

PLAN AMENDMENT #8  
Decision Notice  
and  
Finding of no Significant Impact

**USDA Forest Service, R8  
George Washington and Jefferson National Forests  
Pedlar and Glenwood Ranger District  
Augusta County, Virginia**

**Proposed St. Mary's Aquatic Restoration Project**

I have reviewed the Environmental Assessment (EA) which discloses the environmental effects of adding limestone sand using a helicopter to headwater streams of St. Mary's River within St. Mary's Wilderness. The EA was prepared utilizing input from an interdisciplinary team and comments from the general public. The EA is available for public review at either the District Ranger's Office in Natural Bridge, VA or at the Supervisor's Office in Roanoke, VA.

The project area is located entirely within the St. Mary's Wilderness, Management Area (MA) 8, George Washington National Forest Final Revised Land and Resource Management Plan (LRMP). The wilderness is about 18 miles south of Staunton, Virginia in Augusta County.

**Decision**

Based on the results of the analysis documented in the EA, it is my decision to implement Alternative #2. This decision includes:

1. Transporting limestone sand by helicopter during low use times and seasons (i.e. mid-winter, midweek) over approximately a three-day period;
2. Prohibiting helicopter landings in the Wilderness;
3. Adding limestone sand to the following waters: Sugartree Branch (15 tons), Mine Bank Branch (10 tons), Bear Branch (10 tons), Chimney Branch (15 tons), Hogback Branch (20 tons) and the upper St. Mary's River (70 tons);
4. Allowing indigenous aquatic species to recolonize naturally, or reintroduced to their historic distribution if natural recolonization does not occur; and
5. Amending the Forest Plan to waive application of visual quality standard 8-32 (LRMP, p. 3-38) for this project only.

The following mitigation measures identified in the EA, page 5, are a part of this decision:

1. To ensure the safety of all public and personnel involved, the entire St. Mary's Wilderness will be closed with a "Closure Order" during the period that air operations are occurring.
2. To provide information to the public on this area closure, post signs at the two trailheads at least one month prior to when the liming is to begin.
3. Any vegetation that needs to be cut in relation to this project will be cut using non-mechanized equipment, such as cross-cut saws and axes. Stumps would be flush cut and covered with soil to reduce noticeability by wilderness visitors.

## Reasons for the Decision

The EA, pages 3-4, summarizes the significant issues identified during the scoping process. I have considered these issues in making my decision.

Alternative 2 was selected over No Action, Alternative 1, because:

1. One of the primary reasons for widespread public support for St. Mary's wilderness designation in 1984 was its outstanding aquatic resource. In my viewpoint, loss of the aquatic organisms in this river lowers the area's wilderness value as well. It's unacceptable to me to allow this aquatic value to disappear.
2. In this project, I believe there is no conflict within the Wilderness Act when it comes to being able to manage the area "to protect and preserve natural conditions". It is the natural condition of the outstanding aquatic value that I am trying to preserve. Given the native material (limestone) being used, and the short duration of the project, I feel that this project can proceed with the imprint of human work "substantially unnoticeable".

St. Mary's has served as a natural area for scientific study, but acidification of the stream demonstrates that humans have already disrupted or intervened in its natural processes, even though unintentionally. The fact that we have been scientifically studying the water chemistry, fish populations, and macroinvertebrate populations has helped us document the acidic changes over time. Thus, this wilderness stream cannot serve as an "undisturbed" control area for purposes of water chemistry monitoring. It can serve as a control for streams where no management impacts occur, except for air pollution. However, I believe that the potential for re-establishing the stream in its "non-impacted by human air pollution" state is more important than maintaining it as a control to measure further degradation.

I recognize that this project does not decrease air pollution at its source. However, this agency is involved with other projects that do address air pollution at its source. For example, we're involved in reviewing permits when new sources of air pollution are proposed or when existing industry permits are up for renewal. We review the proposed emissions and inform the state regulatory agency on how public land natural resources are affected. With this evidence, the state has the ability to seek even lower emissions if natural resource values are decreased significantly. Secondly, we review proposed changes to the air regulations within the state, and again provide comments on how proposed changes would affect natural resources on public lands. Thirdly, we're involved with the Southern Appalachian Mountains Initiative, developing strategies for reducing regional air pollution emissions in order to protect natural resources.

I also acknowledge that at some time in the future, additional liming may be needed to this same stream. Liming does not solve the problem. It serves to keep aquatic species alive until air pollution is decreased. The question is whether to allow continued loss of the aquatic biota while preserving the wilderness concept or ideal of "untrammeled", or compromise the wilderness ideal, to preserve the aquatic resource? I maintain that society has already compromised eastern wilderness values by allowing emissions to continue that lead to acid precipitation. In my judgement, liming will not further compromise the wilderness values of St. Mary's, but instead will help to preserve one of the values that led to its wilderness designation in the first place.

Though likely recurrent, liming will hopefully not be required over the long term if effective broader action is taken to reduce air pollution and acidification. I am taking the optimistic view that liming will be a temporary intervention. Liming will be a "holding action" to preserve the basic components of a functioning aquatic ecosystem pending reduction in acidification and returns of tolerable pH levels. The action has been shown

elsewhere on the Forest to be both effective and unobtrusive in preserving and reestablishing important aquatic ecosystem components in an acidified situation.

### **Other Alternatives Considered**

Alternative 1 (No Action): No aquatic ecosystem restoration would take place. The aquatic ecosystem would be allowed to respond to the human induced acid deposition over time without the additional human intervention of liming. The LRMP would not be amended.

