JCFRWC Journal

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Flint Water Crisis - Pertinence to the Fox River Valley

The Flint Water Crisis is an extremely sad story. After nearly three years since it began, residents are still drinking bottled water. According to CNN.com, the issue stemmed from costcutting measures, which led the community to switch water sources from Lake Huron to the Flint River. The water from the river was 19 times more corrosive compared to the Lake Huron water and not treated properly; thus, leading to the leaching of lead from pipes into the water delivered to homes and businesses. Lead causes severe health effects in pregnant women and children, but can also affect the heart, kidneys and nerves in everyone!



Signs warn against drinking water

The Flint River water was severely degraded during the 1970's due to fecal coliform bacteria, low dissolved oxygen, plant nutrients, oils, and toxic substances. In 2001, to work towards improving the water quality, 134 sites in the Flint River Watershed were ordered by the state of Michigan to be monitored and cleaned up.

Here at home, the Jelkes Creek - Fox River Watershed Coalition, along with sister watershed organizations upstream and downstream from our watershed, is focused on protecting and enhancing water quality within the Fox River Valley. Our water does not magically appear at our faucets, it comes from aquifers, a body of permeable rock that can contain or transmit groundwater, or the Fox River itself. How do we stop a Flint Water Crisis from happening here? Make certain that we protect our water to ensure it is the best quality before any treatment is even done to it.

In addition to the Fox River and Jelke Creek, several smaller tributaries are included in the watershed. Carpenter Creek is a tributary of the Fox River that falls within this watershed on the eastern side of the river and joins the Fox along the southern portion of river segment, designated IL_DT_20. According to the IEPA, this segment and the adjacent downstream segment, IL DT-18, are impaired for the designated uses of aquatic life and fish consumption. Potential causes of these impairments sedimentation/siltation, total suspended solids, alteration in stream-side covers, hexachlorobenzene, other flow regime low dissolved alterations, oxygen, mercury, polychlorinated biphenyls (PCBs). In other words, problems from legacy industrial waste, dams altering flow and dumping down storm drains.

The Coalition has contacted community officials at each of the municipalities in the watershed to introduce and explain the JCFRW Action Plan, and the benefits of working with the Coalition when designing and seeking funding for surface water management projects. The Fox River Ecosystem Partnership, Kane County & McHenry County, along with Carpentersville, Algonquin, Sleepy Hollow and Elgin (tentative) have all endorsed supporting the Action Plan for the watershed. West Dundee, East Dundee, Barrington Hills have not yet adopted the plan. The Coalition will work with local governance to help improve our water supply.

How We Can All Work to Protect Our Watershed

- © Use native plants to landscape. Native plants are deep rooted and, as a result, increase water infiltration, decrease watering requirements and reduce maintenance. The deep roots of native plants also help protect soil from erosion. Use rain gardens and rain barrels to keep storm water from escaping from your property.
- © Minimize use of fertilizers, pesticides and herbicides. Consider the use of natural organic products and controls.
- © Never dispose of oils, fuels or other chemicals into storm drains. Consider the location of storm drains if landscape chemicals (fertilizers, pesticides and herbicides) are in use.
- © Minimize the use of deicing salt.
- © Collect and dispose of pet waste properly.
- © Keep septic systems in proper working condition.

Coalition Helps Carpentersville Improve Clean Water

With the Coalition's support, the Village of Carpentersville received a grant from the IEPA for improvements to Carpentersville Creek. The objective of Carpentersville's project was to improve water quality by minimizing the sediment load into the stream by stabilizing the currently eroding stream bed and banks. The stream bed and channel were stabilized by installing riffles/grade controls, remeandering the channel where possible, and planting native vegetation to repair stream-side cover. To provide more effective storm water infiltration and improve stream base flow, the plan also included retrofitting a nearby dry-bottom detention basin with native vegetation and use of rain gardens in Carpenter Park.



Erosion and sedimentation of Carpenter Creek

Carpentersville engaged the consulting firm of HR Green to prepare the IEPA Section 319 grant application and assist with the project design and implementation. Upon IEPA approval, the Village received a grant in the amount of \$628,215, which was 55% of the estimated design/build cost. The project is now well on its way to completion.

In addition to Carpentersville, the Coalition looks forward to working with watershed municipalities to secure funding for other proposed water quality improvement projects outlined in the Action Plan.

The Watershed in the Winter

Do watersheds hibernate during the winter? No, watersheds keep functioning even when temperatures are below freezing. While most of the precipitation during the winter is snow versus rain, the freeze thaw cycle allows water to become part of the watershed above and below ground.

And, water below the frost line remains liquid and continues on its underground journey. When spring comes, a whole new influx of water from melting snow and spring rains enters the watershed. But, until spring comes, here are some important tips to help protect the watershed in winter.



Sandhill Crane at Kimball Farms wetland

- 1. Shovel, plow and blow snow onto vegetated areas where it can eventually melt and infiltrate the ground; recharging our drinking water supply.
- 2. Apply salt only when and where required. The watershed has many shallow aquifers, which are easily contaminated by salt. Be safe but help keep your groundwater safe likewise.
- 3. Use non-toxic alternatives instead of chemical pesticides. To keep winter wildlife out of your home, use boric acid or bait boxes. This will reduce the likelihood that chemicals get into the water and impair quality.



Think spring