



United States
Department of
Agriculture

Forest
Service

National Forests
In North Carolina

160A Zillicoa Street
P.O. Box 2750
Asheville, N.C. 28802

File Code: 1950

Date: April 13, 2001

Dear Interested Citizen:

I have signed the Decision Notice and Finding of No Significant Impact (DN/FONSI) for the proposal submitted by the North Carolina Department of Transportation to widen and pave Bull Pen Road, State Road 1100, located on the Highlands Ranger District. Enclosed you will find a copy of the DN/FONSI and the Environmental Assessment. The DN/FONSI discusses in detail my decision and rationale for the selection of Alternative 3 along with modifying the alternative. Appendix D of the Environmental Assessment contains the Response to Comments and Issues.

This decision is subject to appeal pursuant to 36 CFR 215.7. A written notice of appeal must be postmarked or received within 45 days after the date of the legal notice of this decision is published in the Asheville Citizen Times newspaper. The Notice of appeal should be sent to: USDA Forest Service, Appeals Deciding Officer, 1720 Peachtree Road, N.W., Suite 876 S, Atlanta, GA 30367-9102.

Appeals must meet the content requirements of 36 CFR 215.14. For additional information on this decision or the appeals process, contact Ray Johns, USDA Forest Service, 160A Zillicoa Street, Asheville, North Carolina 28802, or phone (828) 257-4859.

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 day following the date of the appeal disposition.

Sincerely,

/s/ John F. Ramey

JOHN F. RAMEY
Forest Supervisor

Enclosures (2)



**DECISION NOTICE
AND
FINDING OF NO SIGNIFICANT IMPACT**

For the Proposal Submitted by the
North Carolina Department of Transportation
to
Widen and Pave Bull Pen Road – State Road 1100

USDA Forest Service
Nantahala National Forest
Highlands Ranger District
Jackson County, North Carolina

Decision and Reasons for the Decision

The Environmental Assessment (EA) documents the analysis of the proposal submitted by the North Carolina Department of Transportation (NCDOT) to widen and pave Bull Pen Road, State Road 1100, located on National Forest System lands in Jackson County, North Carolina. Based on the results of the analysis documented in the EA, it is my decision to implement Alternative 3 with modifications as the result of comments received during the review period.

Alternative 3 provides for the granting a 50 foot Public Road Easement to the North Carolina Department of Transportation (NCDOT) which allows for the widening, paving, limited curve straightening and replacement/installation of culverts on approximately 0.7 miles of Bull Pen Road.

I have also decided to modified this alternative from a paved width of 18 feet, with an average shoulder of 2 to 3 feet on either side, including the drainage ditch on the uphill side for a total width of 24 feet, excluding cuts and fills, to a paved width of 18 feet, with an approximate average road template width of 28 feet (excluding cut and fill slopes), not to exceed a template width of 31 feet. This will allow NCDOT adequate width to construct the road to meet safety requirements and at the same time provide for the protection of forest resources.

Where safety concerns warrant, wider shoulders and pull offs would be allowed where the roadbed width currently exists. Wherever possible, clearing limits and cut banks will be minimized by widening the road on the fill side. Prior to the start of reconstruction, the Forest Service and NCDOT will agree to the extent of ground disturbance by jointly slope staking (including off-set stakes) that portion of this project that takes place on National Forest land. Emphasis will be placed on minimizing impacts to visuals, watersheds, ground disturbance, and vegetation.

This actions is needed to provide for public safety along this gravel road and will reduce the amount of sediment that is entering the Chattooga River and its tributaries as noted in Sedimentation in the Chattooga River Watershed (1995), an unpublished report by Van Lear, Taylor, and Hansen. The report states, “The majority of the sedimentation problem (80.2% of observable sediment sources) were associated with open graveled and unsurfaced roads...”. Bull Pen Road was included in that study. The report recommends the closure of roads that are chronic producers of sediment (where feasible), and paving troublesome portions of roads that must remain open.

Alternative 3 as modified, with its associated mitigation measures, was selected because it will:

1. Improve public safety by allowing for limited straightening and widening of the road and the posting of speed limit signs,
2. Protect the visual quality and botanical resources in the area by minimizing the amount of disturbance to the uphill side of the road, and
3. Reduce the amount of sediment that is reaching streams within the project area.

