



JCFRWC News

A Jelkes Creek – Fox River Watershed Coalition (JCFRWC) Announcement

www.kanedupageswcd.org/jelkes-creek.htm

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Carpentersville - Home to a Healthy Watershed

During the past couple of years, the Village of Carpentersville has been a stand out example of a municipality investing in a healthy watershed. Water is critical to our daily lives. Keeping a clean and safe supply of water is both the responsibility of municipalities that supply water to residents along with the residents themselves. A watershed represents the region where the water falls and then transfers above or below ground to the lowest point, typically a creek or river. A healthy watershed needs to store a clean supply of water but also needs to mitigate an influx of water from precipitation to minimize flooding and damage to property.

Most of Carpentersville is in the Jelke Creek – Fox River Watershed. The mission of the coalition for our watershed is to improve surface water and groundwater quality through outreach and implementation of best management practices. To reach us, email jcfrwc@gmail.com or visit <http://kanedupageswcd.org/jelkes-creek.htm>.

Carpentersville Receives APWA Award

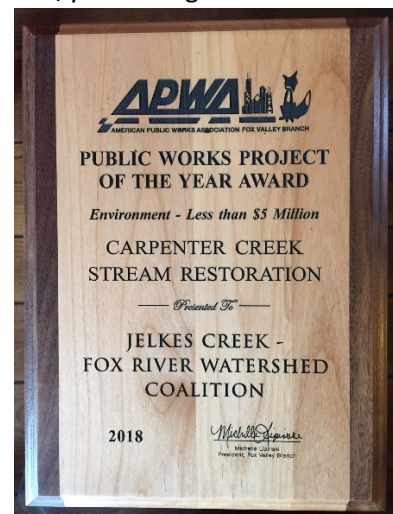
The Village of Carpentersville completed a flood and erosion management project for Carpentersville Creek, a tributary to the Fox River. This \$2.8 million stream restoration project was part of the JCFRWC's, Illinois Environmental Protection Agency approved, action plan. The design was performed by HR Green, while environmental support was provided by Applied Ecological Services. Supplemental project funding in the amount of \$1.14 million (60/40 split) was secured from the IEPA by a Section 319 clean water grant.



Erosion and Sedimentation of Carpenter Creek

The Carpentersville Creek project is notable for removing approximately 40 homes from the floodplain, thereby, negating the need for costly flood insurance for these homeowners. Further, by creating 8 wetland basins (1.4 acres), 8 rain gardens, 8 stream meanders; stabilizing nearly 8,000 feet of stream bank and creating riparian buffer strips, the following reductions in pollutant loading to the Fox River were achieved:

- 499 tons/year sediment
- 96 tons/year suspended solids
- 612 pounds/year phosphorous
- 1,607 pounds/year nitrogen



APWA Award Presented to JCFRWC

On January 9, 2018, this project was awarded Public Works Project of the Year by the American Public Works Association Fox Valley Branch (APWA).

Watershed Boundary Signs in Carpentersville

Carpentersville becomes the first in the greater Chicagoland area to support identification of watershed boundaries with “entering the watershed” signs. The signage helps to increase public awareness of the fact that we all live in a watershed along with the importance of this fact.



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Entering JCFR Watershed Sign

Four signs have been placed in the village along major routes at the boundary of the Jelkes Creek – Fox River Watershed.

- Eastbound Huntley near Randall Road
- Eastbound Binnie near Randall Road
- Westbound Route 68 near Penny Road
- Southbound Route 25 near Boulder Drive

Watershed and Streams Signs in Carpentersville

You may have noticed Kane County Streams signs along major roadways at points of water crossings. The use of these signs originated from a Public Education task for the County's National Pollutant Discharge Elimination System (NPDES) stormwater program. The NPDES permit program was created by the EPA after the Clean Water Act was adopted to manage pollution going into the nation's waterways, and is administered by the IEPA for Illinois communities. The Kane County Streams sign initiative began in November 2003 when the Kane County Department of Environmental Management began making the signs to help identify streams within the County and offered them to municipalities to post. The design for the sign itself started in 2002 with 227 submissions from K-8 schools for the "Rivers Around Us" art contest. Jordan Lee, an 8th grader at Chicago Junior School, was selected as the contest winner.

