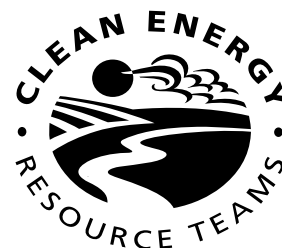


# Minnesota GreenStep Cities

A report to the Minnesota legislature regarding Green Star award expansion and a program proposal to assist local governments in taking the next step to implement carbon reductions and other environmental actions



February 2009



# Acknowledgements

This report is the culmination of a large collaborative effort of many individuals and organizations dedicating their time and skills to develop this program proposal. In particular, the Advisory Committee (see Appendix B for a list of members) was very helpful in providing overall direction for the program. Four technical committees (see Appendix C) also met numerous times to develop a draft of the core program requirements. Finally, the Workgroup Committee members, listed in alphabetical order below along with their respective organizations, met over 15 times to craft the proposed program.

## WORKGROUP COMMITTEE MEMBERS:

Name	Organization
Judy Thommes, Carl Nelson	Center for Energy and Environment
Melissa Pawlisch, Joel Haskard	CERTs/University of Minnesota Regional Sustainable Development Partnerships
Lola Schoenrich	Great Plains Institute
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Chris Gilchrist	Minnesota Department of Commerce, Office of Energy Security
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Diana McKeown, Agatha Vaaler	The Green Institute
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Joanna Vossen, Brendon Slotterback	Urban Land Institute MN

Brian Ross (CR Planning) also participated in the development of the program, and was enormously helpful in leading the Land Use Planning Technical Committee and drafting the best practices, along with John Bailey of 1000 Friends of Minnesota. Nancy Miller (independent consultant) assisted with the program name selection process. Both the Office of Energy Security and the MPCA were helpful in dedicating staff to complete this project. The League of Minnesota Cities and The Green Institute provided meeting space for the dozens of meetings that were held. Thanks to Jennifer Harmening for assisting with copy editing. Funding for this work was provided by the MPCA, The Green Institute through a U.S. Department of Energy Cooperative Agreement, and RE-AMP, a collaboration of over 70 nonprofits and 14 foundations working to create a clean, modern, efficient energy system in the upper-Midwest.

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Full report, appendices and further information available at: [www.cleanenergyresourceteams.org/greensteps](http://www.cleanenergyresourceteams.org/greensteps)

February 3, 2009

Senator Prettner Solon  
Chair, Senate Committee on Energy, Utilities, Technology and Communications

Senator Rosen  
Ranking Minority Member, Senate Committee on Energy, Utilities, Technology and Communications

Representative Hilty  
Chair, House Energy Finance and Policy Committee

Representative Westrom  
Republican Lead, House Energy Finance and Policy Committee

RE: Report on Green Star Award Expansion

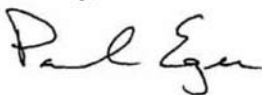
Dear Senators and Representatives:

As required by Laws of Minnesota 2008, Chapter 356, Section 13, we are transmitting the report, Minnesota GreenStep Cities. The report was prepared by Clean Energy Resource Teams (CERTs) and Center for Energy and Environment. It is the result of an extensive research and program design process with stakeholder participation from the League of Minnesota Cities, city officials, Minnesota Project, Green Institute, utility companies and others.

This report provides recommendations to assist and recognize local governments that take actions to reduce greenhouse gas emissions and achieve other environmental outcomes. The report represents a good start in identifying a wide range of possible options local governments could take to improve their environmental footprint. Of the recommendations themselves, no attempt has been made to prioritize based on benefits or cost-effectiveness. In moving forward at this time, we need to carefully consider the pace and resources required. Development of tools to measure success should be a priority.

We look forward to discussing this report with you. In the meantime, please contact David Benke, Director of MPCA's Prevention and Assistance Division, at (651) 757-2221 with any questions or comments.

Sincerely,



Paul Eger  
Commissioner  
Minnesota Pollution Control Agency



William L. Glahn  
Director, Office of Energy Security  
Deputy Commissioner, Minnesota Department of Commerce



Minnesota Pollution  
Control Agency





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# Summary

This report outlines the recommendations for developing a “Green Star Award Expansion” for Minnesota cities and communities to help meet the state’s greenhouse gas emissions reduction goals, as required by the Laws of Minnesota 2008, Chapter 356, Section 13. We recommend this concept be developed into a program called “GreenStep Cities.” The plan for this program was collaboratively developed by a broad public-private partnership, and represents the work of dozens of people spending hundreds of hours contributing to the effort. In this era of concern for spending public dollars wisely, we believe this program would achieve efficiencies by developing common and effective approaches for local governments to save energy while also achieving other beneficial environmental outcomes.

The workgroup recommends focusing existing efforts at the Minnesota Pollution Control Agency’s Prevention and Assistance Division under the umbrella of the GreenStep Cities program. This would be developed as an action-oriented voluntary program for local governments, starting with cities, that provides a cost-effective and simple pathway to encourage the adoption of sustainable development best practices focusing on greenhouse gas reduction. It would also be an avenue for providing technical assistance to local governments from state agencies, utilities, nonprofit organizations, and others.

This program would have the following goals and outcomes:

- Achieve meaningful reductions in greenhouse gases and other positive environmental outcomes;
- Provide assistance for local governments to achieve best practices in energy use reduction and sustainable development;
- Provide a “Pathway to Sustainability” that is cost-effective, pragmatic, and achievable for all cities;
- Identify specific existing state agency staff and others who are committed to and technically able to help cities implement each specific best practice;
- Promote innovation;
- Inspire and assist residents, businesses, and community institutions to take action; and
- Recognize local governments for their past accomplishments and their new efforts spurred by the program.

## Program Design

Program design elements are included with this report to improve the ease with which a program could be implemented quickly and utilize/benefit from federal energy efficiency funding. The workgroup recommends that the program have the following characteristics:

- Best practices should be straightforward and selected using simple criteria;
- Program should be built around required and optional best practices in four practice areas (buildings & facilities, transportation, land use planning, and environmental management & economic development);
- Program should take a tiered approach, focusing first on cost-effective options for greenhouse gas reductions;
- Local governments that accomplish an initial set of best practices should be recognized for a period of three years by the state;
- The MPCA Prevention and Assistance Division should administer the program as a public-private partnership by reprioritizing work of existing staff; and
- Program should be called “GreenStep Cities.”

## Next Steps

The workgroup recommends the following as the next steps for implementing the program:

- Refine program design;
- Start beta version of program;
- Conduct additional analytic work to assess the economic, energy, greenhouse gas, and other environmental benefits of implementing each best practice;
- Monitor development of STAR Community Index and other programs cities may be looking at; and
- Assemble an advisory committee to help set the program requirements and advise on program implementation.

# Background and Research

Local governments have long been recognized as key actors in the effort to reduce greenhouse gases and achieve other beneficial environmental outcomes. Their influence extends from their own operations to the community as a whole.

For example, buildings are the single largest source of greenhouse gas emissions, and energy use from city and county buildings represent about one-fifth of all public building greenhouse gas emissions in Minnesota.<sup>1</sup> There are enormous opportunities to reduce environmental impacts within local government operations, and local governments most directly control local development patterns, which can have large implications for greenhouse gas emissions and other environmental impacts. Local governments are also the closest and most accessible unit of government to individuals and businesses whose actions can reduce greenhouse gases. Local government leadership can set the tone and influence the actions of entire communities and they are well-positioned to help lead community-wide efforts.

