



JCFRWC Journal

The newsletter of the Jelkes Creek – Fox River Watershed Coalition (JCFRWC)
www.kanedupageswcd.org/jelkes-creek.htm 2017 - Volume 2 - Number 4

2017 JCFRWC Members

The Coalition would like to thank the following for their 2017 support: Friends of the Fox River, The Conservation Foundation, Dundee Township, Village of Algonquin, Village of Carpentersville, Kane County and Northern Kane County Wild Ones.

Amazingly Colorful Fish Found In Our Watershed

People will travel long distances and pay a lot of money to scuba dive and see beautiful fish. Would you need to travel to the tropics or around the world to see this orange and blue (Fighting Illini colored) fish? No.

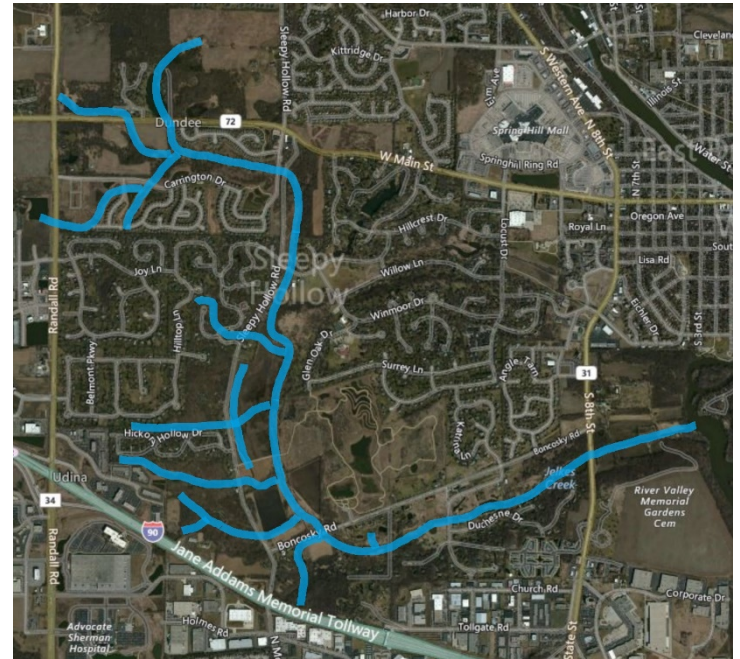


Orangethroat Darter

This is the orangethroat darter, which is found in freshwater streams that have a sand and gravel bottom with no silt. Due to the loss of the swim or gas bladder, darters dart about the stream bottom; hence, their name.

Jelke Creek, the namesake stream within our watershed, is fed by springs and surface water runoff from within the basin. In 2002, the US Army Corps of Engineers had described it as a “nearly pristine headwater stream”, with a population of 13 fish species. In his book, “The Natural History of the Chicago Region,” (University of Chicago Press, 2002), Joel Greenberg relates that the brassy minnow is an indicator of high quality habitat and it has been collected in Jelke Creek, one of about only 20 sites in Illinois where it has been found. Among those species found by the Corps during a fish survey, were 3 species of darters including the orangethroat, a tiny member of the perch family that is 2 or 3 inches in length. It is one of the most beautiful of the

temperate-water fishes. For additional information on this species of fish in Illinois, check out www.dnr.illinois.gov/OI/Documents/May05FishofaDifferentColor.pdf



Aerial view of Jelke Creek and its tributaries (bing.com)

As seen on the aerial map, highlighted in blue, Jelke Creek and its tributaries form an extensive network of streams throughout Sleepy Hollow, West Dundee, unincorporated Dundee Township and even a little bit of Elgin. Over a good portion, the creek has its natural meandering form, which allows the water to dissipate energy and creates habitat for wildlife. There are also some reasonable floodplain areas, which are critical to managing flow during high water to prevent damage to adjacent properties. Areas where the creek has been channelized demonstrate why this strategy is not successful over time as Mother Nature eventually has her way. Removal of dams helps to eliminate stream siltation and thereby improve habitat for darters and similar species as well as enabling them to move around to both establish additional populations and allow for breeding with otherwise isolated populations. Animals like this are one of the treasures of our community’s watershed, and a reason beyond our own sometimes narrow interest to keep our water clean.

Watershed Receives Second 319 Grant



Eroded shoreline and nuisance geese that feel safe in turf grass

Work began this spring 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 plan was developed over 2-1/2 years by local stakeholders including residents and government officials along with industry experts.

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 goal will be accomplished through 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 will be stabilized through the use of coir logs (biologs) and minor bank re-shaping. Existing turf grass side slopes around the entire detention basin will be replanted with wetland and prairie vegetation, an area of approximately two acres. Work concluded by fall of this year. 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.

KIMBALL FARMS NATURALIZED DETENTION BASIN PROJECT

Ecological Restoration with Native Plants

Native plants provide a variety of beneficial functions, one of the most important is improving water quality and reducing Nonpoint Source (NPS) pollution. Deep-rooted native plants (bottom, left) reduce soil erosion, help infiltrate stormwater runoff, and absorb some forms of pollution before they can enter a waterbody. Native plants also provide excellent wildlife habitat, require minimal maintenance, and do not require fertilizers.

In contrast, shallow-rooted lawn grass (bottom, left) offers very little erosion control, water infiltration, pollution removal, or wildlife habitat. Lawn grass allows for easy access to waterbodies by geese, a major contributor to water pollution. In addition, much of the fertilizer applied to lawn grass can run off into nearby waterbodies causing algae problems.

Coir logs (biologs) (bottom, right) provide erosion control along the shoreline by reducing wave action. Over time, native plant roots grow into the coir logs accomplishing long term stabilization.

Look for these native plants in the restoration project

Native Plants
Coir Logs (Biologs)
Oak Stakes

Funded, in part, under Section 319 of the Federal Clean Water Act, Grant No.: C99520016
For more information, contact Illinois EPA at (217)782-3362, FAX Number: 3191616

LEFT: ROOT SYSTEMS OF LAWN GRASS VERSUS NATIVE SPECIES. RIGHT: COIR LOG BIOLOGY PROJECT. COURTESY: FRIENDS OF THE FOX RIVER, 2014-2015 RESTORATION PLAN.

Our Mission: Improve surface water and groundwater quality through outreach and implementation of best management practices

Meetings: Schweitzer Environmental Center (SEC)
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Email us to be added to mail list for meetings and other news

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