



United States  
Department of  
Agriculture

Forest  
Service

National Forests in North Carolina  
Supervisor's Office

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File Code: 1900

Date: July 1, 2005

Dear Interested Member of the Public:

I have signed the Decision Notice (DN) and Finding of No Significant Impact (FONSI) for the Bent Creek Stream Restoration Project Environmental Assessment (EA) within the Pisgah Ranger District, Buncombe County. The DN discusses in detail my decision and rationale for reaching it.

Copies of the DN and FONSI are enclosed. The May 2005 EA was slightly updated to address a few grammatical errors—the updated version dated June 2005 located on our web site at [www.cs.unca.edu/nfsnc/nepa/nepa.htm](http://www.cs.unca.edu/nfsnc/nepa/nepa.htm) or upon request serves as the final analysis my decision was based upon.

This decision is subject to appeal pursuant to 36 CFR 215.11. A written appeal, including attachments, must be postmarked or received within 45 days after the date this notice is published in *The Asheville Citizen-Times*. The appeal shall be sent to USDA, Forest Service, ATTN: Appeals Deciding Officer, 1720 Peachtree Rd, N.W., Suite 811 N, Atlanta, Georgia 30309-9102, within 45 days of the date of this legal notice. Appeals may be faxed to (404) 347-5401. Hand-delivered appeals must be received within normal business hours of 8:00 a.m. to 4:30 p.m. Appeals may also be mailed electronically in a common digital format to: **appeals-southern-regional-office@fs.fed.us**.

Those who meet requirements of 36 CFR 215.13 may appeal this decision. Appeals must meet content requirements of 36 CFR 215.14. This decision is not subject to appeal if the proposed action and opportunity to comment is published and no substantive comments expressing concerns or only supportive comments are received during the comment period [36 CFR 215.12(e)(1)].

For further information on this decision, contact Randy Burgess, District Ranger, Pisgah Ranger District, 1001 Pisgah Highway, Pisgah Forest, North Carolina 28768, Phone: 828-877-3265; or Michael Hutchins, Pisgah National Forest NEPA Coordinator, PO Box 128, Burnsville, North Carolina, 28714, Phone: 828-682-6146. Thank you for your continued interest in management of the Pisgah National Forest.

Sincerely,

*/s/ Monica J. Schwalbach*

MONICA J. SCHWALBACH  
Acting Forest Supervisor

Enclosure





United States  
Department of  
Agriculture

Forest  
Service

June 2005



# Decision Notice & Finding of No Significant Impact

## Bent Creek Stream Restoration Project

Pisgah Ranger District, Pisgah National Forest  
Buncombe County, North Carolina

Decision Notice &  
Finding of No Significant Impact  
**Bent Creek Stream Restoration Project**

USDA Forest Service  
Pisgah Ranger District, Pisgah National Forest  
Buncombe County, North Carolina

## Decision and Rationale for the Decision

### Decision

Based upon my review of the alternatives, I have decided to select **Alternative C** (Selected Alternative) of the Bent Creek Stream Restoration Project Environmental Assessment (EA) on the Pisgah Ranger District, Pisgah National Forest and within lands managed under a special use permit with the North Carolina Arboretum (Arboretum). The Selected Alternative will improve stream and watershed conditions for Bent Creek and will permit staff from the North Carolina Cooperative Extension Service – North Carolina State University Water Quality Group and the Arboretum to implement the following actions:

- ◇ Implement Priority 1 stream restoration consisting of cutting a new channel. The sinuous channel will use natural materials, such as large woody debris and boulders to raise its elevation to the floodplain (about 1-2 feet in height). Small areas in the floodplain will be modified to accept the new channel. Some existing vegetation, topsoil, and channel material will be salvaged and will be relocated where feasible;
- ◇ Use heavy machinery, such as an excavator, to cut a new sinuous, stable channel on top of the floodplain;
- ◇ Place up to 12 rock cross vanes, up to 12 single-arm rock vanes and/or logs, and up to 4 modified rock cross vanes or boulder clusters in the channel as necessary to redirect the stream's energy away from streambanks (rock vanes may include “j-hook” vanes);

- ◇ Construct depressional floodplain areas (vernal ponds) near the existing channel;
- ◇ Cut several standing trees from within the new channel and place them in the stream;
- ◇ Obtain a Nationwide permit from the North Carolina Department of Natural Resources and Army Corp of Engineers prior to excavation and placement of natural materials;
- ◇ Implement standard erosion control measures, such as silt fencing, straw bales, and matting prior to and during implementation (including buffering and protecting the small wetland);
- ◇ Implement instream activities outside of the trout rearing moratorium (October 15 – April 15), as specified by permitting agencies;
- ◇ Complete surveys for nesting migratory birds prior to cutting larger trees for placement in the stream should the larger trees be cut during spring nesting seasons;
- ◇ Have a Forest Service Archaeologist on-site during cutting of the new channel to monitor protection of heritage resources;
- ◇ Minimize quarried surge and rip-rap stone (large rock and boulders) and use existing channel material in the proposed channel to the greatest practical extent; and
- ◇ Use bioengineering (use of logs and smaller-sized boulders) and forestry planting techniques that utilize native riparian plant species to the greatest practical extent.

