

STATEMENT OF WORK

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES BUREAU OF FORESTRY

COMPETING VEGETATION REMOVAL

**SFM 19-1A (Steep)
Forest Districts 9, 13, 15 and 16
30 Project Blocks, 1,844 Acres
Machine Application Only**

A. SCOPE OF WORK:

The Department of Conservation and Natural Resources (The Department), Bureau of Forestry, Silviculture Section, requires the services of a contractor to apply herbicide to an estimated total of **1,844 acres** of State Forest lands in Pennsylvania on **30 scattered spray blocks**.

The herbicide is necessary to control competing vegetation consisting primarily of fern, striped maple, birch, beech brush, grass and some other invasive plants. **This contract involves generally moderate to steep terrain and may have slash and other difficulties.**

The treatment areas can consist of uncut forest stands, stands that have recently received shelterwood cuts, and some areas with a large amount of mortality. More specific information about each herbicide spray block is found in Appendix A.

The sites will require the Contractor to use motorized spray equipment capable of treating large acreages and traversing mountain terrain and uneven ground. This contract will require the use of a large, tracked or rubber-tired, spray rig. Preferred spray equipment is a double sided air blast mist blower.

The contractor's per acre price should include the cost of herbicide, herbicide adjuvants, labor, insurance, superintendence, tools, equipment, all miscellaneous expenses and any other items necessary for completion of the tasks.

The herbicide cost should cover all chemical required for complete coverage of the treatment area, including double application where necessary to avoid gaps and misses, and to reach the required height of 15 feet on all spray blocks. See "Spray Equipment Section, General Specifications and Limitations, Equipment" section below for more information.

Any questions concerning the technical aspects of this bid should be directed to Andrew Duncan at 717-783-7990 or aduncan@pa.gov. Questions concerning the contracting or bidding procedures should be directed to Carol Durham at 717-783-3309 or cdurham@pa.gov.

B. LOCATIONS AND SITE INSPECTION:

Topographic maps with the locations, acreages, and other details of each spray block are provided in Appendix A and Exhibit A 1, 2, & 3. Prospective bidders desiring the opportunity to inspect larger scale forest district maps showing the general distribution of spray blocks within particular forest districts are advised to contact Andrew Duncan of the Bureau of Forestry, Silviculture Section, at the number given above. These maps may be reviewed during regular workdays between 8:00 a.m. and 4:00 p.m. A phone call is advisable to confirm the availability of maps for the forest districts of concern. Photocopies of forest district maps will be made available as needed. For any further location information contact the District Forester listed in Appendix C.

SITE INSPECTION: Forest Districts will not hold mandatory site inspections. However, it is **strongly recommended** for vendors to review each project area to assess topography, hazards, project block acreage, vegetation, and other items.

Doing so in advance can prevent any potential unforeseen discrepancies with Bureau-assessed features indicated in Appendix A and Exhibit A 1, 2, & 3, as well as assist vendors in identifying an accurate bid price for services required to complete the project block satisfactorily.

Any disputes the contractor may have regarding the incline classification of a project (steep versus flat) should be brought to the attention of the Department representative prior to bid opening.

Incline ratings for projects will not be changed by the Department once the Purchase Order is processing for award. The Department reserves the right to make the final determination on project incline classification (steep versus flat).

C. CONTRACTOR QUALIFICATIONS:

1. This invitation for bid (IFB) is reserved for the Small Business Procurement Initiative as designated in Executive Order 211-09 dated November 21, 2011. Only Self Certified Small Businesses which have been certified by the Department of General Services prior to the bid opening date and time may submit a response to this IFB.

Your self-certification form from the Department of General Services should be submitted along with your IFB response. Failure to produce a valid Self Certified Small Business certificate (which must be dated prior to the opening date of this IFB) shall render your submission non-responsive.

For more information on the Department of General Services Small Business Self Certification process please visit: www.smallbusiness.pa.gov.

2. To bid on this contract, a contractor must have the equipment, employees, qualified equipment operators and mechanics for the make and type of equipment indicated in these specifications. **This contract is a machine only application. The successful bidder must have an approved and completed machine available for inspection by the time of contract award.**
3. **Pesticide Application Business License** - The Contractor must show proof of a valid Pesticide Application Business License issued by the Pennsylvania Department of Agriculture (PADA) in the category appropriate for ground spraying of forests. The current, valid certificate must be submitted with the vendor's Invitation for Bid.
4. **Registered To Do Business in Pennsylvania** - Out-of-state incorporated contractors and out-of-state incorporated subcontractors must obtain a certificate of authority from the Pennsylvania Department of State before doing business in the Commonwealth, in accordance with Section 103 of the Act of December 21, 1988, (P. L. 1444, No. 177), as amended, known as the Business Corporation Law of 1988, 15 Pa. C.S.A. 4101 et seq. This section states the manner for procuring a certificate of authority to do business in the Commonwealth and states certain activities the performance of which by an out-of-state business corporation is not considered to be doing business in the Commonwealth for purpose of procuring a certificate of authority. One such excluded activity is "conducting an isolated transaction completed within a period of 30 days and not in the course of a number of repeated transactions of like nature" [15 Pa. C.S.A.4122 (a)(10)]. Contact the Pennsylvania Department of State, Corporation Bureau, 308 North Office Building, Harrisburg, PA 17120 (717-787-1057) for instructions and the necessary form. A copy of the approved registration must be provided to the Department.