Public Involvement

Public participation in this project began on February 17, 1999 with 95 letters sent to persons who have expressed interest in receiving information on projects in the project area. In addition, a legal notice appeared in *The Highlander* on February 23, 1999. The project has been listed in the Forest Schedule of Proposed Actions since that time which is sent to the Forest mailing list and is published on the Forest website. Initial comments were received until April 6. Twenty-four responses were received from this request for comments. Issues were identified based on public responses, internal concerns, and contact with government agencies. They include: safety, visual quality, aquatic resources and sedimentation, wilderness character of Ellicott Rock Wilderness and Wild and Scenic character of the Chattooga Wild and Scenic River, and *Lysimachia fraseri* (Fraser's Loosestrife). A complete synopsis of the issues considered and responses to other comments received are contained in the EA. The EA was mailed to all who had indicated an interest in the project and notice of the availability of the EA for comment was published in the *Highlander* on May 2, 2000 and the *Asheville Citizen Times* on May 5, 2000. Eleven additional comments were received; no new issues surfaced. The comments received throughout the process were used to shape the selected alternative.

Other Alternatives Considered

A no action alternative was considered in the analysis. This alternative is described and compared to Alternative 3 on pages 4 thru 8 of the EA.

Another action alternative was also considered. Alternative 2 was the original proposal from the NCDOT. This alternative is described and compared to Alternative 3 on pages 4 thru 8 of the EA.

Alternative 3 was developed by an interdisciplinary team in response to site specific issues identified during the internal and public scoping process. Review of the EA has failed to raise any additional issues and concerns regarding the proposed action, no extraordinary circumstances were identified, and no additional alternatives were developed.

Mitigation Measures

The following mitigation measures will be incorporated into this project:

1. Erosion control measures must be placed between the project area and all waters prior to soil disturbance. Install erosion control measures such as silt ditches, diversions, and temporary rock sediment dams to trap sediment in areas where runoff water is leaving the project site. These will be maintained in working order throughout project activities and until plant growth is established and stable enough to control runoff and erosion. Road ditch lines will not be routed toward streams, but into buffer areas or retention basins. Install permanent large stone outfalls below all road drainage (not stream) outlets to deter erosion and capture sediment.

2. Riparian areas and stream crossings will be seeded and mulched the same day of disturbance as an immediate site rehabilitation measure to improve water quality conditions for aquatic life. Riparian areas are defined as the land that is 100 feet on both sides of a perennial stream. Culverts must be installed in streams so that they are fish passable. Stream excavation will be restricted to the immediate vicinity of culverts. If concrete is used during stream culvert installation for headwall construction, a dry work area should be maintained to prevent direct contact between curing concrete and water.
3. Road reconstruction and revegetation will occur during the normal seeding season of April 1 to September 30 within the same year. This will facilitate success of erosion control measures and reduce the chance of sediment impacts to area waters.
4. Right-of-way vegetation clearing will be restricted to the edge of road construction within riparian areas to insure present and future benefits to the aquatic community. Power pole relocation will not be located between the existing road and Nicholson Licklog Creek within the riparian areas of the unnamed tributaries. This will minimize vegetation clearing and soil disturbance near streams.
5. If any rock blasting is required for road reconstruction, measures will be implemented to keep blasting debris out of project area waters.
6. Some individuals of Fraser's Loosetrife that cannot be avoided during reconstruction will be transplanted and cared for until after reconstruction is finished. These individuals will then be reintroduced to the new roadside, during periods of favorable weather under the direction of the Nantahala National Forest botanist. Areas identified for reintroduction will be seeded with hard fescue, red fescue, or preferably a native grass species.
7. Minimize slope on cut banks to the extent recommended by Coweeta Hydrologic Laboratory guidelines.
8. Re-plant cut banks where necessary with rhododendron, mountain laurel and or leucothoe (in addition to immediate seeding for soil stabilization).
9. Retain power line within road clearing limit; do not clear additional over story for power line relocation.
10. Minimize clearing limits at the top of the cut and the bottom of the fill. Allow some overstory to shade the road if feasible where trees don't cause an immediate safety hazard.
11. Instead of crowning road and ditching on both sides, use cross-slopes and ditch on one side to minimize needed shoulder width. Exceptions would be determined on the ground on a case-by-case basis.
12. Retain existing rock faces above road.
13. Widening will be focused on blind curves. Widen road to the lower side (using fill) to the extent possible and minimize disturbance of the upslope. Fully explore possibilities for borrow

pits in the area to minimize amount of new cut banks needed. In some places, there will not be 5 feet of shoulder on the outside of the road.

