

StRAP

Streamflow Rehabilitation Assistance Program Standard Operating Procedures

Table of Contents

1. Purpose
 - Project Scope
 - Eligible Grant Recipients
 - Program Resources
2. Reporting Requirements
 - Quarterly Reports
 - 50% Progress Report
 - Final Report
3. Payment Provisions
 - Request for Payment
 - Technical and Administrative Assistance
4. Permit Requirements
 - Permits
 - Landowner Permissions
5. Debris Removal and Processing
 - Processing and Removal Guidance
 - Removal from 100-year Floodplain
 - Mulching/Chipping
 - Burning
 - Cabling/Strapping
6. Inspections
 - Inspection Process
 - StRAP Debris Removal/Processing Checklist

Purpose

§ 139-65. Streamflow Rehabilitation Assistance Program (StRAP). The purpose of the Program shall be to assist an eligible grantee in protecting and restoring the integrity of drainage infrastructure through routine maintenance to existing streams and drainage ways by removing blockages caused by accumulated debris or sediment, stabilization and restoration of streams and streambanks, and for rehabilitation or improvement of small watershed structural projects constructed pursuant to the Watershed Protection and Flood Prevention Act of 1954, as amended. Project engineering, permitting, and administrative costs are eligible for payment through the Program. Program funds may also be used to provide nonfederal match for related disaster recovery activities funded by the federal government.

Project Scope

StRAP funds are intended to support projects that restore and protect drainage infrastructure of both natural streams and small watershed structural projects to prevent future flooding, restore streams, and reduce risks to life and property. StRAP funds may be used to provide nonfederal match for related disaster recovery activities funded by the federal government. StRAP eligible projects fall into 2 categories:

- Stream Debris Removal Projects
- PL 566 Small Watershed Project Rehabilitation

Eligible Grant Recipients

- A Soil and Water Conservation District.
- A political subdivision, including a city, a county, a water or sewer authority established under Chapter 162A of the General Statutes, a metropolitan or county water or sewer district established under Chapter 162A of the General Statutes, a county service district established under Chapter 153A of the General Statutes, a municipal service district established under Chapter 160A of the General Statutes, a sanitary district established under Chapter 130A of the General Statutes, and a drainage district established under Chapter 156 of the General Statutes.
- A nonprofit organization.

Program Resources

All required StRAP forms and reports, as well as guidance documents, are available on the StRAP website at <https://www.ncagr.gov/SWC/watershed/StRAP.html>

Reporting Requirements

StRAP grant recipients are required to follow the listed reporting requirements for the life of the contract.

1. Quarterly Reports

- a. Quarterly reports must be submitted on or before the last day of January, April, July, and October, covering the preceding quarter of the calendar year. For example, the April report will cover the 1st quarter of the year (January-March).
- b. Quarterly reports must be submitted until the project is completed and the final report is submitted.
- c. Use form *Attachment F- Streamflow Rehabilitation Assistance Program (StRAP) Progress Report*.
- d. A budget report must be submitted with each quarterly report.

2. **50% Progress Report**

- a. This report will provide detailed information on the contracts that have been approved and executed for the project
- b. This report requires the grantee to show 50% of contract funds being encumbered by contracts.
- c. Use Attachment G- Streamflow Assistance 50% Progress Report as the report form.
- d. Report due by end of business hours on February 28, 2023.

3. **Final Report**

- a. A final report must be submitted within 60 days of the expiration or close-out of the StRAP contract. Unless otherwise agreed upon, StRAP contracts will expire on December 31, 2024.
- b. The final report must be accompanied by a final budget report and a final request for payment (if applicable).
- c. Use form Attachment F- Streamflow Rehabilitation Assistance Program (StRAP) Progress Report.

Failure to submit reports will delay action on submitted invoices. Requests for payment will not be reimbursed until any overdue reports are submitted.

Payment Provisions

StRAP is a reimbursement program, and grant recipients must submit a request for payment (RFP) after work is completed on a stream segment.

