User Guide TC-10, ERFO: Emergency Relief for Federally Owned Roads

Overview

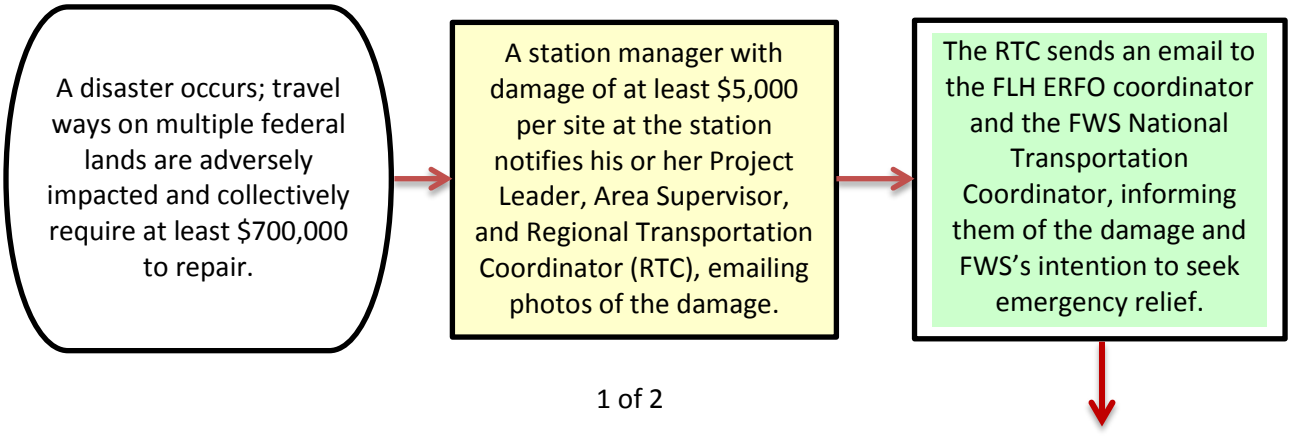
The Fish and Wildlife Service (FWS) partners with the Federal Highway Administration (FHWA) as part of the Federal Land Transportation Program (FLTP). The FLTP is authorized through the Surface Transportation Act (Title 23), and is administered through the FHWA division of Federal Lands Highway (FLH). It is through the FLH that an annual budget is provided, with which FWS administers its Transportation Program and selects for funding the qualifying, high-priority projects that increase or improve public access to refuges and fish hatcheries. These projects are planned and carried out through each FWS region's Transportation Five Year Plan, as administered by the Regional Transportation Coordinator (RTC).

