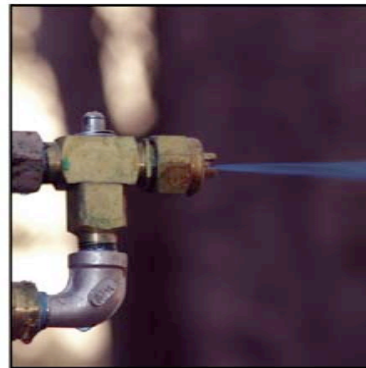


Developing Bid Specifications for Invasive Plant Control Programs



Instructions for contracting
a successful invasive plant management program—from the ground up.

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INTRODUCTION

Developing Bid Specifications is your step-by-step, how-to guide for retaining a high-quality vegetation management contractor.

From establishing goals to determining project specifications, *Developing Bid Specifications* was created to help you develop the most successful bid package—and invasive plant management (IPM) program—possible.

While the focus is on herbicide programs, many of the following guidelines may also be used in developing contracts for IPM programs utilizing mechanical or biological control methods.

To help ensure your success, we recommend that final specifications be tailored to each individual project, and that a pre-bid meeting be held prior to any contract bidding to outline specific program requirements and rules for compliance.



Chinese privet chokes a creek in Birmingham, Alabama. Defining a level of infestation for each species present will enhance the quality of your bids.

SECTION I: DESCRIPTION

Project Description

A comprehensive project description helps ensure that the most effective and desired control practices are put into place. Your project description should clearly identify and describe all key project elements, including project sites and target species. Desirable species should also be identified and locations noted, so that appropriate mitigation methods are built into the project.

Determine your objectives and illustrate them as clearly as possible.

For example:

- List your management goals for each undesired plant species within the defined project area.
- Outline specific desirable species or habitats for protection.

Outline your tasks and illustrate how the control is to be accomplished, including the application technique. *For example:*

- Aerial helicopter foliar
- Low-volume backpack foliar
- Basal bark or cut-stump treatments

Determine Your Criteria

Next, determine your criteria for each application technique included in the project. *For example:*

- Herbicide foliar backpack treatment
- Herbicide cut-stump treatment

Describe any other required activities. Designate locations and disposal methods for debris and cut vegetation. *For example:*

- Herbicide cut-stump: Cut and remove tops to designated area. Spray stumps within 5 minutes of cutting.
- Mechanical: Hand-pull or dig out all plant X in designated area, bag and dispose at designated off-site location.
- Mechanical: Cut all brush over 4 inches in diameter at chest height, let lay except remove from access road.

Fully describe your treatment area, including number of acres to be treated; species to be treated; boundaries of treatment area; sensitive areas to avoid; and descriptions of topography, if relevant. Include marked maps with GPS coordinates when possible.

Some sites require selective control where diversity thrives. A foliar spray with a backpack in late fall when desirables are dormant offers selective control on this Jet Bead.





Clearly state the species to be controlled. Even if it appears that Japanese Stiltgrass is the only plant on the site, require the contractor to be responsible for your region's top 50 invasive plants, if found during the project.

Identify Species for Removal

Identify and properly categorize the species you wish to control or eliminate: herbaceous weeds, vines, multi-stemmed, trees, annual, perennial, deep-rooted perennial, prolific seeder, rhizomatous, length of seed life, etc. Information regarding specific weed biology and site ecology is important to developing a successful control program. In addition, this information will help determine and monitor the length of your program.

Prioritize Desirable Species

List and prioritize any desirable species you wish to protect. State if temporary, minor damage can be tolerated to localized areas. *For example:*

- Grass damage as a result of reduced seedhead production or population thinning is acceptable up to 2 years after application.
- One-year control of native annuals is acceptable.

Describe and list all mitigation activities and note any practices that may be required on specific sites.

