

Does the City of Lebanon Have an Interest in How Their Tax Dollars are Being Proposed to be Spent?

Of course the citizens of Lebanon care, but do they know what is being considered for the wastewater treatment plant? The next committee meeting for this topic is scheduled for Monday June 29th at 4:00 PM at Lebanon City Hall.

The committee making recommendations to the city is focused on acquiring a 60 acre property outside of the city and placing a duplication of the century old wastewater treatment technology, conventional activated sludge technology, of the present plant on that property.

This is fiscally wrong for multiple reasons.

- The cost of connecting a remote location to the existing network has had estimated values of between \$1,000,000 and \$20,000,000 presented by the technical person advising the committee.
- The value of land in Wilson County, TN, averages around \$42,737 per acre, which would make a 60-acre property worth approximately \$2,564,220. (Value from a Google search of Wilson County average value per acer.)
- Cost of available three phase electricity is an unknown value due to the distance of the site from an existing source of power. This could be a substantial additional cost due to the number of utility poles, cabling, and possible acquisition of right of way that may be necessary.
- A comparison of the operational cost of the conventional activated sludge technology, the present method at the plant today, is estimated by multiple sources as between 50% and 60% more expensive than the state of the art biofilm reactor technology.
- The old technology produces a greater volume of sludge that needs to be trucked away and typically placed in a landfill. The unnecessary extra volume will fill a land fill site faster creating a future expense for developing a new site or expansion of the existing site.

The various newer technology using biofilm reactors do have an initial cost estimated 13.5% to 15% more than the conventional activated sludge technology if a new plant is constructed. However, the biofilm reactor technology can be an upgrade to the existing facility. This upgrade will increase the amount of wastewater the existing plant can process because it cleans the wastewater approximately twice as fast. Biofilm reactors result in a cleaner water discharge and exceed the Environmental Protection Agency requirements.

Consideration of upgrading the existing plant would eliminate:

- \$2,500,000 to \$3,000,000 purchase price of new site property.
- New site development costs, grading, excavating, backfilling, access road paving, etc.
- Utility improvements, three phase electrical power and natural gas supply.
- Public road improvements to accommodate increased truck traffic.
- Multimillions of dollars of pipe network to connect the new site to the existing system.

These costs listed above will likely exceed the additional capital costs of upgrading the old treatment plant using the biofilm reactor technology upgrades while increasing the processing capability without changing the existing plant foot print.

Information contained in the report were obtained from Google searches, Fluence Corp, Ecologix environmental systems [Retrofitting Activated Sludge Systems with MBBR and IFAS Technology](#) and www.thembrsite.com/features/comparing-mbr-technology-with-mbbrs-cas-do-numbers-add-up