Yet despite this potential, local governments have not had as much success in this area as might be hoped, and several obstacles commonly discourage them from embracing a leadership role. Cities, especially midsize and small cities, lack the staffing resources to research, plan, and implement new sustainability initiatives. While the will might exist, the pathway and simple steps to get there are less clear. There is no single clearinghouse of information for all Minnesota cities that contains a set of best practices and how to implement

them. We found numerous examples of innovative individual actions that local governments are taking (see Appendix F), but it was rare to find local governments that comprehensively addressed reducing global warming and other environmental impacts within government operations and throughout the community.

Partially inspired by the now-defunct Minnesota Star Cities program and initially referred to as the “Green Star Cities Initiative,” GreenStep Cities was conceived in 2007 by the volunteers and staff of the Clean Energy Resource Teams (CERTs) partnership as an action-oriented program with the following mission:

*A voluntary program for all Minnesota cities to identify, support, and recognize implementation of a set of sustainable development best practices focusing on greenhouse gas reductions that lead cities beyond compliance and encourage a culture of innovation.*

In addition to the environmental benefits, it was anticipated that the direct benefits to cities of implementing the best practices promoted by the GreenStep Cities program would include:

- **Reduced energy costs.** A focus on cost effectiveness, particularly energy efficiency, will result in cities saving money, and be a demonstration of fiscal responsibility to their constituents.
- **Improved quality of life and desirable places to live and work for residents.** Environmental characteristics of a community are increasingly important for residents and businesses. An environmental program such as the GreenStep Cities program can be part of a city’s broader effort to attract and retain businesses and residents by making the city an attractive place to live and work. A GreenStep Cities recognition could provide instant and credible advertisement of a city’s effort to become more sustainable.

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<sup>1</sup> Based on information analyzed by the Weidt Group, considering less than half of existing public buildings. L. Greden, T. McDougal, L. Steidel, J. Streff. “Minnesota B3 Benchmarking Results: prioritizing the energy savings opportunity in Minnesota public buildings.” ACEEE 2008 Summer Study Conference Proceedings.





**In 2008, the Bike Edina Task Force organized a well-attended community bike ride with Mayor James Hovland to encourage bicycling in Edina.**

- **A simple pathway for going green.** Especially for cities without large staffing, the program can provide a simple guide for identifying and implementing effective actions to increase sustainability.

In the 2008 legislative session, this concept was formalized in state statute with the passage of Senate File 3096 (as found in the Laws of Minnesota 2008, Chapter 356, Section 13), which requires a report to the legislature by February 2, 2009, with recommendations on program design. The legislation refers to expanding an existing Green Star award program, already existing in state statute, which was created to encourage Minnesota industries to comply with state and federal laws. (We believe, for reasons explained later in this report, that the program would be better referred to as “GreenStep Cities,” and refer to it as such throughout the rest of the report.) The legislation requires that the program focus on actions that help meet the state’s greenhouse gas emissions reduction goals (15% reduction by 2015; 30% by 2025; 80% by 2050). The report is to be prepared by the Minnesota Pollution Control Agency (MPCA) and the Minnesota Office of Energy Security (OES), in

collaboration with CERTs. The report is to include recommendations for:

- 1) Criteria for actions to be included;
- 2) What entity/entities would issue the award;
- 3) Length of time the award could be displayed;
- 4) Existing state financial and technical assistance available to cities;
- 5) Sources of funding needed to implement the program; and
- 6) Other issues that need to be resolved in order to implement the program.

This report addresses all of the issues raised by the legislation (see Appendix A for the complete legislative language).

## **Approach to program development**

In the spring of 2008 The Green Institute, coordinator for the Twin Cities region of CERTs, was awarded a grant from the MPCA to coordinate development of the program recommendations in partnership with other stakeholders. The project was consciously organized as a broad, collaborative public-private partnership. A workgroup was formed to coordinate the project, and met over 15

# Background and Research

times throughout the spring, fall, and winter of 2008 to help develop the program. This workgroup included the following organizations:

- League of Minnesota Cities
- University of Minnesota Regional Sustainable Development Partnerships
- Minnesota Office of Energy Security, Department of Commerce
- Pollution Prevention and Assistance Division, Minnesota Pollution Control Agency
- The Minnesota Project
- The Green Institute
- Center for Energy and Environment
- Great Plains Institute for Sustainable Development
- Urban Land Institute MN

In order to get input from a broader group of stakeholders, an Advisory Committee was convened in September and December 2008 to advise on overall program design questions. In addition, four technical committees were convened to determine the specific best practices to promote within four best practice areas (see Appendices B and C for a list of Advisory Committee and Technical Committee members).

## Review of related programs and initiatives

The workgroup team conducted a survey of related existing and planned programs and initiatives at the local government or community levels. These can generally be divided into four categories, although in reality many efforts are a combination of one or more of the below categories.

## RESOLUTIONS AND STATEMENTS OF COMMITMENT

Many cities and counties have made various resolutions and commitments to reduce greenhouse gases and achieve other environmental goals. Most of these resolutions have as a primary goal influencing state or federal policy. The resolutions suggest implementation of local government actions, although they do not represent detailed action plans in and of themselves. The most popular of these resolutions is the **U.S. Mayors Climate Protection Agreement**, initiated by Seattle Mayor Greg Nickels in 2005. An individual mayor, or mayor and city, can voluntarily commit to this agreement, which includes the following provisions:

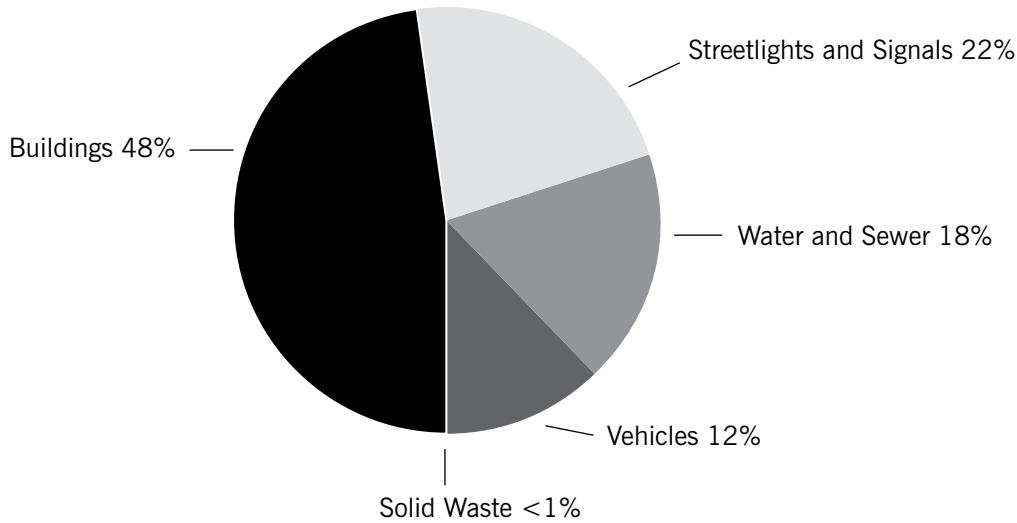
- Strive to meet or beat the Kyoto Protocol targets in their own communities, through recommended categories of actions ranging from anti-sprawl land use policies to urban forest restoration projects to public information campaigns;
- Urge their state governments, and the federal government, to enact policies and programs to meet or beat the greenhouse gas emissions reduction target of 7% reduction from 1990 levels by 2012 as suggested for the United States in the Kyoto Protocol; and
- Urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation.

