

**CLASS SPECIFICATION**  
**Botanic Specialist II**

FLSA Status: Exempt  
Union Representation: Professional and Technical Employees (PTE)

**GENERAL PURPOSE**

Under general supervision, plans, develops, organizes, manages and monitors a variety of professional botanic, natural areas, urban forestry, and horticultural projects and activities; develops restoration, enhancement and maintenance strategies and resource management plans; manages natural area and botanic collections; develops community support and manages the work of volunteer groups in support of restoration and enhancement projects; and performs related duties as assigned.

**DISTINGUISHING CHARACTERISTICS**

Botanic Specialist II is the professional-level class in the Botanic series. Incumbents plan, develop, manage and participate in botanic, natural area, urban forestry and horticultural projects and activities requiring a sound knowledge of scientific theory and principles applicable to maintenance and development of the City's natural resources, habitat and botanic collections. Incumbents are responsible for projects of significant scope and complexity and perform their work with considerable independence to meet overall project goals. Incumbents may provide lead work direction and guidance to other Botanic Specialists, project staff and volunteers.

Botanic Specialist II is distinguished from applicable supervisory classes in that incumbents in the latter classes have overall administrative responsibility for the resources, people and projects assigned to their units.

**ESSENTIAL DUTIES AND RESPONSIBILITIES**

Any one position in this class may not perform all the duties listed below, nor do the listed examples of duties include all similar and related duties that may be assigned to this class.

1. Prepares applications and obtains required land use and development permits; prepares contracts and files ordinances.
2. Conducts analysis and assessments and participates in developing strategies and resource management plans; assists in the prioritization of potential projects, based on a variety of factors and expected benefits.

3. Plans and conducts activities, builds partnerships and collaborates with non-profit support organizations, community volunteers and resource management and related agencies on resource restoration and enhancement projects and other program related projects and events.
4. Performs project management responsibilities, including estimating costs, developing and tracking budgets, obtaining resources, equipment, plants and other materials and monitoring and communicating project status; provides oversight and directs and coordinates the work of contractors, volunteers and other project staff.
5. Administers nursery, arboricultural services and seed production contracts supporting programs and activities; maintains and updates tree and plant seed inventories, ensuring provenance; develops and administers protocols for seed storage, stratification and germination testing.
6. Designs and reviews code and plans for effects on natural environment and the feasibility of actual implementation.

## **OTHER DUTIES**

1. Stays abreast of trends and developments, best management practices and scientific research. Participates in the activities of local, national and international arboricultural, horticultural and botanical organizations.

## **MINIMUM QUALIFICATIONS**

### **Knowledge of:**

1. Theory and principles of botany, biology of flora and fauna and ecology and ecosystem management.
2. Plant physiology and plant soil interactions.
3. Principles, methods and techniques of plant propagation and plant collection management including plant fertility, soils, pruning, planting and plant-removal techniques.
4. Methods and techniques for recognizing and controlling threats, such as insects, diseases and invasive non-native plants, to the horticultural assets and health of local ecosystems, including integrated pest management programs.
5. City, state and federal construction specifications and regulations for native and ornamental landscapes and contracts.

6. Project management methods, tools and techniques.
7. Safe work methods and practices.

**Ability to:**

1. Plan, organize, implement, maintain and monitor resource protection, restoration, mitigation and enhancement projects including those involving community participation.
2. Evaluate natural resources and habitat conditions and design habitat restoration, mitigation and enhancement strategies and projects, applying principles and techniques of ecology and ecosystem management to local conditions and situations.
3. Train, organize and supervise paid and volunteer workers possessing a wide variety of skills.
4. Prepare accurate and complete technical documents such as permit applications, project status reports and ordinances.
5. Communicate effectively, orally and in writing with individuals and groups.
6. Establish and maintain effective working relationships with co-workers, community groups, volunteers, professional organizations, the public and others encountered in the course of work.

**Training and Experience:**

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with a major in biology, botany, horticulture or natural resource science; and three years of progressively responsible experience in horticultural or natural resource development activities; or an equivalent combination of training and experience. Experience in a public agency is preferred.

**Licenses; Certificates; Special Requirements:**

A valid state driver's license may be required for certain assignments.

Some positions may require an Oregon Department of Agriculture Public Pesticide Applicator license within six months of appointment; or Certified Arborist standing with the International Society of Arboriculture within six months of appointment; and/or be an Accredited Rose Trial Judge within six months of hire.

