## **Biographical Sketches of the Authors**

**John F. Beadle** – is a Professional Engineer, owner and Vice President of I & I Engineering, Inc. located at 1262 Laurel Boulevard, Pottsville, PA. He has worked in the engineering field since 1976 and has been a Licensed Professional Engineer since 1983. His experience and professional interest are in the areas of mining and sanitary engineering. John holds a B.S. degree in civil engineering from the Virginia Military Institute.

**Jim Berger** – is a Licensed Professional Engineer for DEP, Waste Management Program -Wilkes-Barre Regional Office. He has fifteen years of experience in the solid waste management field, and holds a Bachelor of Science Degree in Chemical Engineering from the University of Pittsburgh.

**Keith B.C. Brady** – graduated with a B.A. from Alaska Methodist University with majors in geology and anthropology (archaeology), and has a M.S. from the University of Maine in Quaternary geology. He has been a hydrogeologist with the PA DEP's Bureau of Mining and Reclamation since 1986. From 1980 to 1986 he was a hydrogeologist at PA DEP's Cambria District Office. Keith helped develop the Office of Surface Mining's Acid-Forming Materials course, and is a registered professional geologist in Pennsylvania. His professional interests are geologic controls on rock chemistry/mineralogy and their subsequent influence on water chemistry.

**Alfred D. Dalberto** – is a registered professional engineer in PA DEP's Bureau of Mining and Reclamation (BMR). He has worked in the permitting section of BMR since 1993 and has responsibilities that include the beneficial use of coal ash at active mine sites. He has been employed by the PA DEP since 1972 and has worked in the abandoned mines, dam inspection and stream improvement, sewage treatment plant construction, and hazardous waste programs. He received a B.S. in mineral preparation engineering from Pennsylvania State University in 1970.

**Sharon A. Hill, P.G.** – has been a geologist in the PA DEP's Pottsville District Mining Office since 1993. She maintains the groundwater and ash quality data for reclamation in anthracite mining areas of eastern Pennsylvania. Sharon has a B.S. degree in geosciences from Pennsylvania State University.

**William Hellier** – is a former DEP employee now acting as professional engineer and consultant. He had an extensive career in DEP in the mining program. Bill holds a B.S. degree in Chemistry and an M.S. and Ph.D. in Chemical Engineering from Johns Hopkins University. He is a Registered Professional Engineer in PA and MD.

**Roger J. Hornberger** – has been District Mining Manager of the Pottsville District Office of PA DEP since 1987. From 1978 to 1986 he was a hydrogeologist with PA's Bureau of Mining and Reclamation. Prior to working for the Commonwealth, he was employed at Penn State University in the Department of Landscape Architecture (1973-1976) and at the Institute for Research on Land and Water Resources (Sept. 1974 – Aug. 1975, and July 1976 – Nov. 1978). Roger has a bachelor's degree in landscape architecture and a M.S. in geology, both from Pennsylvania State University. He is the author of publications on coal mine drainage prediction and prevention and is the Interstate Mining Compact Commission's representative on the Operations Committee of the Acid Drainage Technology Initiative.

**Nathan A. Houtz, P.G.** – is a Licensed Professional Geologist for DEP, District Mining Operations-Pottsville. He began his career as a construction project inspector with Astrotech, Inc. of Harrisburg, Pa in March 1996. In August 1996 Nathan joined the staff of Hydro-Geo Services, Inc., a central Pennsylvania based environmental consulting firm, as a hydrogeologist. With Hydro-Geo, Nathan accumulated over seven years of experience in the fields of coal and industrial minerals mine permitting in Pennsylvania and Maryland, landfill construction and permitting in Pennsylvania, mineral reserve evaluations, environmental investigations, groundwater monitoring and remediation, and water well/core hole drilling supervision. Nathan joined the Pottsville District Mining Operations technical staff in 2002, where he reviews mining permit applications and conducts hydrogeologic investigations of coal and industrial minerals mine sites. Nathan holds a Bachelor of Science Degree in Geology from Bloomsburg University of Pennsylvania, and is licensed as a Professional Geologist in Pennsylvania since November 2001.

