Vegetative Debris Removal Photo Guide

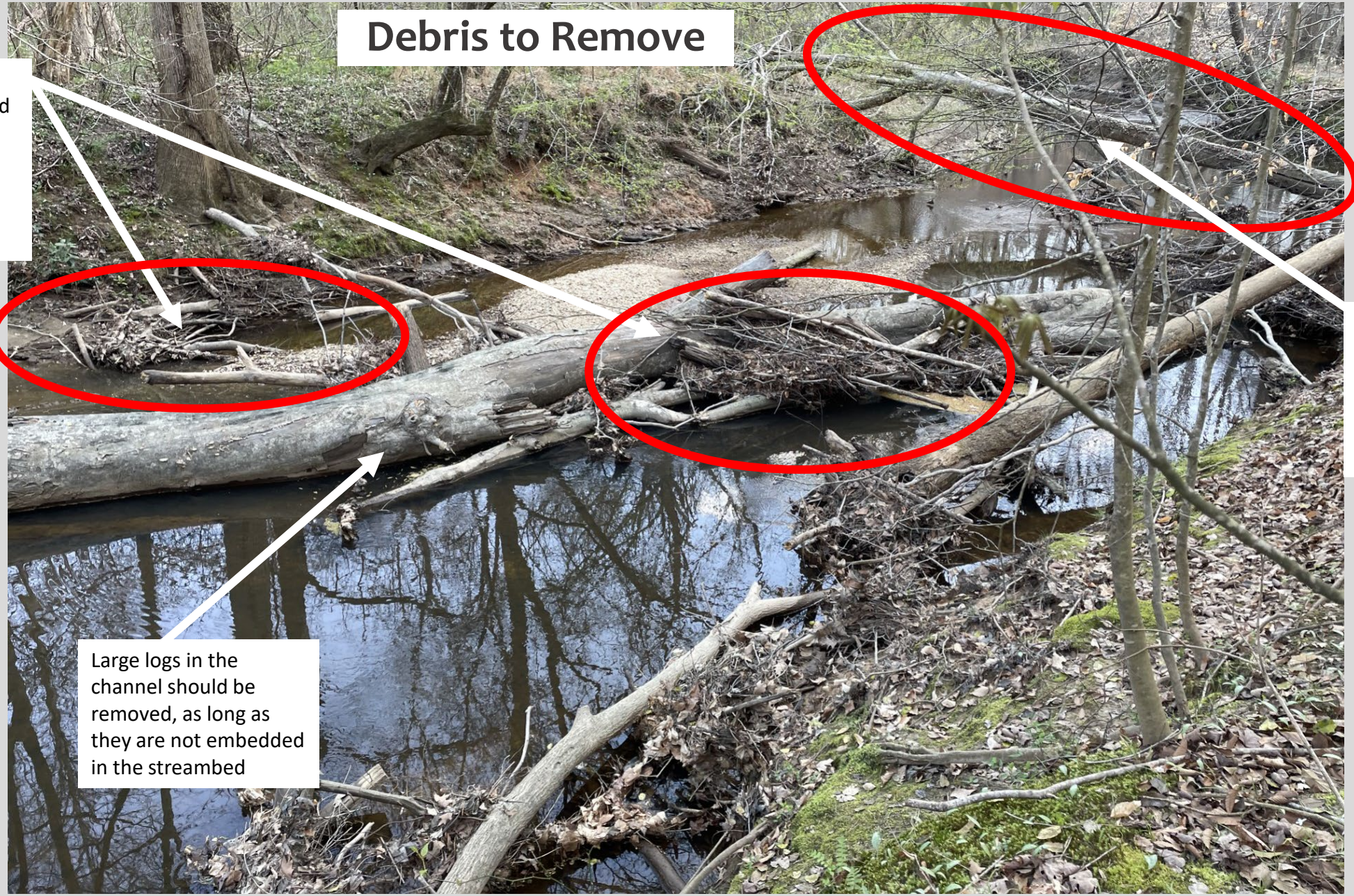
FY2024 Funding Cycle

Vegetative Debris Removal

Debris to Remove

The logjam (both the fallen trees, and smaller branches accumulating on them) should be removed.