## PHYSICAL AND MENTAL DEMANDS

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depends, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring bureau to accommodate the limitation.

## SPECIALTIES

Positions in this class are assigned to one of the following specialties: Generalist (GEN), Arboretum Collections (ACOL), Community Gardens (CGAR), Environmental Education (EVED), Natural Resource Ecologist (NRE), Pest Management (PSTM), Forestry (FOR) or Rose Garden (RGAR). Positions assigned to the Generalist specialty are defined in the General Purpose and Essential Duties and Responsibilities sections of the class specification.

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### Class History:

Adopted: 11-24-99

Revised: 01-23-01 Union representation changed from Nonrepresented to COPPEA.

Revised: 07-01-01 Spec revised as part of the COPPEA Classification and Compensation study. Botanic Specialist II (6012) class created from the following COPPEA class(es):  
4124 Botanic Specialist II

Revised: 01-01-02 Pest Management specialty added; removed from Botanic Specialist I (6011).

Revised: 04-01-04 Rose Garden specialty added.

Revised: 09-09-05 "Specialties" section added.

Revised: 08-01-06 Spec history revised to reflect pre-2001 COPPEA Study history. Spec formatting modified.

Revised: 11-02-06 Environmental Education Specialty added.

Revised: 05-05-08 Forestry Specialty added.

June 2009 - Change Job Class number from 6012 to 30000321 (NRE), due to system change.

June 2009 - Change Job Class number from 6012 to 30000317 (ACOL), due to system change.

June 2009 - Change Job Class number from 6012 to 30000322 (PSTM), due to system change.

June 2009 - Change Job Class number from 6012 to 30000318 (CGAR), due to system change.

June 2009 - Change Job Class number from 6012 to 30000323 (RGAR), due to system change.

June 2009 - Change Job Class number from 6012 to 30000319 (EVED), due to system change.

June 2009 - Change Job Class number from 6012 to 30001005 (FOR), due to system change.

June 2009 - Change Job Class number from 6012 to 30000320 (GEN), due to system change.

July 2017 – Updated union name from COPPEA to PTE

Revised: 09-04-18 – Revised Forestry specialty to reflect duties of the position.

## **30000321 - NATURAL RESOURCE ECOLOGIST SPECIALTY (NRE)**

### **GENERAL PURPOSE**

Under general supervision, plans permits and implements natural resource restoration and enhancement projects; and performs related duties as assigned.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Plans, organizes, manages and monitors resource protection, restoration, mitigation and enhancement projects and programs; designs projects and develops plans and specifications; designs and manages large stream bank stabilization, riparian and upland revegetation projects incorporating native plant species; plans and applies slope stabilization and erosion control methods.
2. Monitors and evaluates project success, using standard protocols; identifies the need for additional restoration and maintenance treatments and efforts.
3. Develops and implements methods for establishing herbaceous plant populations and native plant installations; administers nursery and seed production contracts supporting programs and activities; maintains and updates plant seed inventories, ensuring provenance; develops and administers protocols for seed storage, stratification and germination testing.
4. Organizes the purchasing of plants and other materials for project implementation.
5. Designs and reviews code and plans for effects on natural environment and the feasibility of actual implementation.

### **MINIMUM QUALIFICATIONS**

#### **Knowledge of:**

1. Principles, methods and practices of natural resource protection, restoration and enhancement, including erosion control methods and techniques, resource monitoring protocols and ecosystem management.
2. Practices, methods and techniques of watershed management and familiarity with local water quality issues.
3. Threats to health of local ecosystems (e.g., invasive non-native plants) and methods for their elimination or mitigation.
4. Wildlife biology, native plants, wetland ecology, fish biology, forestry, water quality, multi-objective management of floodplains and watershed, recreational management in natural areas.
5. Basic principles of recreation management in natural areas.

**Ability to:**

1. Evaluate natural resources; develop, design and implement habitat restoration and enhancement strategies and projects; and monitor and manage results.

