



Slabcamp and Stonecoal Stream Restoration Project

UNITED STATES
DEPARTMENT OF
AGRICULTURE

FOREST
SERVICE

SOUTHERN REGION

DANIEL BOONE
NATIONAL FOREST

KENTUCKY

Decision Memo

Cumberland Ranger District
Rowan County, Kentucky

August, 2006



*One of the buried clay tile lines used to move a small stream
and drain wetlands along Stonecoal Creek.*

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Decision

Restoration actions will be taken along approximately one mile of Slabcamp Creek and two miles of Stonecoal Creek. The project will result in the restoration of approximately 16,000 feet of previously altered stream channel. Measures will be taken to raise the water table over the riparian area and return regular flooding to the streamside forest. In addition, up to eight stream crossings on Forest Service Roads 1042, 1215, and 1303 will be modified or eliminated to accommodate the passage of aquatic organisms. The majority of work will take place within the Riparian Corridor Prescription Area, described by pages 3-9-16 in the Forest Plan.

The actual restoration of Slabcamp and Stonecoal Creeks, along with associated wetlands, will be accomplished by using heavy equipment such as dozers and excavators. Restoration actions will involve moving streams to return meanders, riffles, and pools, re-contouring ditches, collapsing and removing buried drain lines, seeding and planting. A path varying in width from 12 to 60 feet will be cleared for establishing the stream channels. Live and dead trees that are in the designed path of the restored stream will be felled and used to improve in-stream habitat or removed. Small naturally appearing wetlands of various sizes and depths will be shaped along the streams. These wetlands, some of which will be directly connected and others that will be separated and only connected during flood events, will play a vital role in filtering sediments and nutrients, reducing flood levels, and providing habitat diversity.

Currently suitable Indiana bat roost trees will only be felled between October 15 and March 31. A majority of these felled trees will be placed in the restored stream channel and restored wetlands for woody debris. Portions of the old stream channel will be modified with soil and woody debris to prevent the newly restored stream from returning to the channel, and to form a series of small wetlands.

Construction work will be completed during dry periods, and measures such as staged construction, installation of silt fences and straw bales, and seeding with wheat will be used to reduce erosion. Disturbed areas will be stabilized with native grasses such as wild rye and cane, shrubs such as alder and willow, and trees including sweet gum and river birch.

Actions will be taken to reduce damage that could be caused by illegal OHV use and unauthorized camping. Signs will be placed at possible access points to better inform the public of unauthorized activities. Trees and shrubs will be planted on exposed soils. Logs will be placed within and along restored streams and wetlands, boulders and logs will be placed on more level areas, and temporary access routes will be blocked with logs, trees, and wetlands.

Purpose of and Need for the Decision

The Forest Service plans to restore portions of Slabcamp and Stonecoal Creeks on National Forest System land to benefit habitat for fish and wildlife, aquatic organisms (i.e. mussels, reddsides, darters, invertebrates, smallmouth bass, and trout), improve water quality, and reduce erosion, and downstream flooding. This project will help

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implement direction contained in the Land and Resource Management Plan for the Daniel Boone National Forest, namely to “Manage and/or restore watersheds to ensure the quality and quantity of water necessary to protect ecological functions, aquatic species and habitats, and support designated beneficial uses,” and to “Manage in stream flows and water levels to protect stream processes, aquatic and riparian habitats and communities, and recreation and aesthetic values.” (DBNF Forest Plan page 2-12).

Sections of Slabcamp and Stonecoal Creeks were straightened and channeled in the past, an action commonly taken to expand and improve fields in mountainous areas for agriculture. Several sections of these creeks were moved over to the base of the mountains and these altered sections have since eroded down to bedrock. The deep channels maintain a low water table, keep waters from flowing over the riparian area, and prevent wetlands from forming. Because the riparian area remains well drained from historic agricultural actions, vegetation typically found in wet soils is uncommon. The straightened streams contain few pools, and these remnant pools are narrow and shallow. Riffles are uncommon, and the riffles present are often imbedded with fine-grained sediment, which provides poor habitat for aquatic life.

Steep eroding banks adjoin the stream sections moved years ago, clouding the waters with silt and clay sediment after heavy rains. A portion of Slabcamp Creek has three channels, where water flows downhill in the path of abandoned roadbeds. The movement of aquatic organisms up and down stream, both in the main creek and their tributaries, is now restricted in a number of places, particularly at road crossings.

Undoubtedly, most people who walk along Slabcamp or Stonecoal Creek would find that the streams and forest appear natural, and may not notice the need for restoration. Trees growing along the stream now mask straightened channels that flow along the toe of the hills. Deep pools that support game fish are not present. Smaller streams disappear underground, being carried in culverts, old wooden boxes, rock channels, and clay drain tiles laid in the early 1900’s, prior to becoming part of the Daniel Boone National Forest.

