



# Mark A. Anderson

## *Senior Botanist/Natural Resource Specialist*

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### RELEVANT PROFESSIONAL EXPERIENCE

Mr. Mark A. Anderson is a Senior Botanist/Natural Resource Specialist with Western Plains Consulting, Inc. (WPC), and is responsible for natural resource, wetland, NEPA environmental assessments, biological assessments, and related projects. Mr. Anderson has a long and experienced work history dealing with a variety of natural resource management issues. He is well versed in soil and water conservation issues, and is fully versed and familiar with federal agency protocol related to various wetland and natural resource issues. He is a USDA-NRCS Certified Wetland Determination Specialist.

### KEY EXPERIENCE

- **NRCS Certified Wetland Determination Specialist.** Provided training, assistance and guidance to Field and Area Office employees in completing certified wetland determinations. The process was by interpretation and application of the methods in the 1987 Corps of Engineers Wetland Delineation Manual and Regional Supplement(s) and the Food Security Act Wetland Identification Procedures contained in the National Food Security Act Manual Circular 6.
- **Resource Conservationist** working to identify wetland hydrogeomorphic (HGM) class and apply appropriate HGM model: Northern Prairie (low permeability substrate) Potholes; Depressional, Endosaturated, Highly Permeable Substrate (Sand Plain) Wetlands; and Groundwater Discharge, Low Permeability Substrate, Sloped Wetlands. Assessed levels of wetland functions and measured changes in the functional capacity units due to project impacts such as surface drainage, fill, and tile drainage. Determined if wetland manipulations were within Minimal Effects criteria or if the manipulations met the definition of wetland conversion. Determined mitigation credits (functional capacity units) resulting from wetland restoration and creation.
- **Subject Matter Expert** in administrative and technical aspects of the implementation of NRCS Wetland Protection Policy and Wetland Conservation Compliance provisions of the Food Security Act.
- **Member - Interdisciplinary Team** that conducted State Conservationist Reviews of appealed wetland determinations, with lead responsibility for hydrophytic vegetation factor, and, on occasion for the wetland hydrology factor. Assisted with the determination of hydric soils. Developed reports to document findings from off-site data investigations and field investigations. Mr. Anderson also provided recommendations to the NRCS State Resource Conservationist on wetland determination off-site procedures and field procedures.
- **NRCS National Employee Development Center Instructor.** Mr. Anderson was responsible for the development and delivery of course - Wetland Identification for the Food Security Act. Averaged two (2) week-long courses per year at various locations across the United States. Provided training on off-site wetland identification methods, field procedures, plant identification, hydrophytic vegetation indicators, wetland hydrology indicators, assignment of wetland labels, and documentation.
- **Compliance Review Coordinator** for NRCS on Food Security Act Highly Erodible Land and Wetland Conservation provisions, and provided instruction to field offices for selection of tracts of land to be reviewed, reviewed procedures, and interpretation of policy. Mr. Anderson conducted compliance reviews for field offices with heavy workload.
- **Resource Conservationist** that periodically reviewed North Dakota's NRCS standards, specifications, documentation forms, and fact sheets for six (6) conservation practices. Developed tools to facilitate/expedite

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development/revision of technical data and products and deadlines for North Dakota NRCS Field Office Technical Guide (FOTG), and managed FOTG website. Reviewed documentation and revision drafts of conservation practices assigned to other technical specialists and provided recommendations. Reviewed and submitted comments on draft revisions of NRCS National Handbook of Conservation Practices standards.

- **Resource Conservationist** that reviewed and commented on technical and programmatic documents. Developed content for publications such as the NRCS "Living Landscapes in North Dakota: A Guide to Native Plantscaping." Provided information to inquiries from the public such as the potential hazard to hunting dogs posed in seed awns and barbs from various grass and weed species. Periodically reviewed and edited the impact ratings of 70 resource concerns that may have resulted from the installation of NRCS-approved conservation practices.

- **Resource Conservationist** that led development of NRCS Administrative Records for wetland determinations appealed to the National Appeals Division (NAD). Advised NRCS Appeals Specialist on technical findings and strategy to persuade hearing officers of the credibility of NRCS wetland determinations. Provided written and oral testimony as a technical expert for NRCS at NAD hearings. Analyzed and rebutted testimony of appellants and appellants' consultants, as appropriate. When NAD determinations were adverse to the NRCS, he identified the errors in the hearing officer's findings and conclusions, and developed a fact-based request for NAD Director's Review, when feasible.

- **Plant Ecologist** on the NRCS 4-person Northern Prairie Pothole Wetland Technical Team, created in 1995 to assist the agency in implementation of the Food Security Act and NRCS wetland conservation policy.

- **Plant Ecologist** that collected data on reference wetlands in Montana, North Dakota, Minnesota, and South Dakota for the HGM Model for the Northern Prairie (low permeability substrate) Potholes. Identified and quantified plant species composition. Assisted with the hydrology data collection. Examined pothole wetlands in these four states and tested the model to determine if the model fit the wetlands, or if a modified model was needed to fit local wetland characteristics. Provided training to NRCS employees and other agency personnel on application of the Model.