### Rationale

As stated in Section 1.4 of the EA, the purpose and need (objective) for the proposal is to:

- ◇ Restore about 1,200 feet of Bent Creek to a condition where it can have more immediate access to its floodplain to dissipate energy, minimize near bank stress, and reduce

sedimentation caused by lateral migration and incision.

I believe the Selected Alternative accomplishes the project's purpose and need.

Hydrologic measurements of the lower section of Bent Creek over the past three years have documented the stream is migrating laterally (up to 27 feet)—causing notable channel instability evidenced by excessive bank erosion and slumping along the main entrance road to the Arboretum. I believe my decision to allow actions that will change the existing pattern, dimension, and profile will improve water quality, and aquatic and botanical habitat of Bent Creek.

## Other Alternatives Considered

In addition to the Selected Alternative, I considered two other alternatives in detail: Alternative A – No-Action and Alternative B – Proposed Action. A comparison of these alternatives can be found in Section 2.4 of the EA.

### Alternative A – No Action

Alternative A – No Action would not have implemented the proposed actions. It serves as the control to measure effects of Alternatives B and C against, and is required by federal regulation [40 CFR 1502.14(d)]. I did not select this alternative because it would not have dissipated energy, minimized near bank stress, nor reduced sedimentation caused by lateral migration and incision. By not taking active management, sediment will continue to impair water quality streams. I believe active management is required at this time and at this location.

### Alternative B – Proposed Action

Alternative B – Proposed Action was similar to the Selected Alternative, except in two ways: 1) Alternative B did not propose minimizing quarried surge and rip-rap stone (large rock and boulders) nor using existing channel material in the proposed channel to the greatest practical extent; and 2) Alternative B did not propose

using bioengineering (use of logs and smaller-sized boulders) nor implementing forestry planting techniques utilizing native riparian plant species to the greatest practical extent.

I decided not to select this alternative because it did not address comments received by members of the public as well as the Selected Alternative does.

### Alternative Not Considered

Section 2.3 of the EA disclosed an alternative I considered but eliminated from detailed study (Priority 2 stream restoration). Since it was not considered in detail in the EA, it was not considered in the range of alternatives for my decision.

## Public Involvement

On August 6, 2004, the Pisgah Ranger District mailed a scoping letter to 298 individuals, organizations, and agencies for comment during a 30-day scoping period; nine comments were received and only one was from a member of the general public. On August 17, 2004, an open house was conducted at the North Carolina Arboretum in Asheville to provide additional information on the proposal, answer questions, and respond to comments interested members of the public may have had; seven people signed in at the meeting. Field trips to the project area occurred in November 2003 and November 2004 with state and federal agencies, and the proposal was reviewed and refined at each. The proposal was listed in the spring 2005 schedule of proposed actions, but was incorrectly listed under the Wayah Ranger District's section.

A 30-day Notice and Comment period of the pre-decisional EA was initiated on May 17, 2005, and was completed on June 16, 2005. One timely comment and one untimely comment were received during this period. Appendix D, attached to this decision notice, discloses the comments received and the Agency's response. Following review of comments received, the May 2005 EA was slightly updated to address a few grammatical errors—the updated version dated June 2005 located on our web site at

[www.cs.unca.edu/nfsnc/nepa/nepa.htm](http://www.cs.unca.edu/nfsnc/nepa/nepa.htm) serves as the final analysis my decision is based upon.

## Finding of No Significant Impact

After considering the environmental effects described in the EA, I have determined that these actions will not have a significant effect on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared. I base my finding on the following:

1. My finding of no significant environmental effects is not biased by the beneficial effects of the action (Section 3.1, Chapter 3).
2. There will be no significant effects on public health and safety (Section 2.2.3, Chapter 2).
3. There will be no significant effects on unique characteristics of the area, because there are no park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas in the project area, nor are there local law or requirements imposed for the protection of the environment. There is a small wetland delineated in the project area, but it will be buffered and protected during project implementation and its function will likely improve with this decision as surrounding wetland habitat is expected to improve (Section 1.7.2.7, Chapter 1).
4. The effects on the quality of the human environment are not likely to be highly controversial because there is no known scientific controversy over the impacts of the project (Section 3.1, Chapter 3).
5. We have considerable experience with the types of activities to be implemented. The effects analysis shows the effects are not uncertain, and do not involve unique or unknown risk (Section 1.7.2, Chapter 1 and Section 3.1, Chapter 3).
6. The action is not likely to establish a precedent for future actions with significant effects, because the project is site specific and effects are expected to remain localized and short-term (Section 1.7.2, Chapter 1 and Section 3.1, Chapter 3).
7. The cumulative impacts are not significant (Section 3.1.2, Chapter 3).
8. The action will have no effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (Section 1.7.2.3, Chapter 1). The action will also not cause loss or destruction of significant scientific, cultural, or historical resources (Section 1.7.2.3, Chapter 1). The project area has been previously surveyed for cultural resources and a Forest Service Archaeologist will be on-site to monitor protection of heritage resources during cutting of the new channel (Sections 2.2.2 and 2.2.3, Chapter 2).
9. The action will have no effect on any endangered or threatened species or their habitat that has been determined to be critical under the Endangered Species Act (Act) of 1973, (Sections 1.7.2.1, 1.7.2.2, and 1.7.2.6, Chapter 1 and Appendix A – Biological Evaluation). On June 21, 2005, the US Fish and Wildlife Service concurred with this assessment and determined “[t]he requirements of section 7(c) of the Act are fulfilled”.
10. The action will not violate Federal, State, and local laws or requirements for the protection of the environment. Applicable laws and regulations were considered in the EA. The action with its project-specific Forest Plan amendment is consistent with the Nantahala and Pisgah National Forests Land and Resource Management Plan Amendment 5 (Sections 1.2 and 1.4.1, Chapter 1).

