

Diversity of Practice by Consulting Soil Scientists from the National Society of Consulting Soil Scientists, Inc.

**Mark S. McClain, Laurel Mueller, Edward P. Small, Phil
Scoles, Pierre Bordenave, Sidney Davis, Paul Brandt,
and Donald W. Owens**

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Purpose of Paper

- The purpose of this paper is to show the diversity of soil science, environmental, ecological, and natural resources consulting practiced and the services offered by “representative” soil scientists from the National Society of Consulting Soil Scientists, Inc. (NSCSS) throughout the U.S.

Purpose of Paper

- In this paper, this diversity will be highlighted by showing the practices and services of these “representative” soil scientists by including the following:
 - ***Name*** of the soil consultant
 - ***Firm name***
 - ***Geographic location*** of the firm office
 - Some of the “***unique***” ***soil consulting practices*** that this person is involved in daily

Soil Scientists are Unique!

- Soil Scientists have unique training, education, and experience from many different disciplines, such as agriculture, agronomy, biology, botany, chemistry, ecology, engineering, environmental science, forensics, forestry, geography, geology, hydrology, mathematics, natural resources, risk assessment, soil science, statistics, toxicology, and many others!

Soil Scientists are Unique!

- This gives soil scientists a unique global or holistic perspective on the natural environment as a whole and complex, interrelated ecosystem.
- Their time spent as a soil scientist is working in the field, the laboratory, the classroom, or the office.

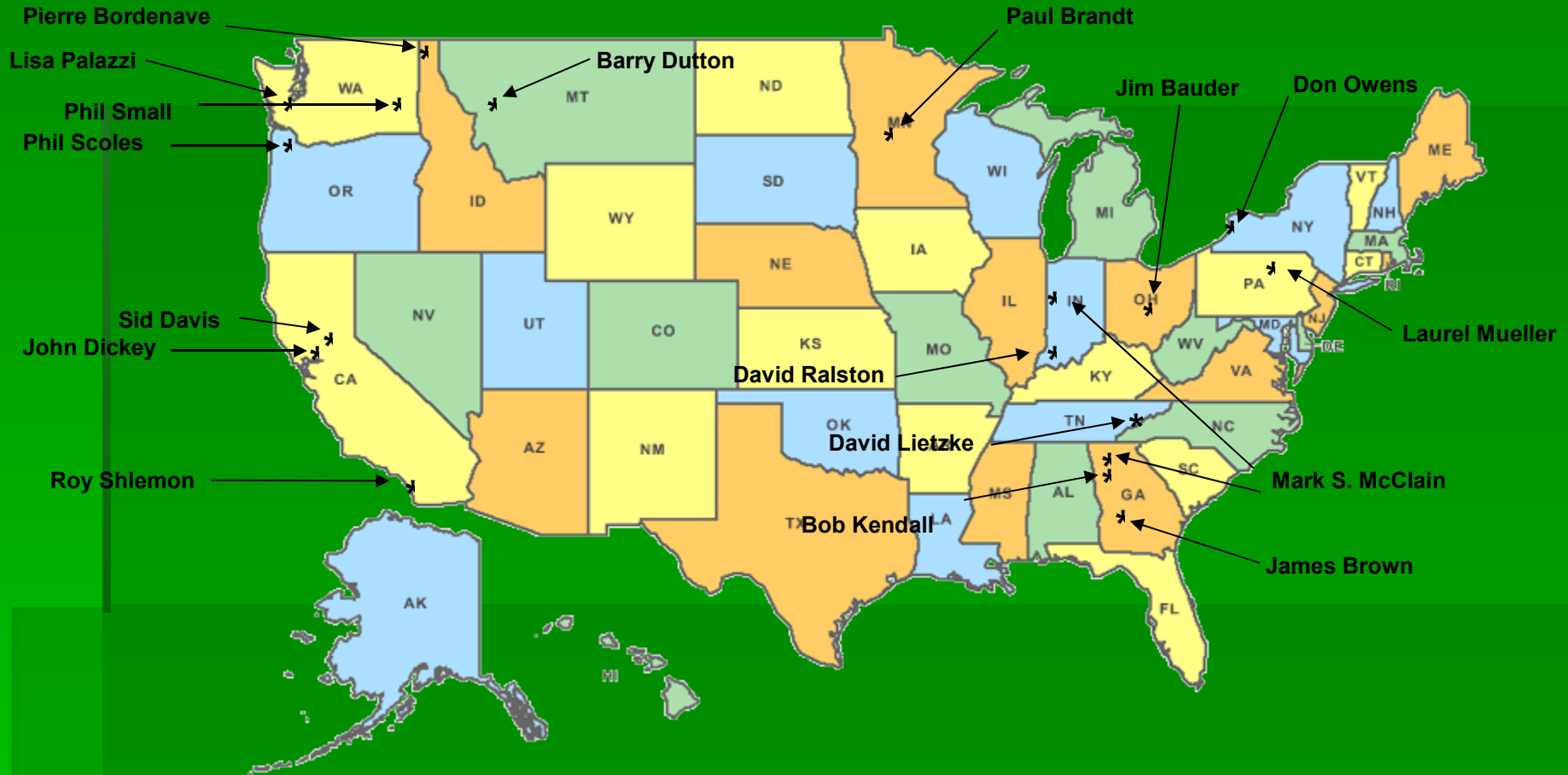
Geographic Distribution of Represented Soil Consultants

