



2013 - 2014

December Meeting Notice

Minnesota Geotechnical Society

Jackson Bluff Auxiliary Spillway

Nick Cmiel, P.E., Mead & Hunt

The Jackson Bluff Hydroelectric Project was constructed between 1927 and 1929 on the Ochlockonee River, approximately 25 miles west of Tallahassee, FL. This high-hazard facility consists of a powerhouse, a 200-foot gated spillway, a 3,600-foot earth embankment, a 950-foot emergency spillway, and a 560-foot fuse plug spillway. A Potential Failure Mode Analysis in 2003 and subsequent geotechnical investigations raised concerns regarding the stability of the fuse plug and emergency spillways. Following a series design studies, the decision was made to construct an 825-foot auxiliary spillway over a portion of the earth embankment and to close off the emergency and fuse plug spillways with a dike. The new spillway design incorporated sheet pile cutoffs and training walls, an ogee crest, and a United States Bureau Reclamation (USBUREC) Type III stilling basin with chute and baffle blocks. The design also incorporated an extensive underdrainage system to control uplift under the concrete chute and stilling basin during high tailwater levels. This presentation will discuss site history, design concepts, monitoring strategies, construction challenges and lessons learned throughout the project.

Date: Wednesday, December 11, 2013

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

Time: 6:00 Social Hour – Sponsored by Northern Technologies, Inc.

7:00 Dinner: 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 sautéed vegetable medley – \$35.00*
2. Stuffed Pork Chops - Two char-grilled pork chops stuffed with golden raisins, cornbread and apples – \$35.00*
3. Feta Cheese and Sun-Dried Tomato Stuffed Walleye - Served over white cheddar mashed potatoes with a drizzle of lemon thyme butter sauce – \$35.00*
4. Chicken Fettuccine Alfredo - Fettuccine noodles, snow pea pods, and mushrooms tossed in an Alfredo cream sauce and topped with a grilled chicken breast and parmesan cheese – \$30.00*
5. Cobb Salad - Iceberg topped with turkey, ham, bacon, hard cooked eggs, avocado, diced tomatoes, bleu cheese crumbles, and black olives with choice of dressing (Ranch, FF Ranch, Bleu Cheese, French, FF French, Italian, FF Italian, Balsamic Vinaigrette) – \$25.00* *See Cost

8:00 Presentation – Nick Cmiel, P.E., Mead & Hunt
(One professional development hour toward continuing education requirements for Professional Engineers is available).

Cost: Paid 2013-2014 MGS Members receive a \$5 meeting discount on the meal costs listed above.
The cost to Full-time students is \$5, payable to MGS at the door.

Reservations: Requested by 12 Noon, Friday, December 6, 2013
Please register via the website at <http://www.mngeotechnicalsociety.com/eventsmpis.asp>.
Please print, fill out and bring the New Membership Application to the next meeting. The form is at:
<http://www.mngeotechnicalsociety.com/aboutmembership.asp>

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