SECTION II: CONTRACTOR REQUIREMENTS

Liability/Insurance

To maintain eligibility, all potential bidders must meet liability and insurance requirements. Without exception, proof of insurance should be provided prior to the bid due date. Please note that specific requirements vary by state and agency:

- General Liability (at least \$2,000,000 aggregate)
- Workers Compensation (at least \$500,000)
- Project Bond Insurance (amount equal to project bid)
- Performance Guarantee
- Pollution Insurance (optional, at least \$100,000 in coverage)

Licensing Requirements

Required licenses will also vary by state and agency. However, additional requirements will encourage superior performance from your contractor:

- All contractor crew leaders must be certified to apply herbicides in the state of application and be on-site at all times.
- Company must possess an applicator's license in the state where project is to be completed.



To ensure proper chemical handling, at least one certified crew member must be on-site at all times

- Crew leader must be certified in category related to project, (e.g. Aquatics, Forestry, Right-of-ways, Non-crop, etc.) in the state of application. Documentation must be provided with bid and will not be accepted after bid due date.
- Company must provide proof of business in good standing.
- Company must provide documentation of any penalties/fines received in the last three years.
- Company must provide Federal Identification Number.
- Company must provide Pesticide Applicator License/Certification number for all contractor crew leaders working on the project.



Require that all applications use a marking dye to track herbicide use.

Technical Specifications

Be aware of and include any and all technical requirements that improve application efficiencies. To avoid skips, overlaps or off-target application, use a marking agent (dye marker, foam marker) or GPS technology. For tracking, mapping and follow-up monitoring purposes, GPS technology is recommended.

To ensure greatest control and least off-target:

- Follow herbicide label guidelines and restrictions for recommended rates, application timing, adjuvant, rain fastness, temperature restrictions, wind-speed restrictions, etc.
- Require Pesticide Application Record to be completed on-site and filed to contractee within 12 hours.

Technical Specifications

To avoid use of marginal or short-term control herbicides, list the products you want to use. Some commonly used herbicides will brown vegetation quickly, but do not provide effective residual control. An applicator interested in his own profit margin may be tempted to utilize a cheaper herbicide that provides inferior control, when long-term products are available.



- Don't allow changes to your preferred product specifications.
- If government agency with approved product list, an agency employee should research and recommend herbicides to be used based on NEPA requirements, along with site ecology and weed biology.
- If non-government organization, employee should research and recommend best herbicides based on state laws, site ecology and weed biology.

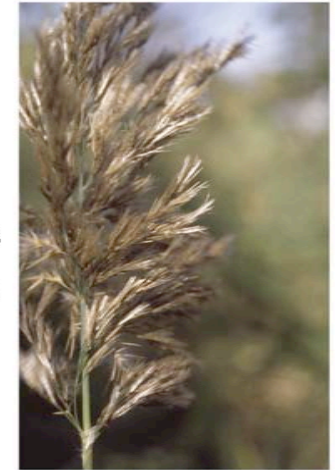
To avoid product delivery delays, specify products that may require special shipping; restricted use; restricted customer purchase in market; special application equipment needs or purchases required ahead of time by contracting agency.

Performance Requirements

To monitor progress and ensure success, it is important to determine—and adhere to—targeted dates for completion throughout each phase of your project. Timelines may be established according to acres, or whatever units of measure serve your program best. Since the environment is an important factor in successful herbicide applications, timelines should be established with contingencies for inclement weather. To help ensure that the timing you have established is successfully observed:

- List best times when work can be performed.
- List holidays, weekends or time of day when work is not to be performed.
- Clearly state how and when performance will be measured and evaluated.
- Clearly define season when each individual species must be treated.

Once determined, provide your scheduling information to potential contractors prior to bidding so they can procure the necessary equipment and manpower needed to meet your deadlines.



Always list when species should be treated. Phragmites will have a different timeframe than English Ivy.

References

Many potential problems can be avoided by using a quality contractor with a proven performance record. References are an excellent way to assess the past performance of a potential contractor. It is recommended that references be a required section of the bid package, and that you maintain a list of reputable contractors with periodic updates. Required reference information should include:

- At least 5 references from prior vegetation management work completed in the last three years.
- Summary of the vegetation treated and methodologies used.
- Summary of the success at meeting performance objectives (completion timeline, client satisfaction, application accuracies).
- Summary of technologies used (spray equipment type, GPS ability, etc.).
- If involved with site rehabilitation, describe level of involvement and expertise.
- Include names, addresses and phone numbers for all references.