An alternative that was considered but eliminated from detailed study was to restore the aquatic ecosystem by liming the streams using non-motorized means. This alternative would chemically prepare waters within the Wilderness for re-establishment of indigenous aquatic species by the addition of 140 tons of limestone sand. The limestone would be transported by mules or horses, which would require the construction of 5 miles of new trail and some reconstruction of existing trails within the wilderness to allow the animals to reach the locations where the limestone would be deposited. This alternative was eliminated from detailed study because of the long term impacts of the additional trail construction and the social impacts to wilderness visitors associated with the number of trips and length of time required to deposit the limestone sand.

Regulations permit amendments that may result in either significant or non-significant changes to the LRMP (36 CFR 219.10 (e)(f)). I have determined that this amendment is not significant because this action does not significantly alter the multiple-use goals and objectives for long-term land and resource management. This site-specific amendment serves to show that the LRMP is dynamic and responds to changing site specific conditions.

### **Public Involvement**

Scoping letters were sent to interested and affected agencies, organizations, and individuals on August 27, 1997, informing them of the proposed action and requesting their input. The significant issues were developed from this input, and responses to issues that could not be addressed in the analysis are contained in Appendix A in the EA (Part A, pp. 21-24). The pre-decisional EA was sent to interested and affected publics on September 1, 1998, and a legal notice was placed in the Roanoke Times on September 9, 1998, requesting public comment, per 36 CFR 215.6. Comments received during this 30 day comment period are addressed in Appendix A (Part B, pp. 24a-24f).

### **Finding of No Significant Impact (FONSI)**

I have decided that the selected alternative is not a major Federal action, individually or cumulatively, and will not significantly affect the quality of the human environment. Therefore an environmental impact statement will not be prepared. This determination is based on the following factors:

1. Mitigation measures identified in the EA will be implemented to avoid or minimize environmental effects. The physical and biological effects are limited to six dumping sites and the aquatic environment within the St. Mary's watershed. Based on the discussions in the EA, there are no known significant irreversible resource commitments or irretrievable loss of timber production, diversity, wilderness values, wildlife habitat, soil production, or water quality. The actions will not result in a significant effect because of the design of the project and the mitigation measures that will be used.
2. Public health and safety are not affected by the project because limestone is not known to be the cause of any health problems in humans.

3. Unique resources will be minimally affected within the project area because wilderness values will be disturbed for only about three days, with the disturbance occurring during midweek in winter months. The likelihood of individuals actually being within the wilderness during this time is small, particularly since there will be a closure order in place at the time. Wilderness can be experienced in other wildernesses located within 20 miles, and during the other 362 days when St. Mary's Wilderness will be available.
4. Based on public participation, the effects on the quality of the human environment are not likely to be highly controversial because past liming projects on the Forest have proven successful. Past projects have shown that a stream's pH has risen and the desired increase in aquatic organisms has occurred. Post-liming sediment samples collected above and below liming sites on Little Stoney Creek found that there were no differences in the amount of aluminum present in the stream bed.
5. There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks because limestone has been added to other area streams (Fridley Run and Little Stoney Creek), and monitoring has shown that adding limestone has resulted in an increase in the pH level of these streams.
6. The actions do not set a precedent for other projects that may have significant effects because future proposals to add limestone to this stream again will have to be analyzed at the time they are proposed, and more than likely would occur under the same parameters as this project in order to maintain wilderness values.
7. Based on the discussions in the EA, there are no known significant cumulative effects between this project and other projects implemented or planned on areas separated from the affected area, particularly with respect to wilderness values and water quality; because they are no other current or reasonably foreseeable future liming projects within designated wildernesses.
8. Heritage resources will not be affected since they aren't known to exist at the dumping sites within the project area.
9. No known threatened or endangered species (T&E) will be affected. The swamp pink is not known to exist at the dumping sites within the project area, and its downstream location will not be affected.
10. The actions do not threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment, as mitigation measures and LRMP standards were designed to be in compliance with the law. No known sensitive species will be affected, since sensitive species aren't known to exist within the project area.

### **Other Findings**

I find that the actions of Alternative 2 are consistent with the LRMP (as amended by this decision) for the George Washington National Forest, dated January 21, 1993, for the following reasons:

1. The actions of the project are consistent with the LRMP's management direction. The project area is located entirely within the St. Mary's Wilderness (MA 8). The St. Mary's Wilderness is to be administered to maintain or achieve a naturally functioning ecosystem. The desired future condition is for the wilderness to consist of ecosystems that are the result of natural succession and processes. Yet, the wilderness character is to be protected and perpetuated (LRMP, p. 3-35). The acid deposition problem in wildernesses was recognized in the LRMP. Standard 8-46 (LRMP, p. 3-40) allows for mitigation of acid deposition effects on a case by case basis.

2. The actions in this proposal are consistent with the LRMP because mitigation measures (EA, p. 5) for impacts will be applied. The project is feasible and reasonable, and it results in applying management practices that meet the Plan's overall direction of protecting the environment while producing goods and services.

The actions in Alternative 2 are in compliance with the Clean Water Act. State approved Best Management Practices (BMP's) will be met or exceeded in the project area. Soil and water values will be protected. In accordance with the State Water Quality Management Plan, BMPs are designed to protect water quality needs for designated beneficial uses identified in State water quality standards. There will be no violation of the Clean Water Act or state approved BMP's.

### Appeal Rights and Implementation

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 this notice is published in the Roanoke Times, Roanoke, Virginia. Appeals must be sent to: Chief, USDA Forest Service; Attn: Appeals Officer, NFS-3NW, P.O. Box 96090, Washington, DC 20090-6090. Appeals must meet content requirements of 36 CFR 215.14. For further information about this decision, contact Dawn Kirk, Glenwood and Pedlar Ranger Districts, P.O. Box 10, Natural Bridge, VA 24579, or call (540) 291-2188.

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.

  
ELIZABETH ESTILL  
Regional Forester

11/16/95  
DATE