14. Minimize straightening of curves where feasible. Post speed limit signs to mitigate the potential increase in speed that could result from straightening and paving.
15. To reduce the risk for increased roadkill of wildlife, request that NCDOT limit the speed limit to 35-45 mph and install “animal crossing” signs at each end of the road to warn motorists of the potential for animals to cross the road.

Finding of No Significant Impact

The EA contains sufficient information to verify that implementation of this project will not have a significant effect. I have determined that these actions are not a major federal action, individually or cumulatively, and will not significantly affect the quality of the human environment. Therefore, an Environmental Impact Statement is not needed. This determination is based on the following factors (40 CFR 1508.27) concerning the context and intensity of the expected impacts:

1. Considering both beneficial and adverse impacts, there will be no significant effects as a result of the project.
2. Public health and safety are minimally affected by the proposed actions.
3. Wetlands and floodplains near the planned actions are not significantly affected.
4. Based on public participation, the effects on the quality of the human environment are not likely to be highly controversial. This refers to controversy over the effects as presented in the EA, rather than to the existence of opposition to the project itself.
5. The possible effects on the human environment are not highly uncertain and do not involve unique or unknown risks.
6. These actions do not set a precedent for other projects that may be implemented to meet the goals and objectives of the Nantahala/Pisgah Land and Resource Management Plan (Forest Plan), as amended.
7. There are no known significant cumulative effects between this project and other projects implemented or planned on areas separated from the affected area of this project beyond those evaluated in Chapter IV in the FEIS for the Forest Plan.
8. There will be no effects to any heritage resources listed in or eligible for inclusion in the National Register of Historic Places.
9. Proposed, Endangered, Threatened, or Sensitive Species will not be significantly affected.
10. The actions do not threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment (40 CFR 1508.27 (b) (10)).

11. For water quality management, Forest Plan standards will be used for this project. These standards are used to meet the performance standards of the North Carolina Forest Practice Guidelines Related to Water Quality. The project will be monitored to ensure these standards are met. If implementation on a specific site results in effects that are significantly higher than anticipated, because of unforeseen site factors or events, appropriate corrective measures will be considered and implemented. This project will fully comply with approved Forest Plan standards and the Clean Water Act.

Findings Required by Other Laws and Regulations

1. The actions of the project are consistent with management objectives described in Chapter III of the Forest Plan for Management Area 4A; and
2. The actions in Alternative 3 are consistent with the Forest Plan because mitigation measures incorporate Forest Plan standards along with site-specific mitigation measures. The project is feasible and reasonable, and it results in applying management practices that meet the Forest Plan's overall direction of protecting the environment while producing goods and services.

This decision is subject to appeal pursuant to 36 CFR 215. A written notice of appeal must be postmarked or received within 45 days after the date the legal notice of this decision is published in The Asheville Citizen Times newspaper. The notice of appeal should be sent to: USDA, Forest Service, Southern Region, ATTN: Appeals Deciding Officer, 1720 Peachtree Road, N.W., Suite 876 S, Atlanta, GA 30367-9102.

Appeals must meet the content requirements of 36 CFR 215.14. For further information on this decision, please contact Ray Johns at (828) 257-4859 or 160A Zillicoa Street, Asheville NC 28802.

If no appeal is received, implementation of this decision may occur on, but not before 5 business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

/s/ John F. Ramey

April 13, 2001

JOHN F. RAMEY
Forest Supervisor
National Forests in North Carolina

DATE

RESPONSE TO COMMENTS ON BULL PEN EA

We are concerned that the EA does not include an archeological survey. Why didn't the Forest Service wait to distribute this EA until it had completed all surveys, as it has in the past.

A final decision is never made until the archeological work is complete. The archeological survey is included in the Final EA (Appendix F). NCDOT had responsibility for conducting the archeological survey. Although we had received information on the findings from the archaeological survey, the final report was not complete in time for inclusion in the last mailing.

We are dismayed at the general wording of the document, particularly where important issues are addressed with conclusions and recommendations.

The wording is typical of a draft EA. The wording is more definite in the final EA, the Decision Notice, Finding of No Significant Impact, and the construction stipulations which will be made part of the permit. However, both the Forest Service and the NCDOT need to retain some latitude to address specific issues and situations as they arise during project implementation.

Some sections call for mitigation measures, but completely lack any teeth, the wording is not only weak, it actually invites a policy of disregard, non-enforcement or abuse of the measures described and recommended in the document.

Mitigation measures that are listed in the Decision Notice are fully implemented and enforced. They are placed in the construction stipulations and inspections are performed to ensure compliance. NCDOT has typically been very diligent in seeing that requirements and construction stipulations are met on projects involving the Forest Service.