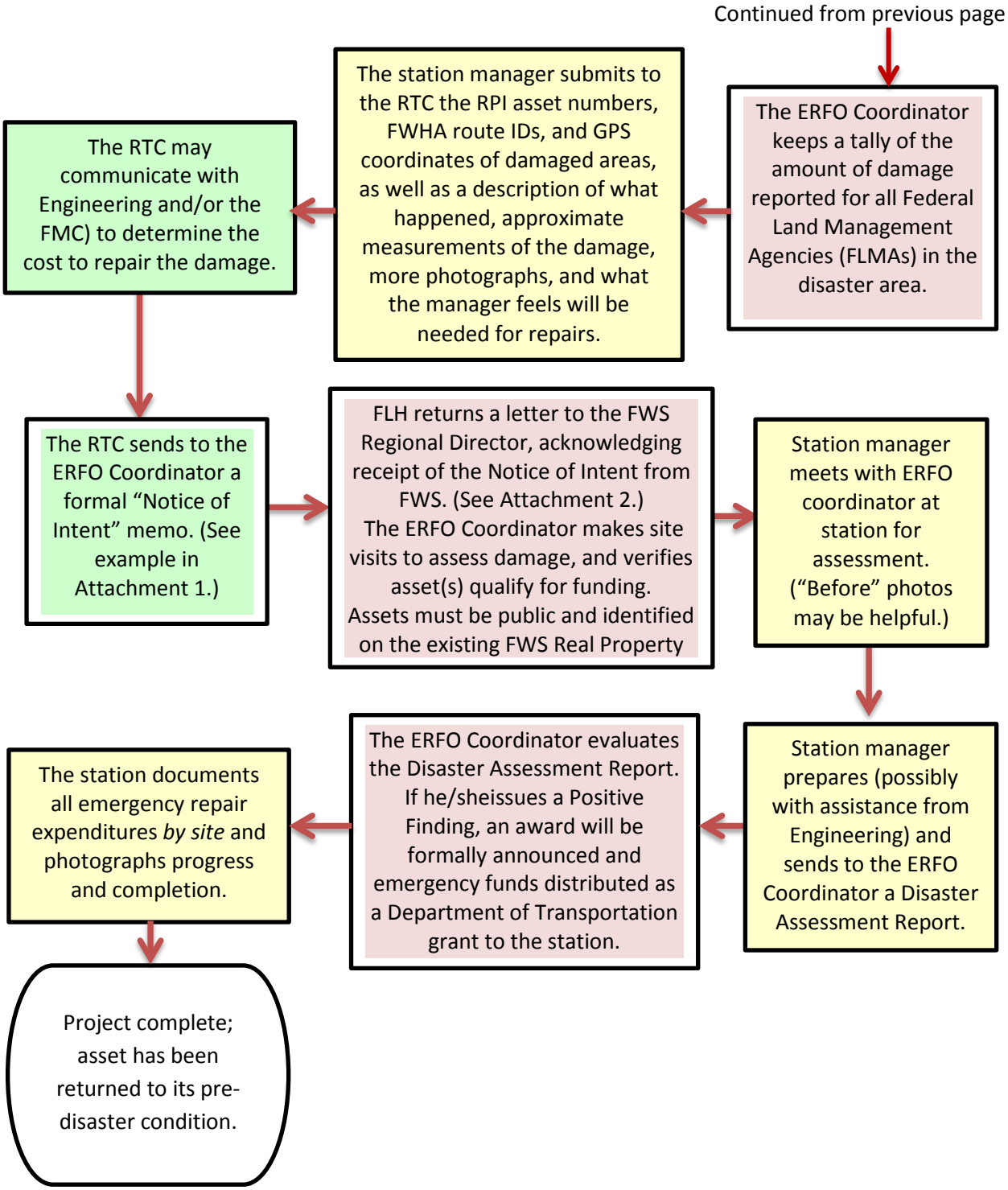
When natural disasters occur, however, and an appreciable amount of damage (at least $700,000) occurs widely to public roads and/or trails on federal lands, there is another program administered through CFL to address needed emergency repairs: ERFO, Emergency Relief for Federally Owned Lands. ERFO is outside the scope of FLTP and is not part of the Service's transportation budget. The RTC, however, represents the region as a go- between the station and the FLH ERFO Coordinator. It is entirely the FLH ERFO Coordinator who determines whether or not damage qualifies for ERFO funding (damage to each site must meet a $5,000 threshold, and the asset must have an engineered surface). If the ERFO Coordinator deems the damage to assets is eligible, he/she will then determine how much funding the station will receive. ERFO funding is not unlimited, and when high demand exists, the ERFO Coordinator establishes priorities based on severity of the damage and the amount of public use an asset receives.

ERFO projects are intended to return an asset to its *previous, pre-disaster condition*. ERFO is meant to help federal agencies cover unusually heavy expenses resulting from natural disaster and extraordinary conditions. ERFO is not intended to fund improvements, nor to address issues that existed prior to the disaster. If/when projects are funded, strict criteria must be adhered to when documenting expenditures and repairs. If funds are not expended within the given time frame, or expenditures are not sufficiently documented, the station will be required to return to ERFO the funds awarded.

There are two flavors of ERFO funding – (1) "Quick Release" Emergency repairs, to be completed within 30 calendar days of receipt of funding (such as temporary fixes needed to open a road to through traffic); and (2) Permanent repairs (which can include the cost for removal of temporary fixes). Permanent repairs must be completed by the end of the fiscal year following the disaster.

The following flowchart is meant to familiarize the reader with the ERFO process. For more detail, refer to the ERFO Disaster Assistance Manual at http://FLH.fhwa.dot.gov/programs/erfo.





