

Environmental Quality Committee Annual Report to the Shoreview City Council



May 2016

Mission Statement

The Environmental Quality Committee (EQC) provides recommendations to the City Council on issues relating to the environment, water quality and solid waste. The EQC's duties include reviewing development proposals for environmental concerns; storm water quality; and forestry, providing input into the local watershed planning process; studying solid waste disposal and recycling; and providing educational programs and information to the public on environmental issues.

Members

- Tim Pratt, Chair
- Paige Alhborg
- Lynne Holt
- John Suzukida
- Lisa Shaffer-Schreiber
- Susan Rengstorf
- Daniel Westerman

Cover photo: Residents won Green Community Awards for solar energy installation and creating a free community vegetable garden

EQC Accomplishments 2015-16

- During a City Council meeting we recognized the 2015 Green Community Award winners- homeowners of three residential properties whose environmental initiatives included installation of solar panels and creative use of gardens.
- Reviewed and revised criteria for the Green Community Award.
- Sponsored the 2016 Environmental Speaker Series topics including:
 - Recycling Myths and Mysteries Solved
 - Rice Creek Commons: Neighborhood of the Future Right Next Door
 - Shoreview's Innovative Response to Infrastructure Challenges
 - Shoreview's State of the Waters
- Provided articles for ShoreViews topics including composting and recycling, water conservation, invasive plants, and protection of clean water with the proper disposal of yard waste among others.
- Met with the City Council in a work session.
- Reviewed applicants for membership to the EQC and made recommendations to the City Council.
- Partnered with Ramsey County Cooperative Weed Management Area to recruit volunteers to monitor Shoreview for invasive plants.
- Environmental review and recommendations to the City Council on development projects such as the multi-use site on Rice Street to replace the strip mall, Southview Senior Communities expansion, Elevage Site, Kowalski Site.
- Provided input on the City's recycling collection contract and supported the expansion of the Home Improvement loan program to include solar installation.
- Met with representative of Ramsey County BizRecycling to discuss possible projects.
- Discussed the Legislative Citizen Committee Minnesota Resources Groundwater Awareness Project and Shoreview Water Conservation Program.

EQC Goals for 2015-2016

Goal Setting		
As ranked by EQC October 2014		
Main Category		Specific Goals
Water	24	Encourage water conservation both residential and commercial
Energy	24	Explore offering PACE financing through St. Paul Port Authority – explore Community Solar
Water	22	Explore incentives and permit requirements for water conservation
Plants/turf/bees/wildlife	22	Become a Bee-Friendly City
Plants/turf/bees/wildlife	18	Promote habitat restoration projects & stormwater improvements for residents and businesses
On-going Activities		
Continue the Green Community Awards program		
Continue Speaker Series		
Continue providing articles and information for ShoreViews		

Emerging Environmental Issues Facing Shoreview

The Environmental Quality Committee (EQC) believes the Shoreview City Council should be aware of three emerging environmental issues facing the city. While the EQC will continue to work on educating ourselves and our fellow residents, there are policy aspects that will need to be addressed by the Council. The EQC will continue to work to identify ways the city can address these issues as well as continue to educate and inform residents and businesses of steps they can take to mitigate these issues.

1. Water Quantity and Quality

The City of Shoreview is fortunate to have an abundance of beautiful, clean lakes which are a critical component to the City's quality of life. Our lakes are important not only for human recreation, but they provide critical wildlife habitat as well. Aquifer depletion is a major concern in the Twin Cities Metro Area, and Shoreview area water consumption from the Jordan Aquifer is unsustainable.

The EQC commends the City for instituting water conservation improvements including odd/even watering days and tiered water rates, greywater reuse at the Public Works garage, and the use of porous concrete and pave drain roadways. Additional changes must be implemented to reduce water consumption to slow depletion and avoid higher costs for residents. The EQC recognizes the need to reduce the use of groundwater and surface water. Efforts must be made to provide Shoreview residents with ways to be more water conscious specifically when it comes to lawn care which is the highest area of water consumption on residential properties.

