

# From the community: Forest Preserve District of DuPage County Plants Trees to Absorb Landfill Leachate at Mallard Lake



Crews plant hybrid poplars trees atop the north landfill at the Forest Preserve District of DuPage County's Mallard Lake Forest Preserve in Hanover Park. (Posted by Deb Snow Humiston, Community Contributor)

By **Community Contributor Deb Snow Humiston**

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**T**he Forest Preserve District of DuPage County is planting more than 7,500 poplar trees on 14.7 acres of the north landfill at Mallard Lake Forest Preserve in Hanover Park to help extract and evaporate landfill leachate on-site.

In a process called phyto-utilization, an automated irrigation control system will distribute leachate to the poplar trees, which will then consume the moisture in the leachate. The compounds in the leachate act as nutrients to fuel plant growth during the evapotranspiration process.

The new leachate management technology leverages the natural high transpiration capacity of plants such as hybrid poplar trees to evaporate millions of gallons of leachate per year. Leachate is used as a resource in the

plant-based system by providing needed moisture and nutrients for the plants, fueling fast growth. Leachate is kept on-site, cutting costs by 25 - 50 percent or more and reducing the facility's carbon footprint.

The total cost to install the system and trees is \$919,100. The District expects to save \$192,000 per year in disposal costs for every 5.5 million gallons of leachate handled by the system, according to District Resource Management and Development director Dan Zinnen.

Over five years the District hopes to reduce the volume of leachate in the landfill by 60 million gallons using phyto-utilization and an off-site wastewater treatment plant in Hanover Park, Zinnen said.

There are currently only two other phyto-utilization systems operating in Illinois - one in South Barrington and another in Milan, Ill., near the Quad Cities.

The District is planting poplar trees in two sections of the landfill: 7.9 acres at the top of the landfill, and 6.8 acres along the lower northern and flat eastern areas of the landfill. An automated pretreatment and distribution system will be installed in the landfill in early 2018 and leachate distribution should begin sometime in spring or summer 2018.

The trees will also enhance wildlife habitat and improve aesthetics for neighbors of Mallard Lake and visitors using the new section of the North Central DuPage Regional Trail that runs through the preserve, he said.

"We're excited to bring this new technology to our preserves to handle landfill leachate in an environmentally friendly way," said Forest Preserve District Commissioner Al Murphy, District 6.

"This is a win-win situation for the District and for wildlife and residents," said Forest Preserve District of DuPage County President Joe Cantore. "The District handles landfill leachate in a cost-effective and environmentally friendly manner, and wildlife and visitors have more habitat and beautiful views."

The Forest Preserve District of DuPage County has been connecting people to nature for more than 100 years. More than 4 million people visit its 62 forest preserves, 145 miles of trails, five education centers and scores of programs each year. For information, call 630-933-7200 or visit [dupageforest.org](http://dupageforest.org), where you can also link to the District's e-newsletter, Facebook, Twitter and Instagram pages.

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