**JELKE CREEK RESTORATION PROJECT**

**April 12, 2010**

The Jelke Creek Restoration Project (Project) lies within a 239-acre site owned and managed by Dundee Township and located northwest of the I-90/Rt. 31 interchange in northern Kane County, Illinois. The Project presented a unique opportunity to reclaim and restore a degraded 239-acre area in public ownership, create a high quality wildlife/recreational area and to introduce significant storm water infiltration capacity in an area of Kane County that is projected to have water shortages within the next decade. The Project incorporated Dundee Township's Open Space goals to enhance the community, improve the wellbeing of residents and restore valuable environmental functions for the benefit of current residents and future generations.

The site was preserved from development with funds from a voter approved Open Space tax referendum in 1998, a land donation from the previous owner, Chicago Elmhurst Stone and the Illinois Department Natural Resources Open Lands Trust Grant Program. The subsequent $2.2M restoration project was funded by Dundee Township residents, The US Environmental Protection Agency Program 319 Water Quality Grant Program and The Illinois Department of Natural Resources OSLAD grant program. Dundee Township Supervisor, Sue Harney, worked with local environmental agencies and groups to create and fund a workable restoration plan that aligned with the Township's goals for Open Space over a six year period.

Approximately 160 acres of the site was severely disturbed and degraded due to historic gravel quarry operations. The mining activities created topsoil stockpile berms, spoil piles, mine tailings, and extensive moderately to steeply sloped areas that were poorly vegetated and exhibiting gully, sheet and rill erosion. Water quality impacts on Jelke Creek included siltation/sedimentation, nutrient enrichment, and habitat degradation. BMPs include: Native vegetation re-established throughout the disturbed 192-acre project area; vegetated bio-swales, filter strips, wetland filtration basins, infiltration / groundwater recharge basins, and naturalized detention basins.

A primary objective of the Jelke Creek Reclamation Project was to improve water quality by retaining as much rainwater on-site as practicable through infiltration, and retention. It was our goal that zero discharge might occur during major rain events on this property. Approximately 2,000 feet of Jelke Creek runs through the west end of the site. Although the Creek was not directly impacted by the restoration, we hope to see improved ground water flow into the creek from the project. Expected project results included substantial on-site rainwater infiltration, re-establishment of native vegetation for pollutant filtration, increased groundwater recharge, as well as restored and naturalized wetlands and water quality basins. The hydrologic benefits will reduce pollutant discharge, improve water quality, and enhance wetlands. Expected pollutant reduction benefits to Jelke Creek, an Illinois EPA "Measure W" watershed, and the downstream 303(d) listed Fox River include reduced impacts of pollutants contributing to low dissolved oxygen through reduced discharge of suspended solids, as well as reduced discharge of total nitrogen, and sedimentation / siltation into downstream listed waters.

The Project was substantially constructed in the summer of 2009 and is projected to be finalized by 2010. Restoration included re-grading slopes, re-spreading the topsoil stockpiles, installing native plant materials in the re-spread topsoil zones, and construction of the following Best Management Practices:

- Bio-filtration swales totaling 3,250 linear feet to treat and infiltrate runoff from the site;
- Conversion of three (3) existing mining ponds into seasonal wetlands to improve pollutant removal before discharging rain water; and
- Construction of six (6) rain water detention basins to improve water quality, remove suspended and soluble nonpoint source pollutants, enhance habitat and aesthetics, and improve water retention and other beneficial hydrologic functions.

The project included substantial recreational and habitat improvements. Approximately 3.6 miles of multiuse, gravel trails and mowed trails were included in the project. A pavilion, furnishings and educational signage are scheduled for installation during the summer of 2010. Access to three existing ponds has been expanded. Stone overlooks and fishing piers are located throughout the property. A thirty space parking lot is located on Boncosky Rd and local residents can access the property off of Sleepy Hollow Rd. and from residential streets in the Village of Sleepy Hollow.

Native vegetation for grassland and wetland birds will improve habitat on a site already known for its abundant bird and wildlife populations. In addition to seeding all of the newly graded areas with short grass prairie, the contractor will plant over 54,000 wetland, emergent and prairie plugs in the spring of 2010. The deep root systems of these plants will substantially increase rain water infiltration during and after rain events.

The project has been well received by residents in the community. Mrs. Harney held over 25 meetings with residents, local governments and community groups before and during construction. Volunteer bird watchers entered baseline bird counts before the onset of construction in June 2009. They will continue to monitor for birds and post results on Audubon's E-Bird web site. Students from Dundee Crown High School under the direction of Science teacher Gary Swick, are collecting monitoring data from Jelke Creek. The Township hopes to expand classroom opportunities for local schools and to recruit monitors for other species in the future. The Dundee Township Rotary Club plans to help with the construction of the pavilion. An active volunteer group has begun planning for the July 16 – 18 Grand Opening celebration. The Township Supervisor and Board are proud of the project and of the partnerships we have developed during its execution. We believe that both will be an enormous asset to Township residents now and in the future.