



Invitation for Bid No. 2021-087 12 Mile Creek Stream Debris Removal

Due Date: May 18, 2021 **Time:** 10:00 AM EDT

Submittal Location: Union County Government Center

Procurement Department 500 N. Main Street, Suite 709

Monroe, NC 28112

Procurement Contact:

Vicky Watts, CLGPO Senior Procurement Specialist 704.283.3601 vicky.watts@unioncountync.gov

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2 NOTICE OF ADVERTISEMENT

Union County, North Carolina IFB No. 2021-087 12 Mile Creek Stream Debris Removal

Sealed bids for 12 Mile Creek Stream Debris Removal will be received by the Union County Procurement Department *until* *10:00 AM local time on May 18, 2021 at the Union County Government Center, 500 North Main Street, Suite 709, Monroe, NC 28112. The public bid opening will be conducted outdoors, in the front entrance area of the Union County Government Center at the specified bid date and time. Late bids will not be accepted.

On May 18, 2021, beginning at *9:30 **AM** local time, bids will be received by the Union County Procurement Department at the bid opening location, outdoors in the front entrance area of the Union County Government Center at 500 North Main Street, Monroe, NC 28112. *If you plan to attend the bid opening social distancing rules apply.*

If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED – 2021-087" and shall be addressed to Union County Procurement Department, Attn: Vicky Watts, 500 North Main Street, Suite 709, Monroe, NC 28112.

Copies of the solicitation may be obtained from the locations listed below:

- 1. Download the Bid Documents from the Union County Website www.unioncountync.gov (Procurement Page, Current Bids).
- 2. Download the Bid Documents from the State of North Carolina IPS Website www.ips.state.nc.us (Bid by Departments, search County of Union).

All questions about the meaning or intent of the Bidding Documents are to be submitted in writing to the Procurement contact person listed on the cover page (wicky.watts@unioncountync.gov). Deadline for questions is May 10, 2021 at 10:00 AM EDT.

Bidders must have a license to do work as a general contractor in the State of North Carolina, as set forth under Article 1 of Chapter 87 of the North Carolina General Statutes. The Contractor's North Carolina License number shall be provided.

Bidders are required to comply with the non-collusion requirements set forth in the Bidding Documents.

The County reserves the right to reject any and/or all bids, including, without limitation, nonconforming, nonresponsive, unbalanced, or conditional bids. The County also reserves the right to waive informalities.

Bidders are required to comply with the non-collusion requirements set forth in the Bidding Documents.

Union County encourages good faith effort outreach to Minority Businesses (HUB Certified) and Small Businesses.

3 BID SUBMISSION

3.1 BID SUBMISSION DEADLINE

Sealed bids for 12 Mile Creek Stream Debris Removal will be received by the Union County Procurement Department *until* *10:00 AM local time on May 18, 2021 at the Union County Government Center, 500 North Main Street, Suite 709, Monroe, NC 28112. The public bid opening will be conducted outdoors, in the front entrance area of the Union County Government Center at the specified bid date and time. <u>Late bids will not be accepted</u>.

On May 18, 2021, beginning at *9:30 **AM** local time, bids will be received by the Union County Procurement Department at the bid opening location, outdoors in the front entrance area of the Union County Government Center at 500 North Main Street, Monroe, NC 28112. *If you plan to attend the bid opening social distancing rules apply.*

3.2 BID DELIVERY REQUIREMENTS

All Bids must be in a sealed box or opaque envelope plainly marked as follows:

[Name of Contractor Submitting Bid]
IFB No. 2021-087
12 Mile Creek Stream Debris Removal

Attention: Vicky Watts

Your company name and the solicitation number <u>must be visible on the delivery</u> <u>box/envelope.</u> Ship, Mail, or Hand Deliver to the following address:

Union County Government Center **Procurement Department** 500 North Main Street, Suite 709 Monroe, NC 28112 Attention: Vicky Watts

Electronic (email) or facsimile submissions will not be accepted.

There is no expressed or implied obligation for Union County to reimburse firms for any expenses incurred in preparing Bids in response to this request.

Union County reserves the right to reject any or all Bids, to waive technicalities and to make such selection deemed in its best interest. With limited response, Union County reserves the right to extend the solicitation opening date as appropriate in order to assure a competitive procurement.

3.3 BID QUESTIONS

Bid questions will be due on or before <u>May 10, 2021 at 10:00 AM EDT</u>. The primary purpose of this is to provide participating Contractors with the opportunity to ask questions, in writing, related to the IFB.

