Case Studies: Working with the US Army Corps of Engineers to Restore Rivers

Marty Melchior, CFP, Inter-Fluve & Dan Mielke, PE, CFM, Inter-Fluve

1 PDH

Speaker Bio:

Marty Melchior, CFP has 20 years of experience in fish habitat restoration, natural channel design, dam removal, fluvial geomorphologic assessment, engineered wood design, bioengineering and biotic assessment. Marty is a regular instructor at the USFS Engineered Large Wood short courses and has been an invited participant in both state and federal workshops on geomorphology and dam removal committees within the Federal Subcommittee on Sedimentation. He has lectured on stream restoration and dam removal at Harvard, the Univ. of Wisconsin, WA Department of Ecology, and UoM. His work has been featured in two PBS programs, and he shared the 2005 Aldo Leopold Award for Excellence in Ecological Restoration. Marty is also a certified fisheries professional with the American Fisheries Society. In 2013, Marty and Inter-Fluve were selected as one of the River Alliance of Wisconsin’s 20th Anniversary River Heroes.

Dan Mielke, PE, CFM is a water resource engineer with 10 years of experience in designing stream restoration and stormwater projects throughout the U.S. He maintains expertise in analyzing the hydraulic performance of sewer and open channel systems, designing best management practices, and performing hydrologic and hydraulic and water quality studies. With these tools, Dan is able to identify existing performance issues, develop solutions and summarize results that can be incorporated into plan sets, permitting documents, and grant applications. Dan also has a strong track record in effectively managing design and construction teams on several multi-disciplinary projects.

Presentation Synopsis:

The US Army Corps of Engineers (USACE) involvement in river restoration projects can take many forms, including funding planning, design, permitting, oversight of design, oversight of construction, construction management and monitoring. This presentation examines three project examples demonstrating each of the above elements.

1) **Boardman River Restoration (MI)** - The Boardman River restoration includes the removal of three dams, Brownbridge, Boardman and Sabin Dams, and installation of fish passage on the downstream Union Dam.

2) **Underwood Creek (WI)** - The Underwood Creek project involves the reclamation of 4,000 feet of concrete lined trapezoidal channel at the mouth of Underwood Creek in urban Wauwatosa, WI.

3) **Dry Creek (CA)** - Dry Creek is the largest tributary to the Russian River (CA) and is regionally important for recovery of ESA-listed coho and threatened steelhead trout.

Meeting Location:

**LOCATION CHANGE:** Hamline-Midway Branch Library, 1558 W Minnehaha Ave., St. Paul, MN 55104

Agenda:

Social time and lunch (if you so desire) will be from 11:30 AM to 12:30 PM with presentation from 12:30 PM to 1:30 PM. A lunch at a cost of $15 will be available. Lunch will consist of a sandwich box lunch and include either chips or potato salad, cookie, and a beverage. Please RSVP no later than Friday, June 23rd with your intent to either partake in the lunch or to come for the presentation only. Please click the RSVP button in the left-hand column of page 1 or use the following Eventbrite link to RSVP: [https://goo.gl/r8R7gc](https://goo.gl/r8R7gc)
Highlights of the Previous Meeting

For the May joint meeting with the Minnesota Association of Floodplain Managers, the presentation was “Alternate Designs for Road/River Intersections”. The two experts, Salam Murtada and Kevin Zytkovicz, both with the Minnesota Department of Natural Resources, presented leading edge information on improving the hydraulic performance of bridges and culverts. Several case studies were presented demonstrating how distributing the flow through multiple culverts at multiple locations could reduce channel erosion and improve natural floodplain functions.

They have made a manual and their contact information is available at [http://www.dnr.state.mn.us/eco/streamhab/geomorphology/index.html](http://www.dnr.state.mn.us/eco/streamhab/geomorphology/index.html). Additional information is also available on their website on how this approach will be included in the Minnesota Permitting and Reporting System (MPARS).

SAME Grant Recipients

The SAME Minneapolis-St. Paul Post is pleased to announce that one of this year’s SAME education grants was awarded to Mr. Mark Miller of St. Louis Park High School. The $3,000 educational grant will be used to purchase a 3D printer for Mr. Miller’s engineering students. Mr. Miller is an enthusiastic engineering teacher working in the ParkSCI program within the St. Louis Park school district. ParkSCI partners high school teachers with elementary and middle school teachers to get students interested in STEM topics early in their education and pursue careers in STEM fields post-graduation. Mr. Miller’s engineering course is a hands-on, self-paced course where students learn to design and build robots to compete in competitions. The 3D printer will allow 80 students to design and build their own robotics parts to incorporate into their robots. Congratulations Mr. Mark Miller!

Another of this year’s recipients of the SAME education grants was awarded to Sonneysyn Elementary School. The $3,000 educational grant will be used to purchase a set of iPod Touch devices to be used in conjunction with virtual reality devices. These virtual reality systems will offer students (K-5) an immersive 360 degree experience with cultures, habitats, and landmarks around the globe. Students will be able to experience locations such as the Apollo 11 moon landing site, the Great Wall of China, coral reefs, volcanos, rain forests, and even experience Revolutionary War era Boston or the hangar of the Tuskegee Airmen. Furthermore, students will have the ability to build and interact with 3D models in a virtual environment. Congratulations to Sonneysyn Elementary School!