**Tim Kania** – has over twenty years experience in working with coal mine drainage prediction and the investigation of water quality issues related to mining. He is currently managing the technical section of the Cambria District Mining Office which is responsible for the technical evaluation of proposed and existing mining operations in a seven county area of southwestern PA. Tim holds a BA in journalism 1976 and a BS in earth sciences 1980 both from Pennsylvania State University.

**Terry D. Killian** – is a engineer in the PA DEP's Central Office, Harrisburg. He has worked for DEP since 1978. Most of his experience involved preparing permits for the water quality and waste programs. Terry holds a B.S. in civil engineering from the Pennsylvania State University.

**Daniel J. Koury** – is the Watershed Manager for DEP/District Mining Operations Pottsville. He has worked with DEP since 1989 and has extensive experience with mine drainage treatment and land reclamation. Dan serves as the project advisor on the Sharp Mountain Growing Greener project in Pottsville. Dan holds a B.S. Degree in Earth Science from the Pennsylvania State University.

**Larry LaBuz** – is Supervisor of Ash Operations at PPL Generation, LLC headquartered in Allentown, Pa. Larry joined PPL after graduating from the University of Notre Dame in 1980 earning a B.S. Degree in Civil Engineering, concentrating in wastewater treatment and control. Larry's responsibilities at PPL have included the development of PPL's groundwater monitoring program, siting and permitting PPL's coal ash disposal facilities, and most recently, managing PPL's beneficial ash use program. External to PPL, Larry chaired the former Pennsylvania Electric Association's Solid Waste Subcommittee during the development and implementation of the PADEP's Residual Waste Regulations. In the early 1990's Larry also chaired EPRI's Land & Water Quality Studies Program directing research on the leaching behavior and environmental fate of coal ash constituents.

**Kenneth J. Levitz** – works for the consulting company, Eco Maintenance Organization, Inc. in Jim Thorpe, PA. He has had extensive experience in the reprocessing of waste coal and coal ash placement with Panther Creek Partners from 1994 to 2000. He has served as the lead consultant and project manager of the Sharp Mountain Growing Greener project in Pottsville. Ken holds a B.S. degree in Mining Engineering from the Pennsylvania State University.

**Keith A. Laslow** – is a Professional Geologist Manager in the DEP/District Mining Operations – Pottsville. He has worked with DEP since 1974. His profession and personal interest lies in the field of anthracite geology and hydrology. Keith also has extensive experience with karst hydrology and hydrology. Keith holds a B.S. degree in geology from Edinboro State College.

**Caroline Loop** – was a graduate student and a postdoctoral scholar at The Pennsylvania State University at the time this work was done. She is interested in low temperature geochemistry. Contaminant transport in karst and altered terrain is also a primary focus of her scholarly and professional work. Caroline holds a B.A. in both geology and economics from Smith College. From The Pennsylvania State University she has earned a M.S. in Environmental Pollution Control and a Ph.D. in geosciences.

**Michael J. Menghini** – is a mine inspector supervisor and currently acting monitoring and compliance manager for DEP's Pottsville District Mining Office. He holds a BS in Environmental Management from Pennsylvania State University. He has been involved with coal ash regulatory issues since mid 1980 and is Pennsylvania's representative for the EPA CCS regulatory initiative. He has helped develop the current state coal ash beneficial use regulations, mine permit modules, and the technical guidance documents and is involved in all issues related to the beneficial use of coal ash in mine reclamation activities.

**Thomas Owen** – is a mining engineer in the PA DEP's Pottsville District Mining Office. He has worked for DEP since 1979. His experience and professional interests lie in the areas of placement of coal ash at mining sites and geotechnical engineering. Tom holds a B.S. in Civil Engineering and an M.S. in Civil Engineering, both from Lehigh University. Tom is also a Registered Professional Engineer since 1983 in the Commonwealth of Pennsylvania.

**William F. Pounds** – Chief of the Division of Municipal and Residual Waste in DEP's Bureau of Land Recycling and Waste Management in Harrisburg. He has worked for DEP for over 34 years. He directs the development of regulations dealing with the permitting and compliance of municipal and residual waste facilities, and is also responsible for the permitting of the beneficial use of these waste materials. Bill holds a B.S. in Agronomy from Delaware Valley College and has completed all graduate course work towards a Masters Degree in Agronomy at Pennsylvania State University.

