

**IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES ▼**  
**HUMAN RESOURCES ENTERPRISE**

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**NATURAL RESOURCES TECHNICIAN 2**

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**DEFINITION**

Performs a variety of technical tasks in a fisheries or wildlife research or management unit or in a fish hatchery, forestry nursery, state forest, urban forest, state park or recreation area; responsible for carrying out annual plans developed by an in charge biologist; may direct the work of others in the performance of operations in one of the units; performs related work as required.

**The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.**

**WORK EXAMPLES**

Administers a cooperative farming program in an assigned area; writes farm contracts, determines crop rotation within the context of a management plan, maps crop fields, monitors farming activities to insure that the agreement is followed; amends contracts to prevent damage from or by wildlife, and collects and submits remittances to farmers annually.

Assists in the implementation of a statewide residential tree distribution program; establishes partnership with County Conservation Boards, Resource Conservation and Development areas (RC&Ds) areas and County Extension Offices for project implementation during the Spring and Fall seasons.

Submits written wildlife management proposals or reports including pond and dike locations, channelization changes, improved water management and vegetation control techniques, and drainage improvement to the biologist.

Meets with private contractors to obtain competitive bids for contracts for projects that are beyond the capability of available staff and equipment; drafts agreements and contracts for project implementation. Monitors community forestry grants for planting and maintenance compliance.

Drafts requests for proposals (RFPs) and communicates with nursery and garden centers to acquire 6,000 to 8,000 landscape trees annually; obtains competitive bids from nurseries and contractors; drafts agreements and contracts for project implementation; inspects and certifies that landscape trees meet minimum standards and are pest free; directs work of volunteers to distribute trees.

Determines the location and composition of tree and shrub plantings, water levels and pumping needs on unit marshes.

Assists urban forester/state forester, and arboricultural technical and volunteer coordination assistance to city officials/community leaders, e.g., tree inventory, tree planting design and layout.

Investigates special land management problems and prepares written recommendations for the supervisor.

Assists with insect trapping, tree disease and invasive plant monitoring.

Assists a biologist, park ranger, or forester with the preparation of annual and biennial budgets by determining unit equipment and material needs, estimating unit operational costs and project request costs; maintains cost accounting ledger to track purchases.

Determines needed repairs to dikes, water control structures, parking lots and buildings and either carries out or oversees unit workers in repair and maintenance activities.

Designs and constructs figures, graphs, and visual aids for presentation of articles in scientific journals, professional meetings, and statewide meetings; analyzes data, draws conclusions, and writes up findings to present to a biologist for publication.

Assists in collecting biological data such as fish population and harvest figures, brood fish and eggs for fish cultures, wildlife surveys such as roadside game bird counts, winter muskrat, raccoon and deer spotlight, and aerial deer surveys.

Conducts and/or coordinates facilities and equipment maintenance work such as painting, mowing, vegetation control, and minor carpentry, electrical, and plumbing projects.

Oversees inmates in the establishment and improvement of forest stands by planting trees; works in established forest stands thinning, pruning, collecting seed, maintaining trial plots, nursery operations and other forestry related work.

Works at a state forest nursery to grow, process and ship tree seedlings; carries out nursery practices such as land preparation, fertilization, seeding, growing, irrigating, culturing, harvesting, grading and shipping tree seedlings.

Prepares or coordinates the preparation of monthly and quarterly management reports such as vehicle usage, inventory, purchases, and work activities for biologists, park rangers, or foresters.

Operates and manages a state park or recreational area which does not have a Park Ranger or other supervisory person on site.

Enforces conservation laws of the State of Iowa in parks to insure the safety of state owned property and the general public; writes incident reports; assists area visitors or other law enforcement officers when needed.

Assists in reviewing design, drawings and specifications on construction projects; assists in site review and inspection.

Operates and maintains heating, cooling, water supply, and electrical systems of buildings and associated fish culture facilities; determines needed repairs to such systems and makes the repair or contracts to have repairs done; repairs circuit boards, electrical distribution systems, alarm instrumentation panels, valves, lighting systems, etc.

Observes hatchery reared fish for abnormal behavioral and/or physical changes which may indicate disease; makes preliminary fish disease diagnostic examinations and carries out proper disease treatment with the concurrence of a biologist; transports live fish from a hatchery or lake to waters in which they are to be released with minimal loss and in an economical manner.

