

David W. Smith

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Experience Consulting Soil Scientist and Senior Advisor

Independent Consulting, Annapolis, MD

Jun 2018 – Present

Former federal Senior Executive working part-time on independent consulting projects utilizing extensive knowledge of soil science and natural resources and organizational leadership. Currently includes working as an independent contractor on retainer to Oliver Wyman (OW) Financial Services, New York, NY (subsidiary of Marsh & McLennan Companies, Inc) as a Senior Advisor assisting an OW Partner in developing an agriculture and natural resources business platform within the company.

Deputy Chief, Soil Science and Resource Assessment

USDA, Natural Resources Conservation Service, Washington, DC

Jan 2014 – Jun 2017 (retired)

Directed five nationwide programs including Soil Science, Resource Assessment (environmental modeling), National Resources Inventory (NRI), and International Programs Divisions; three national technical centers (Geospatial, Water & Climate, and Soil Survey); three remote sensing laboratories; and NRCS executive on USDA Science Council and Climate Science Team. Accountable for ~850 science and tech staff and ~\$150 million budget.

Director, National Cooperative Soil Survey program

USDA, Natural Resources Conservation Service, Washington, DC/Davis, CA

May 2002 – Dec 2013

Headed the world's leading soil survey program-the U.S. National Cooperative Soil Survey while in DC. Oversaw 12 Regional and 124 local Soil Survey Offices, a National Soil Survey Center, the world-renowned Kellogg Soil Survey Laboratory, a world soil resources staff, and technical soil services delivery across the 50 States. While in Davis, California, I led the Pacific Southwest Soil Survey Regional Office (parts of California, Nevada, Arizona, Oregon, Hawaii, and the Pacific Islands Area).

West Regional Soil Scientist, National Oversight and Evaluation Team

USDA, Natural Resources Conservation Service, Sacramento, CA

Aug 1995 – Apr 2002

Conducted nationwide studies of NRCS' programs and technologies according to Government Performance Audit Standards and Program Evaluation Guidelines. Presented reports and strategic recommendations to agency top leadership.

California State Soil Scientist/Interagency Program Leader/Field Soil Scientist

USDA, Natural Resources Conservation Service, Davis/Redding/Bishop/Ukiah, CA

Jan 1979 – Aug 1995

Led and managed NRCS California Soil Survey and NRI programs and GIS technologies. Led the statewide California Soil-Vegetation Survey program under an Interagency Agreement with the California Department of Forestry. Strong field soil scientist experience in multiple positions.

Education Bachelor of Science – Soil Science (1979)

California Polytechnic State University, San Luis Obispo, CA

Graduate institute (leadership), Federal Executive Institute, Charlottesville, VA (2014)

Graduate institute (science), Soil Science Institute, University of Florida (1989)

Executive Committees, Boards

USDA Science Council. NRCS Exec Lead. 2015-2017. Chaired by the USDA Undersecretary for Research, Economics, and Education (REE) to advise the Secretary and Chief Scientist on the priorities for USDA's science agenda. Information available at:

<https://www.usda.gov/our-agency/staff-offices/office-chief-scientist-ocs/science-council>.

USDA Climate Hubs. NRCS Exec Lead. 2015-2017. Current Climate Hubs information available at: <https://www.climatehubs.oce.usda.gov>.

NRCS Soil Health Division Advisory Board. 2015-2017.

USDA Global Change Task Force. NRCS Exec Lead. 2016-2017. Original Science Plan available at:

https://www.usda.gov/oce/climate_change/science_plan2010/USDA_CCSPan_120810.pdf.

American Farmland Trust's (AFT) National Advisory Committee, The State of America's Farmland Initiative. NRCS Executive Representative. 2016-2017. Information at:

<https://www.farmland.org> and <https://www.farmland.org/initiatives/farms-under-threat>.

USDA Building Blocks for Climate Smart Agriculture and Forestry Taskforce. 2016. NRCS Executive Lead. Editor and a primary author for NRCS component of the building blocks framework. Information available at:

https://www.usda.gov/oce/climate_change/buildingblocks.html

Soil Science Interagency Working Group (SSIWG) of the National Science and Technology Council. 2016. Established by the White House Office of Science and Technology Policy (OSTP). NRCS representative contributing technical input as part of 15 Federal departments and agencies. Information at: <https://obamawhitehouse.archives.gov/blog/2016/08/01/call-action-save-one-americas-most-important-natural-resources>.