Small Business Corner

Save the Date:
SAME Small Business Conference is November 15-17, 2017 in Pittsburgh, PA

Minnesota Procurement Technical Assistance Center (MN PTAC) offers training on a variety of topics including a free webinar on the “All Small Mentor-Protégé Program” on July 11, 2017 from 9-10 AM. See the link to sign up for this webinar as well as several other interesting training events: [https://mnptac.ecenterdirect.com/events](https://mnptac.ecenterdirect.com/events)
June 2017

Free Golf! — MMFF Annual Golf Event

The Minnesota Military Family Foundation (MMFF) is having their annual golf event on Tuesday, August 15, 2017 at Bunker Hills in Coon Rapids. The MMFF is a community-supported fund to help military families with financial hardships, especially when a family member is deployed. SAME MSP has supported this organization in the past and is seeking 4 golfers to attend this event as we are sponsoring a hole. Registration is at 10 AM followed by a shotgun start at 11:30 AM and a dinner at 5:30 PM. Please contact Wayne Wambold at wwambold@sehinc.com to sign up and for further information.

Register NOW for the SAME Industry Day & Golf Tournament!

Mark your calendars and register now for the MSP Post's Industry Day and 32nd Annual Golf Tournament. This joint event will take place on Thursday, July 13th, 2017, at Oak Marsh Golf Course in Oakdale, Minnesota. All proceeds from the event benefit the Post's Education and Mentoring Fund, which supports programs such as the educational grants and scholarships. Several sponsorship opportunities available - your support is appreciated! Please see attached flyer for additional details.

Online registration is now live!

Save the Date for the 7th Annual SAME-MSP Awards and Recognition Banquet!

Wednesday, August 9th, 2017 at 6:00 PM at a NEW location—Minnesota Humanities Event Center in St. Paul, MN!
Register Now for the SAME Industry Day & Golf Tournament!
Thursday, July 13, 2017 at Oak Marsh Golf Course in Oakdale, MN

Industry Day Event
8 AM to 11 AM
Registration/Welcome: 7:30 to 8:00
Session 1: 8:00 to 9:20
Break: 9:20 to 9:40
Session 2: 9:40 to 11:00

32nd Annual Golf Tournament
Shotgun Start at Noon
Supports the M-SP Post’s Education & Mentoring Fund (Scholarships)
Several Sponsorship Opportunities
Scramble Format
Prizes for 1st & 2nd Place Teams
Individual Awards for Longest Drive, Longest Putt & Closest to the Pin!
Additional Fun Activities on Every Hole and Great Prizes!

$10,000 Prize for Hole-In-One!
Individuals, twosomes, threesomes, and foursomes are welcome!

Buffet Dinner & Awards Following Golf

Contact for Additional Info:
Rachel Pichelmann at 651-724-8245 or by email at rpichelmann@sehinc.com

Registration Information and Additional Details Provided on Back Side
Register Online before the July 7 Deadline!
http://www.wpgolf.com/oakmarsh/same_fundraiser.aspx
Early registration by June 30 will qualify you for a special drawing!

### Sponsorship Opportunities

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<thead>
<tr>
<th>Industry Day Sponsor - $500 Donation</th>
<th>Golf Tournament Hole Sponsor - $200 Donation for Small Business; $400 Donation for Others</th>
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<tr>
<td>Company recognized during event</td>
<td>Company name/logo displayed at tee box, indicating sponsorship of hole.</td>
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<tr>
<th>Golf Tournament Hole-In-One Event Sponsor - $750 Donation</th>
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<tr>
<td>Company name/logo displayed at tee box, indicating sponsorship of one of the hole-in-one $10,000 contests</td>
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For all sponsorship options, your company will be listed as one of the tournament sponsors and will receive special acknowledgement at the awards presentation.

**Sign up to sponsor this event using the registration link above.**

### Registration Options

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<th>Industry Day - $40*/$30†</th>
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<td>Includes morning refreshments, technical presentations (3 PDHs), and box lunch</td>
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<th>Golf Tournament - $110*/$90†</th>
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<td>Includes golf, ½ cart, box lunch, dinner, and one drink ticket</td>
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<th>All Day - $130*/$110†</th>
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<td>Includes Industry Day &amp; Golf Tournament</td>
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<th>Golf Tournament Dinner Only - $25</th>
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<td>Hawaiian Buffet Dinner</td>
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*Price listed applies to SAME sustaining members and employees of private firms.
†Price applies to employees of public agencies, SAME young members, and fully retired SAME members.

SAME Student Members contact Rachel Pichelmann (651-724-8245) if you are interested in participating.

Door prize donations are appreciated!

### Oak Marsh Golf Course
526 Inwood Avenue N.
Oakdale, MN 55128

**Check Out the M-SP Post of SAME at same-msp.org**