D. BOND REQUIREMENTS:

The contractor must furnish the Department with a performance security in the amount of \$5,000.00. Performance security must be in the form of a specific performance bond, an irrevocable letter of credit, a certificate of deposit, a certified check, or a bank cashier's check drawn to the order of the "Commonwealth of Pennsylvania." The purchase order will not be issued until the performance security is furnished.

If the contractor is a corporation, the bond must be signed by the corporation president or vice-president (designate which one) and the corporation secretary or treasurer (designate which one). If the Contractor is not a corporation, the owner must sign the bond. The bonding company must be licensed to conduct business in Pennsylvania.

If the Contractor does not satisfactorily comply with the terms of the contract, the Commonwealth will retain all or a portion of the security pending the specific circumstances of the default.

E. INSURANCE REQUIREMENTS:

The contractor shall purchase and maintain, at its expense, the following types of insurance, issued by companies acceptable to the Commonwealth.

1. Workmen's Compensation Insurance for all of the Contractor's employees and those of any subcontractor, engaged in work at the site of the project as required by law.
2. Public Liability and Property Damage Insurance to protect the Commonwealth, the Contractor, and any and all subcontractors from claims for damages for personal injury (including bodily injury), sickness or disease, accidental death and damage to property including the loss of use resulting from any property damage, which may arise from the activities performed under the Contract, or the failure to perform under the Contract, whether such performance or non-performance be by the Contractor, by any subcontractor, or by anyone directly or indirectly employed by either. The minimum amounts of coverage shall be \$250,000 per person and \$1,000,000 per occurrence for bodily injury, including death, and \$250,000 per person and \$1,000,000 per occurrence for property damage. Such policies shall be occurrence rather than claims-made policies and shall not contain any endorsements or any other form designated to limit and restrict any action by the Commonwealth, as an additional insured, against the insurance coverage in regard to work performed for the Commonwealth.

Prior to commencement of the work under the Contract and at each insurance renewal date during the term of the Contract, the Contractor shall provide the Commonwealth with current certificates of insurance. These certificates or policies shall name "The Commonwealth of PA-DCNR" as an additional insured and shall contain a provision that the coverage's afforded under the policies will not be cancelled or changed until at least thirty (30) days written notice has been given to the Commonwealth. These certificates shall include the location and a brief description of the work to be performed under the contract.

The Commonwealth shall be under no obligation to obtain such certificates from the Contractor(s). Failure by the Commonwealth to obtain the certificates shall not be deemed a waiver of the Contractor's obligation to obtain and furnish certificates. The Commonwealth shall have the right to inspect the original insurance policies.

F. CONTRACT TERM AND SPRAY DELIVERY DATES:

The contract term shall commence May 1, 2019 and terminates September 30, 2019. All projects must be completed by the termination date.

The actual spray service delivery dates for the individual blocks are to start in July and August as detailed in Appendix A for Contract 19-1A. The contract spray delivery dates are generally a compromise to most effectively treat two distinct types of vegetation when they occur on the same site, fern and woody vegetation. For applicable fern treatment blocks, that are Oust only applications, early treatment is often most effective and for the woody vegetation blocks it is

usually most effective to treat them late. However, many blocks are a combination of fern and woody vegetation and are best sprayed mid-season. Weather conditions and foliage conditions vary greatly from year to year, but each project has been assigned the earliest acceptable starting date.

The Contractor is required to provide a Work Plan to include approximately what date and location they plan on starting the contract.

The start dates in Appendix A can be modified plus or minus 15 days upon the mutual agreement of the Field Contract Coordinator, Monitoring Specialist, and Contractor. If any start date modifications are not mutually agreed to by all three parties, the start dates listed in Appendix A will stand.

The anticipated completion date for all projects is September 1.

G. OPTIONAL SPRAY TIME EXTENSION:

Contractors are expected to continuously communicate with the Field Project Coordinator throughout the contract term regarding potential spray time delays and the latest possible spray date.

However, given that weather conditions each year are variable, certain projects may be granted one extension, up to 20 days, to complete spraying activities.

If an extension is desired, the Contractor must reach out in writing to the Program Supervisor and/or Monitoring Specialist no later than August 20 to discuss why an extension is needed. Extensions should only be requested due to unavoidable delays.

It is solely at the discretion of the Field Project Coordinator and/or Monitoring Specialist whether the extension will be granted and for what amount of days. The Department will notify the vendor in writing as to the Department's determination concerning the extension request.

In no circumstances will spraying be permitted after September 20th.

H. CANCELLATION AND ADDITION OF SPRAY BLOCKS BY THE DEPARTMENT:

Projects may also be cancelled for unforeseen conditions. Spraying will be prohibited at any site where the Field Contract Coordinator has determined that spray conditions are no longer suitable. Such conditions may include but are not limited to drought, frost, premature leaf drop, brown (dead) foliage or when 25% or more of the foliage has yellowed. The decision to spray or not may be made in consultation with the Contractor, but the responsibility for the decision is solely with the Field Contract Coordinator.

A Note on Yellowing: Particular caution should be used if the yellowing is drought induced because it indicates that the plants will not translocate herbicide easily. An exception may be made for striped maple that is not drought stressed or frost damaged, but rather just turning yellow due to the lateness of the season. Sometimes the best control is achieved with striped maple sprayed while yellowing significantly and actively translocating herbicide. It will need to still have most of its foliage though to absorb the herbicide.

Also, the Bureau routinely does environmental reviews prior to spraying. Occasionally the results of those reviews are not available prior to bidding. An example of this is that a particular endangered violet may not be identifiable until after contract awards are completed in the spring. If that environmental review determines that a block is unsuitable for spraying, the Department may cancel that spray block.