National 3D Elevation Program (3DEP). NRCS Exec Lead. 2013-2017. Nationally coordinated interagency standards, acquisition, and provisioning for light detection and ranging (lidar)

and Interferometric synthetic aperture radar (IfSAR) data . Information available at: <https://nationalmap.gov/3DEP/xforum.html> and <https://nationalmap.gov/3DEP/>.

Alaska Mapping Executive Committee (AMEC). NRCS Exec Lead. 2013-2017. Coordinate statewide coverage of IfSAR data. Information available at: https://www.usgs.gov/core-science-systems/ngp/user-engagement-office/alaska-mapping-executive-committee?qt-science_support_page_related_con=0#qt-science_support_page_related_con.

NRCS Regional Offices Board of Directors, National Cooperative Soil Survey (NCSS), USDA, NRCS. 2002-2012. Pacific Southwest Region Leader (Region 2). Information available at: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/office/>

California Governor's Task Force on Land Use. NRCS state representative. 1991.

Professional Soil Scientists Association of California Executive Council (6-year term as President-Elect, President, Past-President and 2 years Treasurer). 1993-2001. Information at: <http://pssac.org>.

California Forest Soils Council Board (4-year term as Chair and Vice-Chair). 1989-1992. Information at: <http://www.caforestsoils.org>.

Publications, Presentations

Smith, D.W. "USDA programs that support farmers' efforts". 2017. Senate staff briefing: "How to Feed the World and Cool the Planet: Soil Is the Solution". Organized by Alexis Baden-Mayer [mailto:alexis@organicconsumers.org]. 11 Jan 2017. Dirksen Senate Offices Conf Room 212-10.

Smith, D.W. 2017. "Geospatial Data, Services, and Products of Federal Programs, USDA NRCS. Association of Photogrammetry, Mappings, and Geospatial Firms (MAPPS) Annual Federal Conference. Marriott Hotel, 14 Mar 2017, Crystal City, Virginia.

Griffith, G.E., Omerik, J.M., Smith, D.W., Cook, T.D., Tallyn, E., Moseley, K., and Johnson, C.B. 2016. Ecoregions of California. U.S. Geological Survey Open-File Report 2016-1021, with map, scale 1:1,100,000. [on-line] Available with updates at: <http://dx.doi.org/10.3133/ofr20161021>.

Smith, D.W. 2016. "The Science of Soil Health Project". Program and Policy Framework presented to the Chief and adopted by USDA, Natural Resources Conservation Service.

Smith, D.W. and M.A. Wilson. 2015. "Climate Change Strategy". NRCS National Leadership Team Meeting. 4 Feb 2015. New Orleans, Louisiana.

Smith, D.W. 2015. "US Soil Policy". Global Soil Security Symposium. Soil Science Society of America. 19 May 2015. Texas A&M University. [on-line] Available at: <https://dl.sciencesocieties.org/publications/meetings/browse/ssa/2015GS>.

Smith, D.W., M.J. Levin, R. Dobos, S. Peaslee, and C. Seybold. 2015. "Soil Capability for the United States Now and Into the Future". Global Soil Security Symposium. Soil Science Society

of America. 20 May 2015. Texas A&M University. [online] Available at:
<https://dl.sciencesocieties.org/publications/meetings/browse/sss/2015GS>.

Smith, D.W. 2015. "Soil Survey Inventory Forum, Law for Soil Conservation". International Assignment Report to USDA and the Natural Resources Conservation Service. In Hosted by Japan's National Institute for Environmental Studies in coordination with the International Union of Soil Sciences. June 2-6, 2015. Tokyo, Japan.

Smith, D.W. 2015. "Volcanic Soils Workshop Summary". International Assignment Report to USDA and the Natural Resources Conservation Service. In Hosted by Japan's National Institute for Environmental Studies in coordination with the International Union of Soil Sciences. June 2-6, 2015. Tokyo, Japan.

Wilson, M.A. and D.W. Smith. 2015. "Soil Survey Contributions to USDA Climate Change Initiatives". Poster presentation at the National Cooperative Soil Survey Annual Conference, June 2015, Duluth, MN.

Smith, D. W. 2015. "Celebrating the International Year of Soils and Beyond". Surface Soil, the Key for Human and Ecosystem. International Union of Soil Sciences Conference. 26 Nov 2015. The K Grand Hotel, Jeju, Korea.

Smith, D. W. 2015. "Soil Policy in the USA". Surface Soil, the Key for Human and Ecosystem. International Union of Soil Sciences Conference. 27 Nov 2015. The K Grand Hotel, Jeju, Korea.