Creates and maintains short and long term research and survey files and databases; oversees data entry and error checking research and survey data for personal or mainframe computers; assists in tabulating and analyzing research and survey data; produces final data summaries and reports using statistical procedures.

Assists a biologist in conducting research projects which may involve literature research, field research activities, data collection and data processing for preliminary data analysis.

Directs and oversees inmate crews on a permanent basis engaged in road, trail, bridge, boundary line, forest, and building maintenance and construction.

Assists in developing communication materials, e.g., newsletters, publications, fact sheets and news releases.

Assists a supervisor by performing, in accordance with set procedures, policies, and standards, such duties as instructing employees such as Natural Resources Technician 1, Maintenance Repairer, seasonal employees or inmates about tasks, answering questions about procedures and policies, distributing and balancing the workload and checking work; may make occasional suggestions on appointments, promotions, and reassignments.

### **COMPETENCIES REQUIRED**

Knowledge of the principles and practices of natural science as related to natural resources programs.

Knowledge of the wildlife management, forest, farm and contracting program requirements.

Knowledge of basic state and federal laws, rules, and regulations as they relate to assigned natural resources programs.

Knowledge of major fish diseases and fish culture practices.

Knowledge of forestry, forest inventories, tree identifications, tree plantings, horticulture, arboriculture, soil science, urban forestry, and plant science.

Knowledge of fisheries or wildlife research techniques such as radio telemetry, trapping, banding, vegetation analysis, fish sampling methods, stream surveys, water quality studies, and fish kills.

Knowledge of basic statistical concepts and analytical procedures used in analyzing research data.

Ability to operate sawmill equipment, grade lumber and market timber sales.

Ability to initiate and control prescribed forest burns.

Ability to operate and maintain power tools and equipment commonly used to maintain buildings and landscapes.

Ability to perform techniques used in conducting fisheries or wildlife management and research projects such as population surveys, trapping, banding, water quality analysis, stream surveys, etc.

Ability to express ideas effectively both orally and in writing in the preparation of fisheries, urban forestry, or wildlife management and research reports and articles for publication.

Ability to safely operate equipment such as boats and motors, power tools, chain saws, tractors bulldozers, fish shocking equipment, floor buffers, air compressors, air dryers, oxygen generators, ultra-violet disinfection units, boilers, etc.

Ability to direct the work of others to ensure the safe and efficient completion of tasks by giving assignments and directions, reviewing work for accuracy and completeness, and answering questions about work assignments.

Ability to use personal computers to manipulate databases and spreadsheets and communicate with other users.

Ability to perform strenuous physical labor outdoors under any type of weather conditions.

Ability to read, understand and interpret blueprints, electrical schematics, equipment manuals, repair manuals, and project manuals.

Displays an ability to work with the media, i.e., interviews, news releases, magazine articles, and public speaking.

Displays high standards of ethical conduct. Exhibits honesty and integrity. Refrains from theft-related, dishonest or unethical behavior.

Works and communicates with internal and external clients and customers to meet their needs in a polite, courteous, and cooperative manner. Committed to quality service.

Displays a high level of initiative, effort and commitment towards completing assignments efficiently. Works with minimal supervision. Demonstrates responsible behavior and attention to detail.

Responds appropriately to supervision. Follows policy and cooperates with supervisors.

Aligns behavior with the needs, priorities and goals of the organization.

Encourages and facilitates cooperation, pride, trust, and group identity. Fosters commitment and team spirit.

Expresses information to individuals or groups effectively, taking into account the audience and nature of the information. Listens to others and responds appropriately.

**EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS**

The equivalent of three years of full time experience involving facilities maintenance in plumbing, electrical, and/or heating and cooling, or technical work in a biological, horticultural, conservation, or natural resources program;

OR

an equivalent combination of education and experience substituting 30 semester hours of college level course work in a biological or natural resources program for each year of the required experience;

OR

employees with current continuous experience in the state executive branch that includes the equivalent of 12 months of full-time experience as a Natural Resources Technician 1 shall be considered as qualified.

**NOTE:**

Certain designated positions require the employee to be certified by the Iowa Department of Agriculture and Land Stewardship as a Pesticide Applicator within a period of time as determined by the appointing authority at the time of hire.

Effective Date: 07/07 CH