We desire to avoid cancellations, but will not waste spray if cancellations become necessary. **No compensation will be made for cancelled blocks.** Occasionally though the Department may have an additional spray block or blocks that may become available for substitution, but it is at the Contractor's discretion whether to accept additional spray blocks. Any additional blocks would be added at the bid price.

I. DEPARTMENT PERSONNEL:

The Department will furnish personnel to supervise and direct the spray operation in the following capacities:

1. **PROGRAM SUPERVISOR** - The Chief of the Silviculture Section or his designee is responsible for the overall operation of the vegetation control program and represents the Department in settling minor contractual matters.

Bob Beleski
Phone: (717) 783-7932
Fax: (717) 783-5109

Bureau of Forestry
Rachel Carson State Office Building
P.O. Box 8552
Harrisburg, PA 17105

2. **MONITORING SPECIALIST** - This person is responsible for specifying and approving spray systems, troubleshooting problems with mix and spray systems, monitoring calibration and characterization procedures, analyzing quality control checks, and enforcing safety requirements.

Andrew Duncan
Phone: (717) 783-7990
Fax: (717) 772-0257

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Rachel Carson State Office Building
P.O. Box 8552
Harrisburg, PA 17105

3. **FIELD CONTRACT COORDINATORS** - These persons are Forest District Managers (District Foresters) or their designee who serve as the Department's field liaison with the Contractor and are responsible for reviewing and approving/disapproving the spraying operations plan, verifying calibration of all spray equipment, verifying acceptable spraying conditions, and conducting quality control checks on the spray equipment and application during the spraying operations. This person is responsible for coordinating the activities of all people working on the program within a forest district and communicating with the Contractor's project supervisor concerning any operational problems or changes in plans. He also provides regular reports of the operation to the program supervisor. **This person must be on site when herbicide is being applied. This can be waived if agreeable to the Field Contract Coordinator. If it is not waived and the contractor insists on spraying, loss of payment for those acres sprayed will result.** A Forest District Map with locations is found in Appendix B, along with a list of the District Foresters with contact information in Appendix C.

J. CONTRACTOR PERSONNEL REQUIREMENTS:

1. **PROJECT SUPERVISOR** - The Contractor must designate one of its personnel to serve as the on-site project supervisor and to represent the company in all contractual matters that require prompt attention. This person must be familiar with all equipment being used and, as necessary, must be certified or registered as required by the Pennsylvania Pesticide Control Act rules and regulations of the Pennsylvania Department of Agriculture.

If the project involves the use of no more than one loading zone at any given time, a spray equipment operator or ground-support person may serve as the project supervisor. If the project involves the simultaneous use of two or more loading zones, the project supervisor must not be assigned to regularly operate spray equipment or serve as ground support for any equipment.

All ground-support personnel and equipment operators must be familiar with the equipment's spray system and knowledgeable of calibration techniques. Providing people with no training or no prior experience is not permitted. All personnel provided by the Contractor must understand and be fluent in English. All ground personnel and equipment operators involved with the mixing of herbicide must be supervised, certified, or registered as required by the Pennsylvania Pesticide Control Act rules and regulations of the Pennsylvania Department of Agriculture.

All ground-support personnel and equipment operators must be equipped and trained to take proper action in an emergency. These people must observe all safety precautions in handling and mixing the herbicides and in refueling the spray equipment.

2. **SPRAY EQUIPMENT OPERATORS -**

- a. **QUALIFICATIONS** - The Contractor must provide equipment operators that are qualified to operate the spray equipment specified in the bid in a safe and efficient manner while keeping damage to the residual stand to a minimum. The Department reserves the right to decide when damage is becoming excessive.
- b. **MAP COMPREHENSION** - Each equipment operator must demonstrate proficiency at reading and navigating from the maps or other images used to identify and locate treatment areas.
- c. **PESTICIDE APPLICATOR CERTIFICATION** - Each spray equipment operator must be certified in the appropriate category by the Pennsylvania Department of Agriculture for the type of spraying being done.
- d. **DEPARTMENT'S RIGHT TO REJECT** - The Department reserves the right to reject the Contractor's use of any spray equipment operator who, in the Department's opinion, has performed unsatisfactorily in previous operations whether in Pennsylvania or elsewhere.
- e. **EQUIPMENT OPERATOR RESPONSIBILITY** - The spray equipment operator is responsible for the accurate and proper application of the herbicide spray to the designated site using good application delivery procedures as generally recognized as correct by professionals in the ground application industry. The spray equipment operator is responsible at all times for the safe operation of the spray equipment. The equipment operator is responsible for the identification and avoidance of all hazards in the operation area.
- f. **SPRAY EQUIPMENT OPERATOR PROTECTIVE GEAR** - All spray equipment operators and ground personnel must wear protective gear provided by the Contractor as specified by the specimen label requirements.
- g. **COMMUNICATIONS** - The Contractor must provide for radio communication with all contractor employees on the job site and at least one (1) radio for Department personnel to use. The equipment operator must be fluent in English sufficient to communicate effectively with Department employees.

K. **GENERAL SPECIFICATIONS, CONDITIONS, AND RESTRICTIONS:**

- 1. **SAFETY** - The Contractor is required to conduct all operations in a safe manner and to have a well-defined, written safety plan. The Contractor must provide essential safety equipment including, but not limited to, properly sized and coded fire extinguishers and spill-containment materials and supplies. All Contractor and Department personnel must be briefed by the Contractor in their use.

By May 15th, the Contractor must supply the Program Supervisor with a copy of the Contractor's safety plan along with a written narrative explaining how the Contractor will deal with a major (100+ gallons) fuel and/or herbicide spill at the loading site and a major dump of herbicide in a spray block. The safety plans will be reviewed with all involved Department and Contractor personnel prior to the start of the spraying operations.