Wilson, M.A., and D.W. Smith. 2014. "The Role of NRCS in Climate Change". National Cooperative Soil Survey Newsletter, Issue 66. Feb 2014. [on-line] Available at:
http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/partnership/?cid=nrcs142p2_054340

Smith, D.W. 2014. Climate change mitigation options paper: "Intensification of Climate Change mitigation-options paper, NRCS". Report to NRCS Chief and USDA Undersecretary for Natural Resources and Environment. 7pgs. May 2014. Washington, D.C.

Smith, D., Brown, J., Bestelmeyer, B., Peacock, G., and Andrews, S. 2014. "Development of Ecological Site Descriptions in Coordination with Soil Surveys". 20th World Congress of Soil Science. Oral Session 63-4 [C1.2-1] Pedodiversity and Ecological Services - Bridging Soil Geography and Land Use. 12 Jun 2014 Jeju, Korea. [on-line] Available at:
https://iuss.boku.ac.at/files/20wcsc_proceedings_compressed.pdf.

Reinsch, T., Herrick, J., Hempel, J., Shepherd K, Smith, D., Beniston, D., and Norfleet, L. 2014. "Sustaining Ecosystem Services based on an Understanding of Pedodiversity: a Global System based on Cloud Computing, Mobile Apps and Crowdsourcing". 20th World Congress of Soil Science. Oral Session 63-2 [C1.2-1] Pedodiversity and Ecological Services - Bridging Soil Geography and Land Use. 12 Jun 2014 Jeju, Korea. [on-line] Available at:
https://iuss.boku.ac.at/files/20wcsc_proceedings_compressed.pdf.

Smith, D.W. "USDA Climate Hubs: The Role of NRCS". 2014. NRCS National Leadership Team Meeting. 25 Aug, 2014. Washington, D.C.

Smith, D.W. 2013. "Soil Classification: Ultra Continental Permafrost Affected Soils". International Assignment Report to USDA and the Natural Resources Conservation Service. World Reference Base (WRB) Ultra-Continental Field Workshop hosted by Dokuchaev Soil Science Society of Russia in coordination with the International Union of Soil Sciences. August 17-23, 2013. Yakutsk, Siberia.

Smith, D.W. 2010. "Soil-Vegetation Survey: Detailed Mapping in California's Wildlands". Soil Science of America Annual Conference. Div. S-6 Session: 75 Years of Soil Erosion and Conservation. 1 Nov 2010. Long Beach, California.

Smith, D.W. and W.L. Verrill, 1998. Vernal Pool-Soil-Landform Relationships in the Central Valley, California. p 15-23. *In*: C.W. Witham, E.T. Bauder, D Belk, W.R. Ferren, and R. Ornduff (Editors). Ecology, Conservation, and Management of Vernal Pool Ecosystems – Proceedings from a 1996 Conference. California Native Plant Society, Sacramento, CA.

Goudey, C.B., and D.W. Smith, eds. 1994. California Ecological Sections. USDA, Forest Service. [on-line] Available at: <http://www.fs.fed.us/land/pubs/ecoregions/intro.html> or <https://databasin.org/datasets/4996c7e61a0e48f2bef646903f51b82b>. (Updated with ECOMAP 2007: Cleland, D.T.; Freeouf, J.A.; Keys, J.E., Jr.; Nowacki, G.J.; Carpenter, C; McNab, W.H. 2007. Ecological Subregions: Sections and Subsections of the Conterminous United States [1:3,500,000] [CD-ROM]. Sloan, A.M., cartog. Gen. Tech. Report WO-76. Washington, DC: U.S. Department of Agriculture, Forest Service.)

Brown, J.R., and D.W. Smith. 1991. Using Soil Survey Information for Site Descriptions: A Landscape Approach. p 77-82. *In*: Utilization of Soil Survey Information for Sustainable Land Use, Proceedings of the Eighth International Soil Management Workshop. USDA, Soil Conservation Service and USAID.

Brown, J.R., and D.W. Smith. 1991. "Decision Support Systems for Spatial and Temporal Delineation of Sites". Conference on Decision Support Systems for Resource Management. 15 Apr 1991, Texas A&M University.

Smith, D.W., and W.D. Broderson. 1989. Soil Survey of Lake County, California. 455 pgs plus map sheets. USDA Soil Conservation Service. [online]. Available at: https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA033/0/lake.pdf and with updates at: <https://websoilsurvey.nrcs.usda.gov/app/>.

USDA Soil Conservation Service. 1991. Soil Survey of Mendocino County Eastern Part and Trinity County, Southwestern Part, California. Field work. 253 pgs plus map sheets. [online]. Updates available at <https://websoilsurvey.nrcs.usda.gov/app/>.