Why does the EA not offer the alternative of widening (as little as possible), but not paving constricted sections of the road where passing vehicles such as school buses is a problem.

Widening without paving would not meet the objective of reducing the amount of sediment that reaches the streams.

The EA inadequately addresses the anticipated increase in traffic.

As with all roads in the area, traffic is increasing. How much increase will be due solely to paving this portion of Bull Pen Road can't realistically be estimated. Alternative 3 mitigates the potential increase in traffic and related problems by limiting widening and straightening. Because the majority of this long road is still

narrow, winding and gravel, increases in traffic should also be limited. The increased use of this road is one of the factors that necessitated this project.

The best scenario anticipated a reduced population of nearly 50% of *Lysimachia fraseri* for the affected sites. The Forest Service should, at the very least, attempt an experiment with a select few individuals before granting approval to NCDOT's Proposal.

Under Alternative 3, 50% of the population would not be affected. The Forest Botanist has transplanted individuals of *Lysimachia fraseri* in order to determine if this is a viable alternative. The individuals have responded well and are growing in the new location.

Mitigation measures do not allow for the use of herbicides within 30 horizontal feet of the waters that occur on the project site. We feel that herbicides should not be used along any roadsides that occur on National Forest land since they can easily be carried with runoff along ditches and through sediment traps into streams before they have a chance to break into harmless compounds (assuming that those used indeed do breakdown).

The issue of herbicide use was not included in this decision. The restriction of herbicide use within 30 horizontal feet of any water that occurs on a project site was a standard taken from the Forest Plan and is not applicable to this project as no herbicide use is planned. The mitigation measure has been removed to avoid confusion.

Strongly believe that the Forest Service has the duty to insist that DOT limit its modifications on non-Forest Service portions of Bull Pen Road to those that conform to Alternative 3's configuration and to make such limitations a condition of allowing construction to proceed on Forest Service property.

The Forest Service has no authority to set conditions for construction on private property.

A widened and straightened Bull Pen will greatly increase average speed absent an unprecedented level of enforcement.

Alternative 3 mitigates the potential for increased speed by limiting widening and straightening and by allowing for posting of speed limits (NCDOT will not post speed limits on unpaved roads).

While I am in favor of very limited and narrow paving with as little disruption of the existing flora and roadbed, I think that the addition of speed humps provides an added safety factor. I would urge you to strongly consider this addition to your recommendation, as well as limiting the alteration of the current road.

The speed humps described in the comment were utilized elsewhere in a subdivision and on a college campus, both of which are dissimilar to a rural through road. It is unlikely that the speed limit will be posted below 35 mph; the speed humps described were only safe with a speed of 24 mph. Installing them on this road would provide an additional safety hazard.

A 50-foot right-of-way is too much. Pave with least changes possible. DOT is noted for creating speedways which result in more sediment and road kills.

The standard right-of-way issued under permit to the NCDOT is 50-foot, however, the actual roadway is much less (see the description of Alternative 3). Construction stipulations made part of the permit that is issued to NCDOT further specify construction limits.

The impact of runoff from the road now puts a huge burden on the creeks in the area and ultimately on the Chattooga River itself. I wish another alternative had been offered (a fourth alternative) that would deal with the runoff from the road as it exists, with special measures taken to divert storm water under the road (rather than across it) by means of culverts.

Have products designed to be sprayed on roads to control dust and harden the surface been considered as an alternative to paving.

An alternative that deals with runoff from the road without paving has been in place for years and has not been effective. The project includes repair/replacement of 10 existing culverts and installation of 4 new culverts. While removing the water from the road through culverts does help reduce sediment movement, the primary source, “fines” in the gravel, would still be present. Paving the road would restrict the fines from moving.

A continual problem on this road has been the amount of maintenance it takes to keep it reasonably passable. Additional structures could be constructed and would prevent some sediment from reaching the stream, but would require more maintenance due to the higher amount of sediment movement from the unpaved road. Spraying the road for dust abatement would be very labor intensive. Hardening the surface in the weather conditions that we experience would create more maintenance problems.

To deal with the safety problem, blind curves could be marked as such and warning signs installed with discrete warning lights activated by sensors which detect an approaching vehicle on the other side of the curve.

This would not address the sediment problem, would be expensive to install and difficult to maintain, requiring constant attention to keep it from failing. Additional power lines would have to be installed or openings created to allow for

solar collectors. There would be an increased safety hazard during power outages and equipment failures as people would be accustomed to seeing a warning for an oncoming vehicle.