Attachments:

Attachment 1, FWS Notice of Intent to ERFO

Attachment 2, ERFO Acknowledgement Letter of Receipt of NOI, addressed to Regional Director

United States Department of the Interior

FISH AND WILDLIFE SERVICE
911 NE 11th Avenue
Portland, Oregon 97232-4181

In Reply Refer To:
FWS/R1/

November 2, 2015

Division Director
Federal Highway Administration
Central Federal Lands Highway Division
12300 Dakota Ave.
Lakewood, CO 80228

This letter is our formal Notice of Intent to apply for emergency relief funds to assist with the needed repairs and reconstruction under provisions of 23 U.S.C. 125. On October 21, 2105, we conveyed by email to Lorell Duteil, ERFO Program Coordinator, our informal Notice of Intent to seek emergency relief funds.

We request a finding on the eligibility of damage to roads and trails that occurred on the Ash Meadows National Wildlife Refuge in the Counties of Nye in the state of Nevada.

The damage occurred on October 18, 2015.

Damage included failure over a wide area on Route 013, West Spring Meadows Road.

The damage was caused by what has been categorized by the U.S. Geological Survey as a 1,000 year rain event that dropped 2.7 inches in 24 hours, more than the region typically receives in a year.

The preliminary cost estimate to restore eligible facilities to their pre-event condition is: $100,000.

Please ensure that responses to this letter are copied to Annji Bagozzi, Refuge Manager, 610 Spring Meadows Road, Amargosa Valley, NV 89020.

If you have any questions, please contact Jeff Holm, Transportation Coordinator, at 503-231-2161.

Sincerely,

Jeff Holm
Transportation Coordinator

cc: Lorell Duteil CFLHD ERFO Coordinator

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Lakewood, CO 80228

November 4, 2015 In Reply Refer To: HFPP-16

Ren Lohoefener
Regional Director
Pacific Southwest Region
U.S. Fish and Wildlife Service
2800 Cottage Way Room W-2606
Sacramento, CA 95825

Emergency Relief for Federally Owned Roads
Acknowledgment Letter

This letter is to acknowledge notification, dated November 2, 2015 that you intend to apply for Emergency Relief for Federally Owned Roads (ERFO) funds under 23 U.S.C. 125, for the repair of damage on the Ash Meadows National Wildlife Refuge in Nevada. Damages were caused by intense rainfall and resultant significant flooding across the area on October 18th, 2015. The preliminary cost estimated to restore these roads is estimated to exceed $100,000.

You should proceed with the performance of the emergency operations necessary to restore essential travel; to protect the remaining facilities; to reduce the extent of damage; to begin preliminary engineering (consisting of surveys, designs, and permanent restoration work that is required as an associated part of the emergency operations) and to use agency forces and/or negotiated equipment rental contracts as necessary to perform the work.

To maintain eligibility of repairs for ERFO funds you must (1) photograph each site to document the extent of the damage; and (2) track emergency repair expenditures by damage site. The eligibility of such repairs for ERFO funds will be contingent upon the issuance of a Positive Finding on the eligibility of the disaster and subsequent approval of the repairs by the Central Federal Lands Highway Division, Federal Highway Administration. The basis for the decision will be a Disaster Assessment Report including estimates of cost to repair or reconstruct the damaged routes.

The ERFO Coordinator from this office has already contacted your field unit representative and made arrangements to determine eligibility and begin preparing the Disaster Assessment Report and Damage Survey Reports. If you have questions or need further information, please contact the Central Federal Lands Highway Division ERFO Coordinator, Lorell Duteil, at (720) 963-3425.

Sincerely,

for

Ricardo Suarez, P.E.
Division Director

cc: Jeff Holm, Region 1 Transportation Program Coordinator (assisting R8); Annji Bagozzi, Refuge Manager; Nathan Caldwell, Assistant Transportation Program Manager

bc: w/incoming letter
HFPD-5

bc: w/incoming letter
Michael Davies
Gary Strike
Ryan Tyler
Judy Salomonson

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FEDERAL HIGHWAY ADMINISTRATION, Federal Lands Highway

DAMAGE SURVEY REPORT

(Title 23, Federal-Aid System/Federal Domain)