2. **WEATHER RESTRICTIONS** - Using the following guidelines, the Field Contract Coordinator, when present on site, will determine when weather conditions are acceptable for spraying operations to be conducted. In the absence of the Field Contract Coordinator or in the absence of contact with him, the Contractor is responsible for making the determination if weather conditions are acceptable for spraying. Whether the Field Contractor is present or not, **the Contractor is required to record weather conditions on the block spray record (Appendix D) at the beginning and end of the day and at several points in between.**
 - a. **WIND VELOCITY** - Wind velocity must be **10-mph or less in the open or 4-mph or less under a forest canopy** when measured in or near the spray block with a hand-held wind gauge. If excessive drifting of the spray cloud occurs because of higher wind velocity above the forest canopy, spray operations must be suspended even though surface-level wind conditions meet the above conditions. Caution must also be exercised when dead calm conditions exist because of the formation of temperature inversion layers. Under such conditions, the smaller droplets in the spray cloud will remain suspended and will not settle into the forest floor. Spray operations must be curtailed until such conditions clear.
 - b. **PROBABILITY OF PRECIPITATION** - **Probability of precipitation within two (2) hours after the completion of spraying must be 50 percent or less.** This probability of precipitation is provided by Flight Service Weather (1-814-234-9412), National Weather Service (use closest local source), or other contracted weather forecasting source.
 - c. **RELATIVE HUMIDITY** - Relative humidity must be high enough to prevent evaporation of the smaller droplets in the spray cloud before they contact the foliage (large droplets may still be deposited). **Spray deposition must be monitored closely when relative humidity drops below 50 percent with spraying curtailed when excessive evaporation is detected.**
 - d. **AIR TEMPERATURE** - Air temperature in the shade at approximately five feet above the ground must be 40 to 80 degrees Fahrenheit. **Spraying may continue above 80 degrees Fahrenheit if thermals are not developing and the spray cloud is settling into the forest floor without excessive evaporation.**

- e. **WET FOLIAGE** - Foliage must not be dripping wet either from precipitation or overnight dew.
 - f. **PALMER DROUGHT INDEX** – Spraying will not be permitted in any spray block where the Palmer Drought Index for the county is –2 or lower. Spraying may resume when the drought index rises above –2.
3. **RECONNAISSANCE** - A reconnaissance walk may be required by the spray equipment operator over each spray block prior to treatment to ascertain the block layout and to identify and avoid any hazards. If the spray equipment operator has difficulty in conducting adequate reconnaissance and/or in orienting with the spray blocks, the Contractor is required to supply a ground guide to preview all spray blocks prior to spraying.

Where it is agreed to be advantageous, by the Department and the Contractor, the Department will provide a person familiar with the area to help conduct the reconnaissance to locate and delineate boundaries of the spray areas. Reconnaissance time may not be billed separately to the Department.

4. **ACCURACY** - The Contractor must guarantee a complete and accurate coverage of the designated areas within the spray block. The spray application is monitored for accuracy by Department personnel who look for uniform coverage and acceptable droplet size in the designated areas. If any designated area is missed or improperly treated, it must be re-sprayed at the Contractor's expense. Mistreated acres cannot be billed until corrected. If not corrected, a liquidated damages assessment of fifty (\$50.00) dollars per mistreated acre may be assessed.

Care must be exercised in keeping all spray material within the designated block boundaries and away from areas designated as being sensitive to the spraying. Contractor personnel are expected to know the location of treatment areas. Care must also be exercised by the spray equipment operator in keeping spray drift out of open water. **Spraying adjacent to State Forest boundaries, roads, streams and pipelines will require the contractor to start application on the block boundary and spray chemical from only one side of the machine into the block.** Material applied off designated sites or to any sensitive area by the Contractor may result in a liquidated damages assessment of fifty (\$50.00) dollars per mistreated acre. All application costs associated with such incidents are the responsibility of the Contractor and cannot be charged to the Commonwealth. The Program Supervisor may also deem such incidents a spill. Any off-site and sensitive area treatment areas must be noted on the Daily Spray Record (Appendix D). Any liquidated damages can be deducted from Contractor payments.

5. **EQUIPMENT RECALL** - The Contractor may be recalled to treat any areas that were missed or to retreat areas because of faulty application, wash-off, or inadequate

herbicide effectiveness. The Program Supervisor will resolve any disputes between the Contractor and the Field Contract Coordinator.

- a. The Contractor will be compensated for any recall spraying or respraying that results from wash off if the recommendation to spray was given by the Field Contract Coordinator. If the contractor decides against the recommendation of the Field Contract Coordinator and sprays, any respraying due to wash off will be at the Contractor's expense for application and chemical costs. Determining the acreage to be resprayed will be undertaken by the Program Supervisor with input provided by the Field Contract Coordinator for each District as described below.
- b. Recall spraying and respraying resulting from misses and faulty application will be at the Contractor's expense. The Contractor will be required to treat, without any additional compensation, areas not treated due to skips, faulty application or equipment limitations that were not immediately readily apparent after initial application. The Program Supervisor will make this decision within the current contract period and will transmit a final written decision to the Contractor with the exact locations and time frames that these areas must be retreated. Thereafter, the Contractor will be required to complete the retreatment by the date specified in the Program Supervisors letter. These areas may be treated with the Contractor's primary spray equipment, small backpack type mist blowers, ATV mounted sprayers, or equivalent equipment at the Contractor's option.