The project manager should reserve the right to call any references listed to determine the qualifications of the bidding contractor/company. Poor past performance is reasonable criteria for disqualifying a contractor.



Ensure that contractors maintain their knowledge of invasive species through continuing education, such as annual seminars and workshops.



Always plan for at least five years' worth of treatments to ensure adequate control of the existing seed bank.

Performance Guarantee

A performance guarantee helps protect both your interests and those of the contracting entity by ensuring that work is completed in a timely manner based on the project description. A strong performance guarantee should include a project timeline, a completion date, and specific measures of performance based on your previously determined goals and objectives.

Due to the aggressive nature of certain species, some invasive vegetation management projects may require multiple years to complete. In these instances, the performance guarantee should also include a plan to clean up skips or areas of incomplete control that may have occurred due to applicator error, the following season.

A quality contractor is aware of disparities in product performance and prepared to make recommendations based on products with which he has had the greatest success.

Performance Guarantee



Performance guarantees should stipulate that contractors are not responsible for eradication of the existing seed bank.

Fluctuating environmental conditions can make control guarantees difficult to secure. But a performance guarantee, assuming your program guidelines are followed correctly, can help ensure control success by measuring performance the following year, after any re-treats are completed. Be aware that land management activities by the contracting organization before, during and/or after the control practice, may also play a large role in the end control results.

Your contractor's proposal should describe the control method, products to be used, impact to non-target organisms and an estimated XX% control these methods should

yield under ideal conditions. This should include the date at which the control would be evaluated (recommend at least one year after treatment) and describe the method of control evaluation (number of re-sprouts, stem count, biomass and visual control).

Use control estimates to compare bids; rely on your performance guarantee to assure results.

All herbicides are not created equal. Certain products achieve the desired control within the context of an integrated program, but cannot maintain that level of control when used alone. It may take repeated treatments to achieve your desired level of control with a particular product. However, it may be possible to achieve the desired level of control in one application with another product. Typically, the more selective the chemical, the higher the initial cost, but the better the results will be short- and long-term, including faster rehabilitation time.

Consult the herbicide's manufacturer for more information.

Herbicide Application Log

A log of all herbicide applications is normally required by law and is essential for evaluating work completion. A log is also an important aid in determining why an application may have been unsuccessful. A detailed log should answer questions regarding weather conditions during and after application, verify products/rates utilized, and confirm areas and dates of treatment.



After basal-bark treating this ailanthus patch, the applicator will immediately fill out a site sheet which includes the type, quantity, and site conditions where herbicide was applied.

Contractor/Company Responsibilities

Be sure to list the responsibilities of the contractor to help ensure accountability and successful project completion. *Examples of contractor responsibilities include:*

- Equipment
- Equipment and herbicide storage
- Clean-up
- Point of contact
- Emergency procedures
- Project documentation
- Losses/Theft
- Cooperation
- Supervision
- Plant identification
- Crew size
- Permits

Examples of agency responsibilities include:

- Equipment or material to be provided
- Maps and directions to work sites
- Inspections
- Final decisions
- Point of contact

Contractor/Company Information

Require a résumé page including:

- Introductory paragraph describing company and its expertise in the type of vegetation management you require;
- Description of how company handles vegetation management in sensitive areas;
- Description of company's technical qualifications and past performance; or
- Company objectives and technical qualifications.

Ask for prospective contractors to provide photographs of previous invasive plant work with a detailed description of methodologies used and final results.



Project Follow-up Requirements

The potential contractor will be required to prepare a statement upon completion that includes any follow-up monitoring and treatment needed over the next 2 to 5 years. This could include spot treatments, hand-pulling or broadcast spray of new invaders and/or other contractor-recommended management practices needed to stop re-invasion. *For example:*

- Desirable vegetation was thin and planting will be needed within 2 years to preserve control achieved.
- XX number of days will be required each year for 10 years to manage the existing seed bank.
- The following invasive species exist on neighboring properties; the contractor recommends partnering with these land managers to deplete the seed source threatening your property.

Provide a written/formal presentation to review the project and make suggestions for the next year.

When one property owner removes an invasive plant like kudzu, it is imperative that the neighboring properties begin to control their populations or it will be a losing battle.



