



# Brenda Schladweiler

president  
principal scientist

Brenda has owned and operated **BKS ENVIRONMENTAL ASSOCIATES, INC.** for 35 years. She specializes in soil and vegetation assessments, reclamation design and monitoring, wetland delineations, threatened and endangered (T&E) plant species and habitat surveys, bond release assessments, and environmental compliance.

## COMPANY

Since incorporation in Wyoming in 1981, **BKS ENVIRONMENTAL ASSOCIATES, INC.** (BKS) has earned a trusted and respected reputation as one of the leading companies offering environmental services for the extraction industries including coal, oil & gas, uranium, and other mining industries. BKS specializes in Soils, Vegetation, Wetland & Wildlife Surveys, as well as Reclamation Design and Monitoring. We provide environmental services, not only in Wyoming, but throughout the Western United States.

## EXPERIENCE

1982 - Present

**PRESIDENT/PRINCIPAL SCIENTIST** – BKS Environmental Associates, Inc., Gillette, WY, Rock Springs, WY and Dickinson, ND

2013 - Present

**UNIVERSITY OF WYOMING ADJUNCT PROFESSOR** – Laramie, WY

2011 - Present

**WYOMING RECLAMATION & RESTORATION CENTER LIAISON** – Laramie, WY

1982

**PROJECT COORDINATOR** – Anaconda Minerals Company, Denver, CO

1980 - 1982

**ASSOCIATE ENVIRONMENTAL COORDINATOR** – ARCO Coal Company, Coal Creek Mine, Wright, WY

1980

**RANGE SPECIALIST** – Energy Fuels, Kerr Coal Company, Walden, CO

1979

**ENVIRONMENTAL TECHNICIAN** – Thunder Basin Coal Company, Black Thunder Mine, Wright, WY



**EDUCATION**

2003

**Ph.D., SOIL SCIENCE** – University of Wyoming, Laramie, WY

- + Dissertation: Soil & Plant Responses to Variable Topsoil Replacement Depths at a Coal Mine in Northeastern Wyoming. Research was conducted at the North Antelope/Rochelle Mine southeast of Wright, WY.

1995

**M.S., SOIL SCIENCE** – University of Wyoming, Laramie, WY

- + Thesis: Relationship between Soil Selenium Concentration and Selenium Uptake by Vegetation on Surface Coal Mine Lands in Wyoming.