This resolution has been adopted by 37 cities in Minnesota.<sup>2</sup> Also in 2005 the Sierra Club launched its **Cool Cities** campaign empowering local residents and cities to work more closely with one another to reduce greenhouse gas emissions. In 2007, the Sierra Club expanded its efforts to **Cool Counties** whereby counties commit to reducing their own contributions to climate change by modifying internal operations, demonstrating regional leadership to achieve climate stabilization and protect our communities, helping communities

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<sup>2</sup> Cities signing the U.S. Mayors Climate Protection Agreement include: Apple Valley, Aurora, Austin, Bemidji, Buhl, Burnsville, Chisholm, Duluth, Eagan, Eden Prairie, Edina, Golden Valley, Hibbing, Hutchinson, International Falls, Lake City, Mahtomedi, Milan, Minneapolis, Mountain Iron, Nevis, Oak Park Heights, Park Rapids, Red Wing, Rochester, Rosemount, Roseville, Sauk Rapids, St. Cloud, Saint Paul, Sunfish Lake, Tower, Turtle River, Virginia, White Bear Lake, Winona, Woodbury.

**Figure 1: Minneapolis Greenhouse Gas Emissions from City Operations (2006)**



Source: Minneapolis Carbon Footprint Project Report, draft 12/1/2008.

become climate resilient, and urging the federal government to support their efforts. Hennepin County was one of the initial signatories and other counties are considering participation.

### **GREENHOUSE GAS INVENTORIES AND PLANS**

Larger cities have conducted detailed greenhouse gas inventories, not only of their own operations, but also citywide. The goal of these inventories is to identify areas on which to focus efforts, to track results, and to develop a basis for a greenhouse-gas action plan. The most comprehensive and widely used framework for developing these plans is ICLEI's **Cities for Climate Protection** program. ICLEI has a worldwide network of participating cities, and provides technical help and guidance for developing action plans. Ten cities in Minnesota are members of ICLEI.

In Minnesota, Minneapolis, Saint Paul, Duluth, and approximately five other cities are known to be developing greenhouse emissions inventories and/or action plans. The workgroup reviewed some of these plans as well as several other cities nationally, and

offers the following observations:

- For cities with adequate resources, emissions inventories can be an effective tool for identifying and achieving consensus on the opportunities for greenhouse gas reductions.
- A standardized greenhouse gas emissions inventory and protocol for cities across the country is still evolving and could reduce the cost, but developing an accurate greenhouse gas inventory at the local level can currently require significant resources which could instead be devoted to direct actions. These inventories duplicate some state and federal inventory efforts.
- The largest opportunity for greenhouse gas reduction within city government operations is generally city buildings, followed by streetlights and signals, water and sewer treatment, and city vehicles. Figure 1 presents the City of Minneapolis's greenhouse gas emissions for city operations, which illustrates this point. Focusing on implementation of best practices in these operational areas provides direct savings and puts local governments in a position to lead by example and to encourage the entire community to take action.

# Background and Research

- While ICLEI and others are developing more streamlined strategies for developing the inventories, for midsize and smaller cities there may be more effective ways to analyze opportunities than developing a city-specific emissions inventory. While accurate tracking of results is important, impacts of individual best practices can be tracked independently of a comprehensive greenhouse gas inventory. See the Next Steps section for our recommendations for further research and analysis.

## PROCESS-ORIENTED OR BEST PRACTICE SHARING PROGRAMS

Several programs for local governments do not prescribe a specific solution, but rather focus on the process to achieve goals that are set by the local government. The **Eco-Municipalities** program provides a framework for cities to establish and track progress on self-defined goals. There are 68 municipalities worldwide in the Eco-Municipality Network and 25% of them are located in Sweden. Wisconsin leads the North American Eco-Municipality movement, with 21 eco-municipalities. Municipalities must pledge to commit to the “Natural Step Framework” in a sustainability plan before becoming “Eco-Municipalities.” The network (called SEkom) is governed by a board of politicians from nine Swedish eco-municipalities and is administered by a committee of civil servants. Indicators are used by the Eco-Municipality Network (a.k.a. SEkom) to compare eco-municipalities worldwide on environmental performance. A set of indicators for economic or social progress has not yet been established, though developing both is an intention. The Swedish Parliament established 16 Environmental Goals for 2020 in 1999 with articulated interim targets and progress reports.

The **Minnesota Sustainable Investment Partnership** is working in Minnesota to promote land use changes at the local level as a greenhouse gas reduction strategy. They produced *A Briefing Paper and 2008 Legislative Call to Action*, which

articulated a strategy to encourage, reward, and support better land use practices statewide, and to create cross-silo leadership within state government to better align existing state and local investments—without increases in spending. Similarly, the **Urban Land Institute** is working on developing an initiative to encourage best practices within land use development. While the Minnesota chapter of the Institute is actively engaged in this effort, it will have national scope.

Finally, launched in 2007, the National Association of Counties (NACo) **Green Government Initiative** provides comprehensive resources for local governments on all things green, including energy, air quality, transportation, water quality, land use, purchasing, and recycling. According to NACo, they intend through the program to: increase education and outreach on all things green, help educate counties and help them educate the public, promote environmentally preferable purchasing, facilitate an open dialogue with the private sector, and reverse misinformed opinions that green techniques are too costly or of lesser quality.

## PRESCRIPTIVE ACTION-ORIENTED PROGRAMS

The Florida Green Building Coalition has created what appears to be the nation’s most complete existing prescriptive program for local governments in Florida called the **Florida Green Local Government Standard**. This standard presents a comprehensive list of criteria, organized in terms of local government department functions. It focuses on improving environmental performance through a number of mediums (energy, water, air, land, waste), and evaluates environmental practices within city operations, incentives and ordinances to foster green practices, and educational activities to improve the environment.

ICLEI is currently developing a national program as part of a broad partnership called the **STAR Community Index**. The STAR program will

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create a process, as the Leadership in Energy and Environmental Design (LEED) program has done, to bring together leaders in the field with the shared goal of establishing new standard measures and processes for greening communities. The STAR framework will represent a roadmap that guides local governments as they implement sustainability and climate-related initiatives. Similar to LEED, STAR will include tiered levels with classification based on actions achieved in congruence with a given level. STAR will also draw on the extensive experience of ICLEI in building online tools and tracking systems to assess the progress of cities in reducing carbon emissions. The current timeline calls for rolling out the program in 2010. It appears that the STAR Community Index program will be most appropriate for large metropolitan cities such as Minneapolis and St. Paul.

## **Review of state programs providing technical and financial assistance**

The workgroup conducted a review of existing State of Minnesota technical and financial assistance programs related to sustainability. Although many programs were found, there was no single generally recognized source of information for all of the programs, though many of them are listed on the MPCA's NextStep sustainable communities Web site at [www.nextstep.state.mn.us](http://www.nextstep.state.mn.us) (see Appendix D for a list of the programs, with more complete information on the Web).

## **Review of existing local government efforts within Minnesota**

The workgroup also conducted a review of 70 Minnesota cities with existing sustainability initiatives, interviewed 24 of these cities, and wrote case studies on 16 of the most innovative programs. These case studies represent a diversity of approaches and demonstrate the commitment

of local governments to sustainability efforts. Appendix F has a list of the cities reviewed, with the complete case studies available on the Web ([www.cleanenergyresourceteams.org/greensteps](http://www.cleanenergyresourceteams.org/greensteps)).

## **Size of cities in Minnesota**

Over 80% of Minnesota's 5.2 million residents live in cities of some size. Of the approximately 850 cities in Minnesota, the majority have very small populations. Figure Two (next page) demonstrates that nearly half of Minnesota's city population lives in cities with under 25,000 residents, and nearly 1 million people (24% of all city dwellers) live in cities of under 10,000 residents.