Request for Payment

Requests will be made using Attachment H- Streamflow Rehabilitation Assistance Program Project Invoice Form. Upon approval of the RFP by the Division of Soil & Water Conservation (DSWC), payment shall be made within 30 days.

- RFPs can only be submitted for sections of work that have been completed. Streams can be broken into multiple segments so that each section can be inspected and reimbursed once work is completed on that segment.
- RFPs must be signed by a DSWC inspector before they can be submitted.
- Each grant recipient should submit RFPs no more than monthly.
- Each RFP should be accompanied by an appropriate certified invoice showing the expenditures and matching funds, if applicable, for the current time period and cumulatively for the entire project.
- Each RFP should be accompanied by invoices or receipts documenting the expenses listed on the RFP.

Technical and Administrative Assistance

Up to 15% of total reimbursed expenditures for each grant can be used to reimburse engineering, technical assistance, permitting, and administrative expenses for the project. At least 85% of reimbursed project funds must be spent on documented stream debris removal/PL 566 Watershed project work.

- Equipment purchased directly by the grant recipient, rather than the contractor, may be eligible for this Technical/Administrative Assistance.

- Equipment with a value of \$500 or more must be tracked through the project. At the end of the project, all applicable equipment must have either its location documented, or be noted as lost/destroyed.
- For equipment with a value of \$5,000 or more, please contact the StRAP office before including this equipment in an RFP.
- Any salary, benefits, and operating expenses that would normally have been paid by the grantee are not eligible for reimbursement. Salaries for new staff hired to work on the StRAP project may be reimbursed, but salaries for existing staff cannot be reimbursed. For reimbursement of eligible salaries, the RFP must include attached documentation of the staff hours, such as time sheets and/or other documentation of the work the staff completed for the StRAP project.

Permit Requirements

StRAP grantees shall be responsible for obtaining necessary landowner authorization for site access and all permits needed to complete the planned work.

Permits

Grant recipients must contact:

- Local floodplain manager, who can provide guidance on the National Flood Insurance Program and requirements for a Floodplain Development Permit.

It is recommending each grantee also contact the following organizations for further guidance on whether additional permits are necessary:

- NC Division of Water Resources
- US Army Corps of Engineers
- NC Wildlife Resources Commission
- NC Division of Coastal Management

Landowner Permissions

Much of the work funded by StRAP grants will be done on privately owned land. Grantees should secure permission from all landowners before work begins. StRAP funds cannot be used to reimburse any project costs associated with land rights or land access. If a landowner chooses to charge the grantee for access to their land, these costs to the grantee cannot be reimbursed.

Debris Removal and Processing

Stream debris will be removed from the channel according to the guidelines established in the following guidance documents:

- *NRCS Conservation Practice Standard: Clearing and Snagging Code 326*
- *US Army Corps of Engineers Best Management Practices (BMPs) for Selective Clearing and Snagging*
- The purpose of StRAP is to remove stream debris that is contributing to flooding and blockages, which does not necessarily mean removing all woody debris from the stream channel. Woody debris can provide important aquatic habitat. Grantees should consult these documents for determining what debris should be removed, and what debris should be left in the stream channel.

- Grantees should consult program staff as necessary for further guidance on debris removal.

Processing and Removal Guidance

§ 139-65. Streamflow Rehabilitation Assistance Program, the authorizing legislation for StRAP, states that “The Commission shall ensure that debris removed from streams with funds provided under this Article are either removed from the 100-year floodplain or processed in such a manner that the debris would not pose a risk of blockage or significant impairment of normal streamflow during a subsequent flood event.”

Deviation from standard operating procedure as it relates to processing or removal will be subject to the requirements of 44 CFR § 60.39(d)(3) which may require a floodplain development permit and no-rise certification.

