

EUREKA_003

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PROFESSIONAL EXPERIENCE

Eureka County, NV

Natural Resources Manager

July 2008 – Current

Manage the Eureka County Department of Natural Resources, Natural Resources Advisory Commission, Weed Control District, Wildlife Advisory Board, and Firewise Communities. This includes strategic planning, research and keeping apprised and actively involved on all issues relating to natural resources and public lands in Eureka County including, but not limited to, land management, wildlife, weed control, air resources, wild horses, water resources, grazing allotments, mining, and recreation. Based on this research, make recommendations for action to the Eureka County Board of Commissioner, Eureka County Natural Resources Advisory Commission, and other decision-makers and based on their decisions, implement these recommendations. As part of this research, review and provide analysis and comment and active participation on land-use proposals, agency decisions, NEPA documents, and proposed regulatory or legislative initiatives.

Track and analyze related legislation and regulation at both the State and federal levels and analyze the potential impacts. Ensure Eureka County's position is provided through coordination with legislators, regulatory entities, and related staff and written and verbal input and testimony in a timely manner based on hearing schedules and potential votes. Also work with other entities, interests, and commodity groups to structure legislative language for various legislation proposals.

Develop and maintain annual budgets for the Eureka County Department of Natural Resources, Natural Resources Advisory Commission, Weed Control, Wildlife Advisory Board, and Firewise Communities totaling over \$600,000 combined each year.

Coordinate development and implementation of Eureka County Natural Resources and Federal and State Land Use Plan, Water Resources Master Plan, and Diamond Valley Groundwater Management Plan.

Successfully plan, implement, and administer a variety of natural resources related on-the-ground projects including, but not limited to, noxious weed control, encroaching pinion-juniper thinning, Firewise Communities, fuels reduction projects, riparian zone protection, off-site stockwater development, riparian riders, recycling program, irrigation efficiency studies, degraded land seeding and rehabilitation, rangeland monitoring and assessment, and water resources monitoring and assessment.

Administer a host of grants, contracts, and funding agreements. This includes, but is not limited to, Title III funds through the Secure Rural Schools and Community Self Determination Act, two multi-year Joint Funding Agreements with USGS for water resource investigations, two Clean Water Act 319(h) subgrants through Nevada Division of Environmental Protection for water quality improvement projects, one Heritage Trust Account subgrant for wildlife habitat enhancement, one Dream Tag Charitable Fund grant for wildlife habitat enhancement, multiple Financial Assistance Grants through Bureau of Land Management for weed inventory and treatment, Barrick Gold mitigation funding for natural resource conservation and protection, and Eureka Conservation District grants for wildlife habitat enhancement and irrigation efficiency study.

Administer various contracts with independent contractors. To facilitate completion of various tasks and work products required by department duties or directives from the Eureka County Board of Commissioners, technical

experts are often contracted with. Has managed up to 7 contracts with independent contractors at any given time. This requires review of work and deliverables and management to ensure contracts and projects are kept on track.

Idaho State University- GIS Training and Research Center

Research Assistant

May 2006 – July 2008

Designed, managed and completed various projects focused on rangeland resource modeling and monitoring using GIS, remote sensing, and rangeland science. Planned and managed rangeland health studies including field data collection in investigation of various grazing treatment effects on rangeland health. Presented research results at multiple forums.

Melaleuca, Inc.

Lab Technician

2005 - 2006

Research and development lab including chemical and physical analysis of products.

Idaho State University

Research Technician

December 2004 – September 2005

Research related to pathogenic E. coli genes. Presented research results at multiple forums.

OTHER LEADERSHIP & PROFESSIONAL EXPERIENCE

Member, Nevada Land Use Planning Advisory Council

July 2009 – Current

Appointed by Governor Brian Sandoval. Current chairman (since January 2015). SLUPAC advises on the development and distribution to cities and counties of information useful to land use planning and advises the state land use planning agency and other state agencies regarding the development of plans and statements of policy concerning lands under federal management.