Vegetative Debris Removal



StRAP
Streamflow Rehabilitation Assistance Program

Vegetative Debris Removal

Before

After

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Vegetative Debris Removal

Before

After

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Vegetative Debris Removal

Before

After

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Vegetative Debris Removal

Before

After

Trees on bank that aren't at risk of falling should be left uncut to protect riparian habitat and streambanks

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Vegetative Debris Removal

Before

After

Areas where riparian vegetation is disturbed should be reseeded or otherwise repaired.

Vegetative Debris Removal

- Artificial debris can be removed from the stream channel as part of a debris removal project
  - Artificial debris that is large enough to create blockages/impairments (like the photos below) should be removed as part of a debris removal project.
  - However, small trash/artificial debris (such as bottles, trash, etc.) does not have to be removed from the channel if it is not contributing to stream impairment.
- All artificial debris (building lumber, concrete, rubble) that is removed from the stream must be removed from the 100-year floodplain.

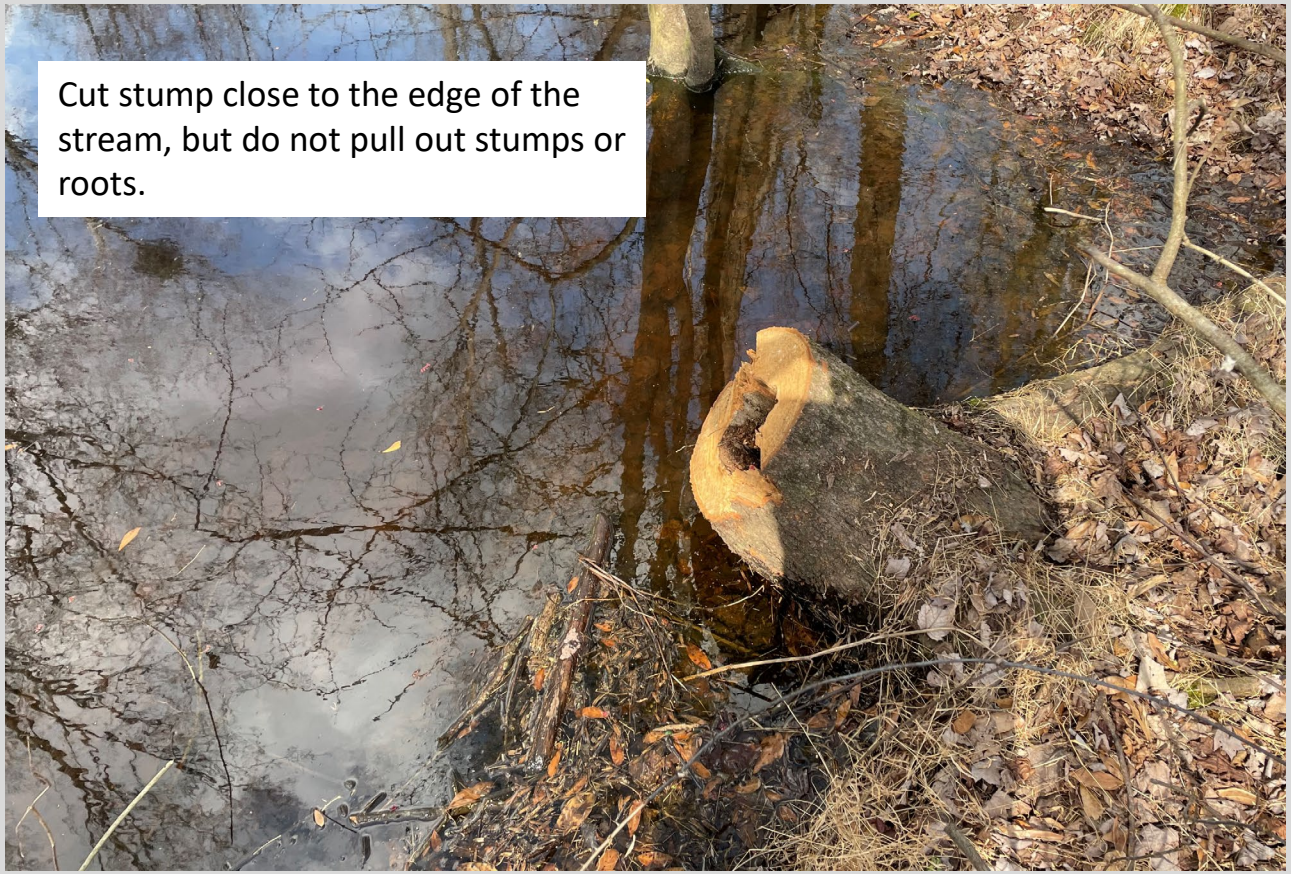
Before

Collapsed wooden bridge removed where it was blocking the stream

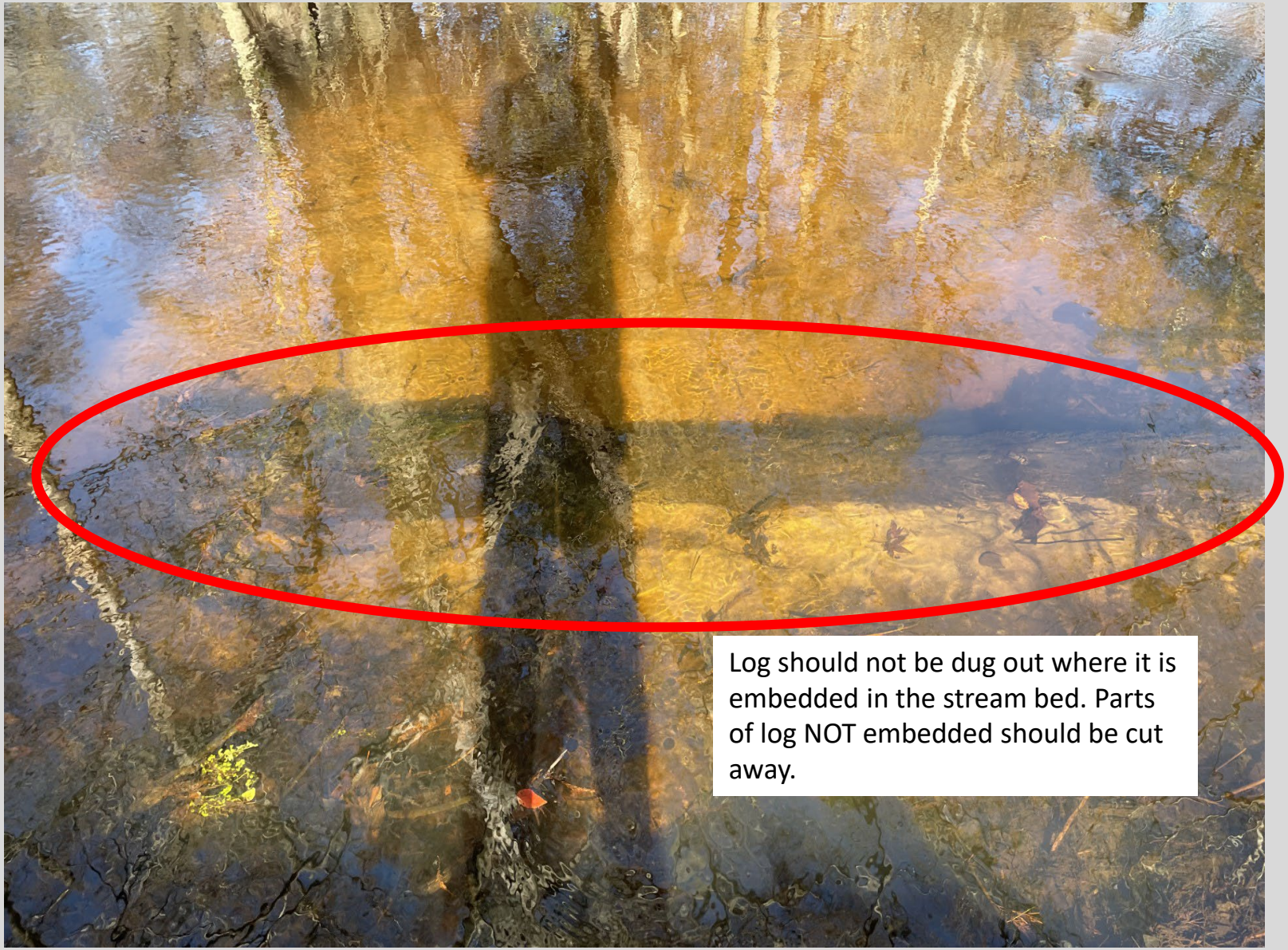
After

Vegetative Debris Removal

- Stumps should be left in place. Leaving a stump in place will help stabilize the stream bank and reduce erosion.
- Cut the stump close to the stream edge so it will not catch floating debris, but leave the root ball in place.



