US Department of Agriculture (USDA)

Statement of Work

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Project
Emerald Ash Borer Insecticide Treatments on the Allegheny National Forest

General Information
1.0 Scope of Work

The Contractor will be required to treat Ash trees with Stem Injection of emamectin benzoate – i.e., Tree-äge™ or equivalent.

Contractor shall furnish all labor, materials, equipment, tools, transportation, supervision, supplies, insecticide, and related supplies required to treat ash trees. The Government will furnish no materials, labor, or equipment unless specifically identified in the Government-Furnished Property (GFP) clause.

2.0 Background
The purpose of this contract is to perform insecticide treatments on ash trees to ensure their ability to survive infestation by the emerald ash borer (EAB). The contract areas are on the Allegheny National Forest (ANF). They may include ash trees in forested areas and in established recreation areas. See attached maps for additional details.

Contractor Requirements
3.0 Technical Requirements / Tasks
The Contractor shall perform work in accordance with the specifications contained in this contract.

Work to be Performed
For all Areas, the Contractor shall properly treat the designated trees with insecticide as directed by the COR in accordance with these specifications.

Treatment Areas

Recreation/Administrative Sites
Buckaloons Recreation Area
Clarion River (4 sites)
Irwin Run Canoe Launch
Kiasutha Recreation Area
Kinzua Beach Recreation Area
Marienville ATV Trailhead
Minister Creek Recreation Area
Marienville Ranger District Office
Red Bridge Recreation Area
Willow Bay Recreation Area
70 stems (est.)

NRS Plots
FAL002
FAL006
FAL016
FAL024
FAL026
FAL028
FAL034

NRS Plots
FAL038
FAL050
FAL054
FAL060
FAL062
FAL088
FAL126
FAL142
FAL158
FAL166
FAL190
FAL192
FAU001
FAU005
FAU023
FAU025
FAU059
FAU087
FAU105
FAU147
517 stems (est.)

Application Timing
Weather, soil condition and insect activity influence optimum treatment timing for prescribed systemic insecticides identified within.

The optimal time for application is in the spring, about 30 days prior to expected adult emergence. Uptake of formulation is fastest when trees are actively transpiring after they have developed a full canopy. Spring treatments will prevent the adult beetles from feeding and laying eggs in the tree, whereas summer treatment will kill the larval stage of EAB feeding under the bark. Injection in the fall (after leaves color) can protect the tree for the following season.

For the purposes of this action, treatments shall be conducted during periods when soil is not frozen nor excessively wet or dry, **between May 15, 2027 and June 30, 2027**.

Application Methodology
Trees to be treated will be designated by a site map/GPS point, by verbal instructions from the COR, by flagging, paint, metal tags, or by a written tree-by-tree site description.

If the trees to be treated are at a campground or other frequently used recreation area, the Contractor may treat infested trees only after coordination with the COR as to appropriate treatment times.

After treatment, each tree will be flagged with a short length of flagging on a branch above Contractor's head. Contractor shall also perform tree tag maintenance to ensure tags are well-attached and a minimum of one inch out from the outside bark. The Contractor shall keep a written list of each tree treated and its corresponding tag number and diameter and provide this list to the COR.

Stem Injection
This method is for treating all trees as designated trees in this contract. Emamectin benzoate – i.e., Tree-ägeTM or equivalent – will be used.

The Contractor will be responsible for mixing the insecticidal solution on the job site and shall follow all label directions for mixing of insecticide.

The Contractor shall, before beginning any treatment, calibrate the stem injector using water to determine how many ounces of solution are delivered.

Stem injections must use low pressure (less than 40 psi) and "micro-injection" techniques (Arborjet IMA-jet/Tree IV system, Rainbow Tree M3 Infuser or equivalent). The Contractor will inject the stems of the designated trees with solution. The point of injection will be within roughly 18 inches of the bottom of the tree, spaced 6 inches apart and 5/8 to 1 5/8 inches in depth.

