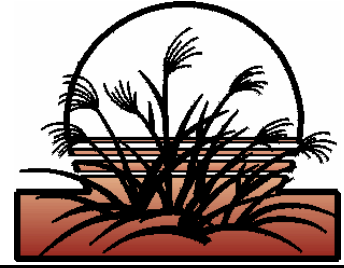




**NEWSLETTER  
TWIN CITIES CHAPTER  
AMERICAN METEOROLOGICAL  
SOCIETY  
March, 2008 Vol. 29 No. 7**



**The meeting of the Twin Cities Chapter of the AMS will be at 7 PM March 18th, 2008 at the Minnehaha Creek Watershed District, 18202 Minnetonka Blvd, Deephaven. Specific directions to the meeting can be found on page 5. AMS chapter members, interested acquaintances and potential members are invited to attend.**



*Featured Speaker: Julie Westerlund*

*Topic: Implications of climate change on stormwater management*

Julie is the Education & Communications Manager of the Minnehaha Creek Watershed District.

***President's Corner: Chris Bovitz***

If you missed the February meeting, you missed a great time. I enjoy these dinner meetings since it allows a lot more (interesting) conversation that we normally don't get at a regular meeting. And, there's good food.

Thanks to everyone who's been a science fair judge this year. A few days ago, Karen Trammell, our science fair, sent out notice of another science fair. Please consider being a judge at one of these events. Help nurture a kid's interest in meteorology.

Remember "many hands make light work." The officers and the half-dozen or so other active people in this chapter of 50+ members can't carry all the load. It's nice to see people at meetings, but I think it'd be even better to see them volunteer at events. And, if you work in the weather industry, or even in an industry which uses weather or meteorology, let us know if you have an idea for a speaker. Let's keep it interesting. Let's make it fun.



<http://www.zdistrict.com/category/shalaih/>

***Movin' On, Movin' Up, Movin' Out***

Anthony Stender will be presenting a poster at the annual meeting of the American Chemical Society in New Orleans this April. The topic of his poster concerns membrane-based chemical separations, so it isn't technically related to meteorology. He is also finishing up his chemistry major at Hamline University this semester, so he is in the process of looking for a new job.

If you have big changes in your personal or professional life or another member you would like to announce to the chapter, please send a summary to [newsletter@twincitiesams.org](mailto:newsletter@twincitiesams.org).



<http://www.newsline.dot.state.mn.us/images/07/avg/22-d6flood400.jpg>

## Member Sign-up and the Member Page

This year, we have a new and improved [member application page](#) to support our new [member page](#) mentioned above. You can fill out the page on-line and send the information to the secretary/treasurer, or you can print it out and send it in, too. Either way, we need your dues, dependent on how you want your newsletter delivered.

As mentioned in the Corner, we're going to have a list on the web of our members. You can see it at <http://twincitiesams.org/members.html>. This will be a list that the public will see, so if there's something you don't want to be seen, denote that when you fill out the membership form. I know that web spiders are out there and can pull e-mail addresses out of web pages. To fix that, I will make e-mail addresses images, making them harder to see by these web-page-searching

programs. And if you don't want any information of yours listed, let us know.



## *Minutes of the February, 2008 Meeting*

The February 2008 meeting of the Twin Cities chapter of the American Meteorological Society was called to order at 7:04 pm on February 12, 2008, by President Chris Bovitz. Vice President Lisa Schmit and Secretary/Treasurer Lori Bovitz were also in attendance along with nearly 15 members and potential members. The meeting was held at Casper's Cherokee Steak Room in Eagan.

Introductions were made and the secretary and treasurer reports were read and approved.

Lisa Schmit reported on the DataStreme activities. The semester is going well with about 5 students participating. Both Schmit and Lori Bovitz are mentors this semester. A description of the program was also presented for those not familiar with DataStreme.