## **30000317 – ARBORETUM COLLECTIONS SPECIALTY (ACOL)**

### **GENERAL PURPOSE**

Under direction, manages daily operations of the Arboretum.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Propagates and grows native plants in containers and nursery settings, ensuring provenance through collection and tracking of plant materials.
2. Oversees and serves as team leader for the day-to-day operations and maintenance activities of the Arboretum including acquisition, maintenance, evaluation and disposal of botanic and horticultural specimens; oversees fertilization, pruning, pest management, irrigation systems and soil preparation, in accordance with established plans.
3. Supervises the production and maintenance of plant labels and records; assists in the development of planting plans and the procurement of plants and materials.
4. Develops recommendations on the acquisition and disposal of botanic and horticultural specimens in conformance with arboretum policies.
5. Participates in plant-related arboretum functions such as plant sales, classes and occasional special events.

### **MINIMUM QUALIFICATIONS**

#### **Knowledge of:**

1. Principles, practices, methods and techniques applicable to management of botanic gardens, arboretums or similar public horticulture settings.
2. Planning and displaying living botanical and horticultural collections.
3. Methods and practices in display of living botanical and horticultural collections.

#### **Ability to:**

1. Organize and operate a plant propagation program and nursery, utilizing applicable methods and techniques of soil preparation, planting, irrigation, pruning and pest management.
2. Operate power and hand equipment and irrigation systems.
3. Locate resources of plant materials and assist in the development of collection plans.





## **30000322 – PEST MANAGEMENT SPECIALTY (PSTM)**

### **GENERAL PURPOSE**

Under general supervision; develops and coordinates activities to control insect, disease and vegetation in natural resource areas; provides related training to other staff; and performs related duties as assigned.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Evaluates pest and vegetation control efforts including those performed by outside contractors; reviews the possible adoption/elimination of pest management materials and methods.
2. Manages pesticide purchasing, database inventory and material warehousing; maintains required legal records.
3. Coordinates the collection and storage, treatment and legal disposal of surplus materials and other hazardous wastes; maintains legally required records.
4. Develops and maintains Hazardous Materials response protocols; as OSHA-certified first responder, coordinates first response actions, involving those of staff as well as other local, state and federal agencies.
5. Develops, organizes, and presents educational training for pesticide application certification and recertification, Hazardous Materials Communications, hazardous materials spill procedures and other related issues.
6. Coordinates compliance with federal Endangered Species Act provisions as related to pest management and policy development; coordinates efforts with the city Endangered Species Act coordinator.
7. Routinely reviews program areas of responsibility for efficiency and effectiveness.

### **MINIMUM QUALIFICATIONS**

#### **Knowledge of:**

1. Federal, state and local laws and regulations related to pest management and environmental health, including the federal Endangered Species Act as it relates to lands and waterways.

2. Pesticides and chemicals, their properties, interactions, toxicology, chemistry, legalities, environmental and health impacts.
3. Proper use, storage and disposal methods for a wide range of chemicals and hazardous materials.
4. Principles of ecological and biological system health applicable to integrated pest and vegetation management plans and activities.
5. Employee training requirements, practices and methods.

**Ability to:**

1. Read and understand blueprints and plans.
2. Immediately respond to pages during operating hours.

**Licenses; Certificates; Special Requirements:**

OSHA Hazardous Materials First Responder certification.

License by the state as a Municipal Pesticide Applicator, with Right of Way, Landscape and Turf, and Aquatic endorsements.

## **30000318 – COMMUNITY GARDENS SPECIALTY (CGAR)**

### **GENERAL PURPOSE**

Under general supervision, plans, develops, organizes, and manages a variety of projects, programs and activities in support of Portland Parks & Recreation's Community Gardens Program; performs related duties as assigned.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Plans, organizes, manages and monitors new garden construction, restoration and enhancement projects; drafts grants; develops plans and specifications; purchases materials for project implementation; manages budget and expenditures.
2. Coordinates central program office, recruiting and supervising staff and volunteers in a variety of tasks; develops training and education programs for staff and volunteers.
3. Develops program strategic and operational plans by working with agencies, landowners and community.
4. Organizes education and outreach events and activities to provide information, publicize opportunities, and build partnerships and relationships.
5. Drafts and develops program policies and procedures; educates program participants on policies and applies policies; assesses program effectiveness and incorporates changes to meet program goals.

### **MINIMUM QUALIFICATIONS**

#### **Knowledge of:**

1. Principles, methods and practices of, organic gardening, food production techniques and community gardening.
2. Principles, methods and practices of natural resource protection, restoration and enhancement.
3. Public parks management, administration and community development principles.
4. Community garden design and maintenance.
5. Budget administration and fundraising techniques.

