Tom Buman
Chief Executive Officer

Buman is a passionate entrepreneur and precision conservation thought leader with over 30 years of experience in conservation planning.

Through his work at Agren, he is able to marry his love of the environment with his passion for pioneering innovative solutions to complex environmental problems. Tom leads concept development and scope of work development for Agren, and continuously challenges scientists, programmers and subject matter experts working on Agren projects to achieve a higher level of innovation.

As CEO, Tom is responsible for driving business development and strategic partnerships. He is highly regarded for his creativity, innovation and commitment to developing tools to further conservation implementation. Prior to founding Agren in 1996, he spent 14 years with the Natural Resources Conservation Service in Iowa, first as a Soil Conservationist and later as a District Conservationist. Tom has received a Bachelor of Science degree in Agronomy in 1982 and a Masters in Business Administration in 1995, both from Iowa State University.

THOMAS J. BUMAN

Agren, Inc.

AREAS OF EFFECTIVENESS

PRECISION CONSERVATION PLANNING

Calculated site specific soil erosion and management alternatives to bring soil loss to tolerable levels on 5,500 acres in the Chesapeake Bay Watershed. Sited 51 wetlands as a part of America's Great Outdoors "Willow Creek Watershed" using WetlandBuilder. Developed 100,000 acres of conservation compliance plans. Developed plans and contracts for landowners enrolling acres into CRP and WRP. Responsible for planning, layout, and design of conservation structures for landowners including waterways, ponds, wetlands, terraces, water & sediment control basins, contour grass strips, and contour strip cropping. Developed seeding plans for CRP, WRP, waterways, terraces, and filter strips.

INNOVATION AND ENTREPRENEURSHIP

Conceptualized web-based conservation planning software suite utilizing LiDAR elevation data, including planning/design tools for ponds, wetlands, waterways, and water & sediment control basins and distributed, two-dimensional Soil Loss Calculator and ephemeral erosion model. Researched and developed national warranties to increase adoption of nitrogen/phosphorus BMPs. Implemented a market-based approach to encourage absentee landowners to lease their land to certified conservation farmers. Initiated a grassbank system to improve grassland management on both private and public lands. Developed a manure brokering service.

TECHNOLOGY TRANSFER AND TECHNICAL ASSISTANCE

Conveyed technical information to diverse groups including farmers, legislators, researchers, and community leaders. Integrated personal knowledge of farming with conservation planning and implementation. Trained 75 state and federal conservation employees on Agren's conservation planning software. Delivered one-on-one and group training to 1000 farmers on issues of water quality and soil conservation, including training of rural residents on water quality protection via Farm*A*Syst program. Trained 150 fire practitioners on risk factors of implementing prescribed fire.

COALITION AND PARTNERSHIP BUILDING

Identified partners and collaborators from agencies, associations, and organizations to solve complex problems on the national, state, and local levels. Organized and directed 75 stakeholders and expert panel members to gather information and formulate collaborative recommendations to rate and write a national liability insurance policy for prescribed fire. Worked with 75 ranchers and 30 nationally recognized researchers to reduce the economic and environmental impact of drought with a software product developed in collaboration with Texas A&M University. Developed a market-based approach to encourage absentee landowners to adopt more conservation on their land through direct marketing to over 1500 landowners. Collaborated with rural sociologists, economists, NGOs, and federal and state administrators to develop the methodology and framework for the research and development of the certified conservation farmer program. Identified and solicited participation from individual stakeholders and stakeholder groups, both the

obvious and obscure, for expert panel discussions and community-based watershed groups. Developed Carroll SWCD water quality projects for Hazelbrush Watershed (DSC-WPF) and the Livestock Pollution Abatement Project (319 Funds). Served as Project Manager contractor for Raccoon River Watershed Project (Northwest Area Foundation). Directed development and implementation of a statewide farmstead water quality risk assessment program. Initiated and implemented four Watershed Development Grants (DSC) for Mosquito Creek (Shelby SWCD), Floyd River (Plymouth SWCD), Walnut Creek (Dallas/Polk SWCDs), and Upper Nishnabotna River (Carroll County).