The Minnesota Skywarn Workshop is coming up in April. A request was made for \$100 from the chapter to pay for a sponsorship at the workshop. With the sponsorship, the chapter would also get a booth at the workshop. Chris Bovitz will staff the booth during the workshop. In addition, Chris Bovitz suggested the chapter could put together a "Weather Bingo" game and work with one of the speakers so participants at the workshop could play the bingo game. Anyone with bingo would be put into a drawing for a weather radio provided by the chapter. The chapter approved \$100 for the workshop sponsorship.

Science fairs are coming up quickly. Volunteers were requested for the Twin Cities Regional Science Fair at the University of Minnesota on February 15 and the Southwest/South Central Minnesota Regional Science and Engineering Fair at Minnesota State University on February 16. Weather radios are available to take as awards for the best weather-related projects at each fair.

The next meetings include a presentation in March by Julie Westerlund of the Minnehaha Creek Watershed District; she will discuss the implications of climate change on stormwater runoff. In April, the meeting will be at the meteorology department at St. Cloud State University, where a couple of the seniors there will present the results of their research projects.

The business portion of the meeting was adjourned at 7:15 p.m.

After the meeting and dinner, Dave Christiansen from the St Paul district of the Army Corps of Engineer discussed the support they provided during the I-35W bridge collapse on August 1, 2007.

Christiansen provided a description of what the Army Corps of Engineers does in the area. They are an agency of the Department of Defense with mainly civilian workers.

During the bridge collapse two lockmasters were on site. A barge and crane were fortunately upstream when the bridge collapsed. This barge and crane assisted in the rescue of survivors and recovery of some vehicles in the river. The rescue craft at Lock & Dam #1 was also launched to assist in rescue and recovery operations.

All three lock and dams in Twin Cities area were closed during the rescue and recovery operations. The flow in the river was about 1,200 cfs, low for that time of year. The center span of the collapsed bridge blocked the flow of the water, which forced the river to flow around the debris. This resulted in eddies and currents which caused problems for the divers. The flow was controlled to make the conditions as safe as possible for the divers during the rescue and recovery operations.

A command post was set up at the Corps site. All agencies used this command post for operations during the recovery operations. The Navy was on site for 11 days to assist in recovery operations. MnDOT, Hennepin County Sheriff Department, and the NTSB also worked out of the command post.

The locks were reopened to commercial traffic on September 6<sup>th</sup> and to all traffic on October 6<sup>th</sup>. It had to be determined that there would be no problems with debris in the channel before traffic could be allowed through.

The Corps is involved in the reconstruction of the bridge. Engineers made sure the new bridge will not interfere with river traffic. They will also be involved when the large concrete spans are lifted into place to create the new center span.

Christiansen took a few questions from the attendees about the recovery efforts and the functions of the Corps.

### *Upcoming AMS Chapter Meetings and Other Events*

<b>Date &amp; Time</b>	<b>Event</b>	<b>Location</b>
<b>2007-2008 Chapter Year</b>		
Tuesday, March 18 7:00 p.m.	March meeting Speaker: Julie Westerlund, Education Coordinator, <a href="#">Minnehaha Creek Watershed District</a> Topic: Implications of climate change on stormwater management	<a href="#">Minnehaha Creek Watershed District</a> Deephaven, MN ( <a href="#">map</a> )
Saturday, April 5	Twin Cities Skywarn workshop	<a href="#">St. Thomas University</a> St. Paul, MN
Thursday, April 17 7:00 pm	April meeting Speakers: Seniors at St. Cloud State University Topics: Their senior theses	<a href="#">St. Cloud State University</a> St. Cloud, MN
Saturday, May 3	South Central/Southwest Minnesota Regional Science and Engineering Fair Elementary level	Minnesota State University, Mankato <a href="#">info</a>
Tuesday, May 20 6:00pm	May meeting Picnic, recap of the year, elections, and planning for next year	<a href="#">Twin Cities WFO</a> Chanhassen, MN ( <a href="#">map</a> )



## *A Look at Weather History: The Discovery of Air, Part 2*

Anthony Stender

In the October newsletter, I wrote about Antoine Lavoisier (1743-94) and his contributions to atmospheric science. This month, I have chosen to look at one of Lavoisier's contemporaries.