#### **Ability to:**

1. Collect and analyze data in support of program goals.
2. Create and implement public policy.
3. Plan, design and develop gardens and garden programs using agency and community involvement.
4. Recruit and train staff and volunteers.
5. Exercise tact and diplomacy in dealing with difficult or sensitive situations, issues and people.
6. Develop and deliver educational programming and create educational materials for multiple populations.

**Licenses; Certificates; Special Requirements:**

First Aid and CPR certification.

## **30000323 - ROSE GARDEN SPECIALTY (RGAR)**

### **GENERAL PURPOSE**

Under general supervision, manages and maintains the Bureau of Parks and Recreation's collection of roses; implements rose-related programs, competitions and special events; and performs related duties as assigned.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Manages the City's rose collection at multiple sites; plans, schedules, oversees and participates in horticultural work needed to maintain roses located at the International Rose Test Garden in Washington Park, at Peninsula Sunken Rose Garden and Ladd's Addition Rose Garden; procures, selects for replacement, plants, prunes and deadheads roses; manages pests and diseases in rose collection; inspects work of other staff and volunteers to assure quality.
2. Coordinates with supervisor, garden sponsors and partners to select and acquire new and replacement planting stock; factors in knowledge of rose garden history and historically significant roses; recruits and selects donors; maintains relationships with rose industry groups and rose hobby groups; participates in Rose Society meetings.
3. Consults with rose industry to improve pest management practices for commercial practitioners and homeowners.
4. Consults and coordinates with industry associates and rose provider partners to successfully manage three rose testing programs for new/experimental roses.
5. Coordinates and facilitates rose-related events and competitions; represents the City and Bureau at events in the City and the region; serves as judge at competitions.
6. Organizes and leads garden visits by visiting dignitaries; maintains knowledge of Rose Garden history and current collection, including species, color, placement and significance of particular roses to various groups; provides expertise, information and assistance to committees, residents, industry representatives and other public and nonprofit agencies; resolves inquiries and complaints from citizens, organizations and agencies.
7. Reviews and provides recommendations regarding permits for events to be held in rose gardens; manages scheduling and reservations; provides support to community activities in the gardens; works with Royal Rosarians, Portland Rose Society, Portland Rose Festival Association and others to schedule, coordinate and facilitate their activities in the gardens and the community.

8. Assists supervisor with development and implementation of rose garden publicity; takes pictures; reviews content of advertising; makes presentations to community and nonprofit groups; serves as recognized rose expert for public presentations, media questions and other situations.
9. Recruits, trains and manages volunteers working in rose gardens; solicit volunteers from the Master Gardener program; participates with Volunteer Coordinator in annual volunteer recruitment by developing advertising and making presentations.
10. Communicates with other bureau divisions regarding scheduled maintenance activities and garden usage that affects them or the public.
11. Respond to emergencies calls for incidents in the gardens, as necessary.

## **MINIMUM QUALIFICATIONS**

### **Knowledge of:**

1. Broad, in-depth knowledge of roses, rose culture and garden management, equipment and supplies used to maintain rose gardens.
2. Volunteer recruitment and direction; applicable rules and policies regarding volunteers.
3. Pesticides and chemicals, their properties, interactions, toxicology, chemistry, legalities, environmental and health impacts.
4. Proper use, storage and disposal methods for a wide range of chemicals and hazardous materials related to assigned work.
5. Knowledge of applicable OSHA requirements.
6. Rules and policies regarding landscape contracting.
7. Basic knowledge of budgeting practices, methods and techniques.
8. Principles and practices of sound business communications.

### **Ability to:**

1. Judge roses for exhibition and/or propagation purposes.
2. Communicate effectively both orally and in writing. Present specialized rose-related information clearly, logically and persuasively.
3. Participate in public meetings; provide information, promote the generation of ideas.
4. Motivate and organize volunteers.
5. Develop and maintain good relationships with industry and community groups.
6. Organize and maintain records and files.
7. Learn how to apply for grants.

### **Licenses; Certificates; Special Requirements:**

Must have Oregon Pesticide Applicators license within six months of hire. First Aid and CPR certification. Must be an Accredited Rose Trial Judge within six months of hire. Valid state driver's license.