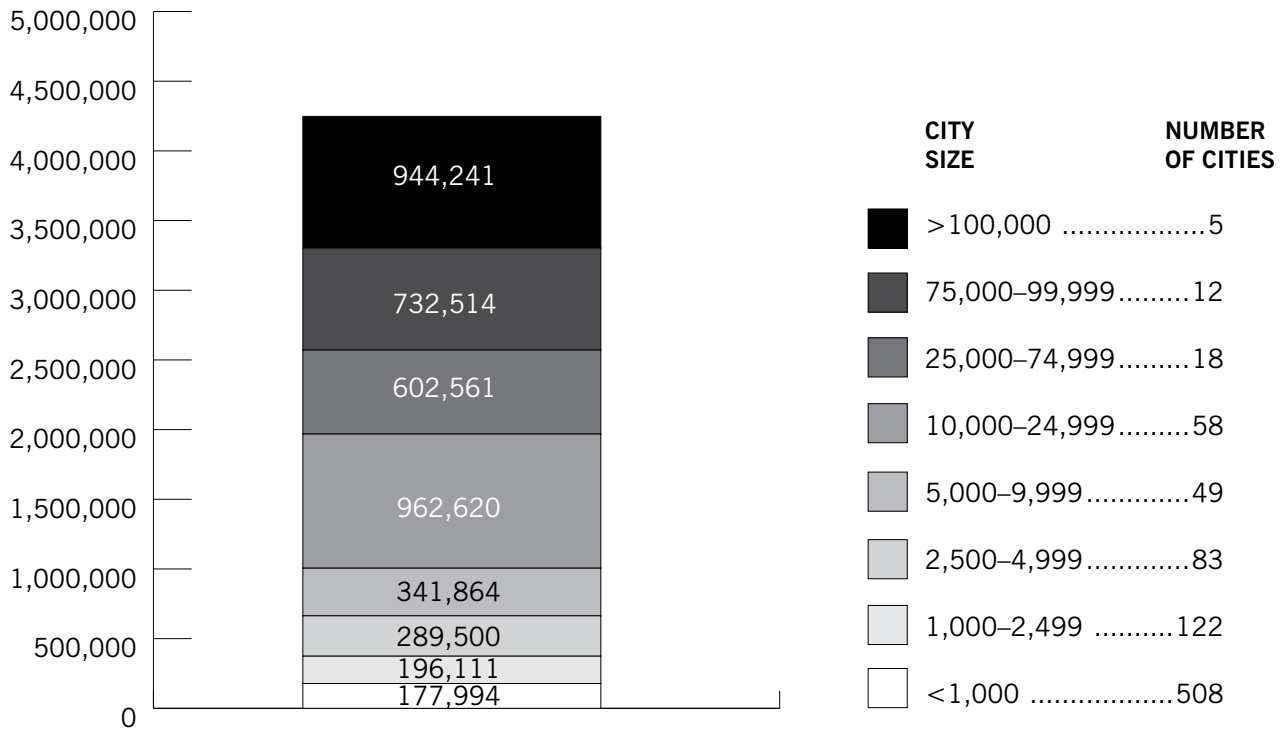
## **Implications for GreenStep Program Design**

The foregoing research has led us to the following conclusions regarding our approach to program design:

1. GreenStep should focus on actions (a prescriptive "best practice" approach) to reduce greenhouse gases and achieve other environmental outcomes.
2. Within city operations, the largest opportunities for greenhouse gas reduction are in energy conservation in city buildings, street lighting, and other city facilities. Best practices for city operations should focus on these areas.

# Background and Research

**Figure 2: Minnesota's Total City Population by City Size**



SOURCE: League of Minnesota Cities

3. GreenStep should make extra efforts to include midsize and small cities. Although we believe large cities (over 75,000 residents) could benefit through participation in a program like GreenStep, most of these cities already have sustainability initiatives, and other national programs exist or are being developed to serve them. However, midsize and small cities could benefit greatly from a program to help achieve sustainability goals.

4. The program should begin by addressing the specific needs of cities. Developing a program to simultaneously address neighborhoods, townships, cities, and counties was considered but found to be too complex to do initially. Later GreenStep could be expanded to include other sectors.



# Program Design Recommendations

The workgroup recommends creating an action-oriented program for local governments in Minnesota with the following goals:

- Provide a “Pathway to Sustainability” that is cost-effective, pragmatic, and achievable for all cities.
- Achieve meaningful reductions in greenhouse gases and other positive environmental outcomes.
- Provide assistance for local governments to achieve best practices in energy use reduction and sustainable development.
- Identify specific existing state agency staff and others who are committed to and technically able to help cities implement each specific best practice.
- Promote innovation.
- Inspire and assist residents, businesses, and community institutions to take action.
- Recognize local governments for their past accomplishments and their new efforts spurred by the program.

The Workgroup Committee and Advisory Committee discussed whether to expand the program to sustainability questions beyond greenhouse gas emissions. The consensus was that local governments would find it valuable to include a broader range of sustainability issues, and thus the program should be expanded, but still retain its primary focus on greenhouse gas reductions. The following represent specific program design recommendations.

## Best practices should be straightforward and selected using simple criteria

The workgroup developed the following criteria in order to select best practices:

1. **Have potential to achieve significant reductions in greenhouse gases and other positive environmental outcomes.** Local governments should not spend scarce resources on actions that have minimal impact on achieving energy reductions or other outcomes.
2. **Be appropriate actions for local government.** Best practices cannot be implemented unless local government can control or predictably influence actions within its territory.
3. **Simple.** Maintain ease of participation and implementation for all cities, especially for smaller and midsize and outstate cities.
4. **Proven.** A “consensus of experts” in development of best practices will be required for the program.
5. **Practical.** Focus on practical, cost-effective strategies that give the most “bang for the buck.”
6. **Effective.** Focus on strategies that reduce greenhouse gas emissions, and achieve other city sustainability goals.
7. **Save money.** Saving resources can save money; this program will focus on efforts that accomplish both.

## Program should be built around required and optional best practices in four areas

Best practices, sometimes referred to as best management practices (BMPs), are actions that have been demonstrated to help communities achieve sustainability goals. A best practice must be an implementation strategy designed to achieve outcomes. These strategies generally fall into four areas:

1. **Encouragement/education:** using publicity efforts, social marketing, appealing to economic self-interest where applicable, or similar efforts that attempt to change behavior or influence decisions of city staff, residents, or businesses to meet sustainability goals.

# Program Design Recommendations



**Sartell installed rainwater gardens in the yards of 51 residents as part of their street reconstruction projects in two neighborhoods adjacent to the Mississippi River to replenish the soil, improve water quality, bring in native plants, and bring neighbors together.**

2. **Incentives:** offering individuals or businesses something of value to influence key decisions or change behavior to be more sustainable.

3. **Regulation:** using local government regulatory powers to require, determine, or direct sustainable decisions or behavior of residents or businesses.

4. **Public ownership/management:** focusing on making more sustainable investment or management decisions that are entirely within the public sector.

Hybrid strategies, such as incentive regulation, exist, but these four types define nearly all types of strategies that delineate actions cities would take. The action must result in measurable progress toward sustainability goals. Measurement—for example, conducting a carbon baseline assessment—is not an implementation strategy unless it is tied explicitly to some specific action to be taken. The action must be demonstrated to be achievable. A best practice is not theoretical. Costs and benefits of

best practices need to be clearly identified, though measurement may be difficult and cities may find benefit from working with local educational institutions to complete measurements. Note that measurement is not the same as requiring cost-effectiveness. A best practice needs to help achieve a sustainability goal, but an individual best practice does not necessarily have a positive economic payback. Implementing a cluster of best practices, however, should in the aggregate have a net positive economic payback.

The following are the recommended categories of best practices, with the scope of each category listed.

1. **Buildings and Facilities:** City buildings, public housing, other city facilities such as drinking water plants, street and building lighting, private buildings (residential, commercial, and industrial), green building programs (LEED, MN GreenStar Homes, B3, MN Sustainable Buildings 2030 Standard), permit incentives, city financial assistance, building codes.



