



Search:

Pine City, Minnesota

News

Schools

Sports

People

Op

4/6/10



Game sheds light on pollution solutions

By Sara Maki



Players learn how to protect surface water quality using the Watershed Game. Photo by Sara Maki.

The Lake and Stream Monitors Workshop on Monday, March 29 at the Minnco Credit Union community room in Cambridge was the 18th in a series of semi-annual meetings sponsored by the five-county PICKM (Pine, Isanti, Chisago, Kanabec and Mille Lacs) water quality team. These workshops help to educate participants and to address the concerns of individuals and organizations such as lake associations as they relate to surface water quality issues.

A brief slideshow on watersheds and “best management practices” (BMPs) presented by Mike Mueller, Area Hydrologist for the Minnesota Department of Natural Resources, DNR Waters Central Region, was followed by group participation in the Watershed Game.

A watershed is an area of land that drains to a common point such as a lake, stream or river. Water impairment is often the result of uncontrolled runoff which picks up and transports sediment, phosphorous and other pollutants into lakes and streams. “If we can try and deal with water where it hits the ground, we’re much better off,” said Mueller who is one of only 40 people in Minnesota currently trained to run the Watershed Game.

The way to prevent excessive runoff is through best management practices such as the installation of rain gardens, examples of which can be seen in Pine City’s Woodpecker Ridge neighborhood and at the Pine City Elementary School on the west side of the building. Another method is shoreland restoration (also referred to as the “ribbon of life”) consisting of sedges, cattails, trees, etc., both to prevent erosion and to increase filtration of runoff along riverbanks and lakeshores before it flows directly into the common point lake or river. “You treat the storm water where it falls,” said Mueller, thereby minimizing the watershed runoff. These are only two examples of many best management practices options for reducing surface water impairment levels.

The Watershed Game, developed by the Northland NEMO group and driven by the University of Minnesota Extension Office, illustrates various problems leading to surface water impairment and pollution, then offers players different chips with best management practices options (BMPs), and different costs associated with each, and assigns teams to manage a particular land-use area in a watershed such as residential, farmland, large city, etc.

The object of the game is to reduce the TMDL, or “total maximum daily load” of pollutant and sediment carrying runoff into the lake or river. Each team receives a five-miniature-chocolate-bar-budget, the choice to purchase a “Watershed Plan” (an undefined program which costs one chocolate bar and may or may not help avert future unforeseen disaster) from the game facilitator, and instructions to remedy the problems within their assigned region by selecting and applying the BMP chips.



Success is defined by the collective ability of the group to reduce the TMDL to a level pre-assigned by the facilitator. Initially the teams were not allowed to communicate with each other, but coordination of efforts towards the end of the game proved important to achieve the necessary reduction in TMDL. "I don't think we could have done it individually;" said player and Pokegama Lake Association member, Mary Gustafson, "The game showed that everyone in a watershed area needs to work together to actually accomplish anything."

Afterwards, participants were asked for their thoughts regarding the game. Most responses were positive. One former teacher of junior high school aged students expressed his belief that the game would be appropriate and valuable for educating kids as young as 8th grade even though it was primarily developed for adult audiences.

The Watershed Game is available in three different versions; one is a lake model, another is a large river, and the other is a smaller stream model. The game can be borrowed by government, schools, lake associations and other groups interested in learning more about surface water quality management problems and solutions. Contact Mike Mueller at (763) 689-7105 or e-mail, mike.mueller@state.mn.us for more information or to make arrangements to borrow the Watershed Game.

[Post a Comment](#)



[Not registered? Click here](#)

[E-mail this](#)

[Print this](#)

Post a comment

You must be a subscriber to comment on this item.

Already have an account? [click here to log in](#). Otherwise, [click here to purchase a subscription](#).