## **30000319 – ENVIRONMENTAL EDUCATION SPECIALTY (EVED)**

### **GENERAL PURPOSE**

Under general supervision, develops, implements and manages environmental education opportunities that increase awareness, knowledge, stewardship and support of developed parks and natural areas, and promote understanding of the relationship between people and nature; and performs related duties as assigned.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Manages year-round eco-system based environmental education opportunities for all ages, abilities, ethnicity and socio-economic status, on a city-wide basis.
2. Researches and designs effective, hands-on curricula and programs for implementation by individuals, staff, teachers and volunteers; aligns programs with state/local standards as needed.
3. Leads interpretive, educational tours in all types of environments, including paved and unpaved trails, and various outdoor weather and physical conditions.
4. Makes presentations about programs and related environmental education topics to schools, community groups, agency staff and professional organizations; utilizes a variety of media, including brochures, signage, power-point presentations, etc.
5. Recruits, trains, organizes and manages seasonal staff and volunteers in support of program efforts.
6. Develops and implements strategies to expand environmental education opportunities in areas and populations current not served; provides input to supervisor on overall Environmental Stewardship initiatives and operations.
7. Provides strategic planning for income generating opportunities; works with supervisor to focus efforts on opportunities of highest potential.
8. Monitors budgetary expenditures/revenue.
9. Maintains a professional network of other environmental education providers to facilitate collaboration and extend the impact of program efforts and encourage support of Bureau vision for Park properties.



## **MINIMUM QUALIFICATIONS**

### **Knowledge of:**

1. Natural resources, ecological processes and terminology, and cultural connections to them, especially within the Pacific Northwest.
2. Effective inquiry-based teaching and interpretive techniques.
3. Basic methods and techniques for funding and managing diverse project and programs.
4. Working knowledge of investigative tools (microscopes, binoculars, water quality kits) and the age appropriate use of those tools.

### **Ability to:**

1. Design and conduct education and interpretive programs for individuals or groups of all ages, abilities, and other demographics.
2. Apply creativity and innovation in the design and management of education programs.
3. Provide training, mentorship and work direction to seasonal staff and volunteers.
4. Provide input on program strategies, initiatives and operations.
5. Read and interpret scientific research and publications.
6. Write and prepare educational curriculum, exhibit text, reports and correspondence.
7. Track and analyze budgets and resources for programs and projects.

### **Licenses; Certificates; Special Requirements:**

Requires a valid Oregon's Drivers License; Ability to operate 15-passenger van within Bureau and Risk Management safety and operation standards; Current First Aid and CPR certifications.

## **30001005 – Forestry Specialty (FOR)**

### **GENERAL PURPOSE**

Under general supervision, plans, develops, and manages programs and projects in support of the Urban Forestry Management Plan and Portland Parks & Recreation's Urban Forestry Program; develops management plans and strategies, and performs related duties as assigned.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

1. Manages urban forest mensuration and monitoring: develops projects, conducts project management, coordinates field data collection and quality assurance, analyzes data, writes reports, and presents findings.
2. Manages tree planting programs: plans and conducts tree planting and establishment, procures and manages contracts, monitors plantings, and evaluates program effectiveness.
3. Provides technical review and support to the urban forestry program: manages operational program data and prepares maps and reports; reviews and designs code, plans, and policy for impacts on the urban forest; assesses program effectiveness; and incorporates changes to meet goals.
4. Collaborates closely with the community and urban forestry professionals: to achieve goals, gain support, educate, and participate regionally on technical issues.
5. Recruits, trains, and oversees volunteers and other staff for urban forestry programs.

### **MINIMUM QUALIFICATIONS**

#### **Knowledge of:**

1. Principles, practices, methods and techniques applicable to arboriculture and urban forestry, including tree planting, pruning, pest and pathogen management, preservation, planning and benefits of trees.
2. Threats to trees in the urban environment, including invasive pests and pathogens, and methods for their management.
3. City and State regulations pertaining to urban forestry.
4. GIS and other software related to urban forestry data management and analysis.

5. Methods and techniques of inclusive community outreach and involvement, education, and volunteer management.

**Ability to:**

1. Design and manage forest mensuration and monitoring studies.
2. Collect, maintain, and analyze data, evaluate alternatives, and make sound recommendations.
3. Prepare clear, concise and comprehensive reports, studies, maps, specifications, and other written materials.
4. Design and manage tree planting projects, including site evaluation, species selection, planting, and establishment.
5. Analyze, interpret, and evaluate impacts of relevant laws, regulations, ordinances, and policies on the urban forest.
6. Recruit, train, organize, and supervise diverse volunteers and other staff possessing a wide range of skills.