SERIES PURPOSE:
The purpose of the ecological analyst occupation is to conduct ecological monitoring & research projects in natural areas, scenic rivers and invasive plants ecosystems in forested areas, assists with invasive species control (manual/chemical), to collect field specimen & to update & analyze computer botanical data.

At the lower level, incumbents perform field surveys or prepare ecological information for computer entry & analysis.

At the higher level, incumbents lead lower-level ecological analysts in research, monitoring or data systems projects.

CLASS CONCEPT:
The full performance level class works under general supervision & requires considerable knowledge of biological sciences or natural resources in order to perform field surveys of ecological specimen in natural areas scenic rivers & in state, private & urban forests, assists with invasive species control (manual/chemical), or to analyze botanical information for entry into computer system.

CLASS CONCEPT:
The advanced level class works under direction & requires thorough knowledge of biological sciences or natural resources in order to lead team of lower-level ecological analysts or volunteers in conducting & monitoring research projects for natural areas scenic rivers, & in state, private & urban forests, assists with invasive species control (manual/chemical)
JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Performs field surveys & site investigations to inventory significant ecological data (e.g., collects & identifies specimens & ecological associations; maps occurrences; documents findings), or oversees scenic river inventory program in assigned region (e.g., conducts & coordinates inventories & studies for possible scenic river designation; collects baseline ecological data), or prepares ecological information for entry into computerized & manual data systems (e.g., evaluates information for consistency, readability & locational accuracy; plots information on topographic maps and invasive species ecosystems in forested areas).

Analyzes botanical data to determine plant locations, significant communities & species data for classification, acquisition & management considerations; analyzes & interprets soil maps, topographic maps, aerial photographs & geological maps; prepares & compiles information for proposed natural areas & scenic rivers protection & acquisition projects; writes project descriptions; prepares grant applications, lease agreements & contracts; plans & conducts river protection projects (e.g., bank stabilization, erosion control, stream water quality monitoring, litter pick-up) & performs environmental impact reviews; adds, deletes & updates records in manual & computer files; revises topographic maps & managed natural area information & summarizes information on rare species, plant communities & other inventory categories; participates in control burn program.

Writes scientific reports & articles for publication in scientific journals; prepares reports of research findings; provides technical assistance to landowners regarding land protection, dedication & preservation of significant natural area & scenic river lands, and recommendations on invasive species control (manual/chemical) in ecosystems in forested areas.

Performs variety of public relations activities (e.g., makes public presentations, slide talks, represents division at state fair).

MAJOR WORKER CHARACTERISTICS:
Knowledge of agency policies & procedures regarding acquisition & management of natural areas*; biological science (e.g., botany, zoology, ecology, forestry) or natural resources; cartography*; safety practices involved in field surveys*. Skill in use of computer terminal*; field sampling or monitoring equipment*. Ability to interpret variety of technical & scientific material; write technical reports & articles; gather, collate & classify information about data, people or things; prepare & deliver speeches before general public.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:
Completion of undergraduate core program in biological science (e.g., botany, zoology, ecology, forestry) or natural resources.

-Or 24 mos. exp. in ecological position.

-Or equivalent of Minimum Class Qualifications for Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:
In the Division of Forestry, must pass S131-190 within the first year of employment. Must successfully complete basic firefighter/introduction to fire behavior course (i.e., S-130/S-190) within first year of employment pursuant to national interagency incident management system (i.e., wildland & prescribed fire qualification system guide), within probationary period must successfully pass Pesticide Licensing Category 4A (Forestry).

UNUSUAL WORKING CONDITIONS:
May be exposed to inclement or adverse weather conditions; fire, intense heat mud, water, poisonous plants & smoke (e.g., from control burn areas), may be exposed to harmful chemicals and/or toxic gases; work may involve travel.
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**JOB DUTIES IN ORDER OF IMPORTANCE:** (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Leads team of lower-level ecological analysts (i.e., provides work direction & training) in conducting ecological monitoring & research projects for natural areas, preserves &/or scenic rivers, determines priorities & work methodologies to be used by staff, works with local governments, state & planning agencies &/or landowners to develop regulations for protection of natural resources & recommends policy & procedural changes based on monitoring & field research activities;

OR

Oversees volunteer workers in study of ecological systems within Old Woman Creek Estuary, state & private forests monitors & participates in collection, classification & evaluation of baseline data, coordinates, regulates & reviews research projects sponsored by universities, various agencies & individuals & analyzes baseline data & research information to assist in development, management & utilization of estuary & nature preserve or monitors invasive plants & impact on forest ecosystems which would include invasive species control (manual/chemical) on state, private & urban forestlands.

Collects ecological data on rare invasive species in forested ecosystem (e.g. state, private & urban),species & communities; prepares maps, reports & scientific papers on program findings; prepares ecological management plans &/or coordinates their implementation; coordinates grant program &/or review of grant proposals; prepares response regarding environmental impact of projects by other governmental agencies; prepares access & research permits for chief’s signature; coordinates, monitors &/or participates in control burn program.

Provides technical assistance & information to preserve managers, forest managers, private landowners in regards to state, private & urban forests, various governmental agencies & public & private organizations or cooperates with other agencies; coordinates activities among scenic river &/or natural areas councils, field coordinators & administrators; prepares & presents speeches & slide talks concerning agency problems & activities; conducts public meetings & educational seminars; drafts news releases.

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of employee training & development*; agency policies & procedures regarding acquisition & management of natural areas; biological science (e.g., botany, zoology, ecology, forestry) or natural resources; cartography; safety practices involved in field surveys. Skill in use of computer terminal*; field sampling or monitoring equipment. Ability to interpret variety of technical & scientific material; write technical reports & articles; gather, collate & classify information about data, people or things; prepare & deliver speeches before general public.

(*)Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of graduate core program in biological science (e.g., botany, zoology, ecology, forestry) or natural resources. - Or completion of undergraduate core program in biological science (e.g., botany, zoology, ecology) or natural resources; 6 mos. trg. or 6 mos. exp. in use of field sampling or monitoring equipment; must possess pesticide/herbicide license as identified in the approved position description.

-Or 6 mos. exp. as Ecological Analyst 1, 83451.

-Or equivalent of Minimum Class Qualifications for Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

In the Division of Forestry, must pass S131-90 within the first year of employment. Must successfully complete basic firefighter/introduction to fire behavior course (i.e., S-130/S-190) within first year of employment pursuant to national interagency incident management system (i.e., wildland & prescribed fire qualification system guide),

**UNUSUAL WORKING CONDITIONS:**

May be exposed to inclement or adverse weather conditions; fire, intense heat, mud, water, poisonous plants & smoke (e.g., from control burn areas), may be exposed to harmful chemicals and/or toxic gases; work may involve travel.