Sheet No: 1 of 6

DSR No: 5046-0.10

Disaster No: NC2004-1-FS

Applicant: USDA Forest Service - Pisgah National Forest	**County:** Transylvania	**State:** NC	**Inspection Date:** 01/20/2005
Location of Damage (Route No., Name of Road, Mile Post and Map Grid) 5046, Lanning Ridge Rd., MP 0.10, MG 3B		NFSR	**ADT:** 35
Bridge Data:	**Road Data:**	**Classification:** ML 3	**Photographs #:** 5046-0.10-01, 5046-0.10-02, 5046-0.10-03, 5046-0.10-04, 5046-0.10-05, 5046-0.10-06
Type: Concrete	**Traveled Way Width**: 12'	**Surface Type**: Concrete	**Thickness**: 8"
ID#: Unknown	**Shoulder Width:** 0'	**Pre-Storm Condition:** Good	

Description and Cause of Damage:

Existing Bridge is a series of three 7' X 7' concrete box culverts side by side. They acted as a screen during high flow and collected logs and debris on the upstream side causing the bridge to be overtopped and scoured around. This debris jam backed up sediment for several hundred feet upstream and remains at a higher elevation than the existing deck today on the upstream side.

Scope/Description of Repair:

Remove and dispose of as much upstream bedload and debris as possilbe.
Reconstruct north approach w/surfacing
Reconstruct concrete deck and wingwalls.
Armor north abutments and wingwalls with riprap
Seed disturbed areas

COST ESTIMATE for EMERGENCY REPAIRS*

Quantity	Unit	Item Description	Unit Price	Cost

Proposed: Force Account Contract Total Emergency Repairs

COST ESTIMATE for PERMANENT REPAIRS*

Quantity	Unit	Item Description	Unit Price	Cost
80	HR	Track Hoe	$200.00	$16,000
1000	CY	Remove and Dispose of bedload and debris (100')	$25.00	$25,000
250	TON	Place Select Borrow to reconstruct north approach fill	$35.00	$8,750
90	TON	Place aggregate on north approach fill - NCDOT ABC stone	$25.00	$2,250
40	CY	Structural Concrete to construct wingwalls and repair deck on north end	$750.00	$30,000
250	TON	Pit Run Riprap	$50.00	$12,500
250	TON	Class 2 Riprap	$40.00	$10,000
220	SY	Geotextile Fabric	$8.00	$1,760
800	SY	Seed all disturbed areas	$5.00	$4,000
200	LF	Silt fence	$5.00	$1,000
1	LS	Mobilization	$5,000.00	$5,000

Proposed: Force Account Contract X Total Permanent Repairs $116,260

Identify Betterment, if any, and provide justification*

Preliminary Engineering	$17,439
Construction Engineering	$11,626
Right-of-Way	
Other: Bonding 2.5%	$2,907
TOTAL ESTIMATED COST (Emergency and Permanent Repairs)	$148,232

Submitted By: (Name and Title) Lynn L. Hicks, Forest Engineer		Signature: / X /	Date:July 6, 2005
Reviewed By: (Name and Title)	Eligible Ineligible	Signature:	Date:
Recommended By: (Name and Title)	Eligible Ineligible	Signature:	Date:

*Attach Supplemental Sheets if necessary

Posted 4 February 2009

FEDERAL HIGHWAY ADMINISTRATION, Federal Lands Highway

DAMAGE SURVEY REPORT

(Title 23, Federal-Aid System/Federal Domain)

Sheet No: 2 of 6

DSR No: 5046-0.10

Disaster No: NC2004-1-FS

Applicant: USDA Forest Service - Pisgah National Forest	**County:** Transylvania	**State:** NC	**Inspection Date:** 01/20/2005
Location of Damage (Route No., Name of Road, Mile Post and Map Grid) 5046, Lanning Ridge Rd., MP 0.10, MG 3B		NFSR	**ADT:** 35
Bridge Data:	**Road Data:**	**Classification:** ML 3	**Photographs #:** 5046-0.10-01, 5046-0.10-02, 5046-0.10-03, 5046-0.10-04, 5046-0.10-05, 5046-0.10-06
Type: Concrete	**Traveled Way Width**: 12'	**Surface Type**: Concrete	**Thickness**: 8"
ID#: Unknown	**Shoulder Width:** 0'	**Pre-Storm Condition:** Good	

Description and Cause of Damage:

Existing Bridge is a series of three 7' X 7' concrete box culverts side by side. They acted as a screen during high flow and collected logs and debris on the upstream side causing the bridge to be overtopped and scoured around. This debris jam backed up sediment for several hundred feet upstream and remains at a higher elevation than the existing deck today on the upstream side.