Any block with more than fifteen (15) percent of the area rated as unacceptable must be retreated.

6. **MARKING** - The boundary of each spray area will be surveyed using GPS technology to calculate acreages. On all the spray areas the boundary is further delineated by painting the spray area boundary trees with a one (1) inch band of orange paint at DBH. These will be painted so that one can readily be seen from another. Spray areas are numbered and the numbers are painted with orange paint on spray area boundary trees facing outside the block. These numbers are placed only on enough trees to thoroughly designate the area. **Payment will be based on the Department's surveyed acreage.**
7. **SPRAY TIME POLICY** – Because of the short spray window available, it is essential that advantage be taken of any acceptable spray weather within the limits imposed by foliage development, work-hour limits, certain time-of-spray restrictions and safety considerations. Therefore, spraying should take place whenever weather conditions permit, including evenings and weekends. Spray activities must commence within 15 days of the earliest effective start date unless the contractor is currently working on another Department Competing Vegetation Removal contract. If the Contractor fails to successfully treat or re-treat a project in a timely fashion due to poor work habits and/or a late start on the contract, the Program Supervisor may assess the Contractor

liquidated damages of fifty (\$50.00) dollars per project acre not completed. The penalty value may be billed or deducted from Contractor payments.

8. **TIME-OF-SPRAY RESTRICTIONS** - Spraying must be curtailed at certain times in certain situations to avoid potential conflicts with land users under direction by the Field Contract Coordinator.
9. **GROUND SPEED AND SPRAY WIDTHS** - Spray equipment ground speed may not exceed 1.5 miles/hour when applying herbicide to spray blocks. The Department has also established approximate maximum spray swath widths in feet for each project listed in Appendix A. The Contractor will be required to apply spray materials at the widths listed. However, if the Contractor's spray machine is capable of exceeding the limits listed, the Contractor must prove to the Department's satisfaction that adequate coverage is effectively maintained on target vegetation.
10. **SPILL CLEANUP EXPENSES** - The Contractor is responsible for all cleanup activity and costs resulting from any contamination caused by the accidental or intentional spilling, leakage, or dumping of herbicide, fuel, oil, or any other contaminant from Contractor supplied equipment. Contractor will indemnify and hold harmless the Commonwealth for any such incident.
11. **DAMAGE TO COMMONWEALTH PROPERTY** – The Contractor shall be responsible for any damage to Commonwealth property and timber resulting from the improper use of equipment for this spray operation. The Contractor will be given one (1) written warning that damage is becoming excessive and if the action continues, liquidated damages will be assessed.
 - a. **TIMBER DAMAGES** – When, in the opinion of the Field Contract Coordinator, damage to the residual stand becomes excessive, the Contractor shall pay the Department a fair base current value determined by the Field Contract Coordinator per unit of volume. If this value for damage due to Contractor's carelessness or negligence is less than \$10.00 per tree, then a minimum charge of \$10.00 per tree will be made whether the tree is commercial, non-commercial, merchantable or non-merchantable.
 - b. **STATE FOREST FACILITIES** – Contractor shall immediately repair, in a manner which meets with the approval of the Field Contract Coordinator, any damage to State Forest roads, deer fences and other facilities, including camp access roads, resulting from their use for this spray operation, general wear and tear accepted. Field Contract Coordinator may notify the Contractor in writing to temporarily discontinue use of any of the above whenever, in their opinion, such action is necessary to prevent serious damage.

12. **FIELD EXPENSES AND TRANSPORTATION** - Costs incurred in the operation and maintenance of all contractor equipment is the responsibility of the Contractor. Expenses incurred by all Contractor personnel including arrangements for food, lodging, and transportation are the responsibility of the Contractor. The Contractor must secure all required bonds and permits for all roads and bridges needed to access spray areas prior to beginning operations.
13. **DEPARTMENT NOTIFICATION** - The Contractor must make arrangements during business hours (Monday through Friday, 8:00 a.m. – 4:00 p.m.) and at least two business days in advance to have the Field Contract Coordinator or his designee present in the field when new projects are started in a district. Upon making arrangements to view projects in advance of spraying during non-regular work hours of Department staff, the Contractor must make every reasonable attempt to be present on time for the meeting. The Program Supervisor reserves the right to assess liquidated damages of twenty (\$20) per hour of tardiness by the Contractor when failing to meet mutually agreed upon meeting times between the Field Project Coordinator or designee and Contractor.
14. **DAILY SPRAY EQUIPMENT RECORD** - The Contractor will keep an accurate record of the herbicide solution measured into the spray equipment and the acreage treated on a copy of the Daily Spray Equipment Record form, Appendix D. A copy of the Daily Spray Equipment Record, signed by the spray equipment operator, will be provided by the Contractor daily. The spray equipment operator signature indicates agreement with the data on the form. **Payment is based upon agreed surveyed acreage treated.**

L. HERBICIDES AND ADJUVANTS:

1. **PURCHASING, STORAGE, AND TRANSPORTATION** - The Contractor must purchase the herbicide used on this project, and pay all applicable sales and use taxes. The Contractor must arrange for delivery of the product to a suitable site where it will be secure and protected from damage. The Contractor must assure that adequate supplies of herbicide are strategically located in the contract area to assure an efficient operation. The Contractor must also assure that its personnel and Department personnel are aware of the locations of these supplies. Commonwealth property may be used to store spray material and equipment if prior arrangements are made with the District Forester. The Commonwealth is not responsible for spills or theft of chemicals in storage. The Contractor is also responsible for handling and transporting the herbicide from the storage site to the equipment-loading zone.
2. **MSDS** - The Contractor must keep a copy of the Material Safety Data Sheet (MSDS) available on site throughout the course of the project for any herbicide or other materials requiring an MSDS that are supplied by the Contractor for the project.
3. **HERBICIDES** - All spraying will be conducted with either glyphosate or sulfometuron methyl herbicides with the acceptable formulations identified below. **Roundup Pro**

Concentrate is the only acceptable form of Glyphosate to be used. Oust XP is the only acceptable form of sulfometuron methyl to be used.