Vegetative Debris Removal



- Logs that are embedded in the streambed should be left in place. Excavating out imbedded logs would cause significant disturbance of the stream bed.
- If there are branches/limbs sticking off an embedded log: cut away to branches, and leave the embedded portion in place

Beaver Dam Removal

Debris submerged beneath a beaver pond must be removed from the channel once the dam is removed.

- StRAP funds can be used for beaver dam removal or beaver trapping on stream segments that are listed on your scope of work. Beaver dam removal would fall under vegetative debris removal.
  - Removal of beavers/dams on sites NOT listed on your scope of work is not a reimbursable project cost.
- Beaver dams must be fully dismantled, and all logs/branches removed from the dam MUST be removed from the 100-year floodplain or cabled/chipped/burned.
- If you choose to trap beavers, it is highly encouraged to trap beavers before debris removal begins, so the beavers do not rebuild dams while work is underway.
- On stream segments being work on, any logs that are uncovered after a beaver pond is drained must be removed from the channel. In the photo to the left, these previously submerged logs were revealed when a beaver pond was drained. Since they are blocking the channel, these logs must be removed from the channel before the site can pass inspection.

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Removing Overhanging Trees

- Vegetative debris removal primarily focuses on removing debris within the stream. However, standing trees that overhang the stream can be removed if:
  - They are leaving over the channel at an angle greater than 30 degrees
  - They are dead or severely undercut
  - They appear likely to fall into the channel within 1 year and create blockages to flow.
- Refer to Army Corps of Engineers BMPS for Selective Clearing and Snagging.pdf for additional information

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Using Equipment

- Work can be completed by hand, or by using equipment.
- Tracked or wheeled equipment should be kept out of the stream channel and may work from the bank using a manipulator arm or cables.
- Boat mounted equipment (such as barges or floating excavators) may be an effective option in larger streams, as long as they do not disturb the streambed.

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Using Equipment

- Equipment should be placed far enough back from the bank that it will not erode/damage the stream bank.
- Any areas where vegetation is damaged by project work (especially by equipment use) should be revegetated before the project can pass inspection. Your contract with a contractor can require them to reseed the work area as part of their job requirements.

Debris Removal/Processing

- ALL debris removed from a stream must be managed so that it will not wash back into the stream in future floods and cause future blockages.
- Approve debris processing methods include:
  - Removal from the 100-year floodplain
  - Burning
  - Chipping
  - Cabling/Strapping
- For full details, consult the StRAP debris removal guide:
  - https://www.ncagr.gov/soil-water/swcstrapdebris-removal-and-processing-guide/open

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Debris Removal/Processing Options

Removal from the 100-year Floodplain

- If you choose to remove debris from the 100-year floodplain, please consult the FEMA National Flood Hazard Layer map to determine the extent of the floodplain
  - https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd
- If you work on a stream with no mapped 100-year floodplain (per the FEMA NFHL Map), then debris only needs to be set back 30’ from the top of the bank.

Debris Removal/Processing Options

Chipping

- If you choose to chip debris:
  - Woody debris can be chipped and left in the floodplain.
    - Woodchips/mulch can be left in the floodplain starting at the top of the bank.
    - Wood chips should be removed from the stream. No wood chips should be placed below the top of bank or in side channels that drain from the floodplain
    - Wood chips should be distributed in a layer no more than 3 inches thick. Chips should not be left in piles taller than 3.
  - Wood chips can also be removed from the 100-year floodplain.

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Debris Removal/Processing Options

Cabling/Strapping

- Cabling or strapping refers to the practice of anchoring logs or other woody debris in place in the floodplain so that it will not be washed back into the stream in future floods.
- If you choose to cable/strap your debris after it is removed from the stream:
  - Cabled/strapped debris should be set back so the ENTIRE log/log pile is at least 30 feet from the top of the bank.
  - Logs can be anchored individually or in groups. If a group of logs or branches are anchored together, wrap the cable/rope around the log pile at least 2 times.
  - Anchors: the most common anchor is to tie the log/log pile to a live tree in the floodplain.
  - Cable material: you can use a rope, cable, or strap material with a break strength of at least 1,700 pounds. The most common example of an appropriate material is ¼ inch braided nylon rope.

