



THE RESOURCE PROTECTION GROUP, INC.

REQUEST FOR PROPOSALS

August 4, 2020

RFP #10 – Tree Species/Stock Type Selection

WSSI #50000.05-E

Due Date/Time: August 31, 2020; 5:00 PM

Location: via Email

Resource Protection Group, Inc.
c/o Wetland Studies and Solutions, Inc.
5300 Wellington Branch Drive, Suite 100
Gainesville, Virginia 20155
ATTN: Michael S. Rolband, P.E., P.W.S., P.W.D
mrolband@wetlands.com

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A. Solicitation Offer and Award Form

I. Background

Wetland Studies and Solutions, Inc. (WSSI) established the Wetland Research Initiative (WRI) in 2007 to fund applied research that can make a real and measurable difference in wetland creation, restoration, and enhancement activities in the Virginia Piedmont. The WRI has awarded \$3.991M in grants to date to support projects asking questions about the overall effectiveness of compensatory mitigation efforts and specifically how design and construction practices should be modified to improve compensatory mitigation effort with respect to created wetland functions and values. In 2015, The Resource Protection Group, Inc. (RPG) assumed responsibility for managing current and future activities of the WRI.. RPG is a non-profit 501(c)3 organization whose mission is to protect, restore, enhance and increase public awareness and understanding of our natural and cultural resources, including urban systems where many of us reside. Our work is primarily focused on the protection, restoration and enhancement of aquatic resources. Recent efforts are also addressing stream and aquatic habitat restoration in addition to wetlands related studies.

A previously funded grant (RFP#3: Sustainable Created Forested Wetlands – see: <https://www.wetlands.com/wetland-research-initiative>) developed extensive information on tree growth response to various factors and ecological performance standards (EPS). The Norfolk District of the Corps of Engineers and the Virginia Department of Environmental Quality (DEQ), acting as co-chairs of the Interagency Review Team (IRT), have incorporated the Stem Area at Groundline (SAG) concept developed by this research as an alternative EPS. This research also developed recommendations for appropriate tree species and stocktype combinations for planting in created forested headwater wetlands in the Piedmont and Upper Coastal Plain Provinces of Virginia.

This Request for Proposal (RFP) is issued to public and private universities accredited by the Commonwealth of Virginia, as well as federal, state, and local governmental agencies operating in Virginia, which possess established programs and abilities related to the research topic.

II. Research & Work Topic

A. The Basic Issues

1. There is a need to improve awareness in the wetlands research, regulatory and consulting communities of the cutting-edge research findings on planted tree performance and assessment developed to date in response to RFP #3.
2. It is difficult for practitioners to develop planting plan specifications that utilize the results of this research in RFP #3.

B. Objectives of this RFP

1. To prepare two (or more) articles for publication in peer-reviewed scientific journals.
2. To develop a user-friendly annotated spreadsheet that allows practitioners to readily utilize and apply the results of the research previously developed by work associated with RFP #3.

C. Scope of Work, Deliverables and Schedule

The successful applicant will submit a proposal that includes a detailed scope of work (as outlined below) to accomplish the objectives provided above and deliver these materials:

1. One article should be prepared that is research data based and submitted for publication in *Wetlands* (Journal of the Society of Wetland Scientists) *Wetlands Ecology & Management* or an equivalent scientific journal.
2. The second article should be more applied, oriented to practitioners, and focus on SAG implementation and the optimal selection of tree species/stocktypes needed to meet the SAG EPS requirements for the Virginia IRT and submitted to *Wetland Science & Practice* or an equivalent mode of publication.
3. Submission to the Virginia Association of Wetland Professionals (VAWP) for publication of shortened versions of these two articles is also required.
4. Development of a Microsoft Excel based **Spreadsheet** and associated “**User’s Manual**” that allows Practitioners to optimize the selection of tree species and stock type combinations to cost effectively meet the SAG EPS and tree stem density requirements adopted by the IRT based on the published results from RFP#3: Sustainable Created Forested Wetlands. This spreadsheet shall also be developed in a manner to allow regulators to evaluate proposed planting plans relative to expected achievement of the SAG EPS criteria in Virginia.
 - a. It is expected that the spreadsheet shall build upon the Workbook prepared in conjunction with the materials developed in: “*Replacement of Ecological Functions in Created Forested Wetlands in the Piedmont and Upper Coastal Plain of Virginia, Final Report, October 2016*, aka “2015 Annual Report;” the VIMS dissertation titled “Development of Forested Wetland Ecological Functions in a Hydrologically Controlled Field Experiment in Virginia, USA, by Herman W. Hudson III, 2016;” and related research reports available on the previously cited website.
 - b. A short “User’s Manual” shall accompany the Spreadsheet.