4. **ACCEPTABLE GLYPHOSATE FORMULATIONS** – All glyphosate will be applied diluted in water at a final spray volume of twenty-five (25) fluid gallons per acre. Areas that are treated with supplemental spray equipment will have glyphosate applied diluted in water at a final spray volume of eight (8) fluid gallons per acre.

The following glyphosate formulations are acceptable according to Appendix A:

PRODUCT	AI Per Gallon of Product	Application Rate (AI/Acre)	Product Needed/Acre (Fluid Ounce)	Acres Treated Per Gallon of Product
Roundup Pro	68.8 oz.	13 oz.	24.0 (0.75 qt)	5.3 acres/gallons
Concentrate	68.8 oz.	26 oz.	48.0 (1.5 qt)	2.6 acres/gallons

5. **ACCEPTABLE SULFOMETURON METHYL FORMULATIONS** - All sulfometuron methyl must be Oust XP only. Sulfometuron methyl will be mixed diluted in water at a spray volume of twenty five (25) fluid gallons per acre. Areas that are treated with supplemental spray equipment will have sulfometuron methyl applied mixed in water at a spray volume of five (5) fluid gallons per acre.

- a. The following sulfometuron methyl formulation is acceptable at the application rate shown:

PRODUCT	AI Per Pound of Product	Application Rate (AI/Acre)	Product Needed/Acre (Ounce)	Acres Treated Per Pound of Product
Oust XP	12 ounces	2.0 ounces	2.0	8 acres/pound

- b. **NOTE ON SULFOMETURON METHYL PRODUCT** - Oust is a dispersible granular formulation packaged in 3 pound jugs/cartons, with eight (8) jugs/cartons per container. The outer container is made of compressed cardboard and must be kept dry.

6. **ARSENAL:** Any arsenal used must be ARSENAL APPLICATORS CONCENTRATE. This is added at the rate of 1 ounce per acre. Active ingredient (Imazapyr) is 53.1%. Any blocks that receive arsenal should be listed on Appendix A.
7. **ADJUVANTS** – (Contractors will not be required to use any additional adjuvant for any projects that utilize Roundup Pro Concentrate, as the adjuvant is already mixed in with the herbicide.) Otherwise, during moist conditions NU-FILM-IR is preferred; during all other conditions the Field Contract Coordinator will specify either NU-FILM-

IR or Surf-AC 820 non-ionic adjuvant to be used just prior to spray application. Surf-Ac 910 may be substituted for Surf-Ac 820 at the Contractor's discretion. NU-FILM-IR - A non-ionic adjuvant to be delivered at the rate of approximately 4.0 fl. oz. per acre or Surf-AC 820 (or Surf-Ac 910) non-ionic adjuvant is to be delivered at the rate of approximately 8.0 fl. oz. per acre. **The Contractor is to have available sufficient quantities of each adjuvant for daily work at the worksite where Roundup Pro Concentrate is not labelled for use on the projects.**

8. **CONTAINER DISPOSAL** - The Contractor is responsible for the proper disposal of all herbicide and adjuvant containers as specified on the product label.

9. **HERBICIDE MIXING:**
 - a. **WATER FOR SPRAY SOLUTION AND DRAFTING ZONES** – The contractor is responsible for locating and supplying suitable water for spray operations. The contractor must notify the Department District Field Contract Coordinator of water drafting sites. **The effectiveness of glyphosate is significantly reduced by any suspended solids and organic matter. Care must be taken to not disturb bottom sediments when drafting water from streams. Cloudy water or water with otherwise visible levels of particulates may not be used.** Water sources with high levels of iron can also greatly reduce the effectiveness of glyphosate. Water sources with suspected high levels of iron may not be used. Hard water containing calcium or magnesium at levels greater than 350mg/L also may not be used with glyphosate. Recommended water pH is 5.5 to 7.0. Lower pH readings have been shown to reduce the effectiveness of sulfometuron methyl and higher pH readings have been shown to reduce the effectiveness of glyphosate. The Department reserves the right to reject any loading or water drafting zones it regards as unsuitable.

 - b. **MIXING PROCEDURES** - All herbicides must be mixed in strict accordance with the herbicide manufacturer's recommendations. Detailed mixing procedures along with allowable storage periods for the mixed herbicide are prepared by the Department for the formulations used based upon the manufacturer's recommendations and are given to all personnel involved in herbicide mixing. Granular herbicides must be added to the tank using a pre-mix system or they must be manually agitated and mixed prior to adding to the mix tank.

 - c. **TIME LIMITS ON HOLDING MIXED HERBICIDE** - Mixed material must be sprayed within the following time limits established by the Department. The Department will not compensate the Contractor for any herbicide that must be disposed of due to the time limits on holding mixed batches being exceeded.
 - (1) **SULFOMETURON METHYL** - Mixed batches of sulfometuron methyl may be sprayed within 24 hours of mixing without concern as long as the batch is

properly re-agitated. Any mixed batch held beyond 24 hours must be properly disposed of and a new batch mixed.