Joseph Priestley's life (1733-1804) was heavily influenced by the dissenting religious movement of his native country, England. Priestley became a minister who spoke out against Britain's monarchy and voiced his support of the American and French Revolutions. Priestley became interested in science around the age of 30, when he began to teach in order to supplement his income. Soon thereafter, he met Benjamin Franklin, who encouraged him to write a book on the history of electricity.

In 1767, Priestley moved to Leeds, in order to serve as the minister for a congregation there. As it so happened, he also moved in next door to a brewery. Priestley soon became curious about the "fixed air", a.k.a. carbon dioxide, which was given off by the brewer's vats. He began to experiment with this gas and discovered that it could be used to change the flavor of water. Priestley had unwittingly invented the carbonated beverages known as soda pop. He also began to investigate the different gases that were released by other substances available to him.

Priestley moved again in 1773 in order to serve as a secretary to the second Earl of Shelburne. This position provided him with ample time to pursue his scientific interests. During this period of his life, he managed to discover eight different gases, including oxygen. He tested this new gas on mice and noted that mice survived longer in pure oxygen than in normal air. He also made the discovery that plants exhale oxygen. He accomplished this by burning a candle inside of an enclosed container. After the candle went out, he placed a sprig of mint in the container. Ten days later, he was able to light another candle inside of the same container.

Even though Priestley made many important discoveries, he refused to accept the new science known as chemistry, which was already supported by the work of Lavoisier and others. Because of his political and scientific beliefs, Priestley's home, church, and laboratory were destroyed by a mob in 1791. Three years later, he moved his family to a remote settlement in Pennsylvania, where he spent the last ten years of his life.

### References:

"Chemical Achievers: The Human Face of the Chemical Sciences: Joseph Priestley", Chemical Heritage Foundation. On the web at: <http://www.chemheritage.org/classroom/chemach/forerunners/priestley.html>

Williams, K. R. "The Discovery of Oxygen and other Priestley matters." J Chem Ed. (2003) 80:1129-1131.