1980

**BACHELOR OF SCIENCE** – Colorado State University, Fort Collins, CO  
Range Management (Land Rehabilitation)

**CERTIFICATES**

2021

**COMMERCIAL PESTICIDE APPLICATOR** Wyoming Department of Agriculture

2019

**HAZWOPER** Hazardous Waste Site Worker Refresher

2019

**REGISTERED PROFESSIONAL IN SOIL SCIENCE** Minnesota

2019

**ARCPAC** Soil Science Society of America Certified Professional Soil Scientist

2019

**MSHA** Experienced Miner 8hr Annual Refresher

2019

**NORTH DAKOTA PROFESSIONAL SOIL CLASSIFIER**

2019

**LEADERSHIP WYOMING**

2018

**T&E PLANT SURVEYS** USFWS/BLM, VERNAL UTAH

2013

**T & E PLANT SURVEYS** State of Wyoming Abandoned Mine Program

2011

**NRCS** Technical Service Provider for Nutrient and Pest Management

2010

**NRCS** Technical Service Provider for Grazing Plans

2010

**SAFELAND USA TRAINING**

**CERTIFIED STATE MINE INSPECTOR TRAINING**

**CPRM** Certified Carbon Verifier

**OSHA** General Industry 10hr Course

**OSHA** Hazardous Waste/Supervisor

**WETLAND DELINEATOR** Omaha & Sacramento Districts, U.S. Corps of Engineers

**MEMBERSHIPS**

**AMERICAN SOCIETY OF MINING AND RECLAMATION-NATIONAL  
PRESIDENT (2015-2016)**

**ASSOCIATION OF WOMEN SOIL SCIENTISTS**

**GREAT PLAINS NATIVE PLANT SOCIETY**

**INTERNATIONAL EROSION CONTROL ASSOCIATION**

**MINING ASSOCIATES OF WYOMING**

**PETROLEUM ASSOCIATION OF WYOMING**

**SOCIETY FOR MINING, METALLURGY AND EXPLORATION**

**SOCIETY FOR RANGE MANAGEMENT**

**SOIL SCIENCE SOCIETY OF AMERICA**

**SOIL & WATER CONSERVATION SOCIETY**



**MEMBERSHIPS  
(CONT.)**

**WESTERN SOCIETY OF SOIL SCIENCE  
WYOMING NATIVE PLANT SOCIETY  
WYOMING WEED MANAGEMENT ASSOCIATION**

**COMMITTEES**

**BLM RESOURCE ADVISORY COUNCIL  
CAMPBELL COUNTY CONSERVATION DISTRICT, BOARD OF SUPERVISORS  
AND ASSOCIATE SUPERVISOR  
COUNCIL OF SOIL SCIENCE EXAMINERS (SSSA) – 3 YEARS ONLY  
GILLETTE COLLEGE FOUNDATION BOARD (2015-2017)  
WDEQ-WQD NON-POINT SOURCE TASK FORCE  
WYOMING NATURAL RESOURCE FOUNDATION BOARD**

**PUBLICATIONS**

2018

**MINING RECLAMATION OVERVIEW: CHANGES SINCE SMCRA IN WYOMING USA**

Schladweiler, B.K. Anhui University of Science & Technology, School of Surveying and Mapping. November 2018.

2018

**40 YEARS OF SURFACE MINING CONTROL AND RECLAMATION ACT (SMCRA): WHAT HAVE WE LEARNED IN THE STATE OF WYOMING.**

Schladweiler, B.K. International Journal of Coal Science & Technology. Submitted January 2018, in review.

2011

**DETERMINING RECLAMATION POTENTIAL FOR STEEP OIL AND GAS SITES IN THE POWDER RIVER BASIN, WYOMING.**

Schladweiler, B.K. and D.M. Gardner. 2011. National Meeting of the American Society of Mining and Reclamation, Bismarck, ND. Reclamation: Sciences Leading to Success June 11-16, 2011.

2010

**COMPARISON OF THREE VEGETATION SAMPLING METHODS ON OIL AND GAS SITES IN SOUTHWESTERN WYOMING.**

Schladweiler, B. and C. Adams. 2010. Presented at the 2010 National Meeting of the American Society of Mining and Reclamation, Pittsburgh, PA, Bridging Reclamation, Science, and the Community. June 8, 2010.

2009

**COMPARISON OF COAL MINE RECLAMATION UNDER THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977 AND OIL AND GAS SITES IN WYOMING.**

Schladweiler, B.K. 2009. American Society of Mining and Reclamation. Billings, Montana.

2007

**ONGOING EVALUATION OF EFFECTS FROM VARIABLE TOPSOIL DEPTHS AT A COAL MINE IN NORTHEASTERN WYOMING AMERICAN SOCIETY OF MINING AND RECLAMATION.**

Schladweiler, B.K. 2007. Gillette, Wyoming

**PUBLICATIONS  
(CONT.)**

- 2005 **TOPSOIL DEPTH EFFECTS ON RECLAIMED COAL MINE AND NATIVE AREA VEGETATION IN NORTHEASTERN WYOMING.** Schladweiler, B.K., G.F. Vance, D.E. Legg, L.C. Munn, and R. Haroian. 2005. *Rangeland Ecology & Management* 58:167 – 176.
- 2005 **ONGOING EVALUATION OF EFFECTS FROM VARIABLE TOPSOIL DEPTHS AT A COAL MINE IN NORTHEASTERN WYOMING.** Schladweiler, B.K., G.F. Vance, D.E. Legg, and S. Belden, 2005. 2005. National Meeting of the American Society of Mining and Reclamation.
- 2004 **INFLUENCE OF VARIABLE TOPSOIL REPLACEMENT DEPTHS ON SOIL CHEMICAL PARAMETERS WITHIN A COAL MINE IN NORTHEASTERN WYOMING.** Schladweiler, B.K., G.F. Vance, D.E. Legg, L.C. Munn, and R. Haroian. 2004. *Arid Land Research and Management*. Vol. 18:347 – 358.
- 2002 **INFLUENCE OF VARIABLE TOPSOIL REPLACEMENT DEPTHS ON SOIL AND PLANT CHARACTERISTICS AT A COAL MINE IN NORTHEASTERN WYOMING.** Schladweiler, B.K., G.F. Vance, and R. Haroian. 2002. American Society of Mining and Reclamation. Lexington, Kentucky. Pg. 1157.
- 1997 **SELENIUM IN THE ENVIRONMENT: SOIL/GEOLOGY, VEGETATION, AND ANIMAL SCIENCE RESEARCH.** Vance, G.F., C.P. Skinner, B.K. Schladweiler, and J. A. Young. 1997. U.S. Army, Fort Carson DECAM Research Report, Colorado Springs, CO. 45pp.
- 1997 **HYDRIC SOILS AND THEIR RELATIONSHIP TO PLANT BIODIVERSITY WITHIN RECLAIMED STREAM CHANNELS IN SEMI-ARID ENVIRONMENTS.** Schladweiler, B.K., G.F. Vance, D.E. Legg, and S. Rexroat. 1997. *Agronomy Abstracts*, 89:315.
- 1996 **VEGETATION DIVERSITY WITHIN NATIVE AND RECLAIMED COAL MINE SITES: ENVIRONMENTAL FACTORS AND SEASONAL VARIABILITY.** Schladweiler, B.K., and G.F. Vance. 1996. *American Society of Surface Mining and Reclamation Proceedings*, Knoxville, Tennessee Vol. 13:472 – 483.
- 1995 **REGRESSION ANALYSIS TO PREDICT SELENIUM LEVELS AT TWO SURFACE COAL MINES IN THE POWDER RIVER BASIN, WYOMING.** Schladweiler, B.K., G.F. Vance, D.E. Legg, and C. Bilen. 1995. *Decades Later: A Time for Reassessment*. American Society of Surface Mining and Reclamation, Princeton, WV. Bol. I: 246 – 257.
- 1995 **RELATIONSHIP BETWEEN SOIL SELENIUM CONCENTRATIONS AND SELENIUM UPTAKE BY VEGETATION ON SURFACE COAL MINE LANDS IN WYOMING.** Schladweiler, B.K., G.F. Vance, R.N. Pasch, P.K. Carroll, M.S. Page, D.L. Bonett and S.E. Williams. 1995. *American Society of Surface Mining and Reclamation Abstracts*, p.861.