The historic path of Slabcamp and Stonecoal Creeks would have been to meander across the valley. Along their course, deep pools, clean gravel-based riffles, and wetlands would have been found. The streams would overtop low banks and spread out onto a wide floodplain after a hard rain, replenishing forest nutrients and ephemeral wetlands teeming with amphibians and crustaceans. Trees adapted to living in wet soils such as sweet gum, willow, red maple, and pin oak would have grown along the banks and in the riparian area.

Restoring Slabcamp Creek, Stonecoal Creek, and their tributaries to a more natural condition will help return bends, pools, riffles, native vegetation, and wetlands along sections altered by human activities. In addition, bank erosion believed to be the main source of fine grain sediment in the watershed will be reduced significantly.

The project will return a more natural and historic flood pattern to the streams. Waters will disperse and flow gradually over the riparian area in flood events rather than rushing

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down deep and narrow channels. Whereas the straightened ditch-like channels forced against the mountain side are causing much erosion, the restored creeks will meander over the valley floor at a lazy speed and will contain leaves and branches for the benefit of aquatic life. The downstream reaches of the stream now contain eight-foot deep channels more than 20-feet wide, running on solid bedrock. The restored creek in these areas may be less than ten-feet wide with bankfull depths less than two-feet deep flowing naturally over gravels. In the middle sections an unbranched section of stream channels could be constructed, and these may be less than five-feet wide, and less than one-foot deep. There may be only a series of small channels (on the order of one-foot wide) in the upper portions of the watershed, with most of the flow occurring through a zone of saturated soils forming sinuous, wide, wet-meadow and shrub wetlands.

Rationale for Categorical Exclusion Under the National Environmental Policy Act (NEPA)

Based on the analysis I have reviewed in the project file and the rationale described below, I have determined that this is an action with no associated extraordinary circumstances, which have a significant effect on the human environment.

The Chief of the Forest Service has determined, based on a history of implementing similar activities, that this type of action normally does not individually or cumulatively have a significant effect on the quality of the human environment and therefore, may be categorically excluded from documentation in an environmental impact statement or an environmental assessment.

This rationale is derived from the final directive by the Forest Service, USDA No. 1909.15-2004, Effective July 06, 2004; Section 30.3.

A proposed action may be categorically excluded from further analysis and documentation in an environmental impact statement or environmental assessment only if there are no extraordinary circumstances related to the proposed action and if:

- a. The proposed action is within one of the categories in the Department of Agriculture (USDA) NEPA policies and procedures in 7 CFR part 1b, or
- b. The proposed action is within a category listed in section 31.1b or 31.2

The mere presence of one or more of these resource conditions does not preclude use of a categorical exclusion. It is the degree of the potential effect of a proposed action on these resource conditions that determines whether extraordinary circumstances exist.

I have determined that this action is within the following category: FSH 1909.15, chapter 30, section 31.2, category 6 – “Timber stand or wildlife habitat improvement activities that do not require more than one mile of low standard road construction (Service level D, FSH 7709.56).”

I have considered the following resource conditions in my determination of the presence of extraordinary circumstances and whether the extraordinary circumstances that are related to the proposed action warrant further analysis and documentation in an environmental assessment or an environmental impact statement:

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A. Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species: Federally listed threatened or endangered species may occur or have the potential to occur in the project area. Forest Service Sensitive species may occur or have the potential to occur in the project area. The potential effects of this project on each of these species were analyzed in a biological assessment/evaluation (BAE) prepared by a qualified professional wildlife biologist. This report found that the project will have no effect or is not likely to adversely affect federally listed species, and will have no impact, beneficial impact, or may impact individuals but is not likely to cause a trend to federal listing or a loss of viability for Forest Service sensitive species.

B. Flood plains, wetlands, or municipal watersheds: This project is designed to restore and improve the function of floodplains and wetlands, and will improve the water quality flowing into Cave Run Lake, a municipal watershed.

C. Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas: This project does not occur in such named congressionally designated areas.

D. Inventoried roadless areas: The project does not take place in designated roadless areas.

E. Research natural areas: The project does not occur in a research natural area.

F. American Indian and Alaska Native religious or cultural sites: Based upon interaction with tribal officials and review of existing survey records, the project will not take place in any religious or cultural sites

G. Archaeological sites, or historic properties or areas: The Forest Service determined that the project will not affect Cultural Resources. A letter and Archaeological Survey Report documenting this finding was mailed to the State Historic Preservation Office for concurrence. The State Historic Preservation Officer reviewed the letter and provided written concurrence with the Forest Service recommendations contained in the report.

Public Involvement

The public was notified of the project in a number of ways. A letter describing the proposed project and inviting comment was mailed to individuals and organizations who have expressed interest in commenting on proposed projects within the Cumberland Ranger District on December 9, 2005. The proposed project was listed in the Schedule of Proposed Actions for the Daniel Boone National Forest, and was discussed with individuals belonging to the following organizations and agencies: Rowan County Wildlife Club, Wildlife Federation - 8th District, Eastern Kentucky PRIDE, Eastern Kentucky University Students, Ducks Unlimited (Cave Run Chapter), Morehead State University students, Trout Unlimited (Bluegrass Chapter), University of Louisville Stream Institute, US Army Corp of Engineers Fee in Lieu of Mitigation Board, and the Kentucky Department of Fish and Wildlife Resources.

