ITC Holdings and Stony Creek Metropark
Shelby Township, Michigan

On August 14, 2003, high voltage electric transmission lines in Ohio sagged, as the aluminum conductors stretched in hot weather with increased electricity use due to air conditioners, and made contact with trees growing underneath. This started a cascade of events that culminated in an electrical blackout of 50 million people in northeast United States and Canada, costing an estimated $8 billion to the economy.

A United States - Canadian Blackout Report identified a problem of utilities routinely pruning trees growing within high voltage transmission rights-of-way (ROW), especially within parks, forests and communities where residents desired tree cover. ITC Holdings became a corporation that same year and took ownership of transmission lines with similar hazardous tree conditions in several parks owned by the Huron-Clinton Metropolitan Authority. Rick Johnstone, Principal of VMES, LLC consulting, was hired to develop a vegetation management program for ITC that would be considered as best-in-class. Johnstone, along with an ITC representative, met with Metropark natural resource staff to explain the IVM concept and discuss management methods that could develop a vegetation management plan that was mutually beneficial to both the electric utility and the Metropark system.

Metropark natural resource staff agreed to a two-phased plan beginning in spring 2006; the first phase involved the selective removal and herbicide treatment of trees in the sag zones of the transmission lines where contact is most dangerous, while trees and brush would be left at tower sites to provide aesthetic screens for public hikers using the park's nature trails. The second phase involved the removal of the screen trees once subsequent IVM techniques developed desirable plant communities in the sag zone removal areas. The tree screen at the beginning of the hiking trail near the park nature center was augmented with landscaping to show the public "right tree – right place" guidance for planting appropriate low growing shrubs near electric lines.

Metropark natural resource managers recognized the benefit of removing numerous trees and brush that encroached into the ROW and blocked sunlight from the adjoining forest, which inhibited germination of oak saplings on the forest floor. They also welcomed the assisted removal of the non-native invasive Norway maples that dominated the floodplain of Stony Creek and inhibit growth of native Sugar maple.

ITC went a step further in its agreement with the Metroparks by also targeting for removal and treatment non-native invasive shrubs that grew on and adjacent to the transmission rights-of-way, and set-up a best practice demonstration for controlling invasive phragmites to restore

native wetland plants at a nearby mitigation pond. White pine logs derived from removals were also transported to the nature center for use in educating school children about the historical significance of the pine to the Great Lakes regional economy.

Several trees removed from the centerline sag area of the transmission ROW were de-limbed and the whole logs left lying on the floor to provide habitat for amphibians, snakes, salamanders, and native bees, while dead snag trees were left standing to provide den habitat for bats, ducks and mammals. An oak savanna prairie was enhanced by removing trees and invasive autumn olive shrubs, while allowing 3 oaks and a cedar tree to remain adjacent to the ROW. Assistance was also offered by treating the prairie area with herbicides that select for removal the invasive Canadian thistle and Spotted knapweed. The park provided public relations assistance by erecting a sign at the beginning of the nature trail clearing area to explain the work in progress to the visiting public.

On the far western end of the park a small stand of native prairie grass was found growing near the ROW. Hazardous poplar trees were removed adjacent to this area to allow the grasses to reach the open sunlit ROW. A broadcast herbicide treatment was performed under the wire zone to remove trees and invasive plants and allow the growth of prairie grass. The border zone, area between the wire zone and the ROW edge, was selectively treated to encourage a diverse habitat of herbs, forbs and shrubs. This demonstrates that a linear ROW can be used as a critical link to connect similar but separated habitats.

The consultant is also President of the non-profit corporation, IVM Partners, Inc., dedicated to development and education of IVM best practices, who recognized the educational opportunity of documenting plant community changes on ROW within the park. A professional botanist was hired to document the plant community beginning in 2006 following the cutting and resprouting of plants. Permanent transects were established running 100 meters each, both within the center wire zone and along the border zone of the ROW.

The botanical studies showed that two years after the IVM program was started, control of trees and invasive plants, such as autumn olive, multi-flora rose, Canadian thistle and spotted knapweed, allowed the restoration of over 40 different species of prairie and meadow plants native to Michigan. A rare turtle was found using the meadow area and Bobwhite quail, which had not been seen in years, returned to the restored prairie savanna. Wild bees, birds and butterflies that are important pollinators of plants and crops are busy visiting the many re-established wildflowers and shrubs.

With desirable vegetation restored, the consultant and an ITC Regional Forester visited Metropark personnel in the spring of 2008 to review the habitat improvements. They found that the vegetation communities had been restored as proposed in the plan written in 2006, so the park natural resource managers agreed to the removal of all remaining tree buffers. Metropark

personnel offered to construct nature trail signs to explain for the public the ecosystem restoration and its many benefits to the park and utility, depicting both Metropark and ITC Holdings logos. This would provide both with continual public education opportunities to the thousands of residents that annually visit the park, especially for the many school children field trips.

The ecosystem management improvements were also showed to a Wildlife Habitat Council biologist in the fall of 2008, who agreed that the documented improvements qualified for their organization's wildlife habitat designation. Although not part of the botanical studies, similar work was conducted at Wolcott Mill Metropark and this ROW also qualified for certification by the Wildlife Habitat Council and could receive similar public educational signage by the park.

The park managers are also receptive to using Stony Creek Metropark as a site for hosting vegetation management workshops to educate natural resource managers of the Great Lakes Region. ITC is encouraged to take advantage of this public educational opportunity in a partnership with the Metroparks, but they are cautioned that to truly be effective they should be consistent in management methods. Five miles east of Stony Creek Metropark, ITC transmission corridors are being regularly mowed every month to meet noxious weed ordinances of the townships. Since the noxious (invasive) weeds can easily be removed with one herbicide treatment, it strains credibility to publicize IVM best practice management in one area while continuing regular mowing of potential wildlife habitat acreage in another area.

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