After determining each tree's diameter at breast height (dbh), the Contractor will derive the amount of solution to inject as directed by the product label. For each tree, the injector will be used at several points around the stem of the tree to evenly space the required number of ounces into the soil the trunk of the tree.

Application Dosage Rates and Label Limits
Contractor is responsible for checking dosage rate and current label application limits, completing calculations per acre and for keeping track of cumulative dbh treated in each stand. Contractor will not exceed allowable amount of active ingredient per acre as specified on product label.

Treatment Method	Chemical Common Name	Label Limit
Stem Injection	emamectin benzoate	none

Emamectin G4 Use Rate Table	
DBH (in)	ml of product/tree
4 to 6	25
7 to 9	40
10 to 12	55
13 to 15	70
16 to 18	85
19 to 21	100
22 to 24	115
25 to 27	130
28 to 30	145
31 to 33	160
34 to 36	175
37 to 39	190
40 to 42	205
43 to 45	220
46 to 48	235
49 to 51	250

Additional Treatment Guidelines

A. No treatment may occur along trails or in high-use areas on holidays or weekends.
B. Treatments shall not be made during heavy rainfall, or if significant rainfall is expected.
C. If a tree is dead, do not treat the tree and record as such in the notes.
D. All chemical mixing and equipment calibration shall occur onsite.
E. If tree is tagged with a number other than that identified in the schedule of items (or tag is missing), but the tree appears to have the correct location-DBH combination, treat the tree and record in the notes.

F. Injection sites shall be within 18” of the bottom of the tree, at a depth of 5/8” to 1 ½”, with injections occurring at several, evenly spaced locations around the base of the tree to ensure the proportional delivery.
G. Dosage rate shall be 5 ml/inch tree DBH (see above).
H. All treated trees shall be flagged at DBH, with tree number and diameter recorded on the tail of the flagging.
I. Signage shall be hung at conspicuous locations to sufficiently notify people of the treatment type and date.

Vegetation not to be Treated

A. Any tree not designated by flagging or otherwise designated by COR as described above;
B. Any other trees designated not to be treated by the COR.

Protection of Trees

The Contractor shall use every precaution necessary to prevent spillage of insecticidal solution or insecticide on trees not designated to be treated.

Stream, Lake and Reservoir Pollution Prevention

During the handling, transporting and use of the insecticide, Contractor will use every precaution necessary to prevent pollution of any streams, lakes, reservoirs, or standing water with insecticide, insecticidal solution, or other harmful materials. No soil injection will be done to any stem standing within 100 feet, horizontal distance, of any public or domestic water source.

Insecticide mixing, loading, or cleaning areas in the field will not be located within 200 feet of private land, open water or wells, or other sensitive areas. Mixing and cleaning water must come from a public water supply and be transported in separate labeled containers. Under no circumstances will injectors, containers, or other contaminated materials be washed in any stream, lake or reservoir.

Violations are punishable under 36 CFR 261.11(c) and are subject to fine of not more than $500.00 or imprisonment for not more than 6 months or both.

Protection of Improvements

The Contractor shall protect all trails, roads, ditches, fences, campsites, picnic sites, horse stalls, interpretive signs, bulletin boards, restrooms and showers, and other improvements in the project area. Access guidelines will be provided by the COR. Any road or trail used by the Contractor that is damaged by his operations shall be promptly repaired by the Contractor.

Protection of Archaeological/Historical Resources

The Contractor, upon the discovery of suspected archaeological or historical materials, shall cease work in the vicinity of such materials and immediately notify the COR.

Final Clean-Up

Before final acceptance all trash, rubbish, and debris generated by Contractor's operation shall be removed from National Forest Land.

Transportation of Insecticides

Contractor is legally responsible for the safe transportation of insecticides. Contractor shall follow travel routes designated by the COR when transporting insecticides from the public road system to the treatment sites. Transport vehicles shall be parked inside the treatment site in an area designated by the COR. Transportation of chemicals used on this contract shall be in accordance with label instructions and generally approved and accepted procedures for safe transportation of insecticides. The following precautions as a minimum shall be taken by the Contractor to prevent spills, accidents, injury, or theft.