Submit questions by email to Vicky Watts at vicky.watts@unioncountync.gov by the deadline shown above. (Do not send question in a graph or Excel sheet format.) The email subject line should be identified as follow: IFB 2021-087 12 Mile Creek Stream Debris Removal Questions. All questions and answers may be posted as addenda on www.unioncountync.gov and www.unionco

3.4 BID ADDENDUM

Union County may modify the IFB prior to the date fixed for submission of Bids by the issuance of an addendum.

Should an Offeror find discrepancies or omissions in this IFB or any other documents provided by Union County, the Offeror should immediately notify the County of such potential discrepancy in writing via email as noted above.

Any addenda to these documents shall be issued in writing. No oral statements, explanations, or commitments by anyone shall be of effect unless incorporated in the written addenda. Receipt of Addenda shall be acknowledged by the Offeror on <u>Appendix</u> C Addendum and Anti-Collusion Form.

4 INSTRUCTIONS

4.1 COMMUNICATIONS

All communications, any modifications, clarifications, amendments, questions, responses or any other matters related to the Invitation for Bid (IFB) must be made only through the Procurement Contact noted on the cover of this IFB. A violation of this provision is cause for the County to reject a Company's bid. No contact regarding this document with other County employees is permitted and may be grounds for disqualification.

4.2 BIDDERS ACKNOWLEDMENT

The Bid will remain subject to acceptance for 120 days after the Bid Opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

4.3 DUPLICATE BIDS

No more than one (1) bid from any Bidder will be considered by the County. In the event multiple bids are submitted in violation of this provision, the County will have the right to determine which bid will be considered, or at its sole option, reject all such multiple bids.

4.4 BID SIGNATURES

An authorized company official must sign Bids. Each signature represents binding commitment upon the Bidder to provide the goods and/or services offered to the County if the Bidder is determined to be the lowest responsive, responsible Bidder.

4.5 BIDDERS RESPONSIBILITIES

The Bidder must be capable, either as a firm or a team, of providing all services as described under Section 6 – Scope of Work. Exclusion of any service for this Bid may serve as cause for rejection.

The successful Offeror will be responsible for all work in this solicitation whether they are provided or performed by the successful Bidder or subcontractor(s). Further, the County will consider the successful Bidder to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the cost of any contract.

5 PURPOSE

5.1 INTRODUCTION

Union County, North Carolina, through the Department of Soil and Water Conservation, is soliciting proposals from experienced and qualified licensed contractors to provide Stream Debris Removal Services in Union County.

5.2 COUNTY

Union County, North Carolina (population 239,859) is located in the central, southern piedmont. The County provides its citizens with a full array of services that include public safety, water/wastewater utilities and sanitation, human services, cultural and recreational activities, and general government administration.

6 SCOPE OF WORK

Union County Department of Soil and Water Conservation has identified a need for Stream Debris Removal for 12 Mile Creek and is seeking a licensed contractor who is prepared to assume the responsibility for providing these services while meeting federal and state guidelines and requirements.

A General Contractor's license is required for this project. The license number must be provided on the Appendix A – Price Form.

Contractors shall provide disaster recovery services including, but not limited to, clean-up, demolition, removal, reduction and disposal of debris in order to eliminate threats to public health and safety. All equipment required for this services is the responsibility of the contractor.

All activities will be performed in <u>strict accordance</u> with the Best Management Practices provided in <u>Appendix F.</u>

An estimated 20,000 linear ft. of stream is anticipated to be cleared. However, there is no guarantee of the amount of stream footage. Maps of the designated areas to be cleared are located in **Appendix G** of this solicitation.

The budget for this project is \$40, 600.00. 3 references must be submitted with this bid on Appendix D – References.

7 EVALUATION OF BIDS AND AWARD PROCEDURES

7.1 BID INFORMATION

Bids must be made in strict conformance using the Invitation for Bid (IFB) forms provided herein. All blank spaces for bids must be filled in properly. Numbers must be written in ink or typewritten, and the completed forms shall be without erasures, lineation, or

alterations. In accepting the bid, the County will assume that no alterations have been made, and if they appear afterward, they shall not be binding on the County.

All Bid Documents shall be signed by an individual who is authorized to contractually bind the company. The signature must indicate the title or position the individual holds in the agency or firm. Agencies or firms which sign contracts with the name of the agency or firm must provide the name of a corporate officer or executive director for signature validation by the County. All unsigned Bids will be disqualified. In submitting a Bid, Offeror affirms all statements contained in the proposal are true and accurate.

