

Wastewater will help heat town sewer plant



Photo by Patrick Federi / Unsplash



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KENNEBUNKPORT - The Kennebunkport sewer plant will be relying on a domestic fuel source for heat this winter — the town's own wastewater. Sewer plant superintendent Allen Moyer will be replacing electrical heating units with an innovative water source heat pump system.

Although initial costs of the system will run upwards of \$100,000, Moyer said the heat pump will cost only about \$300 a year to operate. Currently, electric heat costs the department about \$1,500 a month during the winter.

"A very unique system," said Peter Talmage of Talmage Engineering, who provided technical advice on the system. Although water source heat pumps are becoming increasingly common, using treated wastewater as the source

of heat is unique to southern Maine. Most sewer plants use boilers or electric heat.

A water source heat pump draws heat from source water and exchanges it into the air. In the sewer plant, processed wastewater will be forced through the heat pump. Through a series of heat transfers and compression, the system will create air temperatures of about 80 degrees from water temperatures ranging from 45 to 75 degrees. The treated wastewater will then enter the Kennebunk River, having given up some of its heat.

"Taking a whole lot of low-grade heat from the water and compressing it together, you get high-quality heat," Talmage explained, a process that uses a little bit of energy to extract a lot of heat.

Maine Air Conditioning of Portland, which is supplying the system, has installed water source heat pumps with groundwater systems. According to Don Nelson, a design and systems estimator with the company, this will be the first time it has used treated wastewater.

Selectman Bob Brown expressed some concern that the wastewater would clog up the pump, but Nelson said that the wastewater was cleaner than most groundwater.

"Using local resources to keep costs reasonable is the best way to build public infrastructure," Talmage said. Fluctuations in fuel costs affect this.

The heat pump will also double as an air conditioner in the summer. Moyer said that it will extract heat from the air and add it to the wastewater.

Clips

Wastewater will help heat town sewer plant

By JACK BEAUDOIN
Journal Tribune Staff Writer

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than most groundwater.

"This is the best way to build public buildings," Talmage said. "It utilizes local resources to keep costs reasonable. Fluctuations in fuel costs won't affect this system."

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Kennebunk board hopes to buy a truck

KENNEBUNK — Bids, borrowing and books top a busy agenda at tonight's Board of Selectmen meeting.

Bids will be opened for the purchase of a new truck and plow for the town's highway department. With approximately \$59,000 available for the purchase, the town hopes to buy the equipment before the start of the 1994-95 winter season.

The board will also finalize the issuance of a bond for \$900,000 to be used in the Kennebunk Free Library expansion project. Voters approved the bond last November by a two-to-one margin, and private donations to the project have reached just under \$1 million. Construction is expected to begin this fall.

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