**Barry E. Scheetz** – is a Professor of Materials, Civil and Nuclear Engineering at the Pennsylvania State University. He has worked for the University since 1976. His expertise and research interests lie in the areas of cementitious systems as they apply to civil infrastructure, nuclear waste management and the large-volume use of coal combustion products for environmental restoration of mine lands. Barry holds a B.S. in Education from Bloomsburg State College, an M.S. in Geochemistry for the Pennsylvania State University and a Ph.D. in geochemistry and mineralogy from the Pennsylvania State University.

**Joseph H. Schueck** – has a B.S. in geology from Indiana University of Pennsylvania. He worked for the Pennsylvania Department of Transportation as a soils engineer from 1970 to 1978. Joe is a registered professional engineer in geotechnical engineering, and a registered professional geologist. Since 1978 he has been employed by PA DEP's Bureau of Mining and Reclamation. His professional interests are the application of geophysical methods to characterize mine sites and the abatement and remediation of AMD. In 1994 was honored as the Conservation Professional of the Year by the Pennsylvania Federation of Sportsmen and Conservationist of the Year by the National Association of State Land Reclamationists.

**Richard Stehouwer** – is an Associate Professor of Soil Science in the Department of Crop and Soil Science at Penn State University. His research interests include surface mine reclamation and soil-based recycling of agricultural, municipal, and industrial by-products. He holds a B.S. from Calvin College, and M.S. from Cornell University, and a Ph.D. from Ohio State University.

**G. Nevin Strock** – is Chief, Surface Mining Section, Division of Permits, Bureau of Mining and Reclamation, PA DEP. He has been employed since 1970 in Pennsylvania's mining regulatory program, including 9 years of field work involving reclamation and revegetation of coal surface mines. He has a B.S. in forest technology from Pennsylvania State University. Nevin has been a member of the Society of American Foresters (SAF) since 1966 and has served as Chairman of the Pinchot Chapter of SAF. He has also served as Chairman of the Pennsylvania Council for Surface Mining Reclamation Research.

**Joseph M. Tarantino, P.G.** – is a hydrogeologist in PA DEP's Knox District Office since 1980. His experience and professional interest lie in the areas of Acid Mine Drainage, (AMD), prediction and prevention. Joe holds a B.S. in geological science from the Pennsylvania State University. Joe is also an instructor for the Acid Forming Materials Fundamentals and Applications and Surface & Groundwater Hydrology courses for the Office of Surface Mining, OSM,.

**Scott E. Walters** – received a B.S. in Chemistry from The Ohio State University and a Ph.D. in Analytical Chemistry from the University of Tennessee. He has been employed as an Environmental Chemist for PA DEP's Division of Municipal and Residual Waste since 1988. Prior to that, he was an Assistant Professor of Chemistry at Penn State University's Capital College. He has been a member of the American Chemical Society for 25 years and a Registered Environmental Professional since 1990. Scott's professional interests include beneficial use of nonhazardous waste, waste oil regulation, and analytical characterization of wastes.

**William B. (Will) White** – was trained as a chemist and geochemist. He has spent most of his professional career at Penn State from graduate school in 1958 to his retirement as Professor Emeritus of Geochemistry in 2002. His research has covered many topics in geosciences and materials science. Among his principal interests has been ground water in carbonate rock aquifers and in environmental geochemistry. He holds a B.S. from Juniata College and a Ph.D. from The Pennsylvania State University.

**David L. Williams** – is a Mining Engineer with the Anthracite Deep Mine Safety of DEP as of June 2004. Dave graduated from the Pennsylvania State University in 1980 with a B.S. Degree in Mining Engineering. He has worked as the Chief Mining Engineer for G.M.P. Land Company, A.B. Riedel and Associates, The Harriman Coal Corp. and Reading Anthracite Company. Dave is a licensed mining engineer and also a licensed professional land surveyor. Dave is also the principal owner of D. Williams & Associates, Inc. and Reclaim PA, Inc.