## Administrative Review and Contacts

This decision is subject to appeal pursuant to 36 CFR 215.11. A written appeal, including attachments, must be postmarked or received within 45 days after the date this notice is published in *The Asheville Citizen-Times*. The appeal should be sent to USDA, Forest Service, ATTN: Appeals Deciding Officer, 1720 Peachtree Rd, N.W., Suite 811 N, Atlanta, Georgia 30309-9102, within 45 days of the date of this legal notice. Appeals may be faxed to (404) 347-5401. Hand-delivered appeals must be received within normal business hours of 8:00

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## Implementation Date

As per 36 CFR 215.9, if no appeal is received, implementation of this decision may occur on, but not before, the 5<sup>th</sup> business day following the close of the appeal-filing period (215.15). When an appeal is filed, implementation may occur on, but not before the 15<sup>th</sup> business day following the date of appeal disposition (36 CFR 215.2). If the decision is not subject to appeal as per 36 CFR 215.12(e)(1), the action may be implemented immediately after publication [36 CFR 215.9(c)(1)].

*/s/ Monica J Schwalbach*

*6/30/05*

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**MONICA J. SCHWALBACH**  
Acting Forest Supervisor  
National Forests in North Carolina

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**Date**

Concurred by:

*/s/ Bruce L Jewell*

*6/30/05*

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*for* **PETER J. ROUSSOPOULOS**  
Station Director  
Southern Research Station

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**Date**

**APPENDIX D – RESPONSE TO COMMENTS  
FOR THE  
BENT CREEK STREAM RESTORATION PROJECT  
ENVIRONMENTAL ASSESSMENT**

# **Bent Creek Stream Restoration Project**

Environmental Assessment

**Response to Comments**

## General Discussion

The formal 30-day Notice and Comment period for the Bent Creek Stream Restoration Project Environmental Assessment began May 16, 2005, and ended on June 15, 2005. One timely comment and one untimely comment were submitted during this period.

Charles Parris

### Comment 1-1:

*“Concerning the Bent Creek Restoration Project, I would like to offer my views. I believe that Alternative C would be the most beneficial for the habitat to be optimized. This plan would better the water flow and decrease the potential for heavy flooding in the future. The rock vanes would keep the flow away from the banks and decrease sedimentation washing into the French Broad. I also like this proposal due to the use of bioengineering techniques. The use of existing material and plant species incorporated into this plan would be best for the environment. The priority, of course, throughout this project, should be the water quality in the present and for the future.”*

### Response to Comment 1-1:

Comments are noted.

Brian Cole - USFWS

### Comment 2-1:

*“We prefer the implementation of Alternative C because of its increased use of bioengineering and minimization of the use of riprap. We strongly recommend using biodegradable geotextile fabric and native plants wherever possible to avoid the need to use riprap or other hard structures. We have the following questions and concerns regarding construction techniques: 1. Will existing aquatic species be relocated prior to water diversion into the new channel? 2. What type of biotechnical stream-bank stabilization treatments will be used? 3. We need more clarification on the need to riprap stream banks versus the use of biotechnical stabilization practices.”*

### Response to Comment 2-1:

The proposal intends to use biodegradable (capable of rotting or decomposing) coconut matting in the lower part of the channel, and both biodegradable and photodegradable (decomposes by UV light) matting on the higher part of the channel where velocity protection is less critical. The proposal also intends to plant with native materials for permanent planting, but may rely on species listed in the North Carolina Erosion Control Manual for temporary seeding, i.e. rye, millet.

Use of hard structures is needed to properly divert water to create a step pool or pool riffle complex beneficial to aquatic insects.

Insects and other aquatic species will not be relocated because the channel configuration cannot be changed quickly enough to keep species immersed in water. Instead the proposal will rely on upstream drift from a stable stream reach to repopulate the new stream reach as was done on the upper reach.

Bioengineering will rely upon live stakes, fascines, brush matting, and temporary and permanent seeding as appropriate.

Rip rap will not be used on stream banks to develop riffles unless the proposal runs out of natural cobbles; otherwise riffles will be constructed with riprap and cobbles, and gravel size material relocated for a veneer.