BO WILMER

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Dynamic leader and seasoned geospatial program manager with over 30 years of experience in leveraging academic insights and practical management skills to drive conservation and land management initiatives. Proficient in designing and executing geospatial strategies that enhance ecosystem resilience and sustainability. Founded and scaled the Public Lands and Conservation Geospatial Program to achieve annual revenues exceeding $5 million, underscoring strong capabilities in project management, federal contracting, and team leadership. Earned a M.S. degree in Ecology and a B.A. in Environmental Studies/Geography, a robust foundation to lead innovative initiatives in conservation, climate change adaptation, and geospatial analysis.

Professional Experience

Public Lands and Conservation Program Manager, Locana - A TRC Company, Boise, ID

October 2010 – Present

- Spearheaded the genesis, development and growth of the Public Lands and Conservation Geospatial Program, increasing annual revenues to over $5 million through strategic business development and superior project execution.
- Proposed, negotiated and secured multiple national geospatial contracts with major federal land management agencies such as the USDA Forest Service and USDOI Bureau of Land Management, delivering innovative geospatial applications to achieve conservation.
- Led diverse teams of up to 30 staff, enhanced project delivery systems, supplied and implemented geospatial management recommendations that enabled more consistent, efficient, and cost-effective accomplishment of National Forest Management Plans.
- Awarded multiple honors, including the USDA Forest Service Chief's Honor Award, for exceptional contributions to federal land management solutions and development of the agency's Climate Risk Viewer.

Instructor, *Geospatial Web Tools to Inform National Forest Planning*, BootcampGIS.com, Boise, ID

May 2015 – Present

- Teaches highly rated courses focused on the integration of public lands policy, landscape ecology, and Esri Enterprise WebGIS tools, earning a consistent 5/5 star rating from over 50 graduates.
- Developed unique curriculum bridging academic theory with practical application, significantly enhancing the marketability and job-readiness of students.

Senior Landscape Ecologist, Center for Landscape Analysis, The Wilderness Society, Seattle, WA
April 2000 – October 2010

- Utilized advanced GIS and spatial analysis tools to develop management strategies that contributed to the preservation of nationally ecologically significant landscapes.
- Published influential research on fire management and forest restoration that informed federal policies, directly impacting land management practices on a national scale.
- Collaborated effectively with federal agencies, presenting findings to stakeholders including members of Congress, which influenced legislative changes and funding allocations for conservation efforts.

Research and Teaching Assistant, Landscape Biodiversity Lab, Montana State University – Bozeman, MT
September 1997 – April 2000

- Master's Thesis: *Effects of human and natural disturbance on landscape structure in the Greater Yellowstone Ecosystem*, comparing spatial patters of timber harvest on the Targhee National Forest with those created by 1988 fires in Yellowstone National Park across multiple scales.
- Taught Principles of Ecology undergraduate classes, oversaw the Landscape Biodiversity Lab, associated geospatial data management and facilitated peer's graduate coursework.
- Researched wildlife-habitat relationships, hyperspectral image analysis, wildfire simulation modeling, landscape ecology, multi-variate statistics and spatial autocorrelation.
- Designed multi-scale field sampling methods and integrated with stratified sampling of remotely sensed imagery and oversaw field crews responsible for ecological data collection.

GIS Analyst, Resource Data, Inc., Anchorage, AK
May 1996 – September 1997

- Developed and implemented GIS solutions for numerous diverse clients including BP, Native Corporations and USGS – Biological Resource Division, enhancing data management and operational efficiency.
- Conducted comprehensive GIS training programs as an ESRI Certified Instructor, boosting client self-sufficiency in managing geospatial data.

Co-Founder and Principal, Ripple Technologies, Anchorage, AK
January 1995 – December 1998

- Pioneered GIS applications within educational sectors, publishing "Alaska in Maps," a textbook atlas used statewide in high schools.
- Provided GIS training and certification courses, establishing foundational GIS knowledge that contributed to the curriculum being adopted as a requirement for Environmental Studies degrees.

Adjunct Professor, GIS, Alaska Pacific University, Anchorage, AK
January 1995 – September 1997

- Designed and taught the first undergraduate and graduate GIS courses, leading to the program's recognition as the most popular in the Environmental Studies Department.
- Built the university's first GIS lab, significantly advancing the GIS capabilities of the institution and its students.

GIS Analyst, USGS – Geologic Division, Anchorage, AK
September 1994 – January 1996

- Designed and built geospatial databases and applications for geologic maps, improving the accuracy and usability of geological data for research and public use.
- Trained staff in advanced GIS methods, enhancing the division's capacity for geospatial analysis and automation.

Representative Projects at Locana - A TRC Company

Diversity of Conservation and Land Management Applications

Climate Risk Viewer – USDA Forest Service

- Proposed, managed and delivered the Climate Risk Viewer, representing the authoritative geospatial data of the agency to inform climate adaptation strategies across all lands. The tool supports adaptation strategies for forest managers to achieve climate resilience. Awarded USDA Secretarial Honor and Honor Award from the Chief of the Forest Service.

Wildlife Habitat Spatial Analysis Lab – BLM

- Directed spatial analyses to improve habitat conditions for 300 threatened species, demonstrating GIS's crucial role in conservation efforts across diverse ecosystems. This project aligns with broader agency goals to utilize technology in protecting biodiversity.

Climate Change Vulnerability Assessment (USFS Region 3)

- Managed the integration of geospatial and environmental data to model climate impacts, aiding strategic planning for climate resilience. This assessment highlights the application of GIS in addressing climate change challenges, supporting agency-wide priorities to enhance climate adaptation strategies.

