
Abbreviated Resumes of the
Spencer Dam Investigation Panel
Members



Abbreviated resume

Mark E. Baker, P.E.,

DamCrest Consulting, LLC

720-447-0437 mark@damcrest.com

Current position: Principal, Dam Crest Consulting, LLC

Former positions:

- 2011 – 2019 - Dam & Levee Safety Officer, U.S. Department of the Interior National Park Service
- 1993 – 2011 – Program Manager for Dam Safety Technical Assistance to BIA/Tribes, Bureau of Reclamation
- 1986 – 1993 – Hydraulic machinery design engineer, Bureau of Reclamation

Committees/Task Groups

- 2012 – 2019 Founder and Co-Leader of the Washington DC Silver Jackets Flood Risk Management Group
- 2008 – current Founder and Co-Leader of the Dam Failures and Incidents Committee, Association of State Dam Safety Officials
- 2010 – Leader and lead author of the group that researched and developed the ASDSO *Dam Failure and Incident Investigations Guideline*
- 1999 – 2019 Member, Department of the Interior Working Group on Dam Safety and Security

Audits and Program Reviews


- Team member of the State of California Safety of Dams Program Technical Advisory Panel – 2018
- Team Member of the Eugene Water & Electric Board Owners Dam Safety Program Review (FERC regulation), Oregon
- Team member of the Tennessee Valley Authority Dam Safety Program peer review – 2018

Notable Papers/Presentations

- Researcher and presenter of the USBR 1965 Fontenelle Dam incident
- 2019 – Researched and wrote the periodic risk assessment lesson learned for DamFailures.org:
<https://damfailures.org/lessons-learned/periodic-risk-review/>
- 2013 Researched, wrote and produced a 14-minute film called *Managing the Risks of Dams* featuring the Lawn Lake Dam failure.

Education

1985 Bachelors of Science, Mechanical Engineering, Michigan Technological University

	<p>Abbreviated resume</p> <p>Robert Ettema, P.E., Ph.D., F.ASCE, F.ENZ Dept of Civil & Environ. Eng., Colorado State University 307-460-0921 (Cell), Robert.Ettema@colostate.edu Fort Collins, CO 80523</p>
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Current position: Professor, Colorado State University, Fort Collins, CO

Former Positions

- 2007–2015, Prof., Department of Civil and Architectural Engineering, the University of Wyoming
- 2007–2013, Dean, College of Engineering & Applied Science, the University of Wyoming
- 1999–2007, Head, Dept of Civil and Environmental Engineering, the University of Iowa
- 1991–2007, Prof., Dept. of Civil and Environmental Engineering, the University of Iowa
- 1986–1991, Assoc. Prof., Dept. of Civil and Environmental Engineering, the University of Iowa
- 1982–1986, Assist. Prof, Dept. of Civil and Environmental Engineering, the University of Iowa
- 1980–1982, Post-doc., Iowa Institute of Hydraulic Research, the University of Iowa

Committees & Tasks

- 2019-, Peer Reviewer, U.S. Army Corps of Eng., Eng. Research and Development Center
- 2019-, Executive Committee, Intl. Assoc for Hydro-Environment Engineering and Research (IAHR)
- 2011-, Council Member, IAHR
- 1998–2002, Editor, American Society of Civil Engineers (ASCE), Journal of Hydraulic Engineering
- 1992–1997, 2015-, Assoc. Editor, ASCE, Journal of Cold Regions Engineering

Registrations & Certifications

- Professional Engineer, Wyoming
- Fellow, ASCE
- Fellow, Engineering New Zealand

Notable Papers & Presentations

Co-author of journal and conf. papers and book chapters regarding cold regions engineering, hydraulic structures, hydraulic engineering; e.g.,

- Osada, K., Ettema, R., Shimizu, Y. and Wakai, A. (2020). “Influence of Channel Morphology on Ice Conveyance and Bridging: Experiments with a Numerical Model.” ASCE, J. of Cold Regions Eng., Vol. 34, No. 1.
- Ettema, R., Baker, J.L., Howlett, G. and Hudson, B. (2019). “Ice-Floe Impact with a Rubble-Mound Causeway at the Port of Nome, Alaska.” ASCE, J. of Cold Regions Eng., Vol. 33, No. 2.
- von Bock und Polach, R.U.F., Ettema, R., Grahler, S. and Kellner, L., Stender, M. (2019). “The Non-linear Behavior of Aqueous Model Ice in Downward Flexure.” J. of Cold Regions Science and Technology, Vol. 165, No. 1.
- Lucie, C., Nowroozpour, A.R. and Ettema, R. (2017). “Ice Jams in Straight and Sinuous Channels: Insights from Small Flumes.” ASCE, J. of Cold Regions Eng., Vol. 31, No. 3.