**PUBLICATIONS  
(CONT.)**

- 1995 **RELATIONSHIP BETWEEN SOIL SELENIUM CONCENTRATIONS AND SELENIUM UPTAKE BY VEGETATION ON SURFACE COAL MINE LANDS IN WYOMING.** Schladweiler, B.K., G.F. Vance, R.N. Pasch, P.K. Carroll, M.S. Page, D.L. Bonett and S.E. Williams. 1995. American Society of Surface Mining and Reclamation Abstracts, p.861.
- 1994 **RELATIONSHIP BETWEEN SOIL SELENIUM CONCENTRATIONS AND SELENIUM UPTAKE BY VEGETATION ON SURFACE COAL MINE LANDS IN WYOMING.** Vance, G.F., R.N. Pasch, P.K. Carroll, M.S. Page, and B.K. Schladweiler. 1991-1994. Proceedings of the First, Second, Third, Fourth, Fifth, and Sixth Abandoned Coal Mine Lands Research Meeting. Sheridan, Gillette, Kemmerer, and Laramie, Wyoming, 24 pp.
- 1993 **RELATIONSHIP BETWEEN SOIL SELENIUM CONCENTRATIONS, & SELENIUM UPTAKE BY VEGETATION ON SURFACE COAL MINE LANDS IN WYOMING.** Schladweiler, B.K., G.F. Vance, R.N. Pasch, P.K. Carroll, M.S. Page, D.L. Bonett, S. E. Williams. 1993. Billings Reclamation Symposium. Office of Surface Mining. Vol. I: 119 – 130.
- 1993 **COMPARISON OF SELENIUM UPTAKE BY VEGETATION ON SURFACE COAL MINE LANDS IN WYOMING AND SEASONAL VARIABILITY OF UPTAKE.** Schladweiler, B.K., G.F. Vance, R.N. Pasch, P.K. Carroll, M.S. Page, D.L. Bonett, & S.E. Williams. 1993. American Society of Surface Mining and Reclamation. Vol. II: 828 – 838.
- 1993 **COMPARISON OF SELENIUM UPTAKE BY VEGETATION ON SURFACE COAL MINE LAND IN WYOMING AND SEASONAL VARIABILITY OF UPTAKE.** Schladweiler, B.K., G.F. Vance, P.K. Carroll, M.S. Page, AP. Wanek, D.L. Bonett, R.N. Pasch, and S.E. Williams. 1993. American Society of Surface Mining Reclamation Abstracts. P. 36.
- 1992 **EVALUATION OF VARIOUS SELENIUM EXTRACTION METHODS FOR CORRELATING SOIL/BACKFILL LEVELS TO PLANT CONCENTRATIONS.** Vance, G.F., R.N. Pasch, D.L. Bonett, B.K. Schladweiler, P.K. Carroll and M.S. Page. 1992. Agronomy Abstracts, p.246.
- 1992 **RELATIONSHIP BETWEEN SOIL SELENIUM CONCENTRATIONS AND SELENIUM UPTAKE BY VEGETATION ON SURFACE COAL MINE LANDS IN WYOMING.** Pasch, R.N., G.F. Vance, S.E. Williams, M.S. Page, P.K. Carroll, and B.K. Schladweiler. 1992. Abandoned Coal Mine Lands Research Meeting, Gillette, Wyoming.



