

The Lost Kame is no longer lost!

Glacial Park Wetland Restoration Project—August 2011

By Ed Collins, Natural Resource Manager

History of the Land—

The glacial melt that followed the retreat of the Wisconsin Ice Sheet 18,000 years ago left a landscape rich in landforms. Eskers, delta kames, kettle holes and glacial lakes dominated the landscape of what is now Glacial Park as the glacier receded north. Much of the till material left by the melting ice consisted of limestone cobble, ground up from ancient reefs as the glacier moved south. As vegetation colonized the newly exposed landscape, soil hydrology was established and the familiar terrain of Glacial Park began to take shape. On the west facing slopes of the delta kames, precipitation passing through the limestone rich soil picked up alkalinity on its downward journey. Intercepted by an impermeable layer of tight clay, this water began to slip sideways, exiting the ground as a series of seeps and springs at the base of the hills.

These alkaline rich groundwater discharge areas or “fens” supported a rich flora of very specialized wetland plants. For thousands of years these plant communities persisted undisturbed, until the tide of settlement reached Northeastern Illinois in the mid nineteenth century. By 1940, new drainage technologies made removal of ground water possible by the use of subsurface drainage tiles.

During this period drainage tiles and ditches were installed across much of what is now Glacial Park. One of those drainage improvements involved digging a large artificial pond at the base of the kames destroying the fen communities and leveling a small Kame covered in oak trees.

This past August the District’s Natural Resource Management Department conducted a long anticipated wetland restoration project at the man-made pond visible from the Lost Valley Visitor Center at Glacial Park. In the planning stages since 2008, the project would reconstruct a small Kame, which once occupied 55% of the existing pond's footprint. The original kame was mined down in the 1950's and used to fill the wetlands surrounding the pond. Over the course of three weeks, crews worked to remove tiles, relocate former wetland soils, and recreate former wetland basins. Throughout the process, Natural Resource Manager Ed Collins documented his thoughts. The following is an abridged telling of his accounts.

The Lost Kame Project Begins

- Work began with usual complications. The driest July on record with perfect working conditions changed into the wettest July on record within 48 hours. Nonetheless, work moved forward. Subsurface tile fields that drained the western portion of the site were disabled, including a one foot in diameter central main, two 6" lateral tiles, and another 2' tile that served to keep the site's original headwater stream underground. (The last 100 yards near Valley Road was left intact to make sure Valley Road stays dry.)
- One of the difficulties was trying to sort different types of soils so they can be returned to their original excavation area. After the original kame was mined it was “capped” with dredged wetland soils that were excavated to make the pond deeper. As machinery scraped away the layers, old wetland soils, dark in color were stockpiled to await their return back to the fen they were once part of. The first surprise of the week occurred when an area that contained kame material did not have the depth expected and was therefore unusable as a source of material. That left us scratching our heads on how exactly to find the material needed to rebuild the kame. Enter the second big surprise of the week;

Before



During



After



Facing north, new kame in the foreground, existing kame in background.



the depth of kame fill around the pond was much deeper than anticipated. It would seem that most of the kame did not journey very far. The Lost Kame grew by the hour and was considerably less lost on Monday as it was on Friday.

- ▲ The old blacktop road bed on the west side of the pond that ran between the Wiedrich Farm and the Lodge property was also removed. The roadway acted as a dam preventing surface water from the wetlands on the south from flowing as they traditionally did northward into what was once a single wetland complex. The water from the undisturbed fen on the Wiedrich took about a half hour to gather itself up and flowed over the former roadway for the first time in 70 years.

The kame material was moved back to where it was removed from five decades ago. The kame was then pushed completely across the former pond re-creating the two sub watersheds that once existed prior to the 1950's.

- ▲ Poised 12' high, a bit smaller than the original, the Lost Kame is no longer lost! The dark black organic soils are clearly visible from the deck of the visitor center and it is hard to believe they were once buried under nearly three feet of fill material.
- ▲ The south end of the "pond" has been rough graded so the slopes are much gentler and flow into the water gracefully rather than dropping abruptly from eight feet above. Two things find these slopes within hours of their creation. The first is ground water, which moves molecule by molecule through

the soil from below, rehydrating the earth with life-giving moisture. The already black peat becomes even darker as it takes in ground water. The second thing that finds the slopes almost immediately is wildlife.

- ▲ Some creatures are obvious picks such as leopard frogs and dragonflies. But already cranes, geese and shorebirds are crowding these areas and the interspersed vegetation and water that will occur next spring (called a hemi-marsh) will provide excellent breeding habitat for many species. Invertebrates driven upward by rehydrating soil become plentiful prey. Killdeer, solitary sandpipers and yellowlegs run up and down the newly graded slopes as if greeting a long lost friend.



Greater and lesser yellowlegs discover the newly created wetland.