# Program Design Recommendations

**2. Transportation:** City fleets, green infrastructure, complete streets, bike paths, public transit (bus, vans, train, streetcars), private transit (car sharing, on-demand carpooling, cabs, car rental), walking/biking, telecommuting, TDM (transportation demand management), traffic signal coordination, roundabouts, traffic calming.

**3. Land Use Planning:** Comprehensive plans, form-based zoning, transit-oriented design, density and mixed uses, city expansion zones, parking, infill development, planned unit developments, inter-regional corridors, green infrastructure and carbon sequestration, working landscapes, local food, landscaping performance standards, urban forests, low-impact development, conservation design and subdivisions, eco-industrial development, historic preservation.

**4. Environmental Management and Economic Development:** Wastewater, stormwater, surface water, groundwater, solid waste management (purchasing, reuse businesses, composting, landfill methane, recycling), renewable energy generation, local food, tourism, public outreach, education and involvement programs, tracking and benchmarking progress.

The four technical committees have all met several times and produced draft best practices, a summary of which is in Appendix E. The full draft of best practices is available on the Web ([www.cleanenergyresourceteams.org/greensteps](http://www.cleanenergyresourceteams.org/greensteps)).

## Program should take a tiered approach, focusing first on cost-effective options for greenhouse gas reductions

Although the required and optional best practices have not yet been fully defined, it is anticipated that there would be different achievement levels, such as “Step One,” “Step Two,” and “Step Three,” for progressively higher achievements. The first tier would focus almost exclusively on actions that

result in greenhouse gas reductions that could be implemented cost-effectively by all cities. Successive tiers would focus on additional environmental issues (such as water and waste reduction), and successively deeper actions to cut greenhouse gases.

## Local governments that meet criteria should be recognized by the state

The workgroup recommends that a city completing a minimal number of best practices would be recognized by the State of Minnesota as a Minnesota GreenStep City for three years. Yearly recognition might happen at an event such as the annual League of Minnesota Cities conference. Realizing that it could take several years to complete the actions, particularly if they require capital budget allocations, cities would formally enroll in GreenStep after completing the minimal number of best practices and be recognized by the MPCA as a program participant. After being recognized as a GreenStep City, work on more challenging best practices would begin, and a city would have three years to demonstrate it had completed all of the additional best practices to be re-recognized as a GreenStep City at the end of the three-year period. It is anticipated that most of the administrative activities would take place on-line.

## The MPCA Prevention and Assistance Division should administer GreenStep as a public-private partnership

The program administrator would need to fulfill the following functions:

- Confirm that participating cities meet program requirements and process any required paperwork
- Convene technical and advisory committees that would update the best practices on a periodic basis
- Facilitate technical and financial assistance for program participants (but not necessarily be the

# Program Design Recommendations

provider of technical assistance)

- Provide information resources on the program, including Web site
- Promote information-sharing between program participants
- Market and promote the program and the cities participating in the program

The Minnesota Pollution Control Agency's (MPCA's) Prevention and Assistance Division has conducted a number of activities that make them ideally suited for administering this program. This includes administering the Governor's Awards for Pollution Prevention, overseeing the Minnesota Technical Assistance Program (MnTAP), and organizing the annual Eco Experience and Living Green Expo at the State Fairgrounds. The Division has active programs and expertise in greenhouse gas reduction, green building, energy, and local government assistance, most recently organizing with four local government associations a conference on local government opportunities for energy efficiency in St. Cloud. Over 325 staff and elected officials from cities, counties, schools, and townships attended this conference.

It is anticipated that administering the program would take between 1.5 and 2 full time staff equivalents. Given the current economic environment, it is unlikely that new state funding would be made available for this effort. For this reason, it is recommended that the MPCA consolidate existing staff resources that provide assistance to local governments under the GreenStep Cities umbrella. These efforts could be further leveraged by organizing the program as a public-private partnership to fully utilize the potential of other groups that could help administer the program. While the MPCA would have primary control of the program, a public-private partnership would contribute significant involvement of nonprofits, businesses, academic institutions, and others with an interest in seeing the program

succeed. The MPCA could help manage partner involvement through the creation of an advisory committee or committees to channel their participation.

For example, the Clean Energy Resource Teams (CERTs) could play a key role. Over the past six years the Clean Energy Resource Teams (CERTs) have established a network of community members around the state who have helped develop clean energy projects, and who are promoting sustainability issues more broadly. We see CERTs as an organizing body to connect communities to the GreenStep Cities program and to encourage cities to take part in GreenStep as a simple, practical, effective way to kick-start sustainable development actions in both metro and smaller Greater Minnesota cities.

CERTs could work to help cities track their progress and connect them to technical resources to implement best practices. The CERTs statewide presence and connections with technical resource providers can help build capacity of cities statewide to achieve these best practices. One possible initiative would be to have CERTs facilitate "Clean Energy Design Teams" as part of a city's GreenStep efforts to promote and mobilize community-wide participation. This would be modeled on the successful Minnesota Design Team program. Finally, CERTs can serve as a feedback mechanism to the Minnesota Pollution Control Agency and the Green Star Steering Committee, reporting challenges communities encounter as they work to implement select benchmarks, possible areas for program improvement, and success stories. CERTs could highlight city actions via case studies and their Monthly Update, and could help to ground-truth city actions and accomplishments.

Utilities could also be important partners. Recent legislation has significantly increased utilities' need to develop programs that save energy. Because of its focus on greenhouse gas reduction and energy

# Program Design Recommendations



Elk River's new LEED Gold certified library, which opened its doors in the fall of 2007, features natural daylighting, geothermal heating and cooling, and adjacent rain gardens.

conservation, GreenStep may offer utilities an opportunity to work with cities to reduce their energy usage.

## Program should be called "GreenStep Cities"

The program was originally named "Green Star Cities" and was intended to complement four other Minnesota programs with similar names. The "Green Star Award Expansion" legislation specifically mentions expanding the "Green Star" name. The existing Green Star Environmental Audit Program is run by the MPCA to encourage businesses such as gas stations that may be in noncompliance with environmental laws, to achieve compliance. Minnesota GreenStar Certified Homes and Remodeling, an existing green home certification program was initially supported by the MPCA and is now its own organization. GreenStar Homes has submitted a trademark application for the "Minnesota GreenStar" name, and intends to use this trademark status to protect its brand. Already, there has been some confusion between the various programs even in the conceptual stage of what was originally referred to as Green Star Cities. In addition to serving different markets,

Minnesota GreenStar Homes and Green Star Cities have distinct philosophies; the Homes program focuses on rigorous standards to ensure market differentiation, while the Cities program emphasizes ease of entry in order to maximize participation. In contrast to both of these efforts that emphasize voluntary solutions, the MPCA Green Star Environmental Audit Program focuses specifically on compliance issues. The two other programs with similar names are the Star Lakes program created by the Legislature in 2008, and the now-defunct Star Cities program. Additionally, the STAR Community Index is expected to become a national standard in a few years.

In order to avoid confusion and possible legal issues, the workgroup concluded that a new name would be best for the program. After much deliberation, research, and consideration of multiple options, the name "GreenStep Cities" was chosen as the best alternative. Should the program be expanded to other jurisdictions (counties, townships), the name could be expanded as well (GreenStep Counties, GreenStep Communities). As an alternate, the old Star City name could be used and a new Minnesota Star City program could be created.

# Next Steps

In order to proceed with development of the program, the workgroup recommends and intends to work to implement the following next steps.

