

**Gina Beim, PE**  
**Founder and President, MCDA Consulting**  
**Adjunct Faculty, CWRU**  
**Registered Professional Engineer in the State of Ohio, reg. # 56925**

Gina's professional background is in civil engineering (water resources) and decision sciences. MCDA Consulting focuses on helping organizations prioritize competing project alternatives while considering multiple, conflicting objectives. MCDA Consulting also engages in water, wastewater, stormwater and transportation plans and feasibility studies. Gina has served the Civil Engineering profession through her active involvement in the American Society of Civil Engineers, most recently as chair of the Northeast Ohio Infrastructure Report Card committee. She has strong analytical and communications skills and speaks multiple languages.

## Education

MBA, Weatherhead School of Management, Case Western Reserve University, Cleveland, OH, 2004  
MS, Operations Research, Case Western Reserve University, Cleveland, OH, 2004  
MS, Systems Engineering, Water Resources Systems, Case Western Reserve University, Cleveland, OH, 1987  
BS, Civil Engineering, Water Resources, Pontificia Universidade Católica do Rio de Janeiro, Brazil, 1982  
International Summer School on Multiple Criteria Decision Aid, Montreal, Canada, 2013  
Hierarchical-Multiobjective Approach in Water Resources Planning and Management, CWRU, 1985

## Selected MCDA Consulting Projects

### **Evaluation of Alternatives for Willow Lift Bridge Preliminary Access to South Whiskey Island, Cleveland, 2018-2020**

As a subconsultant to AECOM, MCDA Consulting is employing Multi-Criteria Decision Analysis to help identify the preferred access route to South Whiskey Island for the City of Cleveland Division of Engineering and Construction.

### **Guidance on Evaluation Criteria and Measurements for a non-profit organization, Ohio, 2019**

Helped a non-profit organization (anonymous due to NDA) define evaluation criteria and measures for use in rankings to be presented to the public as an informational tool for decision making.

### **Multi Criteria Approach to Developing and Evaluating Refugee Education Programs, New Hampshire, 2018**

Retained by Southern New Hampshire University to employ multi criteria decision analysis to select a portfolio of programs for its Global Education Movement, an initiative that makes university degrees available to refugees.

### **Northeast Ohio Regional Sewer District (NEORS) Stormwater Fee Toolset Program Support, Cleveland, 2017 – 18**

As a subconsultant to WRCE/Raftelis, supported review of stormwater policies and implementation of software to manage and perform financial analysis of stormwater billing data and track stormwater billing internal tasks.

## Other Experience

**Adjunct Faculty**, Case Western Reserve University, Civil Engineering Department, Cleveland, OH, 2020

"Pipes, Potholes and Pathogens, Issues in American Infrastructure"

"Water Resources Engineering"

**Senior Engineer / Marketing Director**, GRL Engineers, Inc. and Pile Dynamics Inc., Cleveland, OH, 1999 – 2016

**Research on Use of Multiple Criteria Decision Analysis in Business Decisions**, Cleveland, OH, 2004-2006

Collaborated with Weatherhead School of Management faculty in researching the application of multi criteria decision analysis tools to venture capital investment and site selection decisions.

**Heinz Watershed Protection Program Evaluation**, Pittsburgh, PA, 2002

As a subconsultant to Terraqua, LLC, employed multi criteria analysis principles to program evaluation.

**Westerly Combined Sewer Overflow Facilities Planning**, Project Manager for NEORSD, Cleveland, OH, 1996-1998  
Project Manager for this study focused on a long term control plan to minimize combined sewer overflow impact on receiving waters of an area served by the Westerly Wastewater Treatment Plant. Participated in RFP development, consultant selection, review and approval of technical reports and public meeting presentations.

**Multiple public and private sector, stormwater control, water distribution and wastewater collection and treatment projects:** Project engineer, project manager (KS Associates, Inc. Engineers and Surveyors and Gills, Guard & Johnson, Inc., Ohio, 1991-1995)

## Honors

2017 Outstanding Civil Engineer of the Year, American Society of Civil Engineers (ASCE), Cleveland Section  
President's Commendation, ASCE, Cleveland Section, 2019, 2015, 2005  
\$18000 Merit Weatherhead Scholarship, CWRU, 2001-2002  
Tuition Fellow, Department of Operations Research, CWRU, 2001-2003

## Professional Leadership

American Society of Civil Engineers, Cleveland Section: Chair, Northeast Ohio Infrastructure Report Card Committee (2016-2019); Chair, Centennial Committee (2014-2015); Board President (2007-2008); Chair Management in Engineering Committee (2003 - 2007).  
American Society of Civil Engineers: Chair, Committee on Leadership and Management (2012 – 2013).

## Selected Publications/Presentations (complete list upon request)

- G. Beim, *Prioritizing Stormwater Project Alternatives Using Multiple Criteria Decision Analysis*, presented at 12th Annual Ohio Stormwater Conference, Sharonville, OH, May 10, 2019.
- G. Beim and M. Lévesque, *Country Selection for New Business Venture: a Multiple Criteria Decision Analysis*, Long Range Planning (39), pp. 265-293, 2006.
- G. Beim and M. Lévesque, *Selecting Projects for Venture Capital Funding: A Multiple Criteria Decision Approach*, Proceedings of the 17th International Conference on Multiple Criteria Decision Making, Whistler, Canada, 2004.
- D. Bingham, G. Beim, A. Forndran, *Combined Sewer Overflow Study in Cleveland's Westerly District*, Proceedings of Advances in Urban Wet Weather Pollution Reduction, Water Environment Federation, Cleveland, 581-589, 1998.
- G. Beim & B. F. Hobbs, *Event Tree Analysis of Lock Closure Risks*, Journal of Water Resources Planning and Management, vol. 123, no. 3, May/June 1997.
- B. F. Hobbs & G. Beim, *Integrated Water Supply System Evaluation: Two Methodologies*, in Reliability Analysis of Water Distribution Systems, Larry W. Mays, ed., pp. 340-388, American Society of Civil Engineers, New York, 1989.
- G. Beim & B. F. Hobbs, *Analytical Simulation Water Systems Capacity Reliability 2. A Markov Chain Approach and Verification of the Models*, Water Resources Research, vol. 24, No. 9, September 1988.
- G. Beim, *Brine Transport and Disposal in the Upper Cuyahoga Watershed: An Application of an Optimization Model*, J. Beeker, ed., internal report, Northeast Ohio Areawide Coordinating Agency, Cleveland, Ohio, September 1985.
- G. Beim & L. F. A. M. Gomes, *Evaluation of Alternatives for Rural Feeder Roads: An Application of the Electre Multicriteria Decision Making Method* (in Portuguese). Ciência e Cultura, 35(8), Brazil, August, 1983