<http://images.jupiterimages.com/common/detail/50/41/23354150.jpg>

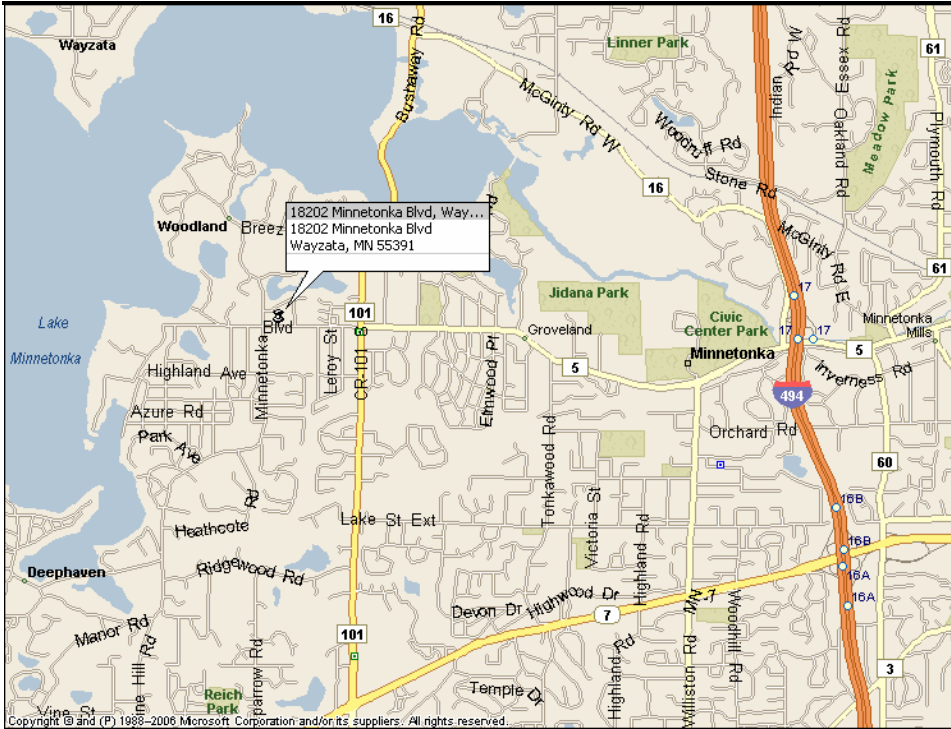
### *Editor's notes - Kurt Scholz*

Be sure to check out the [2008 Skywarn workshop](#) on Saturday, April 5 on the campus of the University of St. Thomas. This all day event, starting at 8:00 am, features many interesting speakers, presentations and exhibits. Our AMS chapter will have a table with various displays - I don't have the particulars at this time. Parking will be tight, although on-campus parking will be free in most lots.

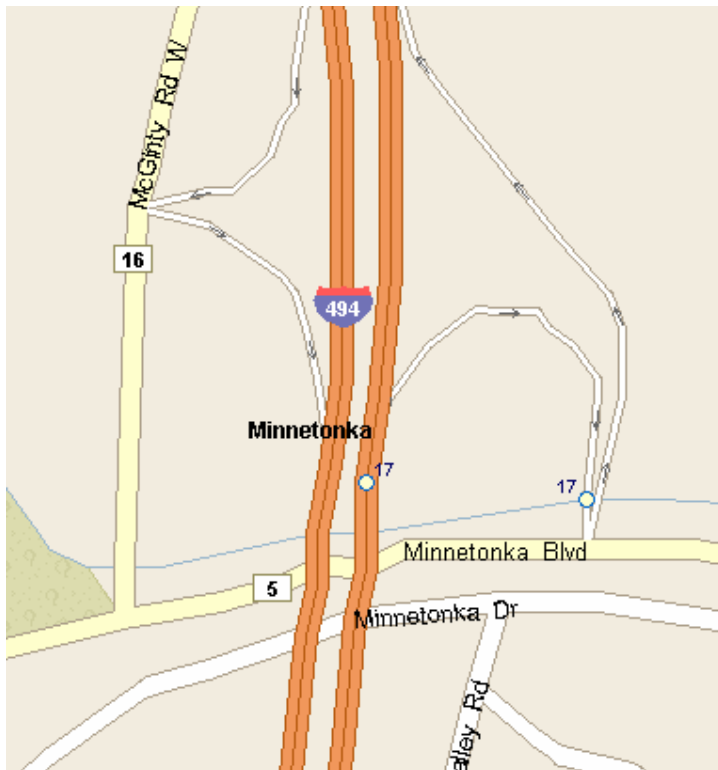
The deadline for the local chapter of the year awards is **1 May 2008**. If you have any information or ideas that you think will help us win an award, please email us: [officers@twincitiesams.org](mailto:officers@twincitiesams.org). Award applications and information may be found on the AMS Web site at <http://www.ametsoc.org/awards/index.html>

*The meeting of the Twin Cities Chapter of the AMS will be at 7 PM, March 18th, 2008 at the Minnehaha Creek Watershed District, 18202 Minnetonka Blvd, Deephaven.*

**Directions:**



Exit from I-494 onto Minnehaha Blvd. Go west about 2.5 miles. Minnehaha Blvd. is north of MN State 7 and south of I-394



## *AMS on the WWW*

Please check <http://www.twincitiesams.org> for lots of interesting information, changes and updates.



<http://www.mplsobserver.com/files/falls-11-26-05.jpg>



<http://www.charliemaguire.com/Minnehaha.jpg>

Twin Cities Chapter AMS  
c/o Kurt Scholz  
3233 Snelling Ave. North  
Arden Hills MN 55112-3644