WORK EXPERIENCE:

Founder, and CEO: Agren, Inc., Carroll, IA (1996-present)
District Conservationist: Natural Resources Conservation Service, Carroll, IA (1986-1996)
Soil Conservationist, Supervisor: Natural Resources Conservation Service, Anthon, IA (1984-1986)
Soil Conservationist: Natural Resources Conservation Service, Maquoketa, IA (1982-1984)

EDUCATION:

Masters of Business Administration (MBA), Iowa State University, Ames, IA (1995)
Bachelors of Science, Agronomy, Iowa State University, Ames, IA (1982)

PATENTS AND INVENTIONS:

Method for Delaying the Development in Pest Species of Resistance to Control Techniques, Using Insurance to Encourage Correct Uses of Refuges, Patent Number U.S. 6,338,040 B1, January 8, 2002.

AFFILIATIONS:

Commissioner for Carroll Soil and Water Conservation District; Soil and Water Conservation Society, Individual & Corporate Member; Pheasants Forever; Carroll Chamber of Commerce.

SELECTED PRESENTATIONS:

Premier Crop Systems, LLC; August 2013
Taking the High Road to High Yields –Dan Frieberg, Matt Helmers and Tom Buman
Topcon's Water Management Team (Minnetonka MN)
Introduction to Agren's Precision Conservation Software
John Deere's Water Management Team (Corporate in Moline) May 2013
Introduction to Agren's Precision Conservation Software
USDA-ARS Sustainable Corn Stover Meeting; January 2012; Ames, Iowa
Precision Conservation Using SoilLossCalculator
Soil and Water Conservation Society Annual Conference; July 2011
Enhancement of Rusle2 through High-Resolution DEMs and Development of a GIS-Based User-Interface Template
Soil and Water Conservation Society Annual Conference; July 2011
Workshop: Getting Back to Conservation Planning
USDA-NRCS Key National Staff (White, Honeycutt, Herbert, Christensen); June 2011; Washington, DC
Demonstration of Agren's Conservation Planning Tools
Soil and Water Conservation Society Annual Conference: July 2010
What to Expect When Your State Acquires LiDAR
LiDAR Application Workshop; January 2010; Fargo, ND
Advanced Conservation Planning Tools – PondBuilder
Soil and Water Conservation Society Annual Conference; July 2009; Dearborn, MI
LiDAR: A Key to Tomorrow's Conservation Planning Efforts

Soil and Water Conservation Society Annual Conference; July 2009; Dearborn, MI
Start Connecting With Absentee Landowners
Changing Lands, Changing Hands: A National Conference on Farm and Ranch Access, Succession, Tenure and Stewardship; June 2009; Denver, CO
Meeting Landlord and Tenant Conservation Interests
Conservation Applications of LiDAR; June 2009; Rochester, MN
Conservation Planning Tools Powered by LiDAR
Soil and Water Conservation Society Annual Conference; July 2007; Tampa, FL
A Vision for the Center for Absentee Landowners
3rd International Methane and Nitrous Oxide Mitigation Conference; November 2003; Beijing, China
Technologies for efficient manure utilization and nutrient management

RELATED GRANT AWARDS:

Cruse, R., T. Paulsen, S. Dabney, J.Ridgely, T. Buman. USDA-NIFA NIWQP 2012-51130-20188. An integrated approach to precision conservation planning in the South Fork Watershed. January 2013 - December 2016.

Buman, T., J. Ridgely. USDA Forest Servicev11-DG-11420004-150. Development and Demonstration of Web-based, GIS-software for Prescribed Fire Planning in Iowa. July 2011 – July 2014.

Buman, T, S. Buman, J. Ridgely, D. Yoder. USDA Cooperative Agreement No. 58-3625-8-719. Development of a GIS-based RUSLE2 interface template for use with Iowa's LiDAR elevation data. August 2009 - July 2013.

Buman, T., L. Asell, S. Buman, J. Ridgely. NRCS CIG 68-3A75-6-112. Integration of GIS, Expert System, and LiDAR Technologies for Conservation Planning in Iowa. September 2006 – August 2009.

PUBLICATIONS:

Buman, T. Opportunity now: Integrate conservation with precision agriculture. Journal of Soil and Water Conservation, vol 68 no. 4 96A-98A. July/August 2013.

Petrzelka, P., T. Buman, J. Ridgely. Engaging absentee landowners in conservation practice decisions: A descriptive study of an understudied group. Journal of Soil and Water Conservation, vol. 64 no. 3 94A-99A. May 2009.

Buman, T. Reaching out to absentee landowners. Journal of Soil and Water Conservation vol. 62 no. 2 36A. March 2007.

Buman, T., J. Ridgely, M.Walsh. Technologies for efficient manure utilization and nutrient management. 3rd International Methane & Nitrous Oxide Mitigation Conference, Beijing, China. November 2003.