

**Statement of Work
Pennsylvania Department of Conservation and Natural Resources (DCNR)
Natural Resource Inventory and Ecological Restoration Services
Invitation of Qualify (ITQ) Contract**

OVERVIEW: The purpose of the Natural Resource Inventory and Ecological Restoration Services ITQ is to qualify responsible and responsive Contractors for the purpose of providing multi-disciplinary forestry, ecology, and natural resource restoration and management services on behalf of the Department of Conservation and Natural Resources (DCNR), the Pennsylvania Game Commission (PGC), and the Pennsylvania Fish and Boat Commission (FBC), and other agencies restoring natural resources in the commonwealth.

- A. **INVENTORY:** Involves inventory and monitoring of ecosystems and plant communities at the landscape, ecosystem, and stand levels.
- B. **MANAGEMENT STRATEGIES AND PRESCRIPTIONS:** Involves a review and analysis of inventory data (either provided by DCNR or acquired by the Contractor) to assess ecosystem conditions for threats and restoration opportunities, identify desired or optimal conditions, and develop prescriptive actions to achieve the desired or optimal conditions.
- C. **RESTORATION PROJECT IMPLEMENTATION:** Restoration implementation services include all aspects of vegetation management, including pesticide application and mechanical manipulations, restoration plantings, and earthwork. Restoration practices and prescriptions to be implemented will be provided by DCNR to the Contractor.
- D. **RIPARIAN FOREST BUFFER INSTALLATION AND MAINTENANCE:** Riparian buffer services include all aspects of site preparation, furnishing planting materials, planting, and maintenance of riparian forest buffers. Planting and maintenance plans to be implemented will be provided by DCNR to the Contractor.

DCNR conserves and sustains 121 park sites, totaling almost 300,000 acres and 2.2 million acres of public forest land. The PGC manages the Commonwealth's wildlife resources and the FBC conserves and enhances fish and fish habitat for all Pennsylvanians. Potential contractors may visit the agencies websites to view possible sites throughout the Commonwealth of Pennsylvania where work may be performed under any resulting project.

Work may involve travel to a site to meet with land managers, assessing existing resources, documentation, or other provided resources, preparing cost estimates for the work, training and other consultation services, providing mapping and production of geospatial data records, and may include various types of natural resource and ecosystem planning and management.

ISSUING OFFICE: This ITQ is managed and administered by the Commonwealth of Pennsylvania, Department of General Services (DGS), Bureau of Procurement. All inquiries should be referred to:

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QUALIFICATIONS: Contractors interested in becoming an ITQ Contractor must meet the following requirement(s). Failure to meet the below requirement(s) will result in the application being rejected. Each Contractor that meets the minimum qualification will be awarded a contract. Award of a contract to a Contractor is not a guarantee of business.

- Contractors must provide documentation showing two (2) years of experience in the appropriate commodity code under Service Categories;

SERVICE CATEGORIES:

Commodity Code	Description of Service Category
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<p>77101604-ITQ-406 Inventory Services</p>	<p>Inventory services shall include scheduling, coordination, and managing all aspects of work produced in close conjunction with natural resource managers. Contractors qualifying under this category shall be responsible for the coordination and completion of awarded projects entailing:</p> <ul style="list-style-type: none"> • Inventory aquatic and terrestrial plant communities and conduct ecological community survey and classification, plant community typing following scientific protocols (Pennsylvania Natural Heritage Program classification system, PA Bureau of Forestry Typing Manual, etc.). Developing guidelines or protocols for site and project specific inventories and completing inventories using the same. • Collect forest and plant community data at a stand level including forest inventory of species, size, class, stocking density, basal area, regeneration, age distribution, canopy strata classifications, and spatial distribution. Collection may also include plot sampling, transects or radius, regeneration surveys, operational inventories, documentation of features pertinent to resource management considerations such as vernal pools, wetlands, and dens or roost trees, and any other necessary field surveys. • Sample landscapes and ecosystems using stratified sampling methods and record metrics such as area of forest community type, overstory basal areas, density and diameter distribution across species, density of seedlings and saplings across tree species, and cover of invasive plants across species. Inventory efforts may entail a permanent plotnetwork for monitoring.
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	<ul style="list-style-type: none"> • Inventory, analyze, and present data compatible with commercially available digital forest planning and operational tools e.g., Silva • Complete landscape level post disturbance monitoring, extent or abundance surveys and monitoring, and presence / absence surveys at the ecosystem level, using photographic, plot or other data methods. <p>The selected contractor will be expected to develop budgets and cost estimates and provide reports, deliverables, and other graphic materials associated with inventory, assessments, analysis and implementation of management and restoration prescriptions, including but not limited to data shapefiles and maps, budgets and cost estimates, acquiring photographs, developing conceptual renderings, design sketches, graphical depictions, typicals, and prototypes, implementation specifications, plans of study, meeting minutes, preparation of permit application documents, mitigation, operation, and/or maintenance plans and reports, and training materials and presentations.</p>
<p>77101604-ITQ-407 Data Analysis and Management Specifications</p>	<p>Data analysis and development of management specifications shall include scheduling, coordination, and managing all aspects of work produced in close conjunction with natural resource managers. Contractors qualifying under this category shall be responsible for the coordination and completion of awarded projects entailing:</p> <ul style="list-style-type: none"> • Analysis of landscape and ecosystem data at the park or landscape level to identify ecosystems, plant communities and habitats in need of restoration or vulnerable to disturbance. Analysis and assessment of data will consider factors such as stand structure and composition, potential for ecosystem redundancy, the presence of biologic stressors (e.g., invasive plants), potential for severe disturbances (e.g., disease, predicted changes in climate and weather), potential for habitat corridors, or mitigating habitat fragmentation. • Analysis of sustainability of landscape and ecosystem data for sustainability or vulnerabilities in: ecological functions, ecosystems, and plant communities and to identify areas of landscape fragmentation and opportunities for creating, expanding, or improving habitat corridors. • Analysis of landscape and ecosystem data for opportunities to identify opportunities and priority projects to enhance species and structural resiliency, increase ecosystem redundancy, reduce impacts of biological stressors, reduce long-term impacts of severe disturbances, and realign communities and ecosystems to meet expected future conditions.

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	<ul style="list-style-type: none"> • Analysis of landscape and ecosystem data at the park or landscape level to develop restoration objectives and identify community types most likely to sustain ecological function and sustainability. • Landscape level geospatial analysis for identification of opportunities and vulnerabilities for wildlife corridors, refugia from climate change, and diversification of ecosystems. • Develop silvicultural and management prescriptions for restoration to promote diverse age classes, guide changes of species compositions at early stages of stand development, manage unique sites and habitats for sensitive and at-risk species, restore and maintain young seral and non-forested ecosystems, restore fire adapted ecosystems, and / or increase resilience and / or ability to return to desired condition after a disturbance. Prescriptions would include both specific management actions, as well as the sequence and chronology of these actions. • Develop objectives, boundaries, complexity calculations, modeling and other necessary components for prescribed fire management. • Develop prescriptions or management actions to maximize water quality benefits, such as those provided by forest ecosystems, assess liabilities from sedimentation, develop prescriptions for erosion and sedimentation control measures, develop prescriptions to maintain or restore hydrology through wetland creation, flood plain creation, stream bank stabilization and modifications. • Develop and evaluate restoration alternatives using comparative, feasibility, or cost-benefit analysis of restoration methodologies or management practices to determine best fit with Bureau objectives. <p>The selected contractor will be expected to develop budgets and cost estimates and provide reports, deliverables, and other graphic materials associated with inventory, assessments, analysis and implementation of management and restoration prescriptions, including but not limited to data shapefiles and maps, budgets and cost estimates, acquiring photographs, developing conceptual renderings, design sketches, graphical depictions, typicals, and prototypes, implementation specifications, plans of study, meeting minutes, preparation of permit application documents, mitigation, operation, and/or maintenance plans and reports, and training materials and presentations.</p>
<p>70161703-ITQ-408 Implementation and Ecological Restoration Services</p>	<p>Implementation of ecological restoration services shall include scheduling, coordination, and managing all aspects of work produced in close conjunction with natural resource managers. Contractors qualifying under this category</p>

