DEPARTMENT OF NATURAL RESOURCES
POSITION DESCRIPTION

Classification: Natural Resources Research Scientist – Advanced
Working Title: Forest Management & Ecology Researcher
Location: Rhinelander

POSITION SUMMARY:
The Forest Management & Ecology Researcher leads independent and collaborative research into forest management and ecology. This position conducts and directs applied studies on complex forest management and ecology interactions, overseeing all phases of projects. This position requires an advanced level of technical knowledge and experience in the field of forest ecology, with a strategic focus on silviculture, forested ecosystems, and forest management issues in Wisconsin. The Forest Management & Ecology Researcher works independently to provide an interface between forest ecology science and its application to forest management, planning, policy and administration. Specific focus areas will change over time depending on priority needs of the Department. Current priorities include analysis of the efficacy of forest management and silviculture guidelines, barriers to regeneration (such as deer browse, competition, invasive plants and others), ash-replacement species guidance and adaptive forestry to create climate resilient forest systems.

The Forest Management & Ecology Researcher is the technical expert for the Division on forest management and ecology issues, setting the pace for the Division through leadership, innovation, adaptation, best practices, and transfer of knowledge. The Forest Management & Ecology Researcher addresses emerging management priorities in forestry and identifies future information and research needs. This position is a key internal and external consultant for staff, leadership, inter-divisional teams, and partner groups. This position maintains cutting-edge knowledge and expertise by staying abreast of current research and maintaining an effective professional network. The customer base for this position is 450-500 Division staff, including three central office bureaus and three districts, as well as colleagues throughout the Department, other agencies, and key partner groups, including Wisconsin Council on Forestry.

LOCATION, GEOGRAPHIC SCOPE & TRAVEL REQUIREMENTS: This position is located at the Forestry Headquarters in Rhinelander with responsibilities statewide. Travel may be frequent to study areas to manage projects and collaborate with partners and the public. Travel locations will vary depending on the projects. Occasional travel to other locations within the state will be necessary for meetings, conferences, and collaboration with colleagues.

SCOPE OF AUTHORITY: This position works under the general supervision of the Forest Economics & Ecology Section Chief within the Bureau of Applied Forestry. The Forest Management & Ecology Researcher may direct the work of LTEs, student interns and other personnel.

GOALS & ACTIVITIES:
50%  
A. Conduct and Coordinate Research Activities
   A1. Act as primary expert on forest management and ecology issues.
   A2. Conduct research and provide information, analysis and evaluation of forest management and ecology issues to inform decision making processes regarding forest related activities in Wisconsin.
   A3. Work in close collaboration with natural resource managers, researchers, planners and administrators to evaluate information and research needs, design research projects and convey
results from internal and external applied studies focused on forestry-related management and ecological issues.

A4. Coordinate statewide and Lake States efforts to study factors impacting forest management and ecosystems.

A5. Organize and direct multidisciplinary and multi-agency teams related to forest management and ecology for planning, policy and administration of programs.

A6. Coordinate and write proposals for outside funding for studies and projects, and administer grants and contracts.

A7. Publish timely technical papers in journals and non-technical reports that objectively convey research findings to field managers, administrators, the scientific community and the general public.

25% B. Technical Assistance, Program Coordination and Consultation

B1. Synthesize existing and new information and share this information with the Division of Forestry, the Department, other agencies, and key partner groups, including Wisconsin Council on Forestry, through personal appearances, field workshops, symposia, management publications, and peer-reviewed scientific journals.

B2. Interpret results through thorough review of scientific literature, personal communication with other state, national and international professionals, and personal expertise in the subject matter.

B3. Maintain and expand knowledge of forest management and ecology issues, especially silviculture, harvesting practices, habitat associations, and land classifications; scientific procedures and tools, including multi-scale modelling, statistical design and sampling, data analysis, GIS, and remote sensing; and land management policies, programs, and practices.

B4. Give presentations, conduct workshops, and communicate with program managers to insure the results of research are known and applied in future management strategies, where appropriate.

B5. Work with field foresters on silvicultural trials and demonstration projects. Evaluate the feasibility of proposed studies and assist program administrators with priority assessments.

B6. Advise program managers on the collection of data and the development and management of databases.

10% C. Develop and Evaluate Policy

C1. Develop management policies and procedures for forest ecosystems at landscape and site level scales, considering maintenance of sustainable and diverse forests, forest commodity production, and wildlife habitat management.

C2. Evaluate the forest management and ecological implications of proposed and new legislation and regulations (local, state and, federal) that impact Division programs, forest industry, woodland owners, and forest resources.

C3. Assist with the development of legislation, rules, issue briefs, budget initiatives, or guidelines. Provide responses to legislative inquiries and letters to the Secretary.

C4. Prepare and present reports and issue briefs that provide counsel to Division Leadership for program direction and assist with problem solving. Assist in answering questions related to forest management and ecology that arise during the development of plans, policies, services, and regulations.

10% D. Develop and Maintain Internal and External Partnerships

D1. Represent the Division of Forestry on internal and external teams, committees, and task forces as directed and provide expert consultation.
D2. Establish and maintain working relationships with staff from other government departments and agencies, academia, industry, and associations to assess current and potential information regarding forest management, ecology, silviculture, and other forestry-related concerns.

D3. Develop and maintain effective working partnerships with regional partners.

5% E. Provide Organizational Responsiveness

E1. Review and keep abreast of changes in knowledge and practices of position-related activities in responsibilities.

E2. Participate in job-related training and organizational meetings as assigned by supervisor.

E3. Follow all general and position-related safety requirements.