- c. All data shall be presented in English Units, with a conversion option to metric units in a separate sheet of the Excel workbook.
- d. The spreadsheet shall provide the ability for the user to update cost data for all species/stocktypes with respect to installed cost (i.e. including material and installation).
- e. All species/stocktypes used in the study shall be included as options, as well as at least 3 other species commonly used/found in wetlands sites in this region – (such as red maple, boxelder, bald cypress) through the use of best professional judgement and review of relevant scientific literature to estimate their growth and survival parameters from the species used in previous work for RFP #3.
- f. The spreadsheet shall include initial settings for key variables – but the User should be allowed to specify/modify the following variables:
 - i. Number of Primary (PRI) and Secondary (SEC) Species to plant.
 - ii. Percentage of Stem Area Groundline (SAG) to be achieved by PRI and SEC.
 - iii. A safety factor (i.e., a user-defined percentage above the minimum SAG requirement) for SAG in Year 5 and Year 10 and number of stems per acre as a percentage above the IRT EPS for these two criteria.
 - iv. Percentage of SAG and stem density to be achieved by colonizing vs. planted trees.
 - v. The availability of species and stocktypes.
- g. It is understood that a separate, but linked program, may be necessary to optimize the species/stocktype mix.

5. SCHEDULE:

- a. The Spreadsheet and “User’s Manual” shall be provided to RPG for review and comment within two (2) months of the Grant Approval. We expect some iterations – with a goal for final approval within four (4) months of the Grant Approval.
- b. Articles shall be submitted to RPG for a 15-day (max) review and comment within 4.5 months of the grant approval; and the grantee shall have 30 days to respond to RPG comments. Upon approval, the articles shall be promptly submitted for publication.

- c. Grantee shall make best efforts to gain publication approval and promptly respond to all comments from the publication’s editors. All work related to responding to comments and gaining publication is the responsibility of the proposer.

III. Submission of Proposals

A. Deadline and Delivery

The proposal application must be received by **5:00 PM on August 31, 2020**. Each proposal should be submitted via email. Send proposal applications to the following address:

Michael S. Rolband, P.E., P.W.S., P.W.D., Chairman and President
Resource Protection Group, Inc.
c/o Wetland Studies and Solutions, Inc.
5300 Wellington Branch Drive, Suite 100
Gainesville, Virginia 20155

Telephone: 703 679 5602
E-mail: mrolband@wetlands.com

Please note that misdirected proposal applications will be deemed late and returned to the applicant. All proposal applications must be complete at the time of submission. Later changes or addenda will not be accepted unless formally requested.

B. Questions

Questions that arise during the proposal preparation should be directed by e-mail or U.S. Mail or overnight service² to:

Michael S. Rolband, P.E., P.W.S., P.W.D., President
Resource Protection Group, Inc.
c/o Wetland Studies and Solutions, Inc.
5300 Wellington Branch Drive, Suite 100
Gainesville, Virginia 20155

Telephone: 703 679 5602 – cell 703-307-6415 (remote working due to COVID)
E-mail: mrolband@wetlands.com

All responses and related responses shall be distributed to all registered proposers.

² Telephone calls are not preferred, as all registered proposers must be informed of all questions, answers, and clarifications.

C. Registration of Proposers

If you desire to be informed of all questions and answers addressed during the proposal preparation process, as well as any RFP amendments, you must notify (via e-mail or U.S. mail) the following for registration:

Michael S. Rolband, P.E., P.W.S., P.W.D., President
Resource Protection Group, Inc.
c/o Wetland Studies and Solutions, Inc.
5300 Wellington Branch Drive, Suite 100
Gainesville, Virginia 20155

Telephone: 703 679 5602 – cell 703-307-6415 (remote working due to COVID)
E-mail: mrolband@wetlands.com

IV. Program Funding

- A.** RPG shall fund 100% of the accepted proposal’s budget pursuant to an agreed upon payment schedule based upon research progress.
- B.** Applicants are *not* expected to provide any cost-share towards the research budget. However, cost-share or matching funds are encouraged and will improve the scoring of your proposal. Internal university cost-share contributions must be “auditable”.
- C.** The Indirect Cost rate shall be limited to 35% of Total Direct Costs. This is a maximum rate; proposers may offer a lower rate. Matching funds may be used to offset higher Indirect Cost rates. If this is a problem, please notify us in writing as soon as possible to explain and propose an alternative.
- D.** Tuition for graduate students *is allowable* as a Direct Cost on a proportionate basis to the percentage of their research time dedicated to the proposed work.
- E.** Expected funding for this project is in the range of **\$15,000 to \$30,000**, inclusive of all costs and fees, including indirect costs.

V. Steps for Proposal Review Process

- A.** Submission of Response to the Resource Protection Group, Inc., in care of WSSI.
- B.** Timing: We expect our internal proposal review process to take 5-10 days.