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	<p>shall be responsible for the coordination and completion of awarded projects entailing:</p> <p>Pesticide Application</p> <ul style="list-style-type: none"> • Pesticide suppression of invasive species or competing native vegetation through a variety of techniques including, but not limited to preemergence, high volume foliar, low volume foliar, or ultra low volume foliar, hack and squirt, cut stump, and / or basal bark treatments. • Pesticide suppression of forest pests to include but not limited to stem injection, soil injection, and horticultural oils applications. <p>Planting and Seeding</p> <ul style="list-style-type: none"> • Pre-planting site or seeding preparations including mechanical (physical clearing such as scarification or tilling) or pesticide applications. • Procurement and installation of plant stock including live stake, brush mattress or wattle, bare root or containerized seedlings, or bare root, containerized, or balled and burlaped landscape stock. • Instillation of protection for planting stock including mulch, staking, tree tubes, cages, fencing, or tip protection. • Seeding with a no-till drill or a combination of operations that scarifies the surface to expose mineral soil and uniformly distributes the seed, such as frost seeding, drop or rotary spreader, broadcast seeder or cultipacker. • Tillage or discing, with plows, discs, or harrows such as necessary to prepare a seedbed, thin dense stands of herbaceous vegetation, or prepare a fire break for prescribed fire. <p>Implementation of Forest Stand Improvements</p> <ul style="list-style-type: none"> • Reconnoiter and layout of forest and timber stand improvement projects and harvests, including project boundary marking and marking of trees for removal or reserve. • Intermediate cuts and reproduction cuts in even and non-even aged stands. Potentially including obtaining the highest end use of the forest product. • Targeted felling of pole to mature sized individual trees as necessary for removal of competing vegetation or as a component of stand improvement. Potentially including obtaining the highest end use of the forest product.
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	<ul style="list-style-type: none"> • Mastication of competing understory vegetation or vegetation removal for maintenance of early seral communities with a FECON style rotary drum forestry mower. <p>The selected contractor will be expected to provide reports, deliverables, and other graphic materials associated with inventory, assessments, analysis and implementation of management and restoration prescriptions, including but not limited to data shapefiles and maps, budgets and cost estimates, acquiring photographs, developing conceptual renderings, design sketches, graphical depictions, typicals, and prototypes, implementation specifications, plans of study, meeting minutes, preparation of permit application documents, mitigation, operation, and/or maintenance plans and reports, and training materials and presentations.</p>
<p>70160000-ITQ-409 Riparian Buffer Services</p>	<p>Riparian buffer services shall include scheduling, coordination, and managing all aspects of work in close conjunction with natural resource managers. Contractors qualifying under this category shall be responsible for the coordination and completion of awarded projects entailing:</p> <p>Site Preparation</p> <ul style="list-style-type: none"> • Elimination of competing vegetation and invasive species present on the planting site. This may be accomplished through mowing or herbicide applications. • Identification Flagging planting locations with flagging, stakes, or other means. • Furnishing all planting materials, including but not limited to seedlings, tree shelters or other browse protection, mulch, stakes, etc. <p>Planting</p> <ul style="list-style-type: none"> • Preparation of seedlings, including application of hydrogel, holding in cold storage or other required measures. • Digging holes with shovel, dibble bar, auger, or hoedad. • Placing seedlings in correct locations as specified in planting plans. • Ensuring correct planting efforts for optimal tree/shrub growth. • Placing of shelters/tubes/browse protection, stakes, mulch, weed-mats, etc. around each seedling. <p>Maintenance</p> <ul style="list-style-type: none"> • Maintenance of browse protection/shelters including straightening stakes and shelters/browse protection, removal of bird nets, etc.

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	<ul style="list-style-type: none"> • Suppression of competing vegetation through herbicide, mulch, or other means, in and around shelters/browse protection, and on site in general. <p>The selected contractor will be expected to provide reports, deliverables, and other graphic materials associated with inventory, assessments, analysis and implementation of management and restoration prescriptions, including but not limited to data shapefiles and maps, budgets and cost estimates, acquiring photographs, developing conceptual renderings, design sketches, graphical depictions, typicals, and prototypes, implementation specifications, plans of study, meeting minutes, preparation of permit application documents, mitigation, operation, and/or maintenance plans and reports, and training materials and presentations.</p>
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REQUEST FOR QUOTES (RFQ) PROCEDURES: Commonwealth agencies will issue an RFQ to qualified contractors, through the Commonwealth’s Custom Portal, powered by the JAGGAER system. Contractors will respond to the RFQ in the system. The requesting agencies may require the qualified contractors to furnish, upon request, additional documentation in the RFQ. The qualified contractors selected from the RFQ process will receive a Purchase Order (PO) and will supply the service to meet the specific requirements as indicated in the RFQ. **Qualified contractors that are issued a PO for Inventory Services or Data Analysis and Management Specifications for a project will not be eligible for the issuance of a PO for Implementation and Ecological Restoration Services or Riparian Buffer Services for the same project.**

Agencies will make a Best Value selection based upon the criteria set forth in the RFQ. Best value refers to the process of selecting the quote which provides the greatest value to the agency based on evaluating and comparing all pertinent criteria, including cost, so that the Contractor whose overall proposal best suites the agency’s needs is selected for each individual project.