- **Plant Ecologist** that collected data on reference wetlands in North Dakota and South Dakota and participated in development of the Depressional, Endosaturated, Highly Permeable Substrate (Lake Dakota Sand Plain) Wetlands Interim HGM Model. The tasks included identification of wetland functions and model variables, development of incremental measures of the variables, and development of formulas based on the model variables to measure and quantify and quality of wetland functions. Provided training to NRCS employees and agency partners on application of the model.

- **Plant Ecologist** that collected data on reference wetlands in Nebraska and participated in drafting an interim HGM Model for the Nebraska Sand Hills. Provided training to NRCS employees and agency partners on application of the model.

- **Plant Ecologist** that conferred with the Northern Prairie Wildlife Research Center and North Dakota State University Soil Science Department for information regarding wetland characteristics and functions to be applied to developing and improving HGM models.

- **Plant Ecologist** that conducted a review of NRCS' off-site wetland mapping conventions developed by five States (Iowa, Minnesota, Montana, North Dakota, and South Dakota). The project involved applying each State's mapping conventions to hundreds of wetlands in each State to determine if there were significant differences in their ability to accurately identify wetlands and wetland conversions.



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- **Plant Ecologist** that facilitated and assisted with the plant identification course for NRCS and partner agency employees.
- **NRCS Northern Plains Region Team Leader** that developed environmental compliance training for NRCS employees from 1999 to 2000, including the Clean Water Act, Endangered Species Act, National Environmental Policy Act, National Historic Preservation Act, and Executive Order 11990 (no net loss of wetlands). Served on the NRCS Northern Plains Region Team that developed riparian and stream habitat management training for NRCS employees.
- **NRCS District Conservationist** that inventoried pastures and native range for farmers and ranchers and developed grazing management systems on more than 30,000 acres of grazing land.
- **NRCS District Conservationist** that planned/assisted installation of tame pasture and native range plantings on more than 10,000 acres. Planned the first NRCS Range Plantings in North Dakota that included forb species. Planned more than 60,000 acres of Conservation Reserve Program plantings.
- **NRCS District Conservationist** that collected seed or root plugs of twelve native species (grass, sedge, forb and tree) for evaluation/propagation by the NRCS Plant Materials Center in Bismark, ND. Planned and installed a warm-season grass planting between tree rows that led to a change in NRCS tree planting specifications that allows non-competitive grass planting for erosion control and wildlife habitat. Planned and installed two two blow-out reclamation plantings with various combinations of mulch, seed, and sod plugs. Conducted annual evaluations of Plant Materials Field Evaluation Plantings of grass, forb, shrub, and tree species (average of four plantings per year for six years). Planned and installed four trial plantings of trees utilizing plastic tube tree shelters. Installed a successful tree planting utilizing acorns rather than the traditional bare-root or containerized tree stock.

## **EMPLOYMENT EXPERIENCE**

- WPC, Inc., Senior Botanist/Natural Resource Specialist, Current
- USDA-NRCS, Resource Conservationist, 2001 - 2014
- USDA-NRCS, Plant Ecologist, 1995 - 2000
- USDA-SCS/NRCS, District Conservationist, 1980 - 1995
- USDA-SCS, Soil Conservationist, 1978 - 1980

## **EDUCATION AND CERTIFICATIONS**

- North Dakota State University, B.S., Biological and Agricultural Sciences
- Conservation Planner - Level III NRCS Certification
- NRCS Job Approval Authority for Wetland Identification for the Food Security Act
- NRCS Job Approval Authority for Application of HGM Models for low permeability potholes, sand plain depressional potholes, and low-permeability wetlands

## **SPECIALIZED TRAINING**

- Wetland Delineation Workshop, NDDOT, USDA-NRCS, USACE Sponsored, 2014
- BNSF Contractor Orientation Safety Training, 2014
- OSHA 501 10-Hour Training, current
- OSHA 1910.120 HAZWOPER 8-Hour Training, current
- Basic Ecological Principles
- Water Quality Training Modules
- Windbreak Technology
- Cultural Resources Training



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- Conservation Planning on Rangelands
- Work and training detail - NRCS Bismarck Plant Materials Center
- Business of Crop Residue Management
- Economics of Soil and Water Conservation
- Wetland Restoration
- Plant Identification - Grasses, Sedges, Rushes, and Composites
- Endangered Species Act Training
- NEPA Training
- Annual Ethics and Conduct Training, Computer Security Training

#### **AWARDS, HONORS, AND AFFILIATIONS**

- Soil and Water Conservation Society Commendation Award
- NRCS Awards for Volunteer Programs, Promotion of Plant Materials Program
- North Dakota Chapter of the Soil and Water Conservation Society, Member