Education

- Ph.D., Civil Eng., The University of Auckland, New Zealand
- M.S., Civil Eng., The University of Auckland, New Zealand
- B.S., Civil Eng., The University of Auckland, New Zealand



Current position: Senior Vice President, WEST Consultants, Inc.

Former positions:

- 2003 – 2016 Vice President, WEST Consultants, Inc.
- 1997 –2003 Project Manager, WEST Consultants, Inc.
- 1993 –1997 Project Engineer, WEST Consultants, Inc.
- 1991 –1993 Research Assistant, University of Iowa, Institute of Hydraulic Research
- 1990 –1991 Hydraulic Engineer, U.S. Army Corps of Engineers, Sacramento District
- 1987, 1988 –1990 Civil Engineer, U.S. Army Corps of Engineers, Sacramento District
- 1986, 1987 –1988 Civil Engineer, Fluor Chile, S.A.

Committees/Task Groups

- 2017 – 2022 Board Member, United States Society on Dams (USSD)
- 2006 – current USSD Hydraulics Committee Member (Vice Chair, 2012-2014, Chair, 2014-2017, Sedimentation Subcommittee Chair 2008-present)
- 2011 – current International Committee on Large Dams (ICOLD) member of Technical Committee on Sedimentation of Reservoirs (Chair, 2015 – Present)
- 2005 – 2015 Floodplain Management Association Director, Secretary, Vice Chair, Chair, Immediate Past Chair
- 2005 – Present Various ASCE Task Committees including: Grade Control, Scour at Hydraulic Structures, Reservoir Sedimentation

Registrations and Certifications

- Professional Engineer in five states
- Professional Hydrologist (American Institute of Hydrology)
- Diplomate, Water Resources Engineering (American Academy of Water Resources Engineers)
- Fellow, American Society of Civil Engineers

Notable Papers/Presentations

- Over 45 conference papers, peer-reviewed papers, bulletins, articles on hydrology, hydraulics and sedimentation issues.
- Principal author and editor on one USSD Bulletin and one ICOLD Bulletin

Education

- M.S., Civil and Environmental Engineering – University of Iowa
- B.S., Civil Engineering, University of California, Berkeley



Abbreviated resume

John Trojanowski, PE

Trojanowski Dam Engineering, Limited
303-995-9426 jt3pe@hotmail.com
Littleton, CO

Current position:

President, Trojanowski Dam Engineering, Limited (2015 to present).

Former positions:

- General Manager/Civil Engineer: Waterways and Concrete Dams Group at the Bureau of Reclamation's (Reclamation) Technical Service Center (2010-2015) - Retired after 37 years.
- Civil Engineer: Reclamation's Waterways and Concrete Dams Group (1978-2010).

Past Memberships and Certifications:

- Oroville Independent Forensic Team member.
- Reclamation Dam Safety Advisory Team (DSAT) member.
- Certified Reclamation Risk Facilitator for Concrete Dams and Waterways.
- Planning Team Member for Reclamation's current Comprehensive Review (CR) process.
- Team member for the USACE spillway failure mode toolbox.
- Reclamation Project Management Team (PMT) Leader for many dams.
- Senior Engineer and Project Manager for numerous Reclamation design projects.

Notable Papers/Publications

- Reclamation's "Design of Small Dams," Third Edition, 1987.
- "Uplift and Crack Flow Resulting from High Velocity Discharges Over Open Offset Joints," Report DSO-07-07, Dam Safety Technology Development Program, USBR, December 2007.
- "Practical Application of Research Related to High Velocity Flows Over Open Offset Joints in Spillways," 2008 USSD Annual Meeting and Conference, Portland, Oregon, on April 28-May 2, 2008.
- "Stabilizing the Spillway Foundation at Pueblo Dam," ASCE Proceedings of the Biennial Denver Geotechnical Symposium, October 2004, Denver, CO.
- "Grouted RCC Contraction Joints at Pueblo Dam," ASDSO Dam Safety Conference, Snowbird, UT, September 2001.
- "Dam Safety Modifications for Clear Creek Dam," Manuscript for ASCE Hydraulics Division, 1993 National Conference on Hydraulic Engineering, July 1993.
- "Stabilization of Minidoka Dam Using Epoxy Coated Strand Rock Anchors," ASDSO Dam Safety Conference, Pittsburgh, PA, September 1997.
- "Dam Safety: Evaluating Spillway Condition," Hydro Review, Volume 27, Issue 2, April 1, 2008.
- Many other papers, articles, and manuals.

Education:

1978 Bachelors of Science, Civil Engineering, University of Colorado, Boulder.

Registration:

Professional Engineer in the State of Colorado.