1. Transport insecticides in the cargo compartment of a truck or other vehicle away from the passenger compartment.
2. No personnel shall be permitted to ride in the back of a vehicle with the insecticide.
3. Insecticide shall not be transported in the same compartment with food or clothing.
4. If any insecticide is spilled in or from the vehicle, it shall be cleaned up at once.
5. Maintain insecticides in secure conditions.

Handling and Application of Insecticides
Personnel handling insecticides shall wear protective clothing and or equipment as recommended by the insecticide manufacturer.

Insecticides shall not be applied, or equipment cleaned outside of areas designated by COR. Following these rules will make the use of insecticides safer for everyone.

1. Read the safety information on the label.
2. Wear the proper protective clothing.
3. Keep first aid equipment and a supply of clean water readily available, including soap and eye wash equipment meeting OSHA regulations.
4. Do not work alone.
5. Haul only the needed amount of insecticide
6. Keep the container below eye level when pouring to avoid splashing or spilling any insecticide on the face or into the eyes.
7. If insecticides are spilled, stop immediately, wash contaminated area, and remove contaminated clothing.
8. Wash hands after applying insecticides before eating or smoking.

Disposal of Insecticide Containers
All empty containers will be removed from the worksite and disposed of by the Contractor according to the regulations of the State of Pennsylvania.

Spill Protection
Contractor will use every precaution necessary to prevent insecticide spillage in loading, transporting, pouring, and applying the insecticide. Contractor will always have available in vehicles transporting insecticide a spill kit consisting of items listed on the attached EMERGENCY SPILL PLAN. If a spill occurs, Contractor will immediately contain the spill, use the absorbent material to absorb it, and seal the material in the polyethylene bags. Every effort shall be made to keep it from contaminating water and other off-site areas. The spill shall be cleaned up as quickly as possible. Appropriate Federal, State, and local officials shall be notified. Insecticide spills shall be handled in accordance with the standard procedures for spill cleanup (40 CFR 117) and the accident plan prepared in the site-specific analysis (mitigation required). The COR shall be notified immediately of any insecticide spill or accident. Contractor will deliver the material in the polyethylene bags to the pick-up point.

Safety
It is the Contractor's responsibility to ensure that the work environment is safe for themselves as well as their employees. If the Contractor feels that a requirement of this contract would place them or their employees in an unsafe environment, then work should stop on that area of work and the Contractor should contact the COR. Work on other areas of the contract that the Contractor does not view as unsafe should continue.

The Contractor is required to follow all applicable OSHA standards while working on the job site. In addition, it is recommended that the successful Contractor utilize appropriate personal protective safety equipment/clothing, which may include, but is not limited to, a hardhat, leg protection, ear protection, eye protection and hand protection, while working in the project area. Contractor is required to keep COR/District posted to current work site.

Signs containing information about specific treatments will be placed along the perimeter of treatment areas where these areas are adjacent to roads, trails, recreation areas administrative sites or any other location where the public can be expected to enter the treatment area. These signs will state what insecticide was used, date of treatment, a short message on how the insecticide works, and contact information. Signs will be posted before treatment and remain for at least 30 days post treatment.

Record Keeping and Reporting
The Contractor must keep accurate, daily records (data sheets) of the dbh (inches) of each tree treated, the amount of chemical (ml) for each tree, and the cumulative amount of chemical (liters) at each site as treatments proceed. Data recorded for treatments applied in any one workday must be provided to the COR within one week (7 days) following that workday. After completing all treatments, and prior to receiving payment, the Contractor must provide a digital data set in Microsoft Excel of all trees treated at each site, including site, tree number, dbh, coordinates, dose applied, and any treatment notes.

Access to Contract Areas
Road access to the contract areas is via any State Routes and Forest Roads on the Allegheny that are open and closed, gated roads with permission. The project area shall be accessed by Forest roads during the normal operating season, May through September. The Forest Service assumes no obligation to plow snow or do special maintenance to keep roads open. Stands are accessible by some combination of 2 or 4-wheel drive vehicles and foot travel. The Contractor shall be responsible for obtaining all necessary permission, through privately owned land, to gain access to stand locations.

