



3101 Lake Farm Rd., Madison, Wisconsin 53711

**LUSSIER FAMILY HERITAGE CENTER  
3101 LAKE FARM ROAD  
MADISON, WI 53711**

**DIRECTIONS**

Traveling on I-94 west, exit on I-90 south (exit 138A). Continuing on I-90 exit at the West Beltline Highways 12 & 18 (exit 142A).

From the West Beltline take the W Broadway Exit (exit 264) and go south on South Towne Drive.

Continue for almost 1 mile and then turn left on Moorland Road, which turns into Lake Farm Road after the road curves.

Turn left into the driveway, at the Lussier Family Heritage Center sign, 3101 Lake Farm Road. As you enter, the campground is on the right and the Heritage Center is on the left.

Nonprofit  
Organization  
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Milwaukee, WI  
Permit No. 1505

Mohammed Haque  
Central States Water Environment Association  
1021 Alexandra Blvd.  
Crystal Lakes IL 60014

# Resource Recovery Seminar

CSWEA WI Section  
Operations Seminar

Sponsored by:



**Tuesday, October 31, 2017**

**LUSSIER FAMILY HERITAGE CENTER  
3101 LAKE FARM ROAD  
MADISON, WI 53711**

## RESOURCE RECOVERY SEMINAR INFO

This seminar provides a place for operations discussion related to a wide array of Resource Recovery practices in the wastewater field. The seminar will focus on energy related topics in the wastewater field and will include bull session discussions. Several areas of Resource Recovery will be presented by recognized experts. Five (5) hours of WI DNR CEU's will be provided.

**DATE:** Tuesday, October 31, 2017

**FEE:** \$50 preregistration before 10/16/17 or \$60 on or after 10/17/17. (Fee includes program materials, breaks, lunch.) Student registration \$20. On-site registration is limited to the first 80 participants.

**WHERE:** Madison, WI—Lussier Family Heritage Center

## AGENDA

8:00—9:00 a.m.—**Registration/Coffee and Welcome/Opening Remarks**

9:00—9:45 a.m.— **Capturing Energy and Resources**  
**Dan Noguera – UW Madison**

This will be a discussion focused on current and future technologies and processes in the fields of energy and resource recovery.

9:45—10:30 a.m.— **Powering up the CMAR—First Look**  
**Megan Levy – WI Office of Energy Innovation**

This discussion will focus on the efforts of a collaborative partnership between the Office of Energy Innovation, Focus on Energy, WI DNR, and the WWOA to add a set of energy-related questions to the CMAR. The discussion will detail the motivation behind this project and will provide a first look at the data collected. Updates on available funding and grants related to energy conservation and recovery will be provided.

10:30—10:45 a.m.—**Break**  
Coffee and pastries

10:45—11:15 a.m.— **Energy Performance Contracting**  
**Rusty Schroedel – AECOM**

This discussion will explain energy performance contracts and how energy saving projects can often be difficult to complete due to limited funds, these funds are often needed to fund other more pressing projects. This presentation will explain how Energy Performance Contracts can be a means to obtain funding and guarantee project performance.

11:15—12:15 p.m.—**Bull Session 1**

An open forum for the discussion of resource recovery in the wastewater field. The current, future, and past resource recovery practices and options will be discussed.

12:15—1:00 p.m.—**Lunch**

**Surf and Turf buffet with potato and salads**

1:00—1:30 p.m.— **A Simple and Energy Efficient Approach to Cleaning Biogas**  
**Sid Arora—Milwaukee Metropolitan Sewerage District**  
**Lindsey Busch—Carollo Engineers**

This discussion covers the challenges of cleaning biogas in the wastewater industry. The talk will focus on the use of pressurized water being used as part of a new and simple technology for cleaning biogas. The technology was piloted at MMSD's South Shore WRF. Sampling results showed close to 100% removal of H<sub>2</sub>S, a 30% increase in methane, an 80% decrease in carbon dioxide, and a 65% removal of siloxanes. The pilot case study objective, installation, operation, sampling procedures, and sampling results will be reviewed.

1:30—2:00 p.m.— **Advanced Sensors and Controls for Nutrient Removal and Energy Efficiency**  
**Trevor Ghylin – Xylem Corporation**

This discussion will focus on ammonia based controls and the potential energy savings and chemical savings that can be achieved. The talk will focus on a R&D work that has been on-going at the Green Lake wastewater facility for the past year regarding energy and nutrient optimization in their sequencing batch reactor and aerobic digestion process. Data will be presented along with sensors and control strategies that were implemented at the facility. The results of the R&D work have reduced chemical consumption by more than 50%, SBR energy usage was reduced by more than 20%, aerobic digester energy usage reduced by more than 60%, and phosphate recycled from the digester was reduced by more than 90%.

2:00—2:15 p.m.—**Break**  
Trick or Treat

2:15—2:45 p.m.— **Beloit, WI WPCF Energy Management—A Brief History**  
**Harry Mathos—City of Beloit Water Resources Division**

This discussion will share Beloit's efforts over the years to find a balance between responsible fiscal management and energy conservation. Successes, challenges and future initiatives will be presented in an effort to provide an unvarnished overview of those that worked, those that fell short and the direction for the future.

2:45—3:45 p.m.—**Bull Session 2**

An open forum for operations based discussions related to energy saving opportunities, biogas cleaning, nutrient optimization, and energy control systems being used in the wastewater field. The successes, challenges, and future initiatives of resource recovery will also be discussed.

## SPEAKERS

**Dan Noguera**—UW Madison  
**Megan Levy**—WI Office of Energy Innovation (DOE)  
**Rusty Schroedel**—AECOM  
**Sid Arora**—Milwaukee Metropolitan Sewerage District  
**Lindsey Busch**—Carollo Engineers  
**Trevor Ghylin**—Xylem Corporation  
**Harry Mathos**—City of Beloit Water Resources Division

## COMMITTEE MEMBERS

Troy Larson	Matt Seib
Bill Marten	Pat Wescott
Sharon Thieszen	Jake Becken
Rusty Schroedel	Randy Wirtz
Steve Brand	Lindsey Busch
Alan Grooms	Jeremy Cramer—Chair

## REGISTRATION

Register and pay online at [www.cswea.org](http://www.cswea.org) or mail with payment to:

Alan Grooms  
1610 Moorland Rd  
Madison, WI 53713

\*\*Make checks payable to: CSWEA—WI Section\*\*  
\*\*Please submit 1 registration form per person\*\*

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

please check if special dietary needs and list: \_\_\_\_\_

Registration forms and full payment are due by the day of the seminar

Registration Fees: \$50 through pre-registration  
deadline of 10/16/17

\$60 after 10/16/17

\$20 students

No refunds after 10/16/17

Payment can be made by check or on the CSWEA.org website. No purchase orders/company billing payment forms accepted.

Questions? Call Jeremy Cramer at 920-318-4094