Fish Habitat Modeling – US Fish and Wildlife Service

- Oversaw the development of a geospatial web application that aids watershed restoration strategies. This tool exemplifies the use of geospatial technology in aquatic ecosystem management and supports ongoing efforts to understand and mitigate the impacts of environmental change.

Efficiency in Enterprise Geospatial Applications

Forest Planning – Geospatial Data Standardization (USFS Region 4)

- Championed the standardization of geospatial data processes across multiple National Forests, significantly enhancing data interoperability for forest management planning. This initiative is foundational in supporting emerging strategies for more integrated and efficient forest planning.

Environmental Data Warehouse (EDW) - USFS WO

- Led the creation and integration of geospatial data into a centralized warehouse, facilitating efficient, standardized data management across the Forest Service. This enterprise data warehouse is critical in supporting new agency-wide initiatives by providing consistent, easily accessible data.

Scaled Implementation of GIS Technology - USFS CIO

- Directed the adoption of advanced GIS technologies, improving data stewardship workflows across the Forest Service. This project showcases operational efficiency and supports dynamic data use, aligning with emerging initiatives for enhanced data governance and accessibility.

Education

M.S. in Ecology
Montana State University, Bozeman, MT

B.A. in Geography/Environmental Studies
Middlebury College, Middlebury, VT

Publications and Awards

Awards

- **US Department of Agriculture Secretary's Honor Award (2023):** Recognized for outstanding delivery of the Forest Service Climate Risk Viewer, a required high-profile, agency Initiative authorized under President Biden's Climate Change Initiative.

- **USDA Forest Service Chief's Honor Award (2023)**: For excellent timely development and publication of the agency's Climate Risk Viewer, delivering authoritative enterprise geospatial data to inform climate adaptation plans across all National Forests.

- **Regional Forester's Honor Award for Excellence in Science and Technology (October 2017)**: Awarded for exemplary leadership and innovation in providing Geospatial Guidance for Forest Planning in USFS Region 4.

- **Esri: Special Achievement in GIS Award (2008)** – The Wilderness Society – Center for Landscape Analysis - Science Award

Publications

- **DeLuca, T.H., Aplet, G.H., Wilmer, B., & Burchfield, J. (2010)** "The Unknown Trajectory of Forest Restoration: A Call for Ecosystem Monitoring." *Journal of Forestry, September 2010*. Discusses innovative approaches to forest restoration monitoring to improve long-term sustainability.

- **Aplet, G.H., & Wilmer, B. (2009).** "The Potential for Restoring Fire-adapted Ecosystems: Exploring Opportunities for Expanded Wildland Fire Use." *Fire Management Today*. Examines methods for incorporating fire management techniques into ecosystem restoration strategies.

- **Stewart, S., Wilmer, B., Aplet, G.H., Hammer, R., Hawbaker, T.J., & Radeloff, V. (2008).** "Wildland-Urban Interface Maps Vary with Purpose and Context." *Journal of Forestry*. Analyzes how different methodologies affect wildland-urban interface mapping and its implications for fire management.

- **Crist, M., DeLuca, T.H., Aplet, G.H., & Wilmer, B. (2008).** "Restoration of Low Elevation, Mixed-Fire Severity Forests of the Rocky Mountain West." *Ecological Analysis, The Wilderness Society*. Provides guidelines for restoring mixed-fire severity forests in the Rocky Mountain West using ecological principles.

- **Wilmer, B., & DeLuca, T.H. (2008).** "Fire and Fuels Restoration Priority System: Using Mapping and Analysis to Help Prioritize Restoration Projects." *The Wilderness Society Report, July 2008*. Focuses on the use of GIS and spatial analysis to prioritize and manage fire restoration projects effectively.

- **Crist, M., DeLuca, T.H., Aplet, G.H., & Wilmer, B. (2008).** "The Unknown Trajectory of Forest Restoration: A Call for Ecosystem Monitoring." *Ecological Analysis, The Wilderness Society*. Advocates for continuous ecosystem monitoring to guide forest restoration efforts effectively.

- **Wilmer, B., & Aplet, G.H. (2006).** "Managing the Landscape for Fire: A Three-Zone, Landscape-Scale Fire Management Strategy." *Ecological Analysis, The Wilderness Society*. Proposes a three-zone strategy for fire management aimed at improving ecosystem health and reducing wildfire risks.

- **Wilmer, B., & Aplet, G.H. (2005).** "The Wildland Fire Challenge: Protecting Communities and Restoring Ecosystems." *George Wright Forum*. Discusses challenges and strategies in managing wildland fires to protect communities and restore ecosystems.

- **Wilmer, B. & Aplet, G.H., (2005).** *Targeting the Community Fire Planning Zone: Mapping Matters.* Ecological Analysis. The Wilderness Society, Washington, DC.

- **Crist, M., Wilmer, B., & Aplet, G.H. (2005).** "Assessing the Value of Roadless Areas in a Conservation Reserve Strategy: Biodiversity and Landscape Connectivity in the Northern Rockies." *Journal of Applied Ecology*. Analyzes the ecological value of roadless areas for biodiversity conservation in the Northern Rockies.

- **Wilmer, B., & Crist, M. 2002.** "Roadless Areas: The Missing Link in Conservation: An Analysis of Biodiversity and Landscape Connectivity in the Northern Rockies." *Ecological Analysis. The Wilderness Society*, Washington, DC.