Debris Removal/Processing Options

Burning

- Debris removed from streams can be burned on site as an approved method of disposing of woody/vegetative debris.
- The grantee/contractor is responsible for obtaining and processing a valid burn permit (if applicable), and for following any other necessary laws or statues related to burning.
- Any large debris that does not burn completely (large tree trunks, root balls) must be processed further (EX: removed from 100-year floodplain) so that partially-burned debris is not left unsecured in the floodplain.

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Debris Removal/Processing Options

Cabling/Strapping

- If logs are stacked together, the rope/strap should wrap around the entire pile at least 2 times and be pulled tight to prevent logs from slipping out of the pile in floods.

Inspection & Request for Payment Process

Streamflow Rehabilitation Assistance Program

1	**Contractor Completes Work**	Work does not need to be completed for the entire project. Individual stream segments can be inspected & reimbursed once work on that segment is completed.
2	**Grantee performs preliminary Inspection**	Grantees are responsible for monitoring contractors and reviewing completed work prior to a final StRAP inspection. If uncertain if the work is ready for a final inspection, reach out to StRAP staff for guidance.
3	**Grantee schedules Inspection**	Contact: Patricia Gabriel Inspection Coordinator 919-751-0976 x 5609 patricia.gabriel@usda.gov
4	**Grantee fills out Request for Payment form**	When possible, the request for payment (RFP) form should be completed before inspection. If not, email the RFP to the inspector to be signed after the inspection.
5	**StRAP inspector performs Inspection**	Grantee and (if possible) contractor will join Inspector during the inspection and should provide maps or other documents for review. Once the site passes inspection, Inspector will sign the completed Request for Payment form.
6	**Grantee Submits Request for Payment**	Submit **signed** Request for Payment, and all necessary invoices and receipts, to heather.reichert@ncagr.gov Payment will be processed within 30 days of receiving all paperwork.

Questions?

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Streamflow Rehabilitation Assistance Program

15% Administrative Costs FAQ

StRAP Contracts state: "*A portion of the funds awarded to the Grantee may be used to reimburse actual documented engineering, technical assistance, and administrative expenses for the project, excluding any salary, benefits, and operating expenses that would normally have been paid by the Grantee. Reimbursement of engineering, technical assistance, and administrative expenses shall be limited to 15% of total reimbursed expenditures.*"

What are Admin Costs?
"Admin Costs" collectively refers to costs associated with project administration, engineering, or technical assistance. This includes costs such as purchasing equipment your staff needs while working on the project, hiring an outside firm to manage the project, or hiring new staff to oversee the project. This is in contrast to "project work costs", which refers to the amount paid to the contractors completing the on-the-ground project work (EX: removing debris from streams).

What are project work costs?
These are any amount paid to the contractor(s) completing the on-the-ground work (such as stream debris removal or construction work on PL-566 structures), which does not count towards the 15% admin allowance. At least 85% of total reimbursements must be for project work costs.

How much can be spent on Admin/Engineering/Technical Assistance costs?
Up to 15% of total reimbursements can be for administrative, engineering, or technical assistance (collectively called "admin costs"). Please note that this means 15% of reimbursements paid out thus far can be for admin expenses. A grantee cannot receive administrative reimbursements until at least some project work is completed.

For example: in a StRAP award of $100,000, if the grantee uses the full $100,000, then up to $15,000 of reimbursements could be for admin costs. The grantee could not receive the full $15,000 in admin costs until the remaining $85,000 was spent on project work costs. If the first section of stream debris removal was completed for $8,500 in project work costs, the first reimbursement could be up to $10,000- this would include both the $8,500 in project work costs (85% of total amount reimbursed) and up to $1,500 in admin expenses (15% of the total reimbursed so far). As the total amount of completed work increases, the total amount of admin costs that can be reimbursed increases, since up to 15% of the total amount reimbursed can be for admin costs.