Scope/Description of Repair:

Remove and dispose of remaining sections of old structure (May have historic values - check w/ Archy) Clean debris and sediment load out of channel as far upstream as Hydrologist and Fish Biologist will allow (100' would be nice).
Install new single lane, single span, 60' concrete bridge (channel width), at a 4' to 6' higher deck elevation than the previous bridge.
Construct new approaches, w/surfacing, to match the new bridge elevation (ramp up).
Armor abutments and wingwalls with riprap
Seed disturbed areas

COST ESTIMATE for EMERGENCY REPAIRS*

Quantity	Unit	Item Description	Unit Price	Cost

Proposed: Force Account Contract Total Emergency Repairs

COST ESTIMATE for PERMANENT REPAIRS*

Quantity	Unit	Item Description	Unit Price	Cost
40	HR	Track Hoe	$200.00	$8,000
1	LS	Remove and Dispose of remaining sections of old bridge	$5,000.00	$5,000
500	CY	Remove and Dispose of as much upstream bedload and debris as possible	$25.00	$12,500
840	SF	Install new 60 foot span, single lane concrete bridge	$210.00	$176,400
300	CY	Place Select Borrow for Approach Fills	$10.00	$3,000
90	TON	Place aggregate to surface new approach fills - NCDOT ABC stone	$25.00	$2,250
300	TON	Pit Run Riprap (>24")	$50.00	$15,000
200	TON	Class 2 Riprap (9" - 23")	$40.00	$8,000
270	SY	Geotextile Fabric	$8.00	$2,160
800	SY	Seed all disturbed areas	$5.00	$4,000
200	LF	Silt fence	$5.00	$1,000
1	LS	Mobilization	$5,000.00	$5,000

Proposed: Force Account Contract X Total Permanent Repairs $242,310

Identify Betterment, if any, and provide justification*

Replacement of the existing triple box culvert with a bridge is a betterment. The economic analyis on the following page shows that the long-term benefits of the betterment outweigh the initial construction cost. The existing structure will have many recurring problems in the future, given the tremendous amount of bedload buildup in this unstable stream. Replacing with a single span bridge will avoid future reconstruction and reduce long-term resource impacts to fish & water.

Preliminary Engineering	$36,347
Construction Engineering	$24,231
Right-of-Way	
Other: Bonding 2.5%	$6,058
TOTAL ESTIMATED COST (Emergency and Permanent Repairs)	$308,945

Submitted By: (Name and Title) Lynn L. Hicks, Forest Engineer		Signature: / X /	Date:July 6, 2005
Reviewed By: (Name and Title)	Eligible Ineligible	Signature:	Date:
Recommended By: (Name and Title)	Eligible Ineligible	Signature:	Date:

*Attach Supplemental Sheets if necessary

Location of Damage (Route No., Name of Road, Mile Post and Map Grid)	NFSR-	**Sheet No:** 3 of 6
5046, Lanning Ridge Rd., MP 0.10, MG 3B		**DSR No:** 5046-0.10

DSR No. NFNC 137-0.10

Betterment Justification

Repair & Restore 3-cell box culvert vs. Upgrade to 60' span concrete bridge

ITEM	REPAIR IN-KIND				BETTERMENT			
	Clean and Repair box culverts				Replace w/ Bridge			
	UNIT	QUANITY	UNIT PRICE	COST	UNIT	QUANITY	UNIT PRICE	COST
Track Hoe	HR	80	$200	$16,000	HR	40	$200	$8,000
Remove and Dispose of bedload and debris	CY	1000	$25	$25,000	CY	500	$25	$12,500
Place Select Borrow	TON	250	$35	$8,750	CY	300	$10	$3,000
Place aggregate - NCDOT ABC stone	TON	90	$25	$2,250	TON	90	$25	$2,250
Structural Concrete	CY	40	$750	$30,000				
Pit Run Riprap	TON	250	$50	$12,500	TON	300	$50	$15,000
Class 2 Riprap	TON	250	$40	$10,000	TON	200	$40	$8,000
Geotextile Fabric	SY	220	$8	$1,760	SY	270	$8	$2,160
Seed all disturbed areas	SY	800	$5	$4,000	SY	800	$5	$4,000
Silt fence	LF	200	$5	$1,000	LF	200	$5	$1,000
Mobilization	LS	1	$5,000	$5,000	LS	1	$5,000	$5,000
Remove and Dispose of remainder of old structure					LS	1	$5,000	$5,000
Install single lane, concrete bridge (60' X 14')					SF	840	$210	$176,400
TOTAL				$116,260				$242,310

