

**GROUNDWATER PROTECTION PROGRAM TASK FORCE**  
**McHenry County Administration Building**  
**667 Ware Road**  
**Woodstock IL 60098**  
**TUESDAY, OCTOBER 14, 2008 MEETING NOTES**

CALL TO ORDER AND OPENING REMARKS

The meeting began at 2:00 p.m. Attendees and participants included representatives from municipalities, townships, various organizations/agencies and interested public. Ms. McKinney began the meeting by welcoming participants and thanking them for their continued support. She announced that the final meeting date had been moved to December 9<sup>th</sup> upon the request of the subcommittees and that final reports would be given during that meeting.

*Innovative landscaping approaches that can help sustain the quality and quantity of our water resources in urban areas:*

Ms. McKinney introduced Roger Bannerman, Water Resources Management Specialist of the Wisconsin Department of Natural Resources (WDNR). His job with the DNR is to do the science that supports policy. He stated it is important that all of the States work together to help solve the water problems that all are facing. He noted that a rain garden is a depression designed to trap runoff from rain and snow. This process helps to restore and preserve the natural hydrology of the area. Too much dirty water is running off surfaces and polluting our surface water. He also stated it is more cost effective to plan before a flood with innovative storm water management approaches such as rain gardens, than to wait for a flooding event to happen. With no changes in place there will be increased run off. The impact of urbanization on habitat structure results in stream beds eroding due to flashy conditions, degraded habitats from sedimentation and other pollutants entering streams, wash out of fish eggs, low base flow issues, loss of springs flowing into lakes, increase of conventional and potential toxic pollutants from parking lot run offs. A high quality stream will have 25 species of fish. Urban streams have 0 to 8 species. It is hopeful to identify a process of what is necessary to obtain a balance in order to keep the filth out of the lakes, streams and groundwater. Mr. Bannerman reviewed rain gardens and the results of the installation of the gardens in specific areas. He highlighted that an increase of impervious surfaces from 2%-60% has resulted in a 55% reduction in Groundwater recharge in a recent study. It was noted that rain gardens can reduce storm water runoff and increase groundwater infiltration and recharge. It was noted that these systems cannot control floods, just diminish the results of the flood. Rain gardens can also decrease the flashiness of streams in rain events by slowing water down and keeping it on site, allowing it to more naturally infiltrate and ensure a slower release to streams to maintain base flow. A rain garden provides storage of the water runoff created from buildings, streets, and parking lots. Rain gardens serve as an excellent filtration device, and they include a high removal rate of contaminants. He noted that the Wisconsin technical standards are available on line for those interested. All filtration systems will require maintenance. Road salt is a major issue that will eventually have to be addressed. Committee members thanked Mr. Bannerman for his presentation. The presentation will be available on the web site for those interested.

*Infiltration of Stormwater and the county's Stormwater Management Ordinance:* Mark Phipps, McHenry County Stormwater Engineer joined committee members to review the Stormwater Management regulations as well as the regulations for other Chicago Metro County areas and Wisconsin. Infiltration is allowed, but not a requirement of the ordinance. The Lake and McHenry County ordinance's are similar. Kane County takes their ordinance further by requiring a certain amount of retention volume for developments which are required to construct a detention basin. This retention volume is provided below the detention basin outlet pipe and it promotes infiltration. DuPage County categorizes potential pollutants by importance based on the proposed land use. Best Management Practices, which can be constructed to remove different types of pollutants, are assigned an arbitrary value based on their effectiveness. The applicant is then required to select one or several Best Management Practices to achieve the score required for approval of the proposed development. Infiltration may be part of the solution to McHenry County's projected groundwater shorted with several important considerations for the County related to stormwater infiltration. Some of those considerations are,

1. Most of the stormwater infiltration designs are intended to improve surface water quality and reduce runoff volumes.
2. The runoff from some land uses in the County may not be appropriate for infiltration. And not all soil types in the County will support infiltration.
3. Some of the design approaches for increasing infiltration may conflict with existing development requirements. For example impervious areas can only be minimized to a certain extent. Many municipalities and the County require road connectivity, minimum road widths, and parking lots with a minimum number of spaces. Work will be needed to reduce these conflicts.
4. Designed infiltration facilities will require the input of hydrologists, biologists, and soil scientists.
5. The basis of design for detention facilities may not be appropriate for infiltration facilities so a new design methodology should be considered.
6. Construction of all types of infiltration devices must be carefully planned since the devices are site sensitive and may be destroyed if they are not protected from sedimentation during construction.
7. Contractors must be educated about infiltration since they are not used to seeing plans where stormwater is intentionally collected in areas for infiltration.

