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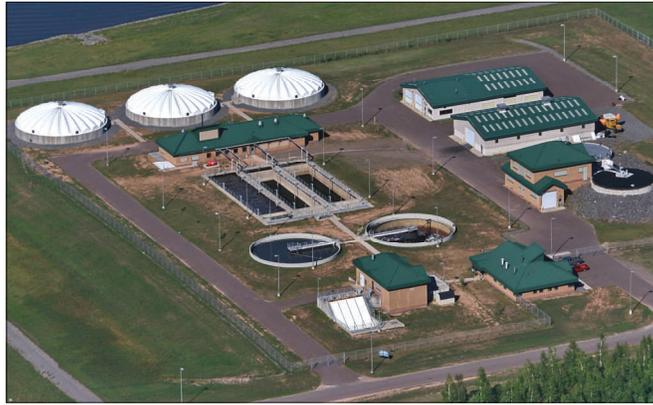
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U.P. Wastewater Plant Wins National Award

In the United States, there are thousands of wastewater treatment facilities operated by local units of government. And when it comes to efficient operations, the second-best in the nation is the Portage Lake Water & Sewage Authority (PLWSA) Treatment Plant that serves the Houghton and Hancock area.



Portage Lake Water & Sewage Authority Treatment Plant

That's according to the Environmental Protection Agency, which in October announced the winners for medium-sized plants during the conference of the Water Environment Federation, in Dallas. Michigan Tech Civil and Environmental Engineering Professor David W. Hand accepted the award on behalf of PLWSA Board Chair C. Robert Baillod. The PLWSA Board received the award during their board meeting Thursday, November 9.

"The board and the staff are always looking for ways to improve operations and this award is an acknowledgment of that," said C. Robert Baillod, P.E., chair of the Authority. "We have a very professional, dedicated, and might I add, extremely versatile staff led by Superintendent Lee Hauswirth."

A recent example of the dedication can be found in Hauswirth's recommendation that the Authority look into a methane re-use system to provide heating fuel for the administrative office and laboratory building. Methane is a by-product

of the anaerobic treatment process that converts sewage sludge to biosolids fertilizer and is currently used to heat the anaerobic reactors. But Hauswirth knew that not all the methane was being used and recommended that the Board look into ways of recovering the energy. This led to a baccalaureate thesis by

Michigan Tech civil engineering student Erin Satchell.

Based on the results of the thesis, the Authority retained U.P. Engineers & Architects to assess the cost-effectiveness of using methane to heat the office and lab building. "We found there is excess methane that could be put to use," said UPEA Project Manager Jim Koskiniemi, P.E. The design of the re-use project is being funded by a 90 percent grant from the Michigan Department of Environmental Quality, and will more than pay for itself by a net saving of \$8,000 per year. "Although the energy recovery project wasn't part of the award nomination process, it's another example of why our facility is among the best operated," Baillod said.

Prior to the national competition, the EPA notified the local authority it had won first place in the Region 5 competition for Operating and Maintenance Excellence. That honor was announced in August. In addition to Michigan, Region 5 encompasses Illinois, Indiana, Minnesota, Ohio, and Wisconsin. After winning

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the regional award, the Portage Lake authority was automatically entered into the national competition.

Baillod, a Michigan Tech Civil and Environmental Engineering professor, said another reason that the plant received national recognition is that the treatment process typically discharges an effluent containing less than 5 parts per million of biochemical oxygen demand and suspended solids as compared to 25 parts per million permitted by state and federal regulations.

"We achieve this in spite of some very tough meteorological conditions," he said. Baillod also noted that the Authority's operating economy was a criterion for the award. "We take pride that our facility operates with only six full-time and one half-time employee, and that is very low for a plant of this size."

Key to reaching this achievement, Baillod said, is a plant that was "designed to be robust and



Standing from the left: UPEA Project Manager Jim Koskiniemi with board members Bob Lewis, David Plowe, Bob Baillod, and Superintendent Lee Hauswirth. Seated: board member Barbara Clark.

economical." He added, "A lot of credit goes to U.P. Engineers for working with the Authority and the staff to design exactly the type of plant required for our northern climate, for our level of economic activity, and for our customers. Another reason for the Authority's successful operation is the dedication and professionalism of the operating staff." In addition to Hauswirth, the PLWSA staff includes Administrative Secretary Kathy Wollan and Operators Albert Perrault, Terry Racine, Mark

Jackovic, Bob Lawson, and Zane Mackenzie. Hauswirth, Perrault, Racine, and Jackovic together have more than 125 years of experience with the Authority.

The Authority was created in 1964 by a contract between the cities of Houghton and Hancock. Of the five board members, each community appoints two, who then elect a fifth member. On the board in addition to Baillod are: Scott MacInnes, Barbara Clark, David Plowe, and Bob Lewis.