## PRESENTATIONS

- 2019 **ATLANTIC CITY IRON MINE, WYOMING CASE STUDY - POST-RECLAMATION 17-YEAR STATUS** Gusek, J. and B. Schladweiler. 2019. National Meeting of the American Society of Mining and Reclamation, Big Sky, MT, June 3-7, 2019.
- 2019 **NEW GENERATION COAL-FIRED POWER PLANTS: INNOVATION AT THE DRY FORK STATION, GILLETTE, WYOMING** B. Schladweiler. 2019. National Meeting of the American Society of Mining and Reclamation, Big Sky, MT, June 3-7, 2019.
- 2018 **MINING RECLAMATION OVERVIEW: CHANGES SINCE SMCRA IN WYOMING USA.**  
Schladweiler, B.K. Anhui University of Science & Technology, School of Surveying and Mapping. Huinan, Anhui. November 2018.
- 2018 **COAL AND NONCOAL MINING REGULATIONS IN WYOMING.**  
Schladweiler, B.K. Mining Regulation Overview: Coal and Noncoal Mining Regulations In Wyoming, Usa. Presented To: Ministry of Natural Resources of Prc. October 2018.
- 2017 **40 YEARS OF SMCRA: WHAT HAVE WE LEARNED IN THE STATE OF WYOMING.** B.K. Schladweiler. 2017 Second International Symposium on Land Reclamation and Ecology Restoration, Xi'an, China. Hosted by China Coal Society and China University of Mining and Technology(Beijing), October 20-23, 2017.
- 2016 **INVESTIGATION INTO ESD DATA AS POTENTIAL VEGETATION REFERENCE AREAS IN OIL AND GAS DEVELOPMENT.** B.K. Schladweiler, A.D. Sisel, and D.M. Gardner. 2016. 2016 Rawlins Industry Meeting, Rawlins, WY. October 12, 2016.
- 2015 **COMPARISON OF POINT LINE INTERCEPT AND SAMPLEPOINT DATA COLLECTION METHODS FOR TOTAL VEGETATION COVER, TOTAL GROUND COVER, AND TIME REQUIREMENTS ON RECLAIMED SITES IN WYOMING.** Wood, C., C. Adams, and B. Schladweiler. 2015. National Meeting of the American Society of Mining and Reclamation, Lexington, KY, June 7-11, 2015.
- 2014 **RECLAMATION IN SOUTHEASTERN WYOMING: BEAUTY IS IN THE EYE OF THE BEHOLDER.** Schladweiler, B. 2014. National Meeting of the American Society of Mining and Reclamation, Oklahoma City, OK, Exploring New Frontiers in Reclamation, June 14-21, 2014.
- 2013 **LONG-TERM COMPARISON OF VEGETATION REFERENCE AREA ON RECLAIMED COAL MINES IN NORTHEASTERN WYOMING.** Schladweiler, B., C. Adams, and M. Kasten. 2013. National Meeting of the American Society of Mining and Reclamation, Laramie, WY. Reclamation: Sciences Leading to Success June 1-6, 2013.
- 2013 **SOIL AMENDMENT APPLICATIONS DURING DROUGHT PERIODS ON OIL AND GAS SITES IN WYOMING.** Cox, L., M. Kasten, and B. Schladweiler. 2013. National Meeting of the American Society of Mining and Reclamation, Laramie, WY. Reclamation: Sciences Leading to Success June 1-6, 2013.