7.2 EVALUATION OF BIDS

Qualified bids will be evaluated to determine the <u>lowest responsive</u>, <u>responsible bidder</u>, taking into consideration quality, performance, and the time specified in the bid for performance of the contract. Consideration of such factors as: price offered; quality of item offered; general reputation and performance capabilities of offeror; substantial conformity with specifications/other conditions set forth in the bid; suitability of articles for the intended use; related services needed; date of delivery and performance; and such other factors deemed by the County to be pertinent will be used in determining responsiveness and responsibility.

7.3 AWARD PROCEDURES

The County reserves the right to reject any and all bids, the right to waive informalities, and the right to disregard nonconforming or conditional bids or counter proposals. If the contract is to be awarded, it will be awarded to the lowest responsible, responsible bidder whose evaluation by the County indicates that the award will be in the best interest of County. The County shall have a period of 120 days after opening of bids in which to award the contract.

7.4 APPLICATION OF NORTH CAROLINA GENERAL STATUTES

The General Statutes of North Carolina regarding purchasing and competitive bidding (G.S. § 143-129) are made a part herein and will govern the bidding process as applicable.

8 GENERAL CONDITIONS AND REQUIREMENTS

8.1 MINIMUM REQUIREMENTS FOR BIDDERS

Bids shall be considered only from companies normally engaged in performing the type of work specified in this solicitation. Union County, in its discretion, shall determine whether the evidence of responsibility and ability to perform is satisfactory.

The Bidder should have previous experience in the performance of projects of a similar nature to ensure timely and efficient completion of any stream debris removal project.

The individual/firm warrants that he/she is fully qualified, with adequate personnel and experience, to undertake the services required. The Offeror shall also certify that

insurance coverage that meets or exceeds industry standards for this type of work will be in force to mitigate risk during performance under the contract.

8.2 TERMS AND CONDITIONS

All payroll taxes, liability and worker's compensation are the sole responsibility of the Offeror. The Offeror understands that an employer/employee relationship does not exist under this contract.

The County reserves the right to reject any and all bids, the right to waive informalities, and the right to disregard nonconforming or conditional bids or counter bids. It is the intention of Union County to execute a final, binding Contract with the successful Offeror which incorporates terms and conditions no less onerous than those appropriate to the engagement of a licensed contracting firm in connection with a project of this magnitude.

All bids submitted in response to this request shall become the property of Union County and as such, may be subject to public review.

8.3 IFB EXPENSES

Expenses for developing the bids are entirely the responsibility of the vendor and shall not be chargeable in any way to the County.

8.4 CERTIFICATION

In response to the IFB Request, the Contractor certifies the following:

- This bid is signed by an authorized representative of the firm;
- It can obtain insurance certificates as required within ten (10) calendar days after notice of award;
- The cost and availability of all equipment, materials, and supplies associated with performing the services described herein have been determined and included in the proposed costs;
- All labor costs, direct and indirect, have been determined and included in the proposed cost;
- The potential Contractor has read and understands the conditions set forth in this solicitation.

8.5 LIQUIDATED DAMAGES

Liquidated Damages Rate: \$500.00/day for additional time in excess of the days provided by Contractor for substantial completion after Notice to Proceed. (Appendix A – Cost Form)

8.6 FINANCIAL INFORMATION

The Bidder must have the following financial information readily available and have the ability to provide it to the County, without exception, within twenty-four (24) hours upon request during the bid certification process:

- 1. Annual audited financial reports for the past five (5) fiscal years;
- 2. Credit reports, credit bulletins, bank and vendor references, and any other

- 3. published statements by agencies that have been issued or published about the entity within the past five (5) years;
- 4. Indicate whether the Company (and/or predecessor, guarantor, or subcontractor) has declared bankruptcy within the last five (5) years;
- 5. Provide a description of the financial impact of any past or pending legal proceedings and judgments that could materially affect the Bidder's financial position or ability to provide service to the County.

8.7 CONTRACTUAL OBLIGATIONS

The contents of this Bid and the commitments set forth in the Bid shall be considered contractual obligations, if a contract ensues. Failure to accept these obligations may result in cancellation of the award. All legally required terms and conditions shall be incorporated into final contract agreements with the selected Service

8.8 COMPLIANCE WITH LAWS

Seller represents and warrants that the performance of this order and the furnishing of goods or services required shall be in accordance with the applicable standards, provisions and stipulations of all pertinent Federal, State or County laws, rules, regulations, resolutions and ordinances including but not limited to the Fair Labor Standards Act, the Equal Employment Opportunity rules and regulations and the Occupational Safety and Health Acts.

