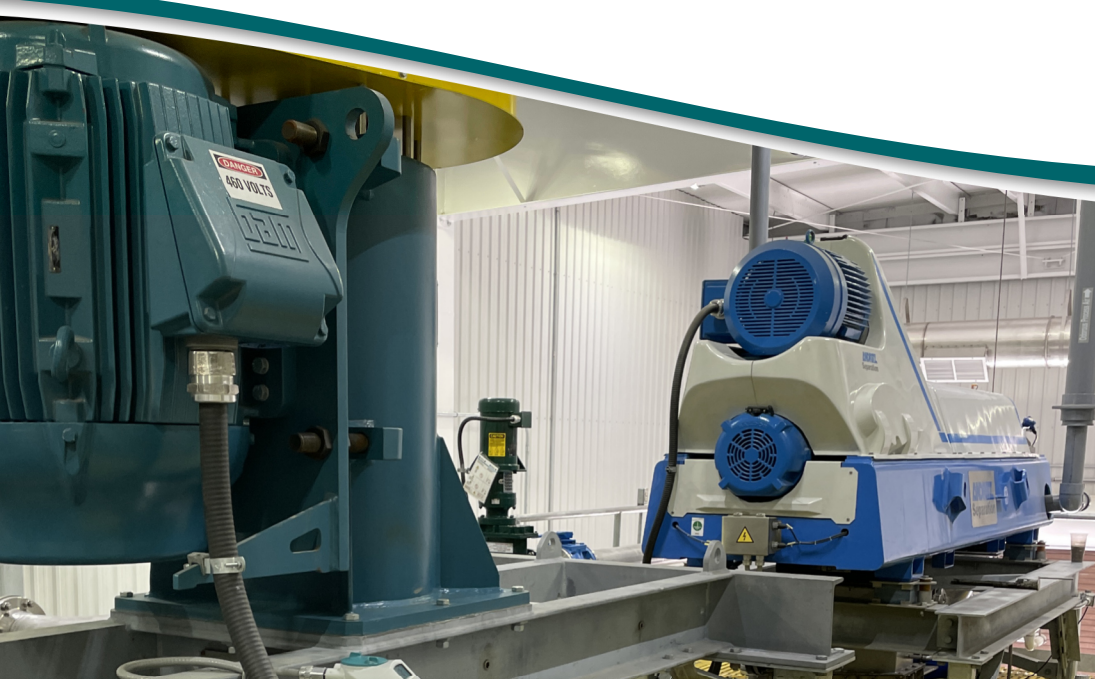


Sustainable Solutions for Unsustainable Storage Challenges

South Huron Valley Utility Authority Michigan, US

Lystek
Nothing wasted.
Everything to gain.



The South Huron Valley Utility Authority has implemented Lystek THP, to enhance their biosolids management program at their WWTP located in Brownstown Township, Michigan.

ABOUT

The South Huron Valley Utility Authority (SHVUA) services Over 90,000 people across seven communities.

www.shvua.org

CHALLENGES

- Insufficient storage capacity
- Unsustainable reliance on contingency landfill disposal

SOLUTION

SHVUA selected Lystek THP as an advanced treatment technology providing these benefits:

- Over 3x biosolids volume reduction and extension of onsite storage capacity
- Production of Class A biosolids
- Elimination of alkali stabilization, expensive storage clean out, and contingency dewatering activities
- Optimized use of existing site infrastructure with installation in existing building and continued use of the 4 MG biosolids storage tanks

PROJECT UPDATE

- Fall 2020: Project design begins
- Winter 2022: System is being commissioned
- Spring 2022: Substantial completion
- Fall 2022: First LysteGro application season



KEY METRICS

Population Served: 90,000

WWTP Rating: 24 MGD (design), ADF of 10 MGD

Lystek THP Processing Footprint: 2,500 ft²

Lystek THP Module Size: 1 x LY10 (1.0 dry tons / hr)

Feedstock: Undigested Municipal Biosolids

Lystek THP will substantially reduce the facility's residual biosolids volumes with the production of Class A LysteGro, presenting cost-savings, operational relief, and a secure and sustainable biosolids management solution. The Authority services over 90,000 people across seven communities. Historically, the South Huron Valley WWTP produced a Class-B quality low solids liquid lime stabilized biosolids for land application. The facility has been experiencing challenges related to solids accumulation and insufficient liquid biosolids storage capacity on site. When combined with land application constraints, excess biosolids must be dewatered using temporary equipment and land filled. These operational challenges and contingency disposal outlet result in increasing program costs.

Analysis of the Net Present Value of alternatives, including continuing to rely on temporary dewatering and installing permanent dewatering, conducted by Jacobs Engineering Group (plant and collection system operator) and the Authority's engineering firm of record, Hubbell Roth & Clark (HRC), found that the Authority's long-term costs for residual management would be lower with the operation of Lystek THP and a LysteGro Class A biosolids management program than with dewatering alone.

Based on these factors, the Authority decided to engage Lystek to design and build this new system into existing building space on site. This technology presents an affordable solution that is energy efficient, requires no additional operators beyond their existing staff complement, and will significantly reduce the Authority's biosolids volumes, substantially extending the capacity of the WWTP's existing liquid storage infrastructure.

With the production of a Class A quality biosolids fertilizer and the operational security achieved, this solution removes the need for contingency disposal of biosolids in landfills and advances the Authority's resource recovery program.

This advanced biosolids management project includes the implementation of a Lystek THP LY10 Module alongside a dewatering centrifuge and permanent biosolids truck loading infrastructure. The project took advantage of existing liquid storage tanks and building infrastructure to optimize the use of existing infrastructure and minimize capital costs.

Further, the Authority has entered into a multi-year Agreement with Lystek for comprehensive LysteGro Management Services, providing stability and predictability. The enhanced biosolids quality and concentrated nature of the high-solids liquid Class A biosolids, exceeds regulatory requirements and drives the demand for LysteGro amendments from local farmers, providing further price security to the Authority.



About Lystek

Lystek International, founded in 2000, is the leading provider of advanced, thermal hydrolysis solutions in North America, with operations Globally. Lystek is a full-service company offering technology supply and installation services, worry-free regional processing solutions, and comprehensive LysteGro sales and management services. Lystek THP® is proven across a range of small, medium, and large communities. We work with public and private sector clients to enhance operations, reduce GHG emissions, and recover valuable nutrients and carbon from biosolids and organic feedstocks through the production of increased renewable biogas with LysteMize® and LysteGro® Class A quality biosolids fertilizers.