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The project was reviewed by a team of Forest Service professionals with expertise in wildlife management, visual management, hydrology, forestry, recreation and archeology. The Forest Service received six written comments concerning the project. These comments were reviewed and a record of how these comments were considered can be found in a file maintained for this project in the Cumberland Ranger District Office.

Findings Required by Other Laws

Forest Plan Consistency (National Forest Management Act)

These actions are consistent with the Land and Resource Management Plan for the Daniel Boone National Forest (Forest Plan). Specifically, the project is consistent with these applicable forest-wide standards: DB-ENG-5, DB-WLF-8, DB-WLF-9, DB-WLF-10, DB-WLF-12. The following paragraphs provide my reasons for this finding, and show in detail how the project is consistent with applicable forest-wide standards and guidelines:

DB-VEG-27: Resource management activities that may affect soil and/or water quality must follow applicable Kentucky Rules and Regulations for Water Quality Control and Kentucky's Best Management Practices for Forestry (BMP) as a minimum to achieve soil and water quality objectives. When Forest Plan standards exceed Kentucky BMP's or water, Forest Plan standards will take precedence.

DB-WL-9: For non-vegetation management projects, currently suitable Indiana bat roost trees may be felled only from October 15 through March 31, if they are more than five miles from a significant bat caves (Indiana bat). If tree removal occurs at other times, the trees must be evaluated for current Indiana bat use, according to U.S. Fish and Wildlife Service protocol.

The project is consistent with these Forest Plan Goals:

Goal 1. Maintain a variety of life and recover native and desirable non-native populations that are rare and declining.

Goal 1.2. Create and maintain water sources with a mixture of temporary/seasonal and permanent shallow water pools throughout the Forest.

Goal 3. Manage and/or restore watersheds to ensure the quality and quantity of water necessary to protect ecological functions, aquatic species and habitats, and support designated beneficial uses.

Vegetation Manipulation (National Forest Management Act)

Because this project does not involve management practices associated with the manipulation of vegetation, the seven requirements of 36CFR 219.27(b) do not apply.

Endangered Species Act

See the above section "Rationale for Categorical Exclusion under NEPA" and the discussion of A. Federally listed threatened or endangered species or designated critical

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habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species.

Sensitive Species (Forest Service Manual 2670)

See the above section “Rationale for Categorical Exclusion under NEPA” and the discussion of A. Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species.

Clean Water Act

See the above section “Rationale for Categorical Exclusion under NEPA” and the discussion of B. Flood plains, wetlands, or municipal watersheds. All required Section 401 and 404 permits will be obtained prior to on the ground implementation of this project. The Project also complies with the Act by using Best Management Practices to ensure the protection of soil and water resources.

Wetlands (Executive Order 11990)

The project implements direction contained in Executive Order 11990 for Federal Agencies to “to preserve and enhance the natural and beneficial values of wetlands”. On Earth Day 2004, President Bush announced his Wetlands Initiative, which set a goal of moving beyond the Federal policy of “no net loss” of wetlands, and called for a new commitment to attain an overall increase in the quality and quantity of wetlands in America. To achieve this objective, President Bush set an aggressive goal to restore, improve, and protect at least three million acres of wetlands over the next five years. This project responds to the Initiative.

Floodplains (Executive Order 11988)

See the above section “Rationale for Categorical Exclusion under NEPA” and the discussion of B. Flood plains, wetlands, or municipal watersheds.

National Historic Preservation Act, Archaeological Resources protection Act, Native American Graves Protection and Repatriation Act

See the above section “Rationale for Categorical Exclusion under NEPA” and the discussion of F - American Indian and Alaska Native religious or cultural sites and G - Archaeological sites, or historic properties or areas.

Environmental Justice (Executive Order 12898)

This decision complies with this Act. Public involvement occurred for this project, the results of which I have considered in making this decision. Public involvement did not identify any adversely impacted local minority or low-income populations. This decision is not expected to adversely impact minority or low-income populations.

National Environmental Policy Act

This Act requires opportunity for public involvement and consideration and disclosure of potential environmental effects. The entirety of documentation for this decision supports compliance with this Act.

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Administrative Review or Appeal Opportunity

This decision is not subject to appeal pursuant to 36 CFR 215.12.

Implementation Date

Field activities relating to the survey and design of this project may begin immediately. Actual on the ground implementation of the project will begin following the receipt of all necessary permits relating to Sections 401 and 404 of the Clean Water Act (as administered by the US Army Corp of Engineers and the Commonwealth of Kentucky Division of Water).

Contact Person

For questions or additional information related to this decision, contact Tom Biebighauser, Wildlife Biologist, USDA Forest Service, 2375 KY Highway 801 South, Morehead, KY 40351, (606) 784-6428 ext. 102, tombiebighauser@fs.fed.us.



JAMES DAVID MANNER
District Ranger

9/11/06

Date