8.9 SUB-CONTRACTOR/PARTNER DISCLOSURE

A single Company may propose the entire solution. If the Bid by any Company requires the use of sub-contractors, partners, and/or third-party products or services, this must be clearly stated in the Bid. The Company submitting the Bid shall remain solely responsible for the performance of all work, including work that is done by subcontractors.

8.10 EXCEPTION TO THE IFB

An "exception" is defined as the Service Provider's inability or unwillingness to meet a term, condition, specification, or requirement in the manner specified in the IFB. All exceptions taken must be identified and explained in writing and must specifically reference the relevant section(s) of this IFB. Other than exceptions that are stated in compliance with this Section, each Bid shall be deemed to agree to comply with all terms, conditions, specifications, and requirements of this IFB. If the Service Provider provides an alternate solution when taking an exception to a requirement, the benefits of this alternate solution and impact, if any, on any part of the remainder of the Service Provider's solution, must be described in detail.

8.11 MODIFICATION OR WITHDRAWAL OF BID

Prior to the scheduled closing time for receiving bids, any Contractor may withdraw his bid. After the scheduled closing time for receiving bids, no bid may be withdrawn for 90 days. Only written requests for the modification or correction of a previously submitted bid that are addressed in the same manner as bids and are received by the County prior to the closing time for receiving bids will be accepted. The bid will be corrected in

accordance with such written requests, provided that any such written request is in a sealed envelope that is plainly marked "Modification of Bid." Oral, telephone or fax modifications or corrections will not be recognized or considered.

8.12 CONTRACT COMMENCEMENT

Commencement of a contract shall not begin prior to all necessary County approvals, including County Commission approval where required, and receipt of a County Purchase Order. Commencement of a contract without these approvals is solely at the Bidder's own risk and is likely to result in no payment for services performed or goods received.

8.13 DISPUTES

In case of any doubt or differences of opinion as to the services to be furnished hereunder, the decision of the County shall be final and binding upon both parties.

8.14 CERTIFICATION

In response to the IFB, the Contractor certifies the following:

- This bid is signed by an authorized representative of the firm.
- It can obtain insurance certificates as required.
- The cost and availability of all equipment, materials, and supplies associated with performing the services described herein have been determined and included in the proposed costs.
- All labor costs, direct and indirect, have been determined and included in the proposed cost.
- The potential Contractor has read and understands the conditions set forth in this IFB.

8.15 EQUAL EMPLOYMENT OPPORTUNITY

All Companies will be required to follow Federal Equal Employment Opportunity (EEO) policies. Union County will affirmatively assure that on any project constructed pursuant to this advertisement, equal employment opportunity will be offered to all persons without regard to race, color, creed, religion, national origin, sex, and marital status, status with regard to public assistance, membership or activity in a local commission, disability, sexual orientation, or age.

8.16 MINORITY AND SMALL BUSINESS PARTICIPATION PLAN

It is the policy of Union County that Minority Businesses (MBEs), Disadvantaged Business Enterprises (DBEs) and other small businesses shall have the opportunity to compete fairly in contracts financed in whole or in part with public funds. Consistent with this policy, Union County will not allow any person or business to be excluded from participation in, denied the benefits of, or otherwise be discriminated against in connection with the award and performance of any contract because of sex, race, religion, or national origin.

8.17 LICENSES

The successful Firm(s) shall have and maintain a valid and appropriate business license (if applicable), meet all local, state, and federal codes, and have current all required local, state, and federal licenses.

A General Contractor's license is required for this project.

8.18 E-VERIFY

E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program, used to verify the work authorization of newly hired employees pursuant to federal law. Offeror/Firm shall ensure that Firm and any Subcontractor performing work under this contract: (i) uses E-Verify if required to do so; and (ii) otherwise complies with applicable law.

8.19 DRUG-FREE WORKPLACE

During the performance of this project, the Firm agrees to provide a drug-free workplace for his employees; post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the workplace and specify the actions that will be taken against employees for violations of such prohibition; and state in all solicitations or advertisements for employees placed by or on behalf of the firm that the Firm maintains a drug-free workplace.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a Contractor/Firm in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the Request.

8.20 INSURANCE

One or more of the following insurance limits may be required if it is applicable to the project. The County reserves the right to require additional insurance depending on the nature of the agreement.

At Contractor's sole expense, Contractor shall procure and maintain the following minimum insurances with insurers authorized to do business in North Carolina and rated A-VII or better by A.M. Best, or as otherwise authorized by the Union County Risk Manager.

