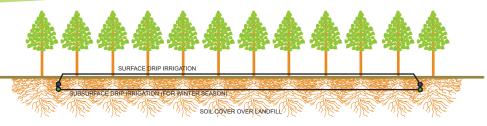
## Phyto-Utilization™ Systems with an ETCap®



ETCap® is a proprietary system offered by Ecolotree as a poplar/willow tree landfill cover irrigated with either on-site leachate or external water such as stormwater or municipal treated water.

Visit www.ecolotree.com.



A Phyto-Utilization™ System with an ETCap® irrigates trees with leachate throughout the year.

The liquid component is utilized as moisture and the contaminants act as micro and macro nutrients for the trees, fueling fast growth. Thus, the leachate is used as a RESOURCE, creating a natural solution to a practical problem.



Phyto-Utilization™ is a pretreatment and disposal system
by Leachate Management Specialists using specialized plants
or trees to consume liquid waste to greatly reduce or eliminate the need for

other disposal methods in a GREEN and sustainable way.

To learn more, visit www.leachate.us, follow us on social media, and call us at 720-556-4801 to discuss how a natural system could benefit your facility's leachate needs.

### Benefits of Natural Systems

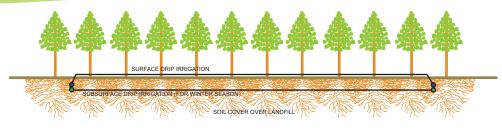
- \* Easy to maintain
- \* Less energy and fuel needed
- \* Cost savings from lower O&M
- \* Not dependent on tanker trucks or WWTPs (i.e. changing discharge limits, price increases, and possibility of getting cut off)
- \* Reduced carbon footprint
- \* Creates habitat for wildlife
- \* Improves aesthetics of your facility
- \* Excellent public relations opportunities
- \* Reduces truck traffic in your community

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MANAGEMENT
SPECIALISTS
Finding a Better way\*
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MANAGEMENT

SPECIALISTS

### Phyto-Utilization™ System with ETCap® Mallard North Landfill, Forest Preserve District of DuPage County, Hanover Park, Illinois

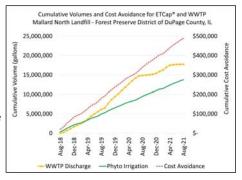
In 2016, the Forest Preserve took the initiative to complete a thorough assessment of the landfill and ways to improve that fit their mission of environmental stewardship. Their comprehensive strategy allowed for a holistic approach and provided incentive for integrated, sustainable solutions.

Despite being closed for decades, the landfill generated a significant volume of leachate and had a substantial volume

of pooled liquid within the waste. Upon completion of a detailed feasibility study, they decided on a combination of continued direct discharge and a Phyto-Utilization™ System with an ETCap®.







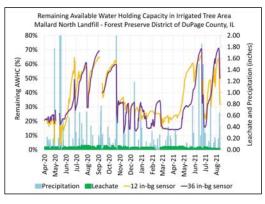
Soil moisture sensors installed in and outside of the irrigated area have provided valuable data to prove that high-transpiration trees can capture and dispose of significant volumes of leachate.

#### Results are showing...

- \* The volume of leachate applied to the field is minimal compared to typical rainfall.
- \* The remaining available water holding capacity of the soil is not exceeded, indicating that leachate is not infiltrating past the root zone and additional liquid can be applied if desired.
- \* As the trees mature, more leachate can be irrigated, further relieving the need for extra discharge to the WWTP.

In the first three years of operation, the system has CONSUMED more than 14 MILLION gallons of leachate, with daily flow as high as 30,000 gallons, and has helped the facility avoid \$500,000 in WWTP discharge costs.





### Phyto-Utilization™ System with ETCap® Mallard North Landfill, Forest Preserve District of DuPage County, Hanover Park, Illinois

25,000,000

15.000.000

10,000,000

Cumulative Volumes and Cost Avoidance for ETCap® and WWTP

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\$500,000

\$300,000

\$200,000

\$100,000

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