To decrease the likelihood of speeding, could the new drainage culverts and the replaced culverts be installed in such a way as to become a kind of speed bump? Or, if the road is paved, could broad-based dips be designed to slow traffic and divert water.

The use of culverts as speed bumps would destroy them. Broad based dips are generally used on gravel roads to remove water and prevent erosion of the roadbed. They would be used if needed on this road but probably couldn't be made deep enough to serve as a speed reducer without causing a significant safety problem of their own.

The rest of the area that is slated for paving (from the Pleasant Grove Church Road to the Fish Hatchery Road) should have been included in this EA.

The NCDOT has not submitted a proposal to the Forest Service for any additional paving on Bull Pen Road.

Power poles would have to be moved with both Alternative 2 and 3. Is it possible to bury the power line at the time of road building.

Power lines exceeding 33KW, as this one does, are generally not buried.

If paving is done, the roadsides should be re-vegetated with only native grasses and plants. Straw and hay carry seeds of invasive weeds and should not be used.

The botanical analysis recommended that the seeding be done with native seed. The limiting factor for this in the past has been availability of a viable local seed source. We specify the use of straw which does not contain invasive weed seed.

Afraid that paving Bull Pen would increase pollution.

Paving a road could cause a small increase in the amount of petroleum products available to reach the stream but, with implementation of the mitigation measures specified, an adequate filter strip would be available to prevent this.

If there is no evidence (of aquatic populations in Fowler Creek being suppressed as a result of impacts from the unpaved road), how can the Forest Service make such an assumption.

There is no quantitative baseline data regarding aquatic populations because there was a gravel road in place before the Forest Service acquired the property. The

statement made in the aquatic analysis is instead a professional fisheries biologist's judgement based on other areas containing gravel roads.

Regarding the benefits of a paved surface, there is little or no evidence to support this in the EA, and we know of no studies stating as much...1) Faster water runoff from an impervious surface must be channeled into ditches more quickly, where sediment can also be quickly picked up and routed, again quickly, into streams. 2) The installation of "sediment traps" is often useless, nullified when the traps fill with sediment which then easily enters the rapid flow that ultimately enters a stream... 3) Gravel/dirt roads filter chemical runoff (e.g. gas and oil) with a high degree of effectiveness... The aquatic analysis was quoted as stating, "However, observed past maintenance practices of scraping roadside ditches to drainage and stream culverts may out balance any road improvement."

The study by VanLear, Taylor and Hansen referenced in the Purpose and Need section (page 2) of this document describes the sediment problems existing within the Chattooga watershed and specifies paving troublesome sections of roads in particular as a recommended solution. The findings of that study can be visually verified after any substantial rain event. The existing culverts within this stretch of Bull Pen Road channel water into vegetated areas where it can be filtered, both for sediment and chemical runoff, prior to entering stream channels. Because of the faster movement of water associated with a paved road, additional culverts are being added to lessen the effect of water runoff at any one location. While we agree that maintenance of sediment traps is crucial to their effectiveness, ours are routinely maintained and are highly effective in reducing the amount of sediment entering streams. In checking with the author on the intent of the statement from the aquatic analysis quoted above, she indicated that it should have included the statement, "unless mitigation measure #1 (from the aquatic analysis) is implemented". Additional quantitative data will become available as a result of a study being conducted by Coweeta Hydrologic Laboratory on portions of this road and others in the Chattooga watershed.

Concerned that the "results from the 1998 surveys of Aquatic Management Indicate Species population trends...are not available for analysis yet"....The aquatic vertebrate samples were taken in Fowler Creek in 1988...Shouldn't another sampling be done, especially since the genus Gomphus was sampled, but not identified to species? The presence of the Grayson crayfish ostracod and/or the Whitewater crayfish ostracod cannot be determined with the data we have.

Current population data for MIS are now available for 1999 and have been statistically analyzed. Population data is also available for 2000. No change in aquatic MIS population trends were noted when the 1999 data was included. The 2000 data has not yet been statistically compiled for Fowler Creek and Nicholson Licklog Creek. We have current aquatic benthic macroinvertebrate samples from the Reference Stream Survey conducted in 2000. These samples have been sent to

the Utah Aquatic Macroinvertebrate Laboratory for identification and water quality analysis. These survey results will note the presence of both gomphus species as well as ostracods. These species, as stated in the aquatic analysis, have been undersampled and may be widespread in mountain province waters.