A. WORKERS' COMPENSATION

Statutory (coverage for three or more employees) limits covering all employees, including Employer's Liability with limits of:

\$500,000 Each Accident

\$500,000 Disease - Each Employee

\$500,000 Disease - Policy Limit

B. COMMERCIAL GENERAL LIABILITY

(for any agreement unless otherwise waived by the Risk Manager) Covering Ongoing and Completed Operations involved in this Agreement.

\$2,000,000	General Aggregate
\$2,000,000	Products/Completed Operations Aggregate
\$1,000,000	Each Occurrence
\$1,000,000	Personal and Advertising Injury Limit

C. COMMERCIAL AUTOMOBILE LIABILITY

(for any agreement involving the use of a contractor vehicle while conducting services associated with the agreement)

\$1,000,000 Combined Single Limit - Any Auto

D. PROFESSIONAL LIABILITY

(only for any agreement providing professional service such as engineering, architecture, surveying, consulting services, etc.)

\$1,000,000 Claims Made

Contractor shall provide evidence of continuation or renewal of Professional Liability Insurance for a period of two (2) years following termination of the Agreement.

ADDITIONAL INSURANCE REQUIREMENTS

A. The Contractor's General Liability policy shall be endorsed, specifically or generally, to include the following as Additional Insured:

UNION COUNTY, ITS OFFICERS, AGENTS AND EMPLOYEES ARE INCLUDED AS ADDITIONAL INSURED WITH RESPECTS TO THE GENERAL LIABILITY INSURANCE POLICY.

Additional Insured status for Completed Operations shall extend for a period of not less than three (3) years from the date of final payment.

- B. Before commencement of any work or event, Contractor shall provide a Certificate of Insurance in satisfactory form as evidence of the insurances required above.
- C. Contractor shall have no right of recovery or subrogation against Union County (including its officers, agents and employees).
- D. It is the intention of the parties that the insurance policies afforded by contractor shall protect both parties and be primary and non-contributory coverage for any and all losses covered by the above-described insurance.

- E. Union County shall have no liability with respect to Contractor's personal property whether insured or not insured. Any deductible or self-insured retention is the sole responsibility of Contractor.
- F. Notwithstanding the notification requirements of the Insurer, Contractor hereby agrees to notify County's Risk Manager at 500 N. Main Street # 130, Monroe, NC 28112, within two (2) days of the cancellation or substantive change of any insurance policy set out herein. Union, in its sole discretion, may deem failure to provide such notice as a breach of this Agreement.

G.	The Certificate of Insurance should note in the Description of Operations
	the following:

Department:	
Contract #:	

- H. Insurance procured by Contractor shall not reduce nor limit Contractor's contractual obligation to indemnify, save harmless and defend Union County for claims made or suits brought which result from or are in connection with the performance of this Agreement.
- I. Certificate Holder shall be listed as follows:

Union County Attention: Keith A. Richards, Risk Manager 500 N. Main Street, Suite #130 Monroe, NC 28112

J. If Contractor is authorized to assign or subcontract any of its rights or duties hereunder and in fact does so, Contractor shall ensure that the assignee or subcontractor satisfies all requirements of this Agreement, including, but not limited to, maintenance of the required insurances coverage and provision of certificate(s) of insurance and additional insured endorsement(s), in proper form prior to commencement of services.

8.21 INDEMNIFICATION

Contractor agrees to protect, defend, indemnify and hold Union County, its officers, employees and agents free and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees or other expenses or liabilities of every kind and character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings, or causes of action of every kind in connection with or arising out of this agreement and/or the performance hereof that are due, in whole or in part, to the negligence of the Contractor, its officers, employees, subcontractors or agents. Contractor further agrees to investigate, handle, respond to, provide defense for, and defend the same at its sole expense and agrees to bear all other costs and expenses related thereto.

9 APPENDIX A – PRICE FORM

IFB 2021-087 12 Mile Creek Stream Debris Removal

SUBMIT WITH BID

This Price Form must be completed in its entirety, signed by an executive of the company that has authority to contract with Union County, NC, and submitted with bid.

Offeror acknowledges that the Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for the complete project outlined in this solicitation. The project must be completed no later than November 15, 2021.

