



# 2008 - 2009

*April Meeting Notice*

## Minnesota Geotechnical Society

### Otter Rapids Seepage and Piping Remediation

Jon Ausdemore, P.E., Barr Engineering

Otter Rapids dam was constructed in 1907 and has a documented history of void development and repairs in the powerhouse floor that dates back to the 1960s. A potential failure mode analysis conducted in 2003 identified critical failure modes related to seepage and piping which did not meet FERC safety guidelines. Therefore, remedial measures were evaluated to reduce the piping concerns. The selected remedial alternative involved a seepage barrier with a sheetpile cutoff, a grout curtain, and a concrete apron. This paper presents a detailed description of the analysis and design of the seepage barrier, including the seepage and piping evaluation, as well as construction data illustrating field performance.

**Date:** Wednesday, April 8, 2009

**Location:** Rose Vine Hall (downstairs at Grumpy's Bar & Grill)  
2801 Snelling Ave. N., Roseville, MN

**Time: 6:00** Social Hour, Sponsored by CR Meyer

**7:00** Dinner & Dessert: Salad, Rolls, Coffee/Soda and a choice of:

1. 10-Ounce Top Sirloin - Char-grilled and topped with bleu cheese garlic butter. Served with white cheddar mashed potatoes and a sauteed vegetable medley
2. Feta Cheese and Sun-Dried Tomato Stuffed Walleye - Served over white cheddar mashed potatoes with a drizzle of lemon thyme butter sauce.
3. Seared Chicken Parmesan - Tender chicken breast crusted with aged Parmesan cheese and rapidly seared until golden brown. Served over white cheddar mashed potatoes and a sautéed vegetable medley.
4. Manicotti – Fresh Pasta tubes filled with ricotta, mozzarella and parmesan cheeses. Baked in marinara sauce and finished with melted mozzarella.

**8:00** Presentation – Jon Ausdemore, P.E., with Barr Engineering  
(One professional development hour toward continuing education requirements for Professional Engineers is available).

**Cost:** \$25.00 members, \$30.00 non-members, and \$5.00 Full-time students, payable to MGS at the door.

**Reservations:** Requested by 12 Noon, Friday, April 3, 2009.

Please register via the website at <http://www.mngeotechnicalsociety.com/eventsmpls.asp>

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