## **Refine program design**

While draft best practices have been developed by the technical committees (see Appendix E), these require further refinement and review before the program begins. As the work of the four technical committees has not yet been collectively reviewed, potential overlaps and gaps must still be addressed. Creating an online users guide for program participants is also necessary prior to program implementation.

## **Start beta version of program**

Once program design has been completed, release a “beta” version of the program for cities. This program would be open to all cities, but with the caveat that there will be some program details that still need refining. A number of cities are already interested in helping evaluate and improve the program. The initial experience of these and other cities during the first year would be used to further refine the program for broader implementation in 2010, and to better define the program administration and relationship with the STAR Community Index. If the program is successful with cities, it could be expanded to counties or townships. Because counties and townships have different jurisdictions and cover different issue areas, it is recommended that separate best practices be developed if these units of government are to enter the program.

## **Conduct additional analytic work to assess impact of best practices**

This analysis would include developing estimates of potential for greenhouse gas reductions through GreenStep Cities efforts in order to link the program to state greenhouse gas reduction goals. The work of developing these estimates should help ensure a solid basis for measuring results from the program, an important and ongoing analytical need for the program. In addition, the development of greenhouse gas inventory “templates” or other tools for cost-effectively identifying greenhouse gas reduction opportunities could reduce the need for cities to develop individual resource-intensive inventories, while providing proven methods for accomplishing greenhouse gas reduction. This tool could provide this information based on several select characteristics of the city; e.g., size, whether they have a water treatment plant, and other differentiating factors.

## **Monitor development of STAR Community Index and other programs**

Currently the GreenStep Cities Initiative offers a unique opportunity for Minnesota local governments. However, there may also be opportunities as the national STAR Community Index is developed to partner with that larger effort. Already members of the GreenStep workgroup are in contact with staff for the Index.

# Next Steps

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## **Assemble an advisory committee and technical committees**

The advisory committee would meet during the beta phase to help set the program requirements and advise on program implementation. The advisory committee should represent a broad range of stakeholders, including city administrators, elected officials, city residents, members of the Clean Energy Resource Teams, and nonprofit organizations. The advisory committee could be chosen from among those advising on this report (see Appendix B), or new members could be selected. Suggested composition is the following:

- Ten members: identified by the League of Minnesota Cities
- Three members: identified by MPCA & Office of Energy Security (a third agency could also be represented)
- Seven members: representing the seven Clean Energy Resource Teams statewide

In addition to this overall advisory committee, four technical committees, chosen for expertise within specific issue areas, should continue to refine the best practices. This “consensus of experts” is critical to the program design.

# Appendices

## A. Legislative language

[Excerpted from Senate File 3096 (Minnesota Statutes 216C.43)]

### Sec. 7. REPORT; GREEN STAR AWARD EXPANSION.

- 8.19 The Pollution Control Agency and the Office of Energy Security in the Department  
8.20 of Commerce shall, in collaboration with the clean energy resource teams (CERT's),  
8.21 submit a report by February 2, 2009, to the chairs and ranking minority members of the  
8.22 senate and house of representatives committees with primary jurisdiction over energy  
8.23 policy that makes recommendations regarding how to expand eligibility to receive the  
8.24 Green Star award, described in Minnesota Statutes, section 114C.25, to include cities and  
8.25 communities that take action to help meet the state's greenhouse gas emissions reduction  
8.26 goals established in Minnesota Statutes, section 216H.02, subdivision 1. The report must  
8.27 address, at a minimum, the following issues:
- 8.28 (1) the criteria for actions cities and communities must take in order to receive a  
8.29 Green Star award;
- 8.30 (2) what entity or entities would issue the award;
- 8.31 (3) the length of time during which the award may be displayed;
- 8.32 (4) existing state financial and technical assistance available to communities and  
8.33 cities to assist them to reduce greenhouse gas emissions;
- 8.34 (5) sources of additional funding needed to implement the program; and  
8.35 (6) any other issues that need to be resolved in order to implement the program.

# Appendices

## B. Advisory Committee members

<b>Name</b>	<b>Organization</b>
Mary Hamann-Roland	Apple Valley Mayor
William Spitzer	St. Charles Mayor
Sandy Colvin Roy	Minneapolis City Council
Victoria Reinhardt	Ramsey County Commissioner
Janet Streff	MN Dept. of Commerce, Office of Energy Security
Dave Benke	MPCA, Prevention and Assistance Division
Julie Skallman	MN Dept. of Transportation
John Wells	MN Environmental Quality Board
Jay Trusty	Southwest Regional Development Commission
Tom Harmening	St. Louis Park City Manager
Klayton Eckles/Jennifer McLoughlin	Woodbury Engineering & Public Works
Ellen Richter	White Bear Lake Assistant to the City Manager
Paul Drotos	Redwing Infrastructure Coordinator
Ken Saffert	Mankato City Engineer
Patti Gartland	Sartell City Administrator
Jim Hunt	Mahtomedi Environmental Advisory Commission
Dave Engstrom	MN Association of Small Cities
Mark Blaiser	MN Chamber of Commerce—Waste Wise, Energy Smart
Lisa Frenette	Builders Association of Minnesota
Sheldon Strom	Center for Energy and Environment
Bob McLean	Hunt Utilities Group
Susan Hubbard/Tim Brownell	Eureka Recycling
John Bailey	1000 Friends of Minnesota
Terry Gips	Alliance for Sustainability
Caren Dewar	Urban Land Institute MN
Janne Flisrand	MN Green Communities & Greater Minnesota Housing Fund
Michelle Schroeder	Izaak Walton League, MN Division
Kim Pederson	Otter Tail Power Company
Gary Connett	Great River Energy
Bill Black	Minnesota Municipal Utility Association
John Carmody	Center for Sustainable Building Research
Brian Hammarsten	Xcel Energy



# Appendices

## C. Technical Committee Members

### **BUILDINGS & FACILITIES**

(staffed by Carl Nelson, Center for Energy and Environment)

- John Carmody, Executive Director, Center for Sustainable Building Research, U of MN
- Jim Geibel, Energy Manager, City of Saint Paul
- Kathy Larsen, Housing Programs Coordinator, City of Saint Louis Park
- Gayle Prest, Sustainability Manager, City of Minneapolis
- Sheldon Strom, Executive Director, Center for Energy and Environment

### **TRANSPORTATION**

(staffed by Diana McKeown, The Green Institute and Metro CERT and Lissa Pawlisch, UMN Regional Sustainable Development Partnerships, CERTs Coordinator)

- Annette Bair, Southwest RDC and SW CERT
- Wayne Hurley, West Central Initiative Foundation
- Barb Thoman, Transit for Livable Communities
- Steve Lawrence, Fleet Manager for City of Brooklyn Park
- Frank Duoma, Assistant Director of the State and Local Policy Program at the Humphrey Institute of Public Affairs and Research Scholar at the Center for Transportation Studies at the University of Minnesota

### **LAND USE PLANNING**

(staffed by Brian Ross, CR Planning)

- John Bailey, 1000 Friends of Minnesota
- Caren Dewar, Urban Land Institute MN
- Jay Trusty, Executive Director, Southwest Regional Development Commission
- Paul Hetland, City of Freeport Administrator, Stearns County Municipal League
- Julie Farnham, Bloomington Planner

### **ENVIRONMENTAL MANAGEMENT & ECONOMIC DEVELOPMENT**

(staffed by Philipp Muessig, MPCA Prevention and Assistance, and Agatha Vaaler, The Green Institute)

#### **Water subcommittee**

- Anne Gelbmann, MPCA
- Jill Sinclair, City of Chanhassan
- John Wells, MN EQB
- Bill Dunn, MPCA
- Cindy McComas, MnTAP