An estimate of 20,000 linear feet of stream is anticipated to be cleared. However, no amount is guaranteed for this project. Provide unit price below:

Unit

Unit Price

Description

				1		
	Stream Debris Removal	Linear Foot				
Insert the number of days to Substantial Completion after Notice to Proceed. Break down how many weekends will be included in the schedule. All unit down time shall be on weekends.						
Bidder must provid	e the following;					
 A. List of Proposed Subcontractors (if applicable); B. Evidence of Authority to do Business in North Carolina; C. General Contractor's License Number 						
Time of Completion	<u>ı:</u>					
Bidder agrees that the Work will be substantially completed and ready for final payment in accordance with the duration days listed above.						
Liquidated Damages Rate (from Agreement): \$500.00/day for additional time in excess of the days listed above by Bidder. Bidder accepts the provision of the Agreement as to Liquidated damages.						
Company Name:						
Authorized Signature:						

Print Name: _____

10 APPENDIX B - BID SUBMISSION FORM

IFB 2021-087 12 Mile Creek Stream Debris Removal

SUBMIT WITH BID

This Bid is submitted by:		
Company Legal Name:		
Representative Name:		
Representative Signature:		
Representative Title:		
Address:		
City/State/Zip:		
Email Address:		
Phone Number:		
Website Address:		
according to the best interest of re-bid this project. Bid is valid for	ty reserves the right to reject any and all Bids, to make award the County, to waive formalities, technicalities, to recover and or 120 calendar days from the Bid due date and is submitted of that has authority to contract with Union County, NC.	nd
Name:		
Title:		
Signature:		
Date:		

11 APPENDIX C - ADDENDUM AND ANTI-COLLUSION FORM

IFB 2021-087 12 Mile Creek Stream Debris Removal

SUBMIT WITH BID

Please acknowledge receipt of all addenda by including this form with your Bid. Any questions or changes received will be posted as an addendum on www.co.union.nc.us and/or www.ips.state.nc.us. It is your responsibility to check for this information.

			_
	Addendum No.	Date Downloaded	
			_
		d without collusion with any other	offeror or
	s Bid is made in good faith and f Union County.	d without collusion with any other	offeror or
or employee of	f Union County.	d without collusion with any other	offeror or
	f Union County.		offeror or
Company Name	f Union County.		offeror or
Company Name	f Union County.		offeror or

Date:

12 APPENDIX D - REFERENCES

IFB 2021-087 12 Mile Creek Stream Debris Removal

SUBMIT WITH BID

Reference No. 1	
Company Name:	
Contact Name:	
Title:	
Address:	
Phone Number:	
Email Address:	
Reference No. 2	
Company Name:	
Contact Name:	
Title:	
Address:	
Phone Number:	
Email Address:	
Reference No. 3	
Company Name:	
Contact Name:	
Title:	
Address:	
Phone Number:	
Email Address:	

13 APPENDIX E – VENDOR PAYMENT LETTER

IFB 2021-087 12 Mile Creek Stream Debris Removal

Do Not Submit With Bid

----For informational purposes only. ----



Administrative Services Finance Division 500 N Main Street Suite 714 7th Floor Monroe, NC 28112 704.283.3886 www.unioncountync.gov

ATTENTION: ACCOUNTS PAYABLE VENDORS

As part of our Fraud Prevention Program, Union County now prefers two methods for payments to vendor accounts. These methods allow for faster and easier payments to vendors.

The first and preferred method available is to accept a VISA card payment from the County. If you accept payment via VISA, payment is made at the time of the transaction or upon receipt and approval of the invoice.

The second method is an Electronic Funds Transfer. (EFT) This means that you will receive payment of invoices due directly into your bank account. With this method, you will get an email confirmation giving you the date, invoice numbers, and total amount paid. Your payment will be available to you on Monday (or the first banking day if Monday is a bank holiday) following receipt of an approved invoice from the County department invoiced.

An EFT Enrollment Form to enroll in the program is attached for your convenience. You can also visit the Union County website at www.unioncountync.gov at any time to get a new form if your banking information changes. If the banking information changes and you do not notify us, it will delay receipt of payment for invoices.

If you wish to receive payment via the County's VISA card, please contact Alex Whitaker at 704-283-3538 or Christi Climbingbear at 704-283-3543, or send an email to alex.whitaker@unioncountync.gov and you will be added to the list of vendors accepting the VISA card method of payment.

Union County prefers all vendors participate in one of the two methods described above.

Thank you in advance for your participation.



Please return this completed form and supporting documents to:



Union County -Finance Office Suite 714, 7th Floor, 500 N. Main Street, Monroe NC 28112

Phone: (704) 283-3886 Fax: (704) 225-0664 Email: ap@unioncountync.gov

Authorization for payment via Electronic Funds Transfer (EFT)

Initi Enro	al ollment		Change Information	Today's Date
Company Name	e			
Street Address				
City, State, Zip				
	and that if I	my bank		o electronically deposit funds into the account indicated changes and Union County is not made aware of this change,
Bank Name				
Address				
City, State, Zip				
Routing/ABA #	<u></u>			Bank Acct No.
Payment Notif details for all fun				owing individual to receive an email notification of payment y Union County.
Name & Title				
Email Address				
Phone Number				
Officer Name &	Title			
Phone Number				
Signature:				

FOR ACCOUNT VERIFICATION, PLEASE ATTACH A VOIDED CHECK.

