chemicals and cleanups of polluted soils and has integrated environmental justice principles in transportation planning as well as air and water quality protection. Focused efforts are still needed to reduce contamination from lead paint and leaded gasoline and industrial pollution. Indoor air pollutants, including pesticides, mold and environmental tobacco smoke trigger asthma and create disparate health impacts. Children are most vulnerable to toxic chemicals found in homes, food, and neighborhoods and these effects are often concentrated in low income neighborhoods and communities of color.

Goal 1: Reduce Exposure to Toxic Chemicals in Homes and Neighborhoods.

The Center for Disease Control (CDC) ranks lead as the number 1 threat to children’s health. Steady progress is being made to reduce the more acute cases of childhood lead poisoning: 10 µg/dl (micrograms per deciliter) and above.

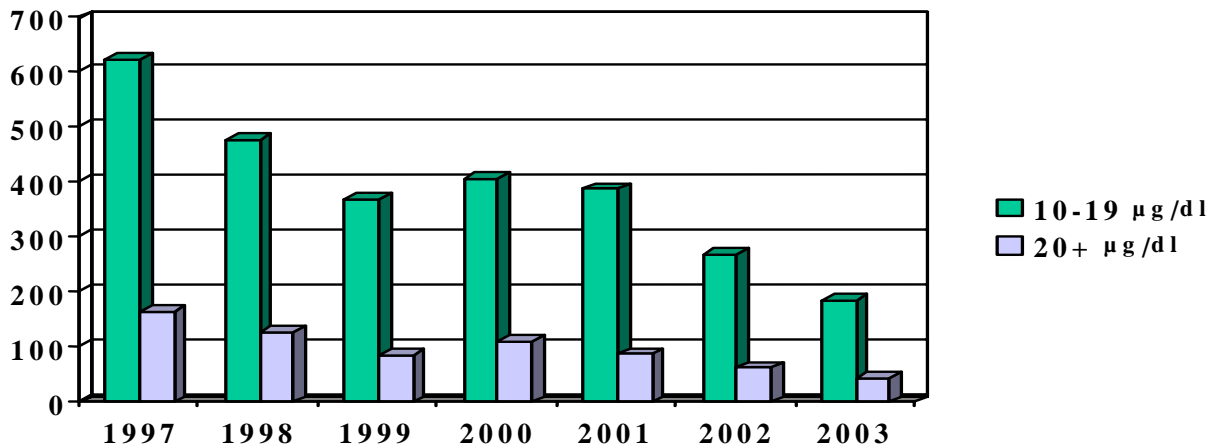
What we’ve done

- Reduced lead hazards in more than 1,000 homes during the past three years. An average cost of \$6,500 per home.
- Over the past six years, the number of children testing with high blood levels has decreased by 74%.
- Minneapolis assisted Hennepin County in securing more than \$5 million to reduce lead paint hazards in Minneapolis homes over the next three years.
- Minneapolis secured \$650,000 in federal money in collaboration with St. Paul/Ramsey County of Public Health to address asthma triggers and improve indoor environments in low income and target communities through the innovative Environmental Action for Children’s Health program.

- Minneapolis received a grant of \$370,000 for outreach and education to increase lead screening and enroll children's home in lead hazard control programs.
- Minneapolis worked with Hennepin County, the Minneapolis Urban League and Pilot City on an education campaign targeted to reduce environmental tobacco smoke in Near North and Camden neighborhoods, reducing exposure of children under the age of six by 44 percent.
- Sandblasting and power-washing now requires a permit that includes a lead test.

Target 1: Reduce the number of Minneapolis children under 6 years of age with blood lead levels over 20 micrograms per deciliter to zero by 2010 and reduce by 75 percent, children with blood lead levels over 10 micrograms per deciliter by 2010.

**CITY OF MINNEAPOLIS
CHILDREN WITH VENOUS BLOOD LEAD LEVELS
of 10 µg/dl AND ABOVE, 1997-2003**



What we're going to do

- Work at the State level and with community groups to ensure that all at-risk children in Minneapolis are tested for lead poisoning.
- Ensure that all homes with lead paint renovated with City assistance use lead-safe practices and appropriate lead hazard reduction by replacing lead contaminated windows and covering lead paint.
- Continue outreach and develop policies to reduce children's exposure to environmental tobacco smoke.

Target 2: Decrease the number of incidences of children with aggravated asthma conditions in Minneapolis.

What we're going to do

- Continue outreach and develop policies to reduce children's exposure to environmental tobacco smoke.
- Address environmental threats and provide education related to asthma in 70 homes and 25 day care facilities and provide healthy housing education to 3,000 families in low income and target communities in Minneapolis.
- Continue participation in Asthma in American Cities Grant with the American Lung Association and the Minnesota Department of Health in implementing the *Strategic Plan for Addressing Asthma in Minnesota*.

Target 3: Remediate all yards in East Phillips neighborhood with arsenic levels greater than 30 parts per million.

What we're going to do

- Enlist U.S. EPA assistance to assess and remediate arsenic contamination of homes and neighborhoods from former pesticide manufacturing plant in Phillips neighborhood.
- Collaborate with government and non-profit organizations to reduce exposure of children and other vulnerable populations to pesticides and arsenic-contaminated wood.

CONCLUSION AND CALL TO ACTION

The City of Minneapolis is committed to working with government, business and community groups to improve our environment and quality of life. We welcome your suggestions and your assistance. But in order to achieve our goals of a sustainable, green and healthy community, each individual also has an important role to play.

At the end of this Overview is a list of resources for more information on sustainability, recycling, air quality, water quality, transit and environmental justice. Here are a few things you can do to improve our environment:

Green Neighborhoods – What You Can Do

- Plant a tree in your yard
- Participate in a community tree planting in parks or other open spaces
- Compost your yard waste
- Reduce packaging you buy and throw away less
- Recycle more and keep products with mercury or other toxic chemicals out of the garbage

Air Quality – What You Can Do

- Save energy – call your utility about an energy audit. You'll save money in the long run.
- Turn off the lights you aren't using. Try a compact fluorescent bulb – it lasts longer and actually saves money.
- When you're filling up your car, stop at the first click to keep harmful vapors out of the air.
- Replace your gasoline lawnmower or leaf blower with an electric model or use non-power equipment.

Water Quality – What You Can Do

- Disconnect your downspouts from the sanitary sewer system
- Start a new garden space or native planting in your yard
- Use non-phosphorus fertilizer on your lawn and garden
- Keep grass and leaves out of the street or gutter.
- Use detergents that don't contain phosphorus.
- Pick up after your dog or cat – their feces can pollute our lakes.

Sustainable Transportation – What You Can Do

- Walk, bike or take a bus. Cars are our biggest source of air pollution.
- If you need to use a car, fill it with environmentally friendly gasoline and share a ride.
- Make sure you have regular tune-ups and that your tires are properly inflated.

Environmental Justice – What You Can Do

- Avoid pesticides in your home and work with other families to reduce pesticides in schools and neighborhoods.
- Make sure you know about lead-safe practices before remodeling or removing peeling paint.
- Support efforts to reduce smoking and learn how to reduce asthma

Get involved! Volunteer! Protect and improve our community!