#### **Solid Waste subcommittee**

- Susan Hubbard, Eureka Recycling
- Mark Blaiser, MN WasteWise/Energy Smart
- Sue Bast, City of Burnsville
- Cities and Counties Involved in Source Reduction and Recycling

#### **Economic and Community Development subcommittee**

- Ellen Richter, City of White Bear Lake
- Tim Nolan, MPCA
- Ken Meter, Crossroads Resource Center
- Terry Gips, Alliance for Sustainability
- Don Hickman, Initiative Foundation
- Mark Lofthus, Minnesota Department of Employment and Economic Development



# Appendices

## D. Summary of Existing State Programs Related to Sustainability for Local Governments (organized by agency)

NAME	TYPE OF AID	DESCRIPTION
<b>Department of Natural Resources (DNR)</b>		
Dam Safety	Grant	To improve the safety and condition of publicly owned dams and water level control structures.
Flood Hazard Mitigation	Grant	To provide technical and financial assistance to local governmental units for conducting flood damage reduction studies and for planning and implementing flood damage reduction measures.
Minnesota's Lake Superior Coastal Program	Grant	To preserve, protect, develop and where possible restore or enhance coastal resources along Minnesota's North Shore of Lake Superior.
Remediation Fund	Grant	To acquire, protect, and restore natural resources, compensating the State of Minnesota for damage to resources from the release of hazardous substances from closed landfills.
Metro Greenways Protection & Restoration	Grant	Protect, connect, restore, and manage a regional network of natural areas, parks, and other open spaces interconnected by ecological corridors in the seven county metropolitan region through collaborative public/private partnership.
Natural and Scenic Area	Grant	To increase, protect, and enhance natural and scenic areas.
Federal Recreational Trail Program	Grant	To encourage the maintenance and development of motorized, non-motorized, and diversified trails by providing funding assistance.
Off-Highway Vehicle Damage Account	Grant	The Off-Highway Vehicle Damage Account makes funds available to repair damage to private or public lands caused by Off-Highway Vehicle (OHV) operation in unauthorized or unpermitted areas. OHV damage typically involves soil disturbance, erosion, or rutting, but may also include damage to vegetation or property. This account is funded by an appropriation from the dedicated OHV accounts, and is administered by the DNR Division of Trails & Waterways out of its Area Offices all across Minnesota.
Environmental and Conservation Partnerships	Grant	To encourage the enhancement of fish, wildlife, and native plant habitats; research and surveys of fish and wildlife directly related to specific habitat improvement projects; and to encourage environmental projects and related education activities through cooperation by private organizations and local governments.
Community Forest Bonding Grants	Grant	Removal, disposal, and replacement of dead or dying shade trees located on public property that are lost to forest pests or disease.
Minnesota ReLeaf Program	Grant	To assist Minnesota communities with planting and caring for their trees, to increase energy conservation, to reduce atmospheric carbon dioxide, and to achieve other environmental benefits.
Community Conservation Assistance	Grant	To assist local governments with the integration of natural resources information and data into local development and conservation plans and policy decisions.

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NAME	TYPE OF AID	DESCRIPTION
<b>Legislative Citizen Commission on Minnesota Resources (LCCMR)</b>		
Natural Resources Trust Fund	Grant	Grants to preserve, protect, restore, and enhance both the bountiful and the threatened natural resources that are the collective heritage of every Minnesotan.
<b>Metropolitan Council</b>		
Livable Communities Demonstration Account (LCDA)	Grant	Grants available for cities and municipalities to redevelop communities, with an emphasis on creating jobs and taxable revenue as well as mixed use/livable communities.
<b>Minnesota Department of Commerce (DOC)</b>		
Energy Information Center	Technical Assistance	The Energy Information Center is Minnesota's leading source of unbiased energy information. Call this hotline and speak to their experts on any energy-related issues or projects.
Public Buildings Enhanced Energy Efficiency Program	Loan	The Public Building Enhanced Energy Efficiency Program (PBEEEP) is under development and will facilitate energy improvements for local governments including school districts by delivering expert technical services and easy-to-use private financing. Private capital, not State funds, will be offered at interest rates comparable to rates on tax-exempt general obligation bonds. Will feature State "supplemental cash flow agreements" to balance local governments' actual energy savings and payments due so that investments are at least budget-neutral.
Solar Rebates	Rebate	Rebates for both solar electric and solar thermal installations. At present, this program is fully subscribed and additional funding has not been made available.
Additional Renewable Energy Funding	Grants & Rebates	Funding for a variety of energy efficiency and renewable energy projects as money is appropriated.
Conservation Improvement Program (CIP)	Rebates and Technical Assistance	State mandated utility conservation program. Each utility provides funding and assistance for building energy improvements and enhancements. Department of Commerce reviews each utility's program.
Low-Income Weatherization Program	Direct Service	Federal Program administered for Minnesota by the Department of Commerce. Weatherizes low-income residences.
<b>Minnesota Department of Commerce (DOC) &amp; Administration</b>		
B3 - Sustainable Design Guidelines	Technical Assistance	Guide for new construction/major remodeling (mandated for state bond-funded projects).
B3 - Building Benchmarking and Beyond	Technical Assistance	Energy benchmarking for Minnesota public (state, municipal, and school) buildings.

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NAME	TYPE OF AID	DESCRIPTION
<b>Minnesota Department of Employment &amp; Economic Development (DEED)</b>		
Small Cities Development Program	Grants	The program helps develop viable communities by providing financial assistance for decent, safe, affordable housing, economic development, and public facility needs; and a suitable living environment by expanding economic opportunities, principally benefiting low- to moderate-income households. The program provides federal grants from HUD to local units of government on a competitive basis for a variety of community development projects.
Greater Minnesota Business Development Public Infrastructure Grant Program	Grant	This grant program provides funding in Greater Minnesota to build infrastructure improvements that use Minnesota biomass energy products to conserve energy and reduce reliance on electricity, oil, and natural gas. The program also provides funding to stimulate economic development by assisting local units of government to provide infrastructure required in the creation or retention of high quality jobs with a focus on industrial, manufacturing, and technology-related industries and to keep or enhance jobs in a specific location while increasing a city's tax base.
Minnesota Investment Fund	Grant	The Minnesota Investment Fund provides grants to help add new workers and retain high-quality jobs on a statewide basis. The focus is on industrial, manufacturing, and technology-related industries. Grants are awarded to local units of government who provide loans to assist expanding businesses.
Redevelopment Grant Program	Grant	The Redevelopment Grant Program offers grants to assist development authorities with costs for redeveloping blighted industrial, residential, or commercial sites where a past use and the need to recycle the land for a more-productive use exist.
<b>Minnesota Department of Health (MDH)</b>		
Indoor Air Quality Resources for Minnesota School Officials	Grant and Technical	This is a list of technical and funding assistance programs that help to improve the indoor air quality, energy efficiency, and overall safety of schools.
<b>Minnesota Department of Transportation (MnDOT)</b>		
Greater Minnesota Transit Grants	Grant	This capital transit facility program provides financial assistance for major public transit facility projects in Greater Minnesota. These funds may be used for the purchase of, renovation of, or construction of bus garages, bus stops, administrative offices, and other transit-related building activities.
Public Transit Participation Program	Grant	The Public Transit Participation Program (State/Federal Program 5311) provides financial assistance for public transit services. This grant program supports capital, planning, and operations of transit systems in small and large urban areas and in rural areas outside of the seven-county Twin Cities metropolitan area.
Safe Routes to School Program	Grant	The funds are available for a variety of projects including infrastructure improvements, education, and enforcement that improve the safety of bicycling and walking to and from school.

