

Stream Debris Removal Guidance for StRAP

(Streamflow Rehabilitation Assistance Program)

The NC General Assembly allotted \$38 Million to the StRAP program to be proactive to help prevent future flooding



One part of StRAP is to assist in protecting and restoring the integrity of drainage infrastructure through routine maintenance to existing streams and drainageways by removing blockage of debris or sediment



Turning Drainageways



Into This



I have stream debris to remove. What do I take out? What do I leave? I'm so confused!! Don't Panic!



Here Is a Side by Side of Before and After





Trees fallen across the stream, root ball pulled up, were cut off and the root ball remains



Do you cut a tree leaning over the creek but the roots are secure in the bank? NO!!



Debris To Leave. Submerged logs. Don't dig logs out that are not obstructing flow. They are good fish habitat!



Trees that "appear" to have been there awhile that are not blocking the flow. Leave them.



Trees Fallen, Not Blocking the Flow. Leave Them!



Beaver Dams Need to be Removed. Trapping Needs to Occur or the Beavers Will Return



After the Beaver Dam has Been Removed



I CAN'T HELP THINKING THAT THIS WOULD BE A BETTER WORLD IF EVERYONE WOULD LISTEN TO ME..



Removing Woody **Debris** is not Always "Black and White" Use your best Judgement

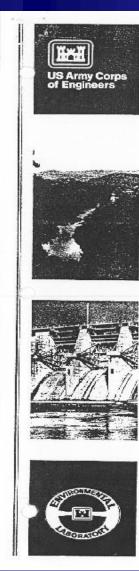
Just remember ... The after needs to look more like this...



And not this!!!



This Guide from the Corps of Engineers is a Good Guide on What to Remove



ENVIRONMENTAL IMPACT RESEARCH PROGRAM

TECHNICAL REPORT EL-92-35

INCREMENTAL EFFECTS OF LARGE WOODY DEBRIS REMOVAL ON PHYSICAL AQUATIC HABITAT

Dy

Roger H. Smith

Center for River Studies Memphis State University Memphis, Tennessee 38152

F. Douglas Shields, Jr.

USDA Agricultural Research Service National Sedimentation Laboratory Oxford, Mississippi 38855-1157

Elba A. Dardeau, Jr., Thomas E. Schaefer, Jr., Anthony C. Gibson

Environmental Laboratory

DEPARTMENT OF THE ABMY Waterways Experiment Station, Corps of Engineers 3909 Halls Ferry Road, Vicksburg, Mississippi 33180-6199



November 1992 Final Report

Approved For Public Release; Disbibution is Unlimited

Prepared for DEPARTMENT OF THE ARMY US Army Corps of Engineers Washington, DC 20314-1000

Under EIRP Work Unit 32555

Much of the Work Will be Hand Labor With Chainsaws and Wenches



And some with heavy equiptment



Deposit the Debris outside the 100 year floodplain.



Another option for debris disposal is to deposit the debris, within the 100 yr floodplain, a minimum of 30 feet from the stream bank, cable the debris, anchoring it to living trees





Additional options for debris disposal are to chip or burn the debris. Permits and liability are the applicant responsibility



Or you can move it to another disposal site outside the floodplain



After you complete the work, on a creek segment, an inspector Representing the Division of Soil and Water will inspect the work. If all is good, He/She will sign off for the applicant to summit payment



| Streamflow Rehabilitation | Assistance Pro | gam Project Invol Heather Reich | en encear.goy | IOG NDT en SFL | |
|--|---------------------------------|---|--|---|-----------------------|
| Please fill in Parts 1-7 and send, along million | 20/20/21/11/2020 | Invition # | | | |
| Payee Organization Name | reamflow Rehab | Authorization | | | |
| | Ofers | TaxID# | | | |
| Contract Number | | PO Lina _ | | | |
| Request No.: D | ate: | Payment Amount | a la diversionari | \$0.00 | |
| Contract Amount: | | Amount co | ontract Funds Remaining: | d | and the second second |
| Activity | a Contract Budget | Previously Spent from contract Budget | Total spent this involce period from contract Budget | Total spent to date from contract Budget | |
| StRAP Contracts | | | ested this Invoice | 5 1 | |
| StRAP Contracts | | Amount Requ | | n | |
| ALL MATCHING FUNDS: | 0 | 1 | g | Total matching funds | |
| Activity | Budgeted Match | Previously Reported Metching Funds | Total matching funds this involce period: | so date: | |
| Cash | | | | 8 - | |
| In-Kind | \$. | \$. | s - | \$. | |
| Total | | | | | |
| Progress on Stream Segments: Segment Description (Please refer to Scope of Work) Please add rows as needed | Feet Planned for Treatment | Feet of Stream Completed this Invoice | Total Feet of Stream Completed | Beaver Dams Removed | |
| | | | | | |
| | 0 | 0 | 0 | 0 | |
| Totals Progress on PL-566 Watershed Stucture | 1 | | | | |
| Improvement Planned Improvement (Please refer to Scope of Work) Please add rows as needed | Description of Completed Action | | | Extent of Completed Action (e.g., cu. yd. of sediment removed) | |
| | | | | | |
| | 0 | 10 | 0 | | |
| Totals | 0 | | | Total Admin | |
| Administration/Technical Assistance (Not to exceed 15% of total expended contract | Admin allowed (19 max): | 5% Admin Previous Iswoloed | Total Admin this Inv | s - s | |
| funds, not including matching fullos/ | S Salacoffonotia | Equipment | Supplies | Total | |
| (Must be related to implementation, Salary/Denmis in | | | | 5 . | |
| existing stability statistics topporting documentation) approval, Must attach supporting documentation) Ploase add rows as reposed | | | - | \$. | |
| Submitted by Tritle Signature E-mail Address: Telephone Number: | | | | | |
| DSWC Project Inspection Certification I certify that I have inspected the work co this invoice. Signature of DSWC or NRCS cer | and the second | | - | | |
| Signature of DSWC or NRCS cer Please direct questions about this form to He | author Bainbert, at I | 919)707-3768 or Heat | her Reichert @ ncagr.gov | 6 | |

Additional info good to Know..

15% of what you spend can go to administrative cost

Example: If you spent \$1000, \$150 could be administrative cost



What are examples of administrative cost ?

- Equipment for local inspector to do inspection, such as small boat
- Additional personnel
- Engineering assistance
- Office supplies needed for bid packages

If you have an expense in the <u>administration of StRAP</u>, and you are not sure it will quality, let us know and we will evaluate



Each applicant is required to do the following:

- Complete & submit application
 - Oversee project
 - Provide site inspections
- Provide report to include pre & post pictures
- Secure contractor as needed
 - Secure permits
- Secure access & rights-of-way
 - Manage removal material
 - Sign off for request for payment