Member, US Forest Service Secure Rural Schools Resource Advisory Committee

2009 – Current

The RAC's duties include reviewing proposed forest management projects in accordance with the SRS Act and making recommendations to the Forest Service and providing opportunities for interested parties to participate in the project development process. RAC duties have been expanded to include monitoring of project progress and making recommendations for appropriate changes to projects being monitored.

Supervisor, Eureka Conservation District

January 2012 – Current

Conservation districts are local units of government established under state law (NRS 548) to plan for and carry out renewable natural resource management programs at the local level. Leads efforts and manages the bulk of the activities of the Eureka Conservation District. Through this effort, received and expended over \$1M worth of funding on the ground for projectd.

Steering Committee Member, Nevada Pinyon-Juniper Partnership

2013 – Current

Assist with guiding ways to address the ever increasing densities of Pinyon-Juniper (PJ) woodlands in Nevada that affect a multitude of resources. The goal of the Partnership is for the ecological risks to be addressed by landscape level restoration, with utilization of the resulting biomass as an additional beneficial outcome. In this role, assists in applying for, receiving, and administering funding.

Commissioner, Nevada Conservation Commission

January 2014 – Current

Appointed by Governor Brian Sandoval. The Nevada Conservation Commission is charged with carrying out policies on renewable natural resource programs including guiding and regulating Nevada's 28 conservation districts. This includes assisting conservation districts in carrying out their power, securing cooperation and assistance from the federal government to work with districts, serving as the official state agency for cooperating with the federal

Natural Resources Conservation Service, enlisting cooperation and collaboration with state, federal, interstate, local, public and private agencies and organizations on programs dealing with renewable natural resource conservation, informing and advising Director of the Department of Conservation and Natural Resources on Conservation District needs, and assisting Conservation Districts in their planning programs. Also helped lead development of a strategic plan.

Nevada Delegate, Council for Agricultural Research, Extension, and Teaching (CARET) March 2014 - Current
 Appointed by the Dean of the University of Nevada, Reno College of Agriculture, Biotechnology, and Natural Resources (CABNR). CARET is a national grassroots organization under the Association of Public and Land-Grant Universities. Advocates for greater national support and understanding of the land-grant university system's food and agricultural research, extension, and teaching programs and also work with local and national agricultural organizations to tell agriculture's "story." Also, the current CARET liaison to the national Extension Committee on Organization and Policy, a 5-member board representing the five national Cooperative Extension regions.

Zone Councilman, Society for Range Management Nevada Section 2010 - 2016
 The mission of the Nevada Section of SRM is to foster the advancement of the science and art of managing rangelands. The Nevada Section serves as a medium for the exchange of facts, knowledge, concepts, and ideas among Section members, and between rangeland professionals and the broader public. Served as a member of the Section Council and was the key contact between the Council and Section members residing within the zone providing knowledge and outreach on rangeland related matters.

Board Member, Nevada Weed Management Association 2014 – 2017
 Assist in NWMA's mission to facilitate the establishment of statewide vegetative, aquatic, and terrestrial invasive species control through education and legislation.

Immediate Past President, Nevada Association of Conservation Districts January 2013 – December 2016
 The Nevada Association of Conservation Districts is the nonprofit organization representing Nevada's 28 conservation districts. Conservation districts are local units of government established under state law (NRS 548) to plan for and carry out renewable natural resource management programs at the local level. Led first-time development of official policy statements. Increased financial solvency from a few thousand dollars to over \$40,000. Grew scholarship fund from less than \$2000 to over \$10000. Increased formal partnerships by over 600%. Spearheaded efforts for NRCS Regional Conservation Partnership Program grant application exceeding \$20M. Obtained multiple financial assistance grants.