(2) **GLYPHOSATE** - Mixed batches may be applied up to forty-eight (48) hours after mixing has taken place. The tank the material is stored in must be parked in the shade when not in use.

d. **APPLICATIONS / RATES / SPRAY VOLUME** - Final spray volumes per acre are as follows for all routine spraying:

Glyphosate 53.8 percent active ingredient (AI) at variable rates (depending on block requirement, Appendix A) of .75-4.5 quarts per acre with a non-ionic surfactant; NU-FILM-IR, at a rate of 4 fluid ounces per acre or Surf-Ac 820 (or *Surf-Ac 910*), at a rate of 8 fluid ounces per acre. The glyphosate and surfactant will be dispensed with 25 gallons of liquid (including chemical) per acre.

Sulfometuron methyl 75 percent active ingredient (AI) at variable rates (depending on block requirement, Appendix A) of 1.5-3 ounces of dispersible granules per acre with a non-ionic surfactant ; NU-FILM-IR, at a rate of 4 fluid ounces per acre or Surf-Ac 820 (or *Surf-Ac 910*), at a rate of 8 fluid ounces per acre. The sulfometuron methyl and surfactant will be dispensed with 25 gallons of liquid (including chemical) per acre. **If the block is listed as Oust only, no surfactant should be added.**

10. **SAFETY** - The Contractor must follow all state and federal safety procedures that apply to general pesticide handling and to the specific material being used.

M. SPRAY EQUIPMENT:

1. GENERAL SPECIFICATIONS AND OPERATIONAL LIMITATIONS:

a. **EQUIPMENT** - All equipment specified in this Statement of Work for use in or upon any spray equipment must meet all state and federal safety regulations. Spray equipment must be able to complete the project in adequate time. **Spray equipment must be capable of applying herbicide a minimum spray width of 40 feet from each side of the machine for a total width of 80 feet (40 x 80) and 15 feet in height in open conditions. Consecutive spray passes must obtain coverage of the vegetation to a height of 15 feet which will result in some double application in the zone where 2 passes overlap.** The spray rig must be capable of navigating the terrain and forest conditions specified in this contract. Application machine must have a tank which is spill proof and leak proof. The Department reserves the right to reject any piece of equipment that in its opinion will not safely and adequately complete the job.

- b. **INSPECTION** - Department personnel may inspect the Contractor's spray equipment to determine if they meet the contract Specifications. The Department reserves the right to evaluate the proposed spray operation prior to award and at any other time, including, but not limited to equipment operators, spray equipment and operating plan, and reject any part of the operation that, in the Department's said opinion, will result in unsatisfactory performance. The Department reserves the right to reject any or all bids. Performance tests, as necessary, may be conducted at a location mutually agreed upon by Department personnel and the Contractor. The Contractor assumes all expenses incident to operation of the spray equipment and the equipment operator's time during these tests. The Department may request these tests and inspections be held prior to bid award or at any other time. On-site inspection on the reporting date may also be acceptable if approved in advance by the Department.

2. EQUIPMENT SPRAY SYSTEM:

a. GENERAL SPECIFICATIONS FOR PRIMARY SPRAY EQUIPMENT:

- (1) **TANKS** - Leak proof, corrosion-resistant tanks with exterior filler openings must be used. **Tanks must be constructed of stainless steel or other corrosion resistant metal. Fiberglass or plastic tanks are NOT acceptable. Tanks must be properly guarded to prevent spills in the event of a rollover.** The location and size of tanks must not impair ground worthiness by overloading or displacing the center of gravity beyond acceptable limits. Filler openings or necks must be large enough to prevent surging during filling. Tanks must be vented to the outside. Tanks must be able to draw spray material on slopes of at least twenty (20) percent.
 - (2) **NOZZLES** - The nozzle delivery system will be designed to meet the Department's spray objectives. Nozzles should be located to spray out the sides and rear of the machine. Rear nozzles are required to apply spray material to track passes by the machine and avoid gaps. Rear nozzles should be adjusted to direct spray downwards at a 45 degree below horizontal. Machine side nozzle delivery angle should be adjustable from horizontal to at least 45 degrees above horizontal. The Contractor will work with the Department's Monitoring Specialist to achieve the specified results. This will typically entail two or three different types of nozzles arranged in a specific order.
- b. **EQUIPMENT CLEANING** - All equipment which comes in direct contact with the herbicide must be kept thoroughly clean and free of residues and foreign particulate matter. **Spray equipment used to spray non-native invasives must be cleaned prior to coming on State Forest land if coming from an area with invasives.**

3. METERS:

- a. **GENERAL** - The mixing system must be designed to accurately meter water, herbicide concentrate, and the mixed herbicide. If the mixing system or herbicide storage system is designed such that air could be sucked into the lines and cause erroneous meter readings, the meter must be equipped with an air eliminator. The meter must be capable of safely handling the flow rate necessary for loading the spray equipment.
- b. **CALIBRATION** - The Contractor must provide evidence that all metering devices employed have been inspected and calibrated by a licensed inspector within two months prior to the start of the spraying operation. At or before the time the Contractor's spray equipment is calibrated, the Contractor must supply the Department's field contract coordinator with a copy of the inspector's calibration report for each meter used in the project.

The spray equipment must be calibrated on all herbicide contracts to deliver spray material at one (1) to three (3) designated spray widths, depending on what is listed in Appendix A per each contract. Once the calibration has been set to achieve the correct spray application rate/acre, it should not be changed without the consent of the spray block monitor. The Contractor will work with the Department's Monitoring Specialist to achieve the specified results.