The signs were initially placed at 42 intersections of county roads and waterways. The county then made 150 signs available to townships and municipalities to place, with four municipalities taking part. During 2015 and 2016, the county

produced another 84 signs, which have been placed in Elgin Township, Plato Township, Batavia, the Virgil Ditch – Union Ditch sub-basin, and Carpentersville. The latter was based on an effort by JCFRWC to increase awareness about the local watershed and the importance of clean water.



Huntley Road Watershed Sign at the Fox River

With the assistance of Carpentersville, 25 signs have been installed with an additional 4 signs to be added at Washington Street and Spring Street once culvert work for Carpenter Creek is completed. In addition to the standard Kane County Streams sign, Carpentersville is adding an informational sign that alerts residents to "Protect Your Water" along with the Fox River Ecosystem Partnership (FREP) website for subwatersheds so that people can find more information on what a watershed is along with more specific details on the Jelke Creek – Fox River watershed (<http://foxriverecosystem.org/subwatersheds.htm>). The informational sign also includes the name of the creek or river at the roadway crossing.



Grandview Road sign at Shaw Creek



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Watershed Receives Second 319 Grant in Carpentersville



Eroded shoreline and nuisance geese that feel safe in turf grass

Work was completed in 2017 on retrofitting a detention basin in Carpentersville's Kimball Farms subdivision, one of the largest residential areas in the village. The project was identified as an opportunity for improvement to Urban Stormwater Infrastructure in the watershed's Action Plan (www.kanedupageswcd.org/Jelkes/Docs/JelkesCreekPlan12-12.pdf).

The subdivision's pond is located south of Grandview Drive and west of Westwood Drive. With the help of Friends of the Fox River, Applied Ecological Services and the Jelkes Creek - Fox River Watershed Coalition, Kimball Farms Master Association successfully acquired an Illinois Environmental Protection Agency grant for \$35,280 through Section 319 of the Clean Water Act. In support of the project were the Fox River Ecosystem Partnership, Kane – DuPage Soil & Water Conservation District, and the Village of Carpentersville. The goal of the project is to reduce nonpoint source pollution to improve water quality and reduce annual pollutant loadings (7 tons of sediment, 7,000 lbs of total suspended sediment, 15 lbs of phosphorus, and 85 lbs of nitrogen).

Traditional turf grass sided ponds are problematic over time. The short roots of turf grass are not well suited to hold the sloped edges. Furthermore, the fluctuation in water levels in a detention pond make it hard for the turf grass slopes to survive along the water's edge where the grass can be inundated at times with water. Once the grass dies, erosion

can then easily take place due to wind fetch working the waves against the bare soil slopes of the shoreline. The eroded shoreline leads to sedimentation. Thus, water quality quickly becomes a downward spiral.



Shoreline stabilized and runoff reduced with native plants

The project utilized Best Management Practices (BMPs) for stabilizing the eroded shoreline and establishing a buffer of native wetland and prairie vegetation around the pond. The eroding shoreline was stabilized through the use of coir logs (biologs) and minor bank re-shaping. Existing turf grass side slopes around the entire detention basin were replanted with wetland and prairie vegetation; an area of approximately two acres. Beyond the simple point that we all need clean water to survive, the project will assist the neighborhood with ensuring the shoreline does not erode to the point of property damage and extremely costly repairs. The native plants will also discourage the use of the pond by Canada Geese and filter runoff, which should reduce phosphorous and in turn algae blooms over time. To ensure that the project is able to accomplish the intended benefit, the homeowners association has committed to a 10 year operation and maintenance plan.