To comply with these rules, all debris removed from the stream must follow the following guidance:

1. **Option 1: Removal from the 100-year Floodplain**
 - a. The 100-year floodplain will be identified using the FEMA National Flood Hazard Layer (NFHL) Viewer, available at <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>
 - b. Debris removed from the stream can be hauled away from the floodplain. Debris can be loaded directly into a truck for removal or debris can be floated to a location appropriate for its removal from the stream or floodplain.
 - c. Debris can be removed to a landfill (grantees should confirm that the landfill accepts woody debris), another property, or to another location on the same property as long as it is outside of the floodplain and landowner has granted permission for the debris to be deposited on the site.
 - d. Equipment used for hauling debris from the floodplain should be used in a manner that minimizes the impact to the banks of the stream. Barge mounted equipment suitable for the stream size and depth may be an effective option for accessing stream debris. Tracked or wheeled equipment should be kept out of the stream channel unless removal from the streamside is not feasible. Debris may also be removed from the bank by using a manipulator arm or cables to drag debris out of the stream channel. When stream conditions are inadequate for the use of water-based equipment or removal from the bank, the smallest feasible tracked equipment that minimize ground disturbance should be specified for use.
 - e. If garbage (such as wooden construction materials) is contributing to blockages in the stream, it can be removed from the stream and disposed outside of the floodplain.
2. **Option 2: Processing of debris.** Currently, there are 3 approved methods for processing debris so that it can be left in the 100-year floodplain.
 - a. **Mulching/Chipping**
 - i. Wood chips can be placed on the floodplain starting at the top of the bank. Wood chips should not be placed below the top of the bank or in channels that drain from the floodplain into the stream
 - ii. Wood chips should be distributed across the site in a layer no greater than 3” deep.
 - iii. Wheeled chippers and other equipment should be used in a manner that reduces impact to soil and vegetation.

b. Burning

- i. Debris can be burned on site.
- ii. The grantee/contractor is responsible for obtaining and possessing a valid burn permit (if applicable) and for following any other necessary laws or statutes related to burning.

c. Cabling/Strapping

- i. Cabling or strapping refers to the practice of anchoring logs and other woody debris in place so that it will not be washed back into the stream in subsequent flood events.
- ii. Cabled/strapped debris should be set back at least 30 feet from the top of the stream bank.
- iii. Woody debris cabled/strapped within the floodplain should be anchored in such a way that it will not significantly affect the flow capacity of the floodplain.
- iv. Logs can be strapped individually or in piles. If groups of logs & branches are anchored together, wrapping the cable or rope around the entire bundle of debris can secure the bundle to the anchor.
- v. A variety of cable, rope, or strap options can be used for securing large woody debris to an anchor point. Material with a break strength of approximately 1,700 pounds or higher should be used. A common example of an appropriate rope would be 1/4 inch braided nylon rope. Contractors should use thicker cables/ropes as necessary to sufficiently secure debris.
- vi. Logs and debris may be cabled to live trees or fresh stumps. Fatal damage to live trees should be avoided. Wedging logs against the live tree before the cable/strap is attached will help ensure the attached log is as immobile as possible.
 1. If a strap/cable is looped around a tree, leaving a small amount of slack in the loop around the live tree, and between the live tree and the log, may help protect the tree from girdling and prevent the cable from snapping if the anchored log shifts.
 2. If stumps are used, the cable/strap should be secured in a way so that it will not slip off the top of the stump in future flood events.
- vii. Soil anchors may be useful on sites with few live trees to serve as anchors or in other situations when live trees are not desirable as anchors. For technical guidance on use soil anchors, contractors should use refer to *NRCS Technical Supplement TS14E Soil Anchors*.
- viii. Placing debris as close to the anchor as possible will reduce the amount of rope/cable needed and reduce the risk of landowners tripping over the cable.

Inspections

All completed work must be inspected by a designated DSWC inspector before an RFP can be submitted.

Inspection Process:

- To schedule an inspection, please contact Patty Gabriel at (919) 751-0976 x 5609 and Patricia.Gabriel@usda.gov

- The Request for Payment form should be completed before the inspection so the StRAP inspector can sign the form during the inspection, certifying that all work was completed before a payment is issued.
- DSWC inspectors will review work on the site for compliance with StRAP guidance and the requirements outlined in the following section.
 - If inspected work does not fulfill program requirements, the issues must be corrected before a request for payment will be processed.