This authorization will remain in effect until Union County has received written notice to discontinue.

14 APPENDIX F - BEST MANAGEMENT PRACTICES

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APPENDIX B: BEST MANAGEMENT PRACTICES (BMPs) FOR SELECTIVE CLEARING AND SNAGGING*

Trees and brush that shade streams and stabilize the banks should not be disturbed. In new channel construction, existing trees and brush should be left in place along the tops of banks. No stream work, including bank clearing and excavation or removal of materials, "snags," or other channel obstructions, should be allowed except at specific locations where significant blockages in streams occur. Channel excavation and snag removal should be accomplished with the minimum streambank clearing needed to provide access to the stream and should not be undertaken unless it is absolutely necessary. The following BMPs prescribe the manner in which snag removal and stream channel clearing should be undertaken:

a. Practices for snagging.

- Logjam removal. Only those log accumulations that are obstructing flows to a degree that results in flooding or significant ponding or sediment deposition should be removed.
- (2) Removal of other logs.
 - Affixed logs. Isolated or single logs should not be disturbed if they are embedded, jammed, rooted, or waterlogged in the channel or the floodplain, if they are not subject to displacement by current, and if they are not presently blocking flows. Generally, embedded logs that are parallel to the channel are not considered to cause blockage problems and should not be removed. Affixed logs that are crossways to the flow of waters in the channel and are trapping debris to the extent that could result in significant flooding or sedimentation may be removed.
 - Free logs. All logs that are not rooted, embedded, jammed, or sufficiently waterlogged to resist movement by stream currents may be removed from the channel.
- (3) Protecting riparian vegetation. No rooted trees, whether alive or dead, should be cut unless:
 - They are leaning over the channel at an angle greater than 30 deg of vertical and they are dead or severely undercut, or damaged root systems are relying upon adjacent vegetation for support and it appears they will fall into the channel within 1 year and create blockage to flows; or
 - Their removal from the floodplain is required to secure access for equipment to a point where a significant blockage has been selected for removal.

^{*} Source: State of New York (1986). The citation for this reference is included with those following the main text of this report.

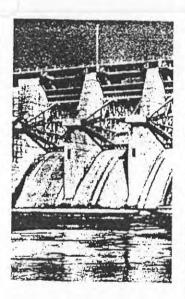
Trees selected for removal should be cut well above the base, leaving the stump and roots undisturbed. Procedures for removing the felled portion should be the same as for other logs as discussed below.

- (4) Equipment for log removal. First consideration should be given to the use of hand-operated equipment to remove log accumulations. When the use of hand-operated equipment is infeasible, vehicular equipment should be used in accordance with the following guidelines:
 - Water-based equipment (e.g., a crane or winch mounted on a small, shallow draft barge or other vessel) should be used for removing material from the stream. A small crawler tractor with winch or similar equipment may be used to remove debris from the channel to selected disposal points.
 - When stream conditions are inadequate for the use of water-based equipment, the smallest feasible equipment with tracking systems that minimize ground disturbance should be specified for use. Larger equipment may be employed from nonwooded areas where cables could be stretched down to the channel to drag out materials to be removed.
 - Access routes for equipment should be selected to minimize disturbance to existing floodplain vegetation, particularly in the riparian zone. Equipment should be selected which will require little or no tree removal in forested areas.
- (5) Log disposal practices. All logs or trees designated for removal from a stream or floodplain should be removed or secured in such a manner as to preclude their reentry into the channel by floodwaters. Generally, they should be transported well away from the channel and floodway and positioned parallel to the stream channel so as to reduce flood flow impediment. When large numbers of logs are removed at one location (e.g., logjams), their use for firewood may be most appropriate. Burying of removed material should not be permitted.
- b. Practices for stream channel clearing.
 - (1) Small debris accumulation. Small debris accumulations should be left undisturbed unless they are collected around a log or blockage that should be removed. (Small debris accumulations will not constitute a significant blockage to flows. Upon removal of logs and other blockages under these BMPs and the following completion of the project, the changed water velocities will remove and disperse these small debris accumulations so that no significant blockage of water flows will result.)
 - (2) Removal of sediment and soils. Major sediment plugs in the channel may be removed if they are presently blocking the channel to a degree that results in ponding and dispersed overland flow through poorly defined or nonexistent channels and, in the opinion of appropriate experts, will not be removed by natural stream or river forces after logs and other obstructions have been removed.