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NAME	TYPE OF AID	DESCRIPTION
<b>Minnesota Housing</b>		
Fix-up Fund	Low-Interest, Fixed-Rate Loans	The Fix-up Fund is a statewide program that offers affordable, low-interest, fixed-rate loans that can be used for energy efficiency improvements.
Community Fix-up Fund	Low-Interest, Fixed-Rate Loans	The Community Fix-up Fund (CFUF) is available to help communities address their home improvement needs and objectives (including energy efficiency) under geographically targeted initiatives.
Rehabilitation Loan Program	Low-Interest, Fixed-Rate Loans	The Rehabilitation Loan program assists low-income homeowners in financing basic home improvements that directly affect the safety, habitability, energy efficiency, or accessibility of their homes.
<b>Minnesota Pollution Control Agency (PCA)</b>		
Information Referral Index	Technical	List of professionals who can answer questions in most environmental fields.
Specific Contacts for Assistance and Information	Technical	Specific list of who to call at MPCA for assistance and information.
MPCA Environmental Assistance	Grant	To provide financial assistance for the development of environmentally sustainable practices in Minnesota through voluntary partnerships and goal-oriented, economically driven approaches to pollution prevention and resource conservation.
Financial Assistance for Nonpoint Source Water Pollution Projects: Clean Water Partnership, Clean Water Legacy and Section 319 Programs	Grant	Provides financial and technical assistance to local government and other water resource managers to address nonpoint-source water pollution through the Clean Water Partnership (CWP) and Clean Water Act Section 319 programs.
Clean Water Legacy Act Surface Water Assessment Grants	Grant	To provide local organizations and citizen volunteers with funds to complete the monitoring needed to meet assessment requirements on Minnesota lakes and streams.
Capital Assistance Program (CAP)	Grant	To help finance the capital costs of building solid waste processing facilities.
MS4 Stormwater Program	Technical	Development of municipal stormwater systems.
Clean Water Legacy Act (CWLA) Funding Round Guidance for Stormwater Applications for Federal Clean Water Act Section 319 TMDL Implementation Funds	Grant	About \$2 million of federal fiscal year 2009 Section 319 nonpoint source water pollution funds are included in the CWLA funding cycle. These Section 319 funds are only available to projects that are directly implementing an approved TMDL implementation plan. Because Section 319 funds are nonpoint-source funds, they cannot be used to fund practices and activities that satisfy permit (point-source) requirements.
Climate/Energy Assistance for Local Government	Technical	Training and assistance in the areas of green building, sustainable industrial development, community sustainability, model ordinances, low-impact development, environmentally preferable purchasing, transportation alternatives, and renewable energy. Additional assistance provided by MPCA-funded Retired Engineers Technical Assistance Program/Climate Change Corps in the areas of energy use and carbon reductions.

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NAME	TYPE OF AID	DESCRIPTION
<b>Minnesota Pollution Control Agency (PCA), continued</b>		
Clean Water Revolving Fund	Grants and Loans	The Clean Water Revolving Fund, also known as the Clean Water State Revolving Fund or simply SRF, is established under the Federal Clean Water Act and state law to make loans for both point-source (wastewater and stormwater) and nonpoint-source water pollution control projects. The PFA prepares an annual Intended Use Plan (IUP) based on a Project Priority List developed by the MPCA. The IUP describes the projects and activities eligible for funding during the state fiscal year.
County Recycling or Solid Waste Contacts	Technical	Find information on recycling or solid waste management in your Minnesota county by contacting your solid waste administrator (SWA) or recycling coordinator.
<b>Public Facilities Authority</b>		
Water Pollution Control Revolving Fund	Below-Market Loans	The Public Facilities Authority (PFA) provides below-market rate loans to borrowers to upgrade and construct wastewater facilities.

# Appendices

## E. Summary of Draft Best Practice Requirements from Technical Committees

The full draft of best practices can be found at the following URL: [www.cleanenergyresourceteams.org/greensteps](http://www.cleanenergyresourceteams.org/greensteps). It is expected that these best practices will be further refined prior to implementation of the beta phase of the program.

Common to all the categories is passing a city resolution, committing to completing the requirements, and appointing a coordinator (it can be an existing staff member) to lead GreenStep efforts. Below is a brief summary of each of the categories.

### **BUILDING & FACILITIES**

The committee focused on energy- and cost-saving strategies that could be employed by local governments in publicly-owned facilities and infrastructure, and encouraged in the private sector. A city must commit to the evaluation of a majority of its public buildings, facilities, and street lighting to identify energy efficiency opportunities. Energy efficiency improvements will be implemented over the course of five years, with a payback of less than five years. The evaluation must be conducted using an approved process. A community energy plan is also required.

### **LAND USE PLANNING**

Land use planning is a particularly challenging issue area for which to identify simple best practices that apply to all cities. Therefore cities under 5,000 have separate requirements than larger cities. The committee recommends that a comprehensive plan be completed as a prerequisite, and cities can choose from a list of best practices to reduce vehicle miles traveled, promote green infrastructure and carbon sequestration, and promote sustainable construction and waste. Notable examples of best practices include reducing lot sizes to achieve higher density, and extensive urban forestry and woodland preservation ordinances.

### **TRANSPORTATION**

The Transportation Committee developed a list of required best practices that depends on city size, with progressively more actions required for cities with 500, 5,000, and 50,000 residents. Highlights include: city vehicle fleet transformation, working with the road authority to incorporate street improvements that reduce transportation-related greenhouse gas emissions (roundabouts, pedestrian friendly design, improved street connectivity, signage changes), a “no idling” policy, and establishing purchasing guidelines that require future vehicle purchases to meet a specific miles-per-gallon requirement and/or be equipped to utilize alternative fuels.

### **ENVIRONMENTAL MANAGEMENT & ECONOMIC DEVELOPMENT**

Best practices were split into three groups: solid waste, water management and economic/community development. Preliminary draft best practices – some required and some optional – include: adopt a mandatory city environmentally preferable purchasing policy, arrange for a residential and/or business organics collection program, add/enlarge reuse businesses/services, document the use of assistance programs, adopt a stormwater infiltration ordinance standard, adopt a conservation rate structure for water withdrawals, use a feebate system to encourage the purchase of EnergyStar and WaterSense rated appliances, co-generate electricity and heat from wastewater plants, certify lakes (and rivers) as Minnesota Star Lakes, become a Tree City U.S.A., use a sustainable tourism promotion program, plan for greater food security, emphasize green job development, earn the MPCA Green Star environmental compliance award, develop local renewable energy generating capacity, inventory global warming emissions, adopt sustainability indicators, structure the involvement of citizens and businesses.

# Appendices

## F. List of Case Studies of City-Level Sustainability Efforts in Minnesota

Full case studies can be found at the following URL: [www.cleanenergyresourceteams.org/greensteps](http://www.cleanenergyresourceteams.org/greensteps)

CITY	POPULATION	CERT REGION	CATEGORY
Apple Valley	49,856	Metro	Buildings
Barnesville	2,300	Northwest	Environmental Management
Bloomington	81,164	Metro	Transportation
Burnsville	59,118	Metro	Land Use Planning
Edina	45,567	Metro	Transportation
Elk River	22,000	Metro	Buildings
Hutchinson	13,722	West Central	Environmental Management
Mankato	34,976	Southeast	Land Use Planning
Minneapolis	372,811	Metro	Transportation
Mountain Lake	2,000	Southwest	Environmental Management
New Ulm	13,700	Southwest	Buildings
Oakdale	27,389	Metro	Buildings
Prior Lake	21,400	Metro	Transportation
Sartell	13,200	West Central	Environmental Management
St. Louis Park	44,126	Metro	Buildings
St. Paul	275,150	Metro	Land Use Planning

# Minnesota GreenStep Cities

February 2009