VI. Subcontractors

The prime research contractor must designate a Principal Investigator (PI) as both the point of contact and the party responsible for performing the work. Other entities may be subcontractors to the prime research contractor subject to the following condition:

- A. The prime research contractor cannot apply any indirect rate markup to the subcontractor's total cost except if that subcontractor's indirect rate is lower than that allowed for the prime. In such case, the prime contractor may charge the difference. In no case can the subcontractor charge more than the indirect rate allowed by the prime.

VII. Review Criteria

The proposals will be reviewed and scored based upon the following criteria, with the weighting noted below showing the likely value of each criterion in the award decision:

	Criteria	Weight
1.	Demonstration that the team can perform in a timely manner	15%
2.	Level of interest, experience, and expertise of the Principal Investigator(s) and their organization in the research topic	55%
3.	Overall proposal quality, innovation, and viability	15%
4.	Cost	15%

The reviewers and ultimate decision makers at RPG reserve the right to modify, at any time during the review process, the relative weighting of these criteria or simply make a unilateral decision to not follow said weighting in the extraordinary circumstance that the weighting does not result in a practicable outcome. For example, if one proposal is significantly higher (e.g. 100%) in cost than all others, even if it was deemed superior in every other manner, we may determine that it is not an economically viable approach and not select that proposal. Alternatively, we may contact the proposer to discuss a modification to the highest otherwise ranked proposal to address the cost issue.

VIII. Submission Requirements

Your response to this RFP must not exceed Ten (10) single-spaced, typed pages³ (shorter is better), using a 12-point font and one-inch margins (all sides) and include the following sections:

- A. Solicitation Offer and Award Form (referenced in Section XII and provided in Appendix A): You must complete all sections on this form and obtain signatures of the appropriate officials.

³ Text Section (i.e., does not include Table of Contents, resumes, budgets, budget details, cash flow projection, schedules, Organizational Chart(s), Curriculum Vitae (CV), or SOAF)

- B.** Table of Contents: Please include major sections and the corresponding page numbers.
- C.** Executive Summary (limit to one page single-spaced): Explain what you plan to do, why your team should be selected, and what your proposed budget is.
- D.** Project Team: Describe the entities and, specifically, the key personnel who will be involved (and to what degree) in this project. Explain why this team is best suited for this project. Clearly indicate who the lead Principal Investigator will be and any other important division of execution and reporting responsibilities.
- E.** Project & Work Approach Description:
1. Objectives: List the specific objectives of the project and how you will achieve them.
 2. Proposed plan and methods for website development and acquisition of resources.
- F.** Scope of Work:
1. Issue Identification: Identify and briefly describe the issue this project is addressing.
 2. Work Tasks: Break the project into specific work tasks and describe each work task individually. Be sure to address all requirements and expectations as outlined in Part II C above.
 3. Time Allocation: Describe how much time (by months) is to be allotted for each work task and when each task is to begin and end.
 4. Resource Allocation: For each work task, list the personnel who will be working on that task and specifically what each person will be doing.
 5. Quality Assurance/Quality Control: List measures planned to ensure that reliable high quality results are achieved.
 6. Determination of Goals: Identify the means to be used to determine that project goals are met.
- G.** Budget for requested funding summarizes the entire scope and costs into one lump sum total cost using a format similar to the one provided in Section X.
- H.** Budget Details: **[NOTE: Because of the small size of this project – we are open to simpler versions of a budget.]** The budget may include salaries, travel, equipment, materials, and services *not including fees or profit*. It is imperative that you specify

any Indirect Costs or fringe benefits rates, as well as which budget categories are affected by those rates. (For example, Indirect Costs defined as “Facilities and Administration” = 25% of Total Direct Cost less tuition and equipment). In addition, salaries must include personnel descriptions (i.e., faculty, graduate student, hourly worker, etc.), the number of hours expended on the project, and the hourly rate (or as a % of FTE where one FTE = 2050 hours). Supplies must be listed in general terms (i.e., field supplies, general office supplies, etc.). Travel must include a description (trips to field site, conference, etc.), estimated number of hours for travel, and estimated cost per trip. In addition, for travel to conferences, estimate proposed expenses in the budget. For travel to conferences, specific information on conference title, dates of conference, and purpose in attending (i.e., presenting paper, poster session, etc.) must be supplied to RPG for approval prior to travel. Other Direct Costs must include a general description (i.e., contractual analyses, journal page charges) and include units and unit cost. As stated in Section IV. C., Indirect Costs are fixed at 35% of Total Direct Costs. No cost-share funding is required.