- (3) Disposal of spoil material. Conventional excavating equipment may be required for sediment blockages. This equipment should be employed in a manner which will minimize environmental damages as follows:
 - Access routes for equipment should be selected to minimize disturbance to existing floodplain vegetation, particularly in the riparian zone.
 - Material disposal and necessary tree removal should be limited to one side of the original channel at any given location.
 - To the maximum extent possible, excavating equipment should not be employed in the stream channel bed.
 - Where feasible, excavated materials should be removed from the floodplain. If floodplain disposal is the only feasible alternative, the spoil material should be placed on the highest practical elevation and no material should be placed in any tributary or distributary channels which provide for ingress and egress of waters to and from the floodplain.
 - No continuous spoil pile should be created. It is suggested that no pile exceed 50 ft in length or width and a gap of equal or greater length should be left between adjacent spoil piles.
 - Spoil piles should be constructed as high as sediment properties allow.
 - The placement of spoil material around the bases of mature trees should be avoided where possible.
 - All disturbed areas should be reseeded or replanted with plant species which will stabilize soils and benefit fish and wildlife. Revegetation should be in accordance with County Soil and Water Conservation District recommendations.
 - All disturbed areas should be reseeded or replanted with plant species which will stabilize soils and benefit fish and wildlife. Revegetation should be in accordance with County Soil and Water Conservation District recommendations.









ENVIRONMENTAL IMPACT RESEARCH PROGRAM

TECHNICAL REPORT EL-92-35

INCREMENTAL EFFECTS OF LARGE WOODY DEBRIS REMOVAL ON PHYSICAL AQUATIC HABITAT

by

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US Army Corps of Engineers
Washington, DC 20314-1000

Under EIRP Work Unit 32555

Summary

LWD plays an important role as a component of aquatic habitat. Although LWD enters food webs as it decays, the major importance of debris lies in its structural characteristics and the way it influences channel flow patterns. Physical processes associated with debris in streams include the formation of pools and retention of fine sediment and organic matter.

Awareness of the adverse effects of complete LWD removal on channel stability and aquatic habitat has led to the development of guidelines for selective removal of LWD as a means of balancing habitat and conveyance objectives. These guidelines (Appendix A) involve the use of manual labor and small equipment to remove only the LWD that causes significant flow obstruction. Removal of bank vegetation and disturbance to stream habitats is minimized. Personnel within some Corps districts have already completed or are in the process of classifying the streams under their jurisdiction according to these guidelines. Use of these guidelines for project planning and design requires quantification of the hydraulic and environmental impacts of incremental LWD removal.

In this study, a simple method for quantifying LWD density and computing associated friction factors was developed and tested using data collected during an LWD removal project on the South Fork Obion River in western Tennessee. Physical conditions of both cleared and uncleared stream reaches were measured by collecting three types of data: LWD density, dye tracer tests (for computing reach mean hydraulic parameters), and physical habitat (depth, velocity, bed type, and cover) at selected transects. The LWD density was the important independent variable, while the dye tracer and physical habitat data were used to study macroscale and microscale effects of LWD, respectively. Macroinvertebrate samples were also collected at low flow conditions, and the results are presented in a companion report to this study (Payne and Miller in preparation).

Conclusions

Removal of LWD from the study reach decreased near-bank-full friction factor by about one third. Impacts on physical aquatic habitat at base flow

were measurable and statistically significant, even though the Stream Obstruction Removal Guidelines (IAFWA 1983) were applied throughout project planning and implementation. Benefits of proposed LWD removal projects should be carefully analyzed in light of costs and environmental impacts. Findings of this study generally agreed with work by others in different types of streams. The simple procedure developed in this study for quantifying LWD density and its effect on channel resistance may be used for environmental impact assessment and hydraulic engineering analyses. Considerable refinement and site-specific adaptation may be in order, however. The method for prediction of channel roughness coefficients does not account for local losses because of bends or flow expansion and contraction at bridges, debris dams, or riffles.

Recommendations

To refine the methodology used in this study, additional data should be collected from two more stream LWD removal projects. Streams with higher LWD density and different types of bed sediment from that encountered in this study would be preferable. Physical data should be collected over a range of flows varying from normal low-flow to bank-full conditions. Concurrent biological data should be collected at base flow. Data should be collected to document preproject and postproject conditions. Investigation of additional methods of determining LWD density, such as using video recorders or low altitude aerial photography to count and measure the LWD formations, is recommended.


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15 APPENDIX G - LOCATION MAPS

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Scale: 1 inch = 2,000 ft.