- Mark S. McClain, *Formerly from* Soil Horizons, Inc. (**Lafayette, Indiana**) & *Currently from* MACTEC Engineering and Consulting, Inc. (**Kennesaw, Georgia**)
- Laurel Mueller, Soil Services Company, Inc. (**Forksville, Pennsylvania**)
- Edward P. Small, Land Profile, Inc. (**Spokane, Washington**)
- Phil Scoles, Terra Science, Inc. (**Portland, Oregon**)
- Pierre Bordenave, InterMountain Resources (**Sandpoint, Idaho**)
- Sidney Davis, Davis² Consulting Earth Scientists (**Georgetown, California**)
- Paul Brandt, EarthTech of Minnesota, Inc. (**Melrose, Minnesota**)
- Donald W. Owens, Earth Dimensions, Inc. (**Elma, New York**)

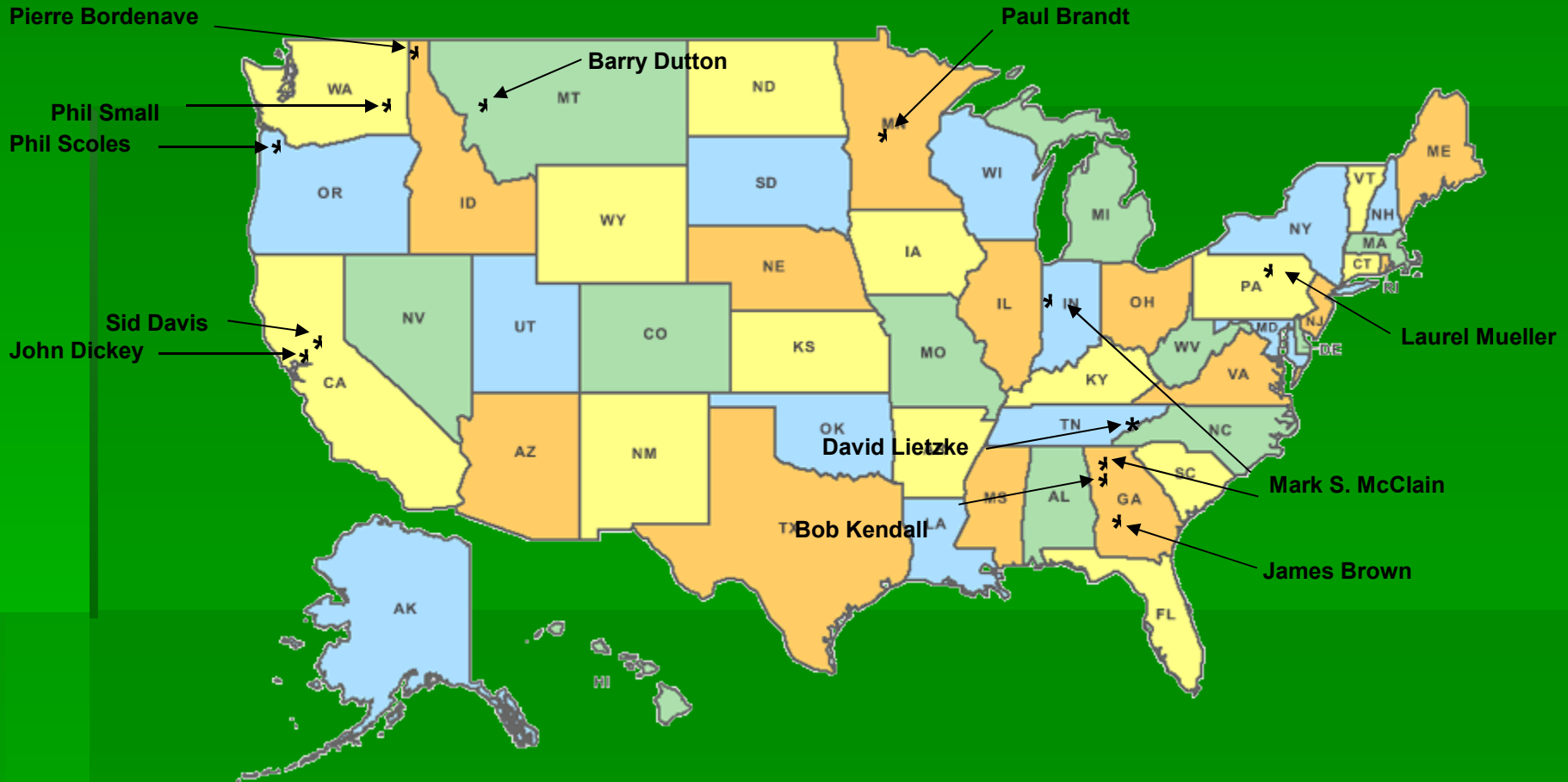
Geographic Distribution of Other Soil Consultants

- James Bauder, Bauder Certified Earth Sciences, Inc. (**Canton, Ohio**)
- James Brown, Pédologues, Inc. (**Peachtree City, Georgia**)
- John Dickey, CH2M Hill (**Sacramento, California**)
- Barry Dutton, PBS&J and Land and Water Inc. (**Missoula, Montana**)
- Robert L. Kendall, Kendall & Associates, Inc. (**Marietta, Georgia**)
- David Lietzke, Lietzke Soil Services (**Rutledge, Tennessee**)
- Lisa Palazzi, Pacific Rim Soil & Water (**Olympia, Washington**)
- David Ralston, Soil Tech, Inc. (**Newburgh, IN**)