N. BID AWARD:

Bidder must complete and return the following for award of bid:

1. The electronic Invitation for Bid to be found at www.pasupplierportal.state.pa.us,
2. A copy of your self-certification form from the Department of General Services and the Small Business Procurement Initiative. Failure to produce a valid Self-Certified Small Business certificate shall render your submission non-responsive.
3. A properly executed Reciprocal Limitations Act Requirements form that lists the state of manufacture for any supplies procured.
4. A copy of your current, valid Pesticide Application Business License.

The bid will be awarded based on the total sum of all blocks as indicated on the IFB-Invitation for Bid.

The contract quantities herein are estimated only and may increase or decrease depending on the needs of the Department. The Contractor shall be paid at the unit price bid for actual work performed.

Please note that the Department will only accept out to two (2) decimal points when entering your pricing.

O. PAYMENT TERMS:

Payment shall be made upon satisfactory completion of each project. A project will be deemed complete when the Monitoring Specialist and/or Field Contract Coordinator are in agreement that all contract tasks are completed as required.

Payment will be made on projects that require recall spraying only upon the noted approval of the Monitoring Specialist and/or Field Contract Coordinator.

Payment will be determined by the Department's surveyed acreage treated.

P. INVOICES:

Invoice format shall be in accordance with the IFB – Invitation for Bid. All invoices for this contract **MUST** either be:

1. Emailed to the following for a Paperless Email Invoice Option:

Email a copy of the correctly executed invoice to: 69180@pa.gov.

For information on the Commonwealth's E-Invoicing Program, visit:
<http://www.budget.pa.gov/Programs/Pages/E-Invoicing.aspx>.

2. Or, mailed to the following address:

Commonwealth of PA – PO Invoice
P.O. Box 69180
Harrisburg, PA 17106

A copy of the invoice(s) **MUST** also be sent to:

Andrew Duncan
DCNR/Bureau of Forestry
P.O. Box 8552
Harrisburg, PA 17105
aduncan@pa.gov

All invoices **MUST** have the purchase order number, project number, as well as your SAP Vendor Number on the invoice. The name and address listed on the purchase order must also be listed on each invoice. Failure to provide this information will result in a delay of payment.

Please Note: Vendors are reminded to **NOT** include employer identification numbers, Social Security Numbers, bank account information, or other personally identifiable information on their invoices. That information is uniquely tied to your SAP Vendor Number and, for security purposes, should not be explicitly stated on an invoice.

Q. CONTRACT PROGRESS MONITORING:

The Department may, as deemed necessary, schedule a mid-point review meeting via phone, email, or field visit. If such a meeting is requested by the Department, attendance is mandatory for the contractor. Contract progress, challenges, remaining work, potential performance concerns, and other project-related business may be discussed at the meeting.

As a result of discussions at the meeting, the Department may determine to extend the end effective date for spraying to no later than September 20. Follow-up progress meetings may also be required.

If performance concerns persist after the meeting, the Department may input the contractor into the Contractor Responsibility Program and/or retain all or a portion of the Performance Bond as outlined in Section D.

For more information on the Commonwealth of Pennsylvania's Contractor Responsibility Program, please visit:

<http://www.budget.pa.gov/Programs/Pages/ContractorResponsibilityProgram.aspx>.

R. CONTRACT TERMINATION:

The Commonwealth may terminate this contract for its convenience if the Commonwealth determines termination to be in its best interest. Contractor shall be paid for work completed.

S. CONTRACTOR REFERENCES AND QUALIFICATIONS:

After bid opening and prior to awarding of the contract, the Department has the right to request four (4) references (names, addresses and telephone numbers) of similar work performed in the previous three (3) years as proof of qualifications to perform the work involved in this contract. Similar work is defined as machine-only, competing vegetation contracts of a similar acreage (+/- 100 acres of the total project acreage) as required here.

Two of the four references should be for DCNR-related work.

If references are requested, bidders should be able to supply proof that they have completed at least an 800-acre contract in a single spray season.

The bidder may already have one or more contract areas with the Department. If the bidder has one or more contracts, he must be able to perform all the work associated with said contracts in the required time frame.

Therefore, the contractor may be asked to submit additional evidence of their ability to juggle multiple projects within a specific time frame as well as successfully complete the combined acreage for all potential projects. Evidence may include: past, satisfactorily completed projects of similar scope and acreage; and/or a detailed work plan, including timelines, of the intended approach to the multiple projects.

References are an optional tool available to the Department to help determine bidder capabilities. If any of these references are requested and the bidder cannot supply the necessary documentation and proof of compliance, the Department reserves the right to reject the bidder. The decision to both request references or reject bidders based on inadequate reference will be made solely at the discretion of the Department.

T. RECEIPT AND OPENING OF BIDS:

Bids must be submitted via the PA Supplier Portal, to be found at www.pasupplierportal.state.pa.us. Faxed bids and mailed bids **will not** be accepted.

No responsibility will be attached to any employee of the Department for the premature opening of, or the failure to open, a bid not properly addressed and identified, or for any reason whatsoever.

U. BID RESULTS:

Bidders can obtain bid results by accessing www.emarketplace.state.pa.us/bidtabs.aspx. The bids will be posted within three (3) business days following the bid opening. The results are the apparent bidders, and all bids are under review until final award of the purchase order.

Attachments:

- Exhibit A 1, 2 & 3: Topographic Block Maps
- Appendix A: 2019 Herbicide Block Information
- Appendix B: Forest District Map
- Appendix C: Forest District Contacts
- Appendix D: Block Herbicide Spray Record
- Appendix E: Report on Personnel and Equipment
- Reciprocal Limitations Act Requirements Form