Educational Background

Contractor must demonstrate that employees can properly identify plants during the treatment season. If contracting organization depends on contractor for management guidelines, additional requirements to consider for hire would be:

- At least one of the owners of the business must have a bachelor's degree in a resource management related field.
- Provide documentation of graduation.



It is imperative that on-site personnel be required to have the educational background required for identifying desirable from undesirable species.

Safety Plan

Contractor should develop and provide a detailed plan for this specific project within one week of contract award. Plan should include:

- Plans for implementation of Worker Protection Laws specific to the treatment site (protective equipment, in case of emergency, labels, MSDS);
- How they will follow endangered species site plan;
- All emergency contacts for the contractor and agency.

Terms and Conditions

The terms and conditions of a contract will vary by state and agency. This document is generally required and is developed by the contracting agency. It can specify requirements for bidders, establish criteria for contract cancellation due to default by either party, or provide billing and payment terms and procedures that specify what happens in the event of conditions beyond the control of either party such as a natural disaster. It is important for the contracting agency to know what is stated in the terms and conditions, so that the bid package includes any relevant items.



Invasive plant management requires the use of dangerous equipment in difficult to reach areas. It is imperative that a safety plan be required prior to any work being started.

Bid Evaluation Criteria

Evaluation criteria will vary by agency and project. Sharing this information with potential bidders will minimize controversy during bid evaluation. It should be clearly stated who will evaluate the bids and the criteria that will be utilized during the bid process. There are two common forms of evaluation criteria: points and weighted factors. These criteria are often used in combination.

In the point system, each portion of the bid is assigned a number of points within a certain range. The range may be from 1 to 3 or 1 to 10. As the proposal is evaluated, a score is awarded each portion.

The weighted factor system rates the importance of the items being evaluated. The importance or weight of each item is expressed as a number or percentage. Typically, the percentages total 100 percent. In this system, items such as previous work experience may hold a higher value than price. After all bid areas are evaluated, the score for each item is multiplied by the weighted factor. The weighted scores are totaled and the winner is the bidder with the highest score.

It is extremely important to establish your evaluation criteria before soliciting bids.

Invasive plants require long-term management. Chinese wisteria will require multiple applications over several years for complete control.



SECTION III: TYPES OF CONTRACTS

There are many ways to develop a sound contract. The contracting agency should create a bid package that is flexible in application and stringent in compliance to ensure that the group eventually hired is capable of performing the required tasks efficiently and effectively.

Private, municipal, state and federal agencies will have different options for creating flexibility in a contract. The first step in understanding your options is to create a relationship with your contracting department. Ask how flexible contracts can be and what options are available. Ultimately you want to ensure that your agency will be able to create a bid package that provides the opportunity to hire the most qualified contractor.

Potential Contract Scenarios

- Type of Contract
 - ▶ End of Year Money
 - ▶ Add a subcontractor onto an existing contract
 - ▶ Contracts established through *Grants or Friends Group* funds often require less red tape
 - ▶ Smaller dollar amounts allow for fewer bids, eliminating some of the uncertainty
 - ▶ No bid versus three or more bidders
 - ▶ Some contracts are Open to the Public, giving you the greatest spectrum of choices, but often require a more detailed and time consuming interview process
 - ▶ Contract Extensions provide the agency the ability to retain quality contractors for a designated number of years after the initial bid

Deciding on a Contractor

It is not necessary to only use low bid when choosing a contractor. Consider using a percentage based scale which allows the agency to eliminate unqualified proposals and make a more educated decision when selecting the contractor.

For Example, *evaluate bids based on:*

XX% Past Performance, XX% Experience, XX% Performance Guarantee, XX% Ability to prove effectiveness of Selectivity, XX% Education, XX% Price.

Invasive Plant Control (IPC) is dedicated to the management of invasive species nationwide.

Since its inception in 1997, IPC has emerged as one of the nation's leading private entities for controlling invasive plants. Owned and operated in Nashville, Tennessee, by Lee Patrick and Steve Manning, IPC strives to provide high-quality service and maintains long-term relationships.

www.invasiveplantcontrol.com