E4. Perform other position-related duties as assigned.

SPECIAL REQUIREMENTS:

- Must meet the requirements for traveling and operating a State vehicle, including the ability to obtain and maintain a valid Wisconsin driver’s license.

KNOWLEDGE, SKILLS, AND ABILITIES:

Upon Appointment:

1. Knowledge and skill in forest science, forest ecology, forest management, silviculture, landscape ecology, conservation biology, and ecosystem management principles, theories, and practices.

2. Knowledge and skill related to scientific communication techniques, both verbal and written.

3. Skills in advanced statistical analysis, experimental design, data collection and interpretation of data and research results.

4. Knowledge of adaptive management principles to test management options.

5. Knowledge of and skill in project management, including consistent methodology, collection of quality data, budgeting, project personnel management, monitoring progress to assure achievement of objectives with prescribed work schedules, and administering grants and contracts to complete projects.

Full Performance:

6. Knowledge and skills for effective team management, conflict resolution, group motivational techniques, and collaborative procedures.

7. Knowledge of Department, university and other agency organization and communication channels for advising officials and field personnel on forest management.

8. Knowledge of Department functions, goals, policies, and objectives.


10. Skills in strategic planning.

11. Knowledge of Statue and rule promulgation procedures.

PHYSICAL REQUIREMENTS & ENVIRONMENTAL FACTORS: Physical requirements include talking in front of groups, sitting for long periods of time, lifting and carrying 5 to 100 lb., carrying heavy field equipment into remote areas, and walking several miles over rough terrain in adverse weather conditions. Environmental factors include working indoors in an office setting and working outdoors for several weeks or more (being exposed to cold temperature below 32 degrees for periods of several weeks or being exposed to possibly extreme heat above 100 degrees for periods of more than one hour), and independently traveling around the state.
**Equipment Used:** Office equipment, hand tools, motorized equipment, ATV, GPS/navigational equipment, power tools including chain saws, electronic equipment, radios, monitoring and sampling devices, and specialized scientific equipment such as canopy cameras, telemetry receivers and lab equipment. Incumbent may be asked to fly in helicopters or low-flying fixed-wing aircraft to do aerial surveys or assessments.

**Telework Evaluation:** The duties and responsibilities of this position would be suitable for telecommuting occasionally from an alternative office location.
PD Addendum of WI DNR Competencies

Service Excellence for Customers & Partners

- Make excellent customer/partner service a top priority and actively seek to improve it.
- Work to identify and understand the needs of others and strive to create the most value for them, focusing on their satisfaction.
- Responsive to changes in customer/partner goals, deliver on promises, follow-up appropriately thus service delivery is marked by fairness, integrity, high ethical standards and the utmost respect for others in order to generate trust as an outcome.
- Actively seeks to achieve results that best strike the balance with the Division's service role and regulatory authority with the customer/partner goals.

Effective & Fair Decision Making

- Analyze situations fully and accurately to reach productive, and where appropriate, uniform decisions. Consult appropriate parties/stakeholders as necessary and identify the key concerns and/or issues that need to be addressed in order to make the best decision possible.
- Discern the pertinent facts and develop clearly based objective criteria.
- Make timely, well-reasoned decisions by integrating information and perspectives appropriately.
- Evaluate the immediate and longer-term consequences of decisions.
- Use sound professional judgment in their analyses and decisions.

Effective Communication

- Express ideas in a clear, concise, and effective manner, both orally and in writing.
- Ability to present, facilitate and instruct as part of staff meetings and partner activities.
- Use correct grammar and sentence structure in communications.
- Strong listening skills, particularly when different viewpoints are expressed.
- Openly share information, transparent and keep all concerned parties informed.

Interpersonal Relationships & Partnership Building

- Build and effectively utilize relationships and influence networks to achieve goals.
- Share knowledge and build trust with colleagues, managers and external partners.
- Tactful when dealing with sensitive issues and personalities.
- Exercise social intelligence: have a high level of self-awareness, are aware of impact on others.
- Work through complex situations effectively, diplomatically and with sensitivity without losing credibility or trust.
- Recognize sensitive information and exercise discretion.
- Approach professional conflicts in a constructive manner. Refrain from personal attacks and excessive emotions.
- Demonstrate sound judgment under pressure and retain focus on desired business outcomes in difficult conditions.
- Proactive in addressing problems.
- Exemplify the commitment to the DNR's core value of respect- to work with people, to understand each other’s views and to carry out the public will; maintain integrity and treat everyone with fairness, compassion, and dignity.
**Demonstrates Leadership**

- Establish vision, set direction and initiate strategy by analyzing forces and trends that impact the program. Anticipates future needs, challenges and identifies potential options and constraints; critically evaluates information to promote the most effective position.
- Identify the implications of decisions and actions on people, other parts of the organization, external partners and customers. Understand the abstract and think in terms of whole systems and complex interrelationships. Synthesize large, disparate bodies of information.
- Mobilize staff to face and tackle tough challenges. Facilitate staff through the change process by helping them to navigate loss and work through discomfort so that they can adapt to emerging conditions and see the potential within broader organizational strategies and priorities.
- Establish formal and informal relationships with others to provide feedback, information, support and resources to help them develop new or higher levels of skill and ability.
- Empower others to reach higher levels of performance through trust, delegation, participation and coaching.
- Provide direction, support and encouragement amongst their team colleagues and partners.
- Hold up high standards of excellence towards the accomplishment of desired outcomes and objectives.
- Inspire confidence and respect which is motivating for others, builds positivity; keep the team cohesive and partners confidently engaged.