The 15% administrative allowance is calculated based on the total amount actually reimbursed, not the awarded amount. For example, if a grantee was awarded $100,000 but the project is completed underbudget so that the total costs (both project work costs and admin costs) only come to $50,000, then the maximum amount of admin costs that could be reimbursed is $7,500 (15% of the $50,000 final cost). Any admin costs above $7,500 could not be reimbursed.

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Does the 15% come from the total award amount?
Yes. Up to 15% of your awarded amount can be used to reimburse admin costs. For example, if a grantee receives an award of $100,000, they could spend at least $85,000 on project work and up to $15,000 on admin (not exceeding the total award of $100,000). They would not be reimbursed for $100,000 of project work and an additional $15,000 of admin costs.

Do I have to use any StRAP funds on admin costs?
No- grantees are welcome to use 100% of their award amount to pay for project work costs (such as paying contractors to remove stream debris). Using a portion of the StRAP award to pay for administrative expenses is an option, but not required. Grantees can use anywhere between 0% and 15% of their StRAP award to reimburse admin costs.

Do Admin Costs need to be Documented for Reimbursement?
Yes. The total amount of admin costs reimbursed should be outlined on the StRAP Request for Payment form. Because StRAP is a reimbursement program, every reimbursed cost, whether project work or admin, must have an accompanying receipt attached to the Request for Payment.

Can equipment be reimbursed?
Yes. Grantees can use StRAP funds to purchase equipment needed by the grantee to complete project tasks. This can include both physical equipment (waders, boots, kayak, etc.) as well as other purchases (licenses for mapping software, stamps for mailing access letters to landowners). All reimbursed equipment purchases must be documented and a receipt/invoice for the item attached to the StRAP Request for Payment. This only applies to equipment purchases made by the grantee- any equipment a contractor purchases to complete their work would be considered a project work cost, and would NOT count towards the 15% administrative limit. For specific examples, please review the document "Admin Cost Examples" on https://www.ncagr.gov/SWC/watershed/StRAPResources.htm

Can outside project management be reimbursed?
Yes. If a grantee hires an outside firm to provide project management for the StRAP project (documenting areas needed for work, directing contractors, contacting landowners, overseeing advertisement of bids, etc.), this cost can be reimbursed, but would count as part of the 15% admin allowance.

What if admin costs exceed 15% of costs?
If you are performing stream debris removal, any admin amount above 15% of total reimbursed costs could not be reimbursed by StRAP. If you are performing PL-566 structure repair, please speak with StRAP staff.

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How should admin costs be documented on the Request for Payment (RFP)?

In Section 2 of the RFP form, the box "Total spent this invoice period from contract Budget" should include both project work expenses AND any admin cost expenses to be reimbursed on this RFP.

Streamflow Rehabilitation Assistance Progam Project Invoice Form (ver. 1, 4/2022)

	Please fill in Parts 1-7 and send, along with necessary backup, to:		Heather.Reichert@ncagr.gov		NOG NOT on SFL
	Payee Organization Name		Invoice #		
1	Project Name:	**Streamflow Rehab Project**	Payment Authorization		
	Contract Number		Tax ID #		
	Contract Expiration Date		PO Line		
	Request No.:	**Date:**	Payment Amount		
	Contract Amount:		Amount contract Funds Remaining:		$0.00
		a	b	c	d
2	**Activity**	Contract Budget	Previously Spent from contract Budge	Total spent this invoice period from contract Budget	Total spent to date from contract Budget
	StRAP Contracts				$ -
			Amount Requested this Invoice		$ -

In Section 6 of the RFP form spreadsheet, the box "Admin allowed (15% Max)" will automatically calculate the total amount of admin costs that can be reimbursed so far in your project, based on the total amount you have requested in reimbursement across all submitted RFPs.

	Administration/Technical Assistance (Not to exceed 15% of total expended contract funds, not including matching funds)	Admin allowed (15% max):	Admin Previously Invoiced :	Total Admin this Invoice	Total Admin Invoiced to Date
		$ -			$ -
6	Detailed Admin Expenses Claimed this Invoice (Must be related to implementation, Salary/Benefits for existing salaried staff not eligible, without prior written approval, Must attach supporting documentation) Please add rows as needed	Salary/Benefits	Equipment	Supplies	Total
					$ -
					$ -

For each admin cost being reimbursed, please include a receipt/invoice documenting that cost.