Major pieces of equipment (>\$2,000 with lifetime >2 years) are not eligible for purchase with funding from this program unless (i) they are clearly essential to the conduct of the proposed work, (ii) their documented use will be primarily for the proposed work, and (iii) they will be made available for use by future RPG consortium research programs after the funding program is completed.

- I. Proprietary Information: No information provided in proposals responding to this RFP shall be deemed proprietary. All information in each proposal could be subject to public disclosure or potential disclosure to other interested parties.
- J. Organizational Chart: Provide an organizational chart depicting the structure of your team.
- K. Curriculum Vitae (CV): Provide CV for each senior investigator involved in the proposed project. Resumes should be no more than two pages with an attachment listing all relevant publications within the past 20 years (limit to two pages). Senior investigators include the principal investigator and any other faculty or senior-level personnel involved in the project. CV of lower level researchers may be included at your option.
- L. Research Schedule: Provide a projected schedule for your research activities. This schedule should be logically related to the budget’s cash flow projections. Provide details if your proposal does not match our requested schedule.

IX. Payment and Reporting Requirements

A. Reporting Requirements Shall Include:

- a. An invoice for each payment milestone when achieved.

B. Payment Requirements

- a. Undisputed Invoices shall be paid by RPG within thirty (30) days of tender *if and only if* they are submitted in the mandated manner and schedule described above. Invoices submitted later than prescribed above shall be delayed for processing until all reporting submissions are made timely in the next quarter.
- b. Payments shall be made 30 days after completion and invoicing of the following tasks in accordance with the percentage specified below:

Task	Desired Time Period	% Paid
Initialization payment	Start of Contract	20%
RPG Approval: Spreadsheet and How to Use Booklet	End of 4 th month	40%
RPG Approval of 3 publications	End of 6 th month	25%
<u>Publication Acceptance from:</u>	End of 12 th month	
<i>Wetlands</i> (or equivalent)		5%
<i>Wetland Science and Practice</i> (or equivalent)		5%
VAWP Newsletter		5%

X. Budget Sheet

Your proposed budget shall be submitted in a spreadsheet in a format similar to the description depicted below (to assist you in completing this form, a sample is provided):

Budget Sheet

Project Title: _____				
Principal Investigator: _____				
Organization: _____				
Requested Duration in Months: _____				
Item	Unit Rate ⁴ (A)	Units ⁵ (B)	Quantity (C)	Cost (D = A x C)
Salaries (list each person or position separately)				
Benefits (list each benefits rate per person / position)				
Tuition				
Supplies ⁶				
Equipment ⁷				
Subcontracts (provide breakdown of salary, benefits, tuition, supplies, equipment, etc. unless it is a lump sum less than \$5,000)				
Travel				
Other Direct Cost				
Total Direct Cost				
Indirect Cost	35% ⁸	N/A	N/A	
Total Cost	N/A	N/A	N/A	

⁴ i.e., \$/hr; ¢/mile; \$/month

⁵ i.e., LS = lump sum; hr = hours; % of effort

⁶ Items costing <\$2,000.00 with a useful life <2 years

⁷ Items costing ≥\$2,000.00 with a useful life ≥2 years

⁸ This is the maximum rate. Proposer may offer a lower rate.

SAMPLE

Budget Sheet

Project Title:		Water Budget Modeling		
Principal Investigator:		Sam Jones, Ph.D.		
Organization:		University of Wetlands		
Requested Duration in Months:		18 Months		
Item	Unit Rate⁹ (A)	Units¹⁰ (B)	Quantity (C)	Cost (D = A x C)
Salaries				
Sam Jones, P.I.	8,000/month	N/A	9 ¹¹	72,000.00
Jane Waters, Research Associate	3,000/month	N/A	18	54,000.00
Fringe Benefits				
P.I.	20%	N/A	N/A	14,400.00
R.A.	16.5%	N/A	N/A	8,910.00
Tuition	5,000 / semester	semester	3	15,000.00
Supplies	10,000	L.S.	1	10,000.00
Equipment (> \$2000)	5,000	L.S.	1	5,000.00
Subcontracts				
Computer Lab	3,000	L.S.	1	3,000.00
Geek Squad	2,000	L.S.	1	2,000.00
Travel	.50/mile	Miles	5,000	2,500.00
Other Direct Cost	N/A	N/A	N/A	N/A
Total Direct Cost	N/A	N/A	N/A	186,810.00
Indirect Cost	35%	N/A	N/A	65,383.50
Total Cost	N/A	N/A	N/A	252,193.50

⁹ i.e., \$/hr; ¢/mile

¹⁰ i.e., LS = lump sum; hr=hours; % of effort

¹¹ 50% of 18 months

XI. Solicitation Offer and Award Form (SOAF)

Email one (1) original PDF of the SOAF, signed by the Principal Investigator and Organization's Certifying Representative.

See Attachment A: Solicitation Offer and Award Form.