We recommend the City consider additional methods to encourage water conservation. The EQC respectfully offers the following action items for the City Council to consider:

- Consider time-based restrictions on residential lawn water use for mid-day watering from 10 AM to 4 PM.
- Encourage residents to reduce water consumption by offering incentives or grants for installing low flow shower heads and toilets and for installing moisture sensors on irrigation systems.
- Request that developers use landscaping that requires less irrigation and promote more native plantings on new developments.

2. Energy Consumption

Most residents care about using energy resources in a prudent and conserving manner, but they struggle with finding the time and know-how to change from conventional practices in the midst of busy lives with many topics competing for attention. One way in which the EQC can be of practical help to residents is by exploring options which can make it easier and more accessible, to reduce their carbon footprint.

The EQC will work with local resources such as Conservation Minnesota, other Cities and associated entities who are active in helping implement two areas of high potential to help Shoreview residents participate in energy efficiency alternatives most only read and hear about, but don't know how to pursue. The EQC will explore options and ways forward to bring to the City Council for concurrence and approval if the options are deemed viable.

1. Financing high initial cost energy efficiency projects such as solar energy and ground source heat pumps. A program called PACE (Property Assessed Clean Energy), has been authorized by the State of Minnesota:

Minnesota state law allows local units of government to enter into joint powers agreements to create PACE programs. Under this innovative arrangement, commercial, industrial, nonprofit and multi-housing property owners can take on voluntary special assessments to finance energy efficiency, renewable energy, or electric vehicle infrastructure improvements to their properties. PACE allows companies the opportunity to maintain a positive cash flow while investing in energy upgrades at no cost to taxpayers. PACE financing can also make it easier for building owners to transfer financed improvement repayment to the next owner upon sale, as the repayment resides with the property tax assessment.

Additionally, there are provisions in PACE which allow for individual residences to participate if Shoreview were to become a financing agent and the EQC would like to investigate options for Shoreview to pursue this in order to enable residents to finance solar and/or ground source heat pumps.

2. Enabling broad participation in Community Solar projects allowing residents to buy solar energy.

On Dec 12, 2014, Xcel Energy opened a solar garden program after the Minnesota State Legislature and Public Utilities Commission gave approval for this program. This program uses a third party solar garden developer to build the solar garden, work with Xcel Energy, and offer individual Shoreview resident subscribers to buy solar energy without having to finance and install solar panels on their own homes. We would like to explore community solar garden options in

Shoreview, with guidance from metro-area experts such as the Clean Energy Resource Teams (CERTs). Shoreview has many businesses with large rooftops, which could be good host sites for solar arrays. Following research and guidance, we would like to pursue talking with businesses with large, unused roof areas to determine their interest in hosting the space for community solar gardens and see if we can fit it into these programs. This can be an attractive way for businesses to incorporate their Corporate Social Responsibility initiatives with our desire as a community to have solar gardens and our limitations on not having a lot of large open spaces to use.

3. Protecting Pollinators

Bees and other pollinators are integral to our food production system. Pollination ensures that our trees and gardens will continue to produce fruits, nuts and vegetables. However, native bees and honey bees are threatened due to habitat loss, pesticide use, pathogens and parasites.

Recent research suggests that there is a link between pesticides that contain neonicotinoids and the die-off of plant pollinators, including honey bees, native bees, butterflies, moths and other insects. Neonicotinoids are synthetic chemical insecticides that are similar in structure and action to nicotine, a naturally occurring plant compound.

The Environmental Quality Committee has long recommended the use of native plants to preserve and protect our water system. That recommendation is one of the tenants of the Green Community Awards in which the City of Shoreview recognize homeowners for taking steps to lessen their environmental impact.

At the joint City Council and EQC meeting in 2015 Council Members and City staff noted that the City is already undertaking some pollinator friendly practices such as planting native plants around City Hall and the Community Center. While EQC members noticed the plantings, we knew that members of the public were not aware of the reasons for using native plants.

We feel that Shoreview should call more attention to its beneficial actions. Not only is this a source of civic pride, but it's an opportunity to educate the public. So it is consistent with Shoreview's policies and practices that the City strive to become a Pollinator Friendly City by first adopting a Pollinator-Friendly City resolution (see Appendix B) as have other cities such as Maplewood, St. Paul, Minneapolis, Champlin and Shorewood.