Cost to repair damage in the future (w/betterment)	Assume $2000 every 5 years for minor damage (bridge life = 50 years) Bridge: $400(P/A,7%,50) = $5,520	$5,520
Cost to repair damage in the future (w/o betterment)	Assume major reconstruction in 5 - 10 years @ $150,000 (structue nearing design life) Assume major channel cleaning & structural repair every 5 years due to unstable channel and restrictive nature of triple box culvert design at $25,000 / 5yr In-Kind : $150,000(P/F, 7%, 5) + $25,000(P/F, 7%, 5,10,15,....,50) = $166,943	$166,943
BENEFIT	(Difference in future repair costs over equal life)	$161,423
COST	(Additional Cost to repair the site as a result of adding the betterment)	$126,050
BENEFIT / COST		1.281
REMARKS	Economic benefits exceed costs over the long-term. Also, the existing structure will have many problems in the future due to its restrictive nature in this unstable stream. A single-span bridge will reduce long-term impacts to water quality, fish, and other aquatic organisms.	

FEDERAL HIGHWAY ADMINISTRATION, Federal Lands Highway

DAMAGE SURVEY REPORT *(Supplemental Sheet)*

(Title 23, Federal-Aid System/Federal Domain)

Sheet No: 4 of 6

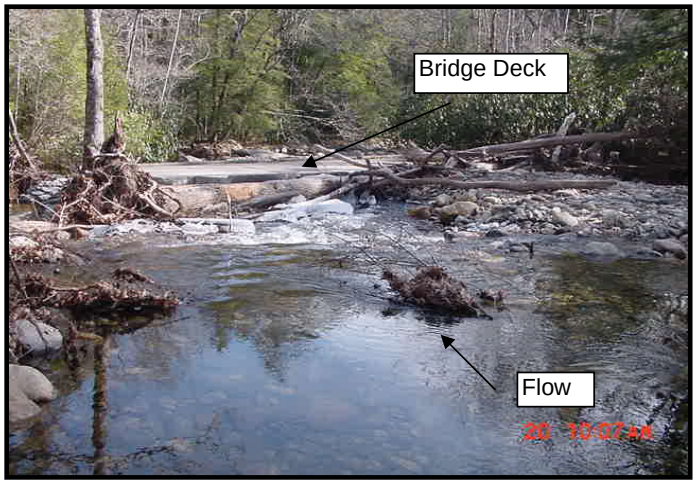
DSR No: 5046-0.10

Disaster No: NC2004-1-FS

Applicant: USDA Forest Service - Pisgah National Forest	**County:** Transylvania	**State:** NC	**Inspection Date:** 01/20/2005
Location of Damage (Route No., Name of Road, Mile Post and Map Grid) NFSR-5046, Lanning Ridge Rd., MP 0.10, MG 3B			**ADT:** 35