Locked Gates
In cases where stands are behind locked gates, authorization for limited motorized use may be granted. All requests for motorized travel behind closed roads must be submitted in writing to the COR for specific roads and specific periods of time. If access is granted behind a gate, the Contractor will be responsible to ensure that gates remain closed and always locked and will be subject to all other restrictions of administrative use. The Contractor shall be permitted to drive from the locked gate to the stand with only the minimum number of vehicles necessary for efficient transport of the crew. No firearms are permitted behind locked gates. No access to contractors or employees will be allowed behind locked gates after periods of work. Motorized access will not be permitted behind locked gates during hunting season of turkey, deer, or bear. Contractor shall adjust work schedule to take the closure time into consideration. No Suspend Work Orders will be issued; contract time will run during this period. Any misuse of gates may constitute loss of privileges.

4.0 Government Furnished

The Government shall deliver to the Contractor the following listed material, supplies, and property (hereinafter referred to as "Government-Furnished Property" or simply “GFP”) at the place and time specified below. The Contractor shall be liable for all loss or damage of such delivered GFP until completion and final acceptance of work required under this contract. If the Government fails to make timely delivery of such GFP suitable for its intended use, and upon written request from the Contractor, the Contracting Officer shall make an equitable adjustment of contract delivery or performance dates or contract price, or both, pursuant to the "Changes" clause of the General Provisions of this contract.

- The Forest Service will provide signs for public posting at the treatment sites indicating the treatment dates.

Contractor Furnished
The Contractor will provide flagging to mark treated trees. All insecticide and application equipment will be furnished by the Contractor. During transport, insecticide and application equipment must be secured to prevent tipping or excess jarring and must be carried in a part of the vehicle totally isolated from people, food, or clothing.

Contractor must have a vehicle spill kit, consisting of the items listed on the attached EMERGENCY SPILL PLAN, in their vehicle always while insecticide is being loaded, transported, or used.

Contractor must have and properly use the appropriate personal protective equipment (PPE) as detailed by the insecticide labels.

5.0 Deliverables / Schedule

Period of Performance

All work must be completed during the period of performance as listed above. Multiple award of items shall not change the required performance period for each item. If multiple items are awarded to one Offeror, the respective performance times shall run concurrently, not consecutively. Work may be performed on each item in succession, provided the required rate of progress is maintained.

Work Plan and Schedule

The Contractor shall prepare a work plan and schedule that demonstrates work will be completed within the performance period. The Contractor shall provide a general plan with the technical proposal. A supplementary plan and schedules will be provided after contract award, but 5 days before the start of work.

The Contractor shall advise the Contracting Officer or COR of any periods that the Contractor will not be working, that is not specified in the accepted Work Plan.

The Contractor may update the work plan when work is in progress and the Contracting Officer may accept the updated work plan.

Rate of Progress

The Contractor shall maintain the rate of progress specified in the Contractor's Resource Plan. The minimum acceptable rate of progress shall occur when the percent of work completed falls within 10 percent of the time used.

6.0 Travel

Not applicable for this project.

7.0 Contractor's Key Personnel

Qualified Personnel

At least one certified Pennsylvania pesticide applicator must be available on-site during all application activities, and personnel must demonstrate tree identification skills as well as at least one year of experience in pesticide application and forest pest management.

License Requirements

Contractor will comply with Pennsylvania state regulations for licensing of commercial pesticide applicators. At all times while the Contractor is applying pesticides, at least one applicator certified by the appropriate state(s) in the appropriate category will be on-site. Proof of Pennsylvania Category 5 Forest Pest Control Certification will be provided to the COR at the pre-work conference.

Contractor will be responsible for full compliance with all applicable provisions of the EPA Agricultural Worker Protection Standard (WPS), 40 CFR Part 170.