

## **Citizen Advisory Committee February 19, 2013 Meeting Notes**



### **Present**

Ozzie Arndt, Mark Bosacker, Pat Duncanson, Carl Guse, Ted Goettl, Mark Krosch, Greg Mikkelson, Kevin Sargent, Eugene Scheffert, Randy Schindle, Leon Schoenrock, Scott Lynch, Brian Loeffler, Brad Loeffler, Paul Davis, Larry Gunderson, Brooke Hacker, Leo Getsfried, Kim Musser, Rick Moore, Patrick Moore

### **Overview**

The Le Sueur River Watershed Network hosted the second meeting of the Citizen Advisory Committee on Tuesday, February 19, 2013 at Pemberton's Main Street Plaza. Twenty-one attended from across the watershed. After introductions, CAC member Leon Schoenrock gave a demonstration of how tile drainage works which was followed by a group discussion. Leo Getsfried MDNR Hydrologist provided additional background on his experience working on hydrologic issues in the watershed.

In order to understand current water policy currently in place in the watershed, a summary of water plan priorities, goals, and objectives for the four main counties in the watershed was passed out. A summary of priorities from SWCDs (NRCS Rapid Assessment) was also passed out as well as the Executive Summary of the 1994 Minnesota River Citizens' Advisory Committee "Working Together: A Plan to Restore the Minnesota River." The meeting concluded with setting up the next meeting: Tuesday, March 19, 2013 from 7-9 PM at Pemberton Main Street Plaza.

### **Agenda**

- 7:00 Introductions
- 7:15 How Tile Drainage Works Demonstration – Leon Schoenrock
- 7:30 Hydrology Questions Discussion – Leo Getsfried,  
Minnesota Department of Natural Resources Hydrologist
- 7:45 Science Briefing Book Follow Up, Suggestions
- 8:00 Break
- 8:10 Investigating Policy – Water Plans & Discussion
- 8:40 Linking to Recommendation Brainstorming
- 8:50 Arranging Next Meeting
- 9:00 Le Sueur Video by Anne Queenan for those who haven't seen it  
(link available online - <http://cardinalisgiganticus.posterous.com/174660740>)

### **TILE DISCUSSION**

#### *Tiling and Changes in Flow*

At the last meeting a question arose: what is the relationship between the water table and tile lines. Does water have to be saturated beneath for tiles to run?

In response, CAC member Leon Schoenrock created a demonstration using buckets and simulated tile line. Initially he poured water through the buckets and water dripped out holes in the bottom of the bucket. After placing a cap on the bottom of the buckets, he saturated the

soils again and water flowed through the tiles. The group had an interesting discussion about the dynamics of tile drainage and role of saturated soils and water tables.

DNR Hydrologist Leo Getsfried commented that what they generally see in the field is during the spring when soils are nearly saturated, additional precipitation gets the tile lines flowing immediately. He noted immediate spikes, where the drain tile function like storm sewers flowing into the area rivers. He stressed that it is difficult to generalize these concepts as timing and field conditions vary. There are two issues at play: groundwater control and soil water level from above (precipitation).

#### *Upstream - Downstream*

Another question arose about the relationship between upland draining and downstream impacts. Numerous members of the group noted that farmers weren't crazy about controlled drainage due to the topography in the Le Sueur River Watershed. It seems like there were few cropping benefits in this setting. The group acknowledged the significant benefits of tiling for landowners, particularly during the critical timing for planting. There is an optimum window for planting and tiling helps farmers plant during that window.

Recent changes that hydrologists have been noting is that there is a huge change during the last decade. People who live downstream see the rivers up and out of their banks much more frequently. Even with small precipitation events during the spring and early summer there is a rapid response. Something that we need to consider with drainage is that one group of landowners are benefitting (upstream) to the detriment of another group (downstream). The CREP program helped a lot of farmers across the Minnesota River Basin by retiring farmland that would no longer be croplable due to increased flooding. We are rapidly moving water from the upper part of the watershed to the lower. The Maple and Cobb Rivers are particularly impacted as dramatic changes in hydrology have resulting in channel scouring, cutting of a larger and deeper r channel, and these rivers are now getting out of their banks with smaller storm events. The timing of the problem is typically in the spring where hydrologists are noting flooding problems (Late April – early June).

#### *Climate and Precipitation*

There is a change in flow. Peak flows are substantially higher. There are more high intensity storms and more variability in precipitation. There is no cushion in the system anymore. There is some debate among researchers about the causes. The research is lagging. Whatever the cause, the likely conclusion is that we need to hold back more water on the land.

CAC members noted more trees in the rivers since the 40s and 50s when more people had pastures in the riparian zones. Hydrologists noted that the trees falling into the channel is a consequence of channel enlargement due to increased flows.

#### *Broader Context*

Patrick noted that he has been talking to upstream-downstream groups about the changes in the Minnesota River. He noted that there is a lot of interest in Lake Pepin and the rapid rate of sedimentation and filling in. Downstream folks are hearing research results that indicate that sedimentation is from stream bank erosion caused by altered hydrology upstream. There are a lot of people with political clout downstream that want a change. One area that downstream folks are looking at is enforcing existing laws, particularly regarding buffer strips. We can provide

them with some ideas of what the CAC would be willing to do to help. Our list of recommendations could be a powerful force for change.

CAC members brainstormed about temporary storage basins – could there be a cultural shift to adopt more (as many noted seeing in Missouri and Iowa)? MDNR staff responded that some water retention is already being done in the watershed. But there are some potential barriers to water storage associated with inland lagoons on lakes (due to problems with extending riparian benefits and rights, rough-fish breeding, objections from other landowners, etc).

#### **SCIENCE BRIEFING BOOKLET FOLLOW UP**

- Could include more data about flow for recreational users (link to USGS hydrographs)
- Summary of practices already on the land (BWSR) What are some typical practices?
- Add more about knickpoints, hydrology
- Paleochannel is really interesting

#### **POLICY**

Next step: Our recommendations will help detail what to do about these changes.

- We need to identify what is already happening and lift it up.
- We can help to drive public policy and spending in the watershed.
- We need to think like a watershed –what synthesis is already occurring?

#### **Handouts**

- County water plans shape the direction of effort. Handout summarized county water plan priority issues, goals and objectives.
- SWCDs are key to implementation efforts. Their priority work areas are also summarized.
- An example of the type of recommendation that we may move forward was also passed out: Executive Summary of the 1994 Minnesota River Citizens' Advisory Committee "Working Together: A Plan to Restore the Minnesota River." In the end, we hope to create a simple list, easy to understand that details our recommendations.

*What is working? What examples can we look to?*

Mark Bosacker noted the dramatic changes that he had seen paddling Hawk and Beaver Creek watersheds. There were significant changes in this watershed. It is held up as a model for water quality improvements across the Minnesota River Basin. Landowners along the floodplain enrolled a lot of floodplain in CREP and buffers.

For more information about Beaver Creek: <http://mrdbc.mnsu.edu/case-studies>

#### **NEXT MEETING**

Tuesday, March 19, 2013, 7-9 pm  
Pemberton Main Street Plaza