- Roy J. Schlemmon, Shlemmon & Associates, Inc. (**Newport Beach, California**)

Geographic Distribution of Represented Soil Consultants



Former NSCSS Presidents



Mark S. McClain

- Soil Horizons, Inc. (Lafayette, Indiana)
 - On-site septic system evaluations
 - Expert Witness Testimony & Litigation Consulting
 - The legal focus has been on a wide range of soil-related issues.
- MACTEC Engineering and Consulting, Inc. (Kennesaw, Georgia)
 - Management—Natural Resources Group (Jurisdictional Waters & Protected Species)
 - Integration of Civil & Environmental Engineering with Soil Science—Especially in Phytoremediation

Laurel Mueller

- Soil Services Company, Inc. (Forksville, Pennsylvania)
 - Soil, Geomorphological, and Archaeological Investigations (Integration of pedology, archaeology, geomorphology, and anthropology)
 - Percolation Tests & Soil Testing for Septic Systems

Edward P. (“Phil”) Small

- Land Profile, Inc. (Spokane, Washington)
 - Land Application of Biosolids (one of the unique “waste” materials he manages is hops used in brewing beer)
 - Environmental Data Management

Phil Scoles

- Terra Science, Inc. (Portland, Oregon)
 - Wetland Delineation & Environmental Permitting
 - Regulatory Liaison—especially related to jurisdictional wetlands and waters