We also recommend Shoreview develop, adopt, encourage and engage in practices that protect pollinators.

Such practices include:

- Not using pesticides that include neonicotinoids
- Planting flowers favorable to bees and other pollinators
- Educating residents on the importance of creating and maintaining a pollinator-friendly habitat

Appendix A

Community Solar Background

What is it?

Centrally located solar PV systems that provide electricity to participating subscribers.

How does it work?

Solar Photo Voltaic (PV) panels are installed in “solar gardens”--sunny locations to produce renewable electricity—on top of commercial or government buildings for example, or in an open field of land.

Individual entities can subscribe to enough solar to cover up to 120% of their annual electricity usage. Each subscriber’s utility bill is credited with the electricity created by their share of the solar garden.

- A. A utility such as Xcel contracts with a developer to set up the solar garden and the utility operates the garden and handles all aspects of relationship with subscribers.
- B. 3rd party operator develops, runs garden and maintains relationship with subscribers for payment. The utility provides subscriber with credit on their bill.

What options are there for financing?

- A. Pay up front/pre-pay model: Subscriber purchases a subscription for a onetime fee that covers the life of the agreement. Could be a 20 year project timeline
- B. Pay as you go model: Subscriber pays in installments over time. Subscriber receives bill credit for their share of output on their energy bill the following month.

How much energy does a typical MN home use?

800 kWh/month or 9,600 kWh/year

4kW of solar panels could provide half the electricity used by the typical home in MN. John Suzukida’s personal experience is that 2.8 kW →3,500 kWh/year so that 4kW→4,965kWh/year which substantiates that number

Where do we stand in MN?

Dec 12, 2014, Xcel opens solar garden program after Legislature and Public Utilities Commission prior approvals. Xcel started accepting applications on Dec 12 and in 12 days, had received 427 proposals for solar gardens.

How could we move forward?

Clean Energy Resource Teams (CERTS) is a resource whose mission is:

Connect individuals and their communities to the resources they need to identify and implement community-based clean energy projects.

What are your goals in becoming a subscriber?**Host Site considerations:**

What are your goals in becoming a subscriber?	Do you have a good site? http://solar.maps.umn.edu/app/
Which model is right for you?	Term of lease – 25 years or longer
How MUCH do you want to subscribe to?	Form of payment - \$ / month? \$ / year? In form of a subscription?
What can your market power get you?	How much do you need to be paid to make it worth it?
What factors are most important to you— Location? Cost? Local jobs?	What costs might you incur for site prep, maintenance or restoration?
Project viability – site control, interconnection, terms and conditions of subscriber agreement	Roof or ground mount?

Appendix B

City of Shoreview - Draft

Resolution No.

A Resolution Endorsing Pollinator Friendly Policies and Procedures

Whereas, bees and other pollinators are integral to a wide diversity of essential foods, including fruits, nuts and vegetables; and

Whereas, native bees and honey bees are threatened due to habitat loss, pesticide use, pathogens and parasites; and

Whereas, recent research suggests that there is a link between pesticides that contain neonicotinoids and the die-off of plant pollinators, including honey bees, native bees, butterflies, moths and other insects, and

Whereas, neonicotinoids are synthetic chemical insecticides that are similar in structure and action to nicotine, a naturally occurring plant compound, and

Whereas, the City Council finds it is in the public interest and consistent with adopted City policy for the City to demonstrate its commitment to a safe and healthy community environment through the implementation of pest management practices in the maintenance of city parks, open space and city property.

Now, Therefore be it Resolved by the City Council of the City of Shoreview:

The City shall undertake steps to become a Pollinator-Friendly City by undertaking best management practices in the use of plantings and pesticides in all City owned or maintained areas

The City shall refrain from using systemic pesticides in areas owned or maintained by the City

The City shall undertake its best efforts to plant flowers favorable to bees and other pollinators in areas owned or maintained by the City

The City shall designate pollinator-friendly areas in which future City plantings are free from systemic pesticides including neonicotinoids

The City shall undertake its best efforts to communicate to Shoreview residents the importance of creating and maintaining a pollinator-friendly habitat

The City shall publish either in print or electronically an annual Pollinator-Friendly City Progress Report