EDUCATION

Idaho State University
M.S. in Geographic Information Science
 Emphasis in Geo-Spatial Rangeland Sciences

Idaho State University
B.S. in Biology
 Emphasis in Ecology

SAMPLING OF PROJECTS AND ASSOCIATED PUBLICATIONS

- Weber, K.T., N. Glenn, and J. Tibbitts 2010. Investigation of Potential Bare Ground Modeling Techniques using Multispectral Satellite Imagery. Pages 101-112 in K. T. Weber and K. Davis (Eds.), Final Report: Forecasting Rangeland Condition with GIS in Southeastern Idaho (NNG06GD82G). 189 pp.

- Bare ground exposure is an important indicator of rangeland health in semi-arid ecosystems. As such, numerous studies have attempted to detect bare ground exposure using a variety of remote sensing platforms and image processing techniques with varying levels of success. This project investigated the potential of various techniques, indices, and algorithms (NDVI, Angle indices, SMA, and SAM) to accurately detect bare ground exposure within semi-arid rangelands of southeastern Idaho. Results indicate that while each technique may function well where bare ground is common (>50%), none of the techniques tested appear suitable in areas where bare ground exposure rarely exceeds 35% save for the Angle at near infrared (ANIR index which may be able to detect bare ground with as little as 10% exposure.
- Tibbitts, J. and K. T. Weber, 2010. Investigating the Utility of SPOT Multispectral Imagery for Forage Estimation on a Rangeland Site in Southeastern Idaho. Pages 67-74 in K. T. Weber and K. Davis (Eds.), Final Report: Forecasting Rangeland Condition with GIS in Southeastern Idaho (NNG06GD82G). 189 pp.
 - Field- or ground-based estimates of forage availability can be time consuming and fraught with errors due to the inherent heterogeneity found in semiarid rangelands. Satellite remote sensing offers the potential to improve forage estimation by incorporating rangeland variability into the modeling process by developing estimates based upon each and every pixel. The problem with this approach however, is that pixels are typically too large to offer meaningful results and the heterogeneity within each pixel can make forage estimation with remote sensing techniques just as difficult as using ground-based measures or estimates. While the size of MODIS pixels (1000m x 1000m) is admittedly too coarse for forage availability modeling, SPOTS pixels (10m x 10m) may be sufficiently resolved to provide accurate forage estimations. To test this, a study was designed and is described in this paper. The results of this study suggest that reliable forage estimation with remotely sensed imagery will require spatial resolutions better than offered by the SPOT 5 sensor as the coefficient of determination (R^2) did not exceed 0.18 with any band combination tested.
- Tibbitts, J. 2010. Soil Moisture Modeling using Geostatistical Techniques at the O'Neal Ecological Reserve, Idaho. Pages 139-160 in K. T. Weber and K. Davis (Eds.), Final Report: Forecasting Rangeland Condition with GIS in Southeastern Idaho (NNG06GD82G). 189 pp.
 - Spatial interpolation techniques were used to model soil moisture patterns at the O'Neal Ecological Reserve in southeast Idaho and investigate interactive effects that may improve modeling results. The individual prediction models, created through ordinary kriging, were compared to a sequential Gaussian simulated prediction model (SGSIM). SGSIM always resulted in a lower magnitude of difference when compared to the ordinary kriging model. This may be due to the autocorrelation structure of each individual treatment which was more difficult to infer than for the entire dataset (in which SGSIM parameters were based upon). The degree of uncertainty in modeling the autocorrelation structure likely propagated through the prediction comparisons. SGSIM using 250 realizations proved most reliable in estimating the local soil moisture mean.

AWARDS

2005 Research fellowship; National Institute of Health Idea Network of Biomedical Research Excellence (INBRE)
 2007 Inland Northwest Research Alliance Environmental Sensing Symposium 1st Prize Student Poster Award
 2009 Young Rangeland Professional of the Year, Nevada Section Society for Range Management
 2010 Outstanding Service in Natural Resources Conservation and Management, Eureka Conservation District
 2014 Outstanding Supervisor, Eureka Conservation District