Pierre Bordenave

- InterMountain Resources (Sandpoint, Idaho)
 - Stormwater Management
 - Soil Erosion & Sediment Control

Sidney (“Sid”) Davis

- Davis² Consulting Earth Scientists (Georgetown, California)
 - Wetland Delineation
 - Endangered Species Evaluations (such as ferry shrimp in vernal pools as jurisdictional waters)
 - Vinehill Vineyard—*Six acres of grapes: Viognier, Sangiovese, Pinot Noir, Chardonnay, and Syrah.*

Paul Brandt

- EarthTech of Minnesota, Inc. (Melrose, Minnesota)
 - Environmental Site Assessments
 - Phase 1 (Due Diligence Investigations)
 - Phase 2 (Environmental Sampling)
 - Phase 3 (Remediation)
 - Remediation of Petroleum Contaminated Soil & Groundwater
 - Septic System Design

Donald (“Don”) W. Owens

- Earth Dimensions, Inc. (Elma, New York)
 - Initial Soil Investigation for the Love Canal
 - Geotechnical Soil Drilling
 - Compensatory Wetland Mitigation Design
 - Wetland Banking

Other Soil Consultants

These “other” soil consultants do not appear as authors in this paper, but they too, have made unique contributions with their soil science and other environmental services that they provide to their clients.

James (“Jim”) Bauder

- Bauder Certified Earth Sciences, Inc.
(Canton, Ohio)
 - Integration of services involving *pedology* and *geology*

James Brown

- **Pédologues, Inc. (Peachtree City, Georgia)**
 - Founder of the National Society of Consulting Soil Scientists, Inc.
 - Pédologues is considered a major producer of pepper mash for the hot sauce (salsa) industry
 - Pédologues has pepper operations in Belize, Boliva, Mexico, and Nigér of West Africa



John Dickey

- **CH2M Hill (Sacramento, California)**
 - Integration of Agronomy and Soil Science
 - International consulting in soil and water science and agriculture

Barry Dutton

- **PBS&J (Missoula, Montana)**
 - Founder and Owner of Land and Water Inc. (Purchased by PBS&J)
 - Multi-disciplinary Environmental Consulting
 - National Cooperative Soil Survey Mapping

Robert (“Bob”) L. Kendall

- Kendall & Associates, Inc. (Marietta, Georgia)
 - Feasibility Studies: Evaluate site suitability and land application options
 - Nutrient Management Plans: Calculate nitrogen and phosphorus balances and waste loading rates, recommend crop management program, set up record keeping system

David Lietzke

- Lietzke Soil Services (Rutledge, Tennessee)
 - High Intensity Soil Surveys/High Resolution Soil Surveys
 - Federal government contracting

Lisa Palazzi

- Pacific Rim Soil & Water (**Olympia, Washington**)
 - Soil Physics: Infiltration determinations for stormwater ponds

David Ralston

- Soil Tech, Inc. (Newburgh, IN)
 - Coal Mine Reclamation
 - Soil Interpretations and Landuse Management on Mined Sites

Roy J. Shlemon

- **Shlemon & Associates, Inc. (Newport Beach, California)**
 - Integration of soil science and geology
 - Geoarchaeology
 - Geotechnical Consulting
 - Slope stability
 - Soil slippage

Conclusions

- The purpose of this paper was to show the *diversity* and *uniqueness* of soil science, environmental, ecological, and natural resources consulting practiced and the services offered by “representative” soil scientists from the National Society of Consulting Soil Scientists, Inc. (NSCSS) throughout the U.S.

Conclusions

- Soil Scientists have unique training, education, and experience from many different disciplines, such as agriculture, agronomy, biology, botany, chemistry, ecology, engineering, environmental science, forensics, forestry, geography, geology, hydrology, mathematics, natural resources, risk assessment, soil science, statistics, toxicology, and many others!

Conclusions

- This gives soil scientists a unique global or holistic perspective on the natural environment as a whole and complex, interrelated ecosystem.
- Therefore, consulting soil scientists have opportunities to make significant contributions because of their diverse backgrounds.