**PRESENTATIONS  
(CONT.)**

- 2013 **COMPARISON OF BASAL AND AERIAL COVER FOR TOTAL VEGETATION COVER AND TOTAL GROUND COVER ON OIL AND GAS SITES IN WYOMING.** Adams, C. and B.K. Schladweiler. 2013. National Meeting of the American Society of Mining and Reclamation, Laramie, WY. Reclamation: Sciences Leading to Success June 1-6, 2013.
- 2013 **SOIL MANAGEMENT- LINEAR DISTURBANCES.** Brenda K. Schladweiler. 2013. Pipeline Reclamation Workshop, Sidney, MT.
- 2013 **IT BEGINS WITH THE SOIL.** Brenda K. Schladweiler. 2013. Wyoming Weed Management Association, Casper, WY.
- 2012 **TOPSOIL MANAGEMENT ISSUES RELATED TO ENERGY DEVELOPMENT.** Brenda K. Schladweiler. 2012. Colorado Oil and Gas Association, Denver, CO.
- 2012 **SOIL AMENDMENT APPLICATIONS DURING DROUGHT PERIODS.** Brenda K. Schladweiler. 2012. Petroleum Association of Wyoming, Casper, WY.
- 2012 **RECLAMATION IMPLICATION OF OVERLAPPING INDUSTRIES IN SOUTHERN CAMPBELL COUNTY, WY.** Brenda K. Schladweiler and Lisa Cox. 2012. American Society of Mining and Reclamation, Tupelo, MS.
- 2011 **DETERMINING RECLAMATION POTENTIAL FOR STEEP OIL AND GAS SITES IN THE POWDER RIVER BASIN, WYOMING.** Brenda K. Schladweiler and Dawn. M. Gardner. 2011. American Society of Mining and Reclamation, Bismarck, ND.
- 2010 **COMPARISON OF THREE VEGETATION SAMPLING METHODS ON OIL AND GAS SITES IN SOUTHWESTERN WYOMING.** Schladweiler, B. and C. Adams. 2010. American Society of Mining and Reclamation, Pittsburgh, PA.
- 2009 **COMPARISON OF THREE VEGETATION SAMPLING METHODS.** Adams C. and B.K. Schladweiler. 2009. PAW Second Annual Reclamation Conference, Casper, WY.
- 2009 **COMPARISON OF COAL MINE RECLAMATION UNDER THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977 AND OIL AND GAS SITES IN WYOMING.** Schladweiler, B.K. 2009. American Society of Mining Reclamation. Billings, MT.
- 2009 **ABANDONED MINE LAND URANIUM RECLAMATION AND RESEARCH IN WYOMING.** Schladweiler, B.K. 2009. U2009 Global Uranium Symposium. Denver, CO.
- 2008 **RECLAMATION IN NORTHEASTERN WYOMING.** Schladweiler, B.K. 2008. Society for Range Management/Society for Soil Water Conservation Society combined state meeting. Cheyenne, WY.
- 2008 **TOPSOIL MANAGEMENT ISSUES RELATED TO OIL AND GAS DEVELOPMENT.** Schladweiler, B.K. 2008. PAW Reclamation Conference. Casper, WY.



**PRESENTATIONS  
(CONT.)**

- 2007 **ONGOING EVALUATION OF EFFECTS FROM VARIABLE TOPSOIL DEPTHS AT A COAL MINE IN NORTHEASTERN WYOMING.** Schladweiler, B.K. 2007. American Society of Reclamation. Gillette, WY.
- 2007 **VEGETATION AND SOILS RECOVERY FOR POST-CBNG CO-PRODUCED WATER DISCHARGE.** Schladweiler, B.K. 2007. Wyoming BLM, Buffalo Field Office, Best Management Practices.
- 2006 **VEGETATION AND SOILS RECOVERY FOR POST-CBNG CO-PRODUCED WATER DISCHARGE.** Schladweiler, B.K. 2006. Coalbed Methane Education Fair.
- 2006 **RECLAMATION CLASS,** Schladweiler, B.K. 2006. Wyoming Workforce Development, Gillette Campus.
- 2006 **A SURVEY OF SUCCESSFUL MINELAND REVEGETATION TECHNIQUES.** Schladweiler, B.K. 2006. Billings Land Reclamation Symposium.
- 2005 **TOPSOIL MANAGEMENT WORKSHOP, PART 1.** Schladweiler, B.K. 2005. Coalbed Methane Education Fair.
- 2005 **A SURVEY OF SUCCESSFUL MINELAND REVEGETATION TECHNIQUES. SCHLADWEILER, B.K. 2005.** SRM/SWCS Combined Annual Meeting.
- 2004 **ENVIRONMENTAL ASSESSMENTS RELATED TO CBNG ACTIVITY.** Schladweiler, B.K. 2004. Wyoming Water Well Association.
- 2004 **OVERVIEW OF NATURAL RESOURCES IN THE POWDER RIVER BASIN.** Schladweiler, B.K. 2004. Wyoming L.E.A.D. Seminar.
- 2001 **EFFECT OF CBM WATER ON SOILS AND VEGETATION.** Schladweiler, B.K. 2001. Coalbed Methane Education Fair.