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8. Maintenance access will be necessary. If infiltration is provided in small amounts all over a site, a maintenance program should be established and who will retain right to these areas for ownership as well as maintenance will have to be established. It would be possible that there will have to be a lot of easements to provide the necessary access on private property.
9. Stakeholders will have to be educated to make sure that infiltration basins are not destroyed by homeowners who don't understand the purpose of these basins.

He asked:

1. What type of field data should be collected so that we can have confidence that a designed infiltration facility will work properly?
2. Should the County require a performance guarantee to make sure that the infiltration facility works once construction is completed?
3. Who will be responsible for the long-term maintenance of infiltration facilities? If it will be a home owners association, who will make sure that they're doing the necessary maintenance?

*Recharge Areas Final Map Review:* Ms. McKinney noted that the final revisions to the Recharge map are now complete. Everyone is welcome to review the map after today's meeting. This map is recognized as a cutting edge map with neighboring communities asking for information about how to assemble similar maps in their communities/counties.

*Project Updates: 3-D Geological Mapping –* Ms. McKinney reported that a number of the locations have been completed. Each of the completed locations also have observation wells installed that will have quarterly water measurements taken. The remaining sites should be finished within the next few weeks. If anyone is interested in visiting these sites, please contact Cassandra and she can give you dates that they will be drilling and directions to the site. The Illinois State Geological Survey are planning for 6 additional geophysical locations for next year.

*CMAP Update:* The funding was not restored by the State but stakeholders have provided the needed funds for the completion of the project.

*Tammy Valentine-Garza: Intergovernmental Liaison:* Ms. Valentine-Garza provided an update to the observation wells project. She noted that the Illinois State Geological Survey is analyzing the soils from the various drill sites. A drill site has been located in every township, except Burton Township, because of their close proximity to other sites and due to the existence of 3 observation wells already in Burton Township that are being monitored. Ms. Valentine stated that it is exciting to watch the process and the individuals at the site are very informative and they welcome questions for those interested in going out to a drill site.

MISCELLANEOUS ITEMS: None

### NEXT MEETING:

Ms. McKinney noted that some of the sub-committees have requested a one month extension for presentation of their final report. The next meeting has been scheduled for November 18<sup>th</sup> and the last meeting has been scheduled for December 9<sup>th</sup>.

### Upcoming Regional and Statewide Water Events:

- McHenry County Climate Change Forum:
  - Local Solutions to the Climate Crisis
  - McHenry County College Conference Center
  - October 22nd at 7:00 p.m.
- Sustainable Cities Symposium
  - Save the Date for October 24, 2008
  - Lisle, IL

o <http://www.greensolutions.il.gov>

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- CMAP Regional Water Supply Planning Meeting
  - o Sears Tower – CMAP offices
  - o October 28, 2008, 9:30 am
  - o <http://www.cmap.illinois.gov/events.aspx?Event=2080>
  
- Source Water Protection Workshop
  - o Illinois Section American Water Works Association (ISAWWA) and Illinois Environmental Protection Agency (IEPA)
  - o October 29, 2008
  - o 8:30 AM – 3:30 PM
  - o Hickory Grove Conference Center, Rochelle, IL
    - \*\*\*McHenry County is the Keynote Speaker at this event\*\*\*
  
- Beginning Bioneers Symposium
  - o McHenry County College
  - o 9:30 a.m. to 3 p.m.
  - o Saturday, November 8, 2008 <http://www.mcbioneers.com/>

### ADJOURNMENT

The meeting concluded at 3:45 p.m.