137-0.10-01

137-0.10-02



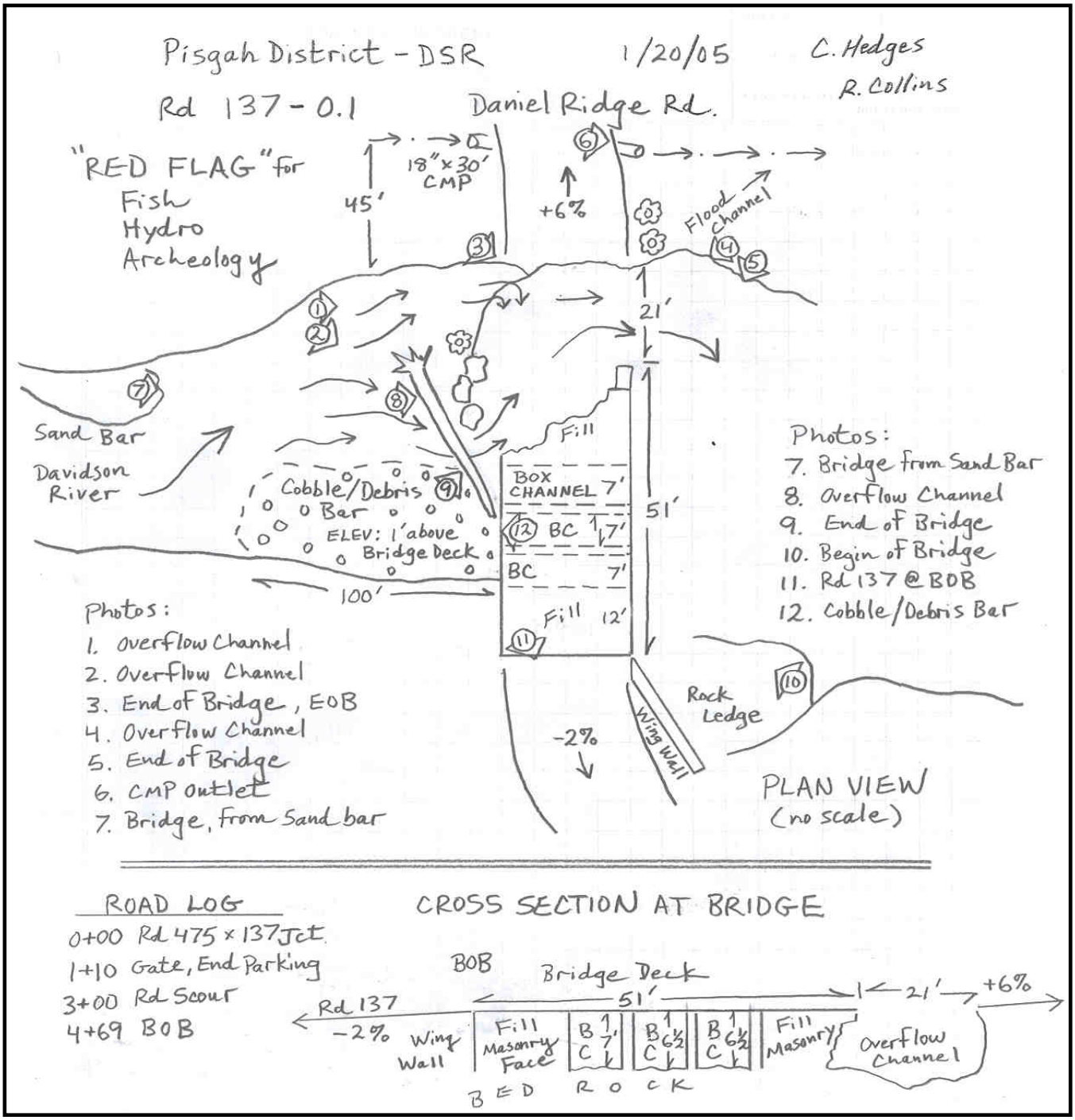
137-0.10-03

137-0.10-04

137-0.10-05

137-0.10-06

FEDERAL HIGHWAY ADMINISTRATION, Federal Lands Highway **DAMAGE SURVEY REPORT** *(Supplemental Sheet)* (Title 23, Federal-Aid System/Federal Domain)			**Sheet No:** 5 of 6 **DSR No:** 5046-0.10 **Disaster No:** NC2004-1-FS
Applicant: USDA Forest Service - Pisgah National Forest	**County:** Transylvania	**State:** NC	**Inspection Date:** 01/20/2005
Location of Damage (Route No., Name of Road, Mile Post and Map Grid) NFSR-5046, Lanning Ridge Rd., MP 0.10, MG 3B			**ADT:** 35



FEDERAL HIGHWAY ADMINISTRATION, Federal Lands Highway **DAMAGE SURVEY REPORT** *(Supplemental Sheet)* (Title 23, Federal-Aid System/Federal Domain)			**Sheet No:** 6 of 6 **DSR No:** 5046-0.10 **Disaster No:** NC2004-1-FS
Applicant: USDA Forest Service - Pisgah National Forest	**County:** Transylvania	**State:** NC	**Inspection Date:** 01/20/2005
Location of Damage (Route No., Name of Road, Mile Post and Map Grid) NFSR-5046, Lanning Ridge Rd., MP 0.10, MG 3B			**ADT:** 35