



United States
Department of
Agriculture

Forest
Service

George Washington & Jefferson
National Forests

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540/265-5100

File Code: 1950/2320

Date: May 20, 2011

Route To:

Subject: St. Mary's Re-Liming

To: Interested Citizens

The Forest Service is proposing to add limestone sand using a helicopter to headwater streams of St. Mary's River within St. Mary's Wilderness. This would be a repeat of the project that was implemented in 1999 and 2005. Approximately 230 tons of limestone would be transported by helicopter during low use times (ie: mid-week) over a one to two day period. The helicopter base of operations would be located outside the Wilderness Area. No helicopter landings would occur in the Wilderness. Limestone sand would be added to the following waters: Sugartree Branch, Mine Bank Branch, Bear Branch, Chimney Branch, Hogback Branch, an unnamed tributary and the upper St. Mary's River. Following chemical treatment of the waters to raise the pH to acceptable levels for aquatic life, indigenous aquatic species will be allowed to recolonize naturally. No re-introduction was needed following the 1999 or 2005 limings nor is one included in this proposal. The proposal also includes amending the revised Forest Plan to waive application of a visual quality standard.

The project area is located within the St. Mary's Wilderness (Management Area 8, 1993 George Washington National Forest Final Revised Land and Resource Management Plan). The Wilderness is about 18 miles south of Staunton, Virginia in Augusta County. Please see the enclosed map for a more precise location of the proposed liming sites.

The proposed action is needed to meet the desired condition set in the Final Revised Land and Resource Management Plan for the George Washington National Forest (Forest Plan). 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 (Revised Plan, Management Area 8, page 3-35). The acid deposition problem in Wildernesses was recognized in the Forest Plan Revision. Plan Standard 8-46 (page 3-40) allows for mitigation of acid deposition effects on a case by case basis.

St. Mary's Wilderness is to be managed in accordance with the provisions of the the Wilderness Act of 1964 (Public Law 88-577); Virginia Wilderness Act of 1984 (Public Law 98-586); Virginia Wilderness Act of 1988 (Public Law 100-326); Forest Service Manual 2320, Wilderness Management; Forest Service Manual 5100, Fire Management; Forest Service Handbook 2309.19, Wilderness Management; Executive Orders; and Secretary of Agriculture Regulations. (Revised Plan, Standard 8-1, page 3-36).

A key national Wilderness management objective is to maintain Wilderness in such a manner that ecosystems are unaffected by human manipulation and influences so that plants and animals develop and respond to natural forces (FSM-2320.2 Wilderness Management).

Human-induced acid deposition was determining what species of aquatic life could exist in the St. Mary's Wilderness. Many indigenous aquatic species were extirpated from the streams. There was a concern that continued loss of components of the aquatic ecosystem severely threatened the long term biological integrity and stability of this Wilderness river. Therefore, St. Mary's River and five tributaries were limed in 1999, a treatment that was designed to last 5 years (see EA, 1998). Extensive chemical and biological monitoring has showed dramatic improvement following the limestone treatment (see EA, 2004). The river and six tributaries were re-limed in 2005. Chemical and biological monitoring following the 2005 liming showed similar response (see attached report).

There were several reasons the mass of limestone introduced in the St. Mary's Wilderness from the first to the second liming was increased from 140 to 230 tons. The original estimate was made to provide for a five year treatment period and it was thought that the increase would extend the treatment period to seven years. In addition, more limestone was added to compensate for transportation losses, etc. Exponential curves for the two dosage amounts reveal that diminishing returns occur after about three or four half-lives have passed (7 years). An estimated seven tons of limestone remained from the initial liming when the Wilderness streams were treated a second time. Using the decay model, an estimated seven tons will be left from the second liming in 2012. If a third liming treatment is done, we believe that any additional increase in mass of limestone over the 2005 amount will not significantly extend the treatment period to merit the increased costs, transportation, labor, Wilderness closure during liming or other associated issues.

There is a need to maintain the aquatic ecosystem health and biodiversity of the river within the St. Mary's Wilderness. This project would seek to maintain the positive steps that were gained from the 1999 and 2005 limings. If air quality does not improve and acidification does not decrease, the project could need to be repeated in 5 to 8 years to maintain the indigenous aquatic life in the St. Mary's Wilderness. While liming would be a temporary mitigation measure that does not reduce acid deposition, it would help maintain biological integrity until long term acid deposition solutions are found.

There is also a need to amend the Forest Plan prior to authorizing the liming project because the limestone treatment sites would not meet the Visual Quality Objective of preservation as stated in Plan Standard 8-32 (page 3-38). The amendment would waive application of the forest plan standard for this project only. Concurrent with the environmental analysis, the Forest is conducting a Minimum Requirements Decision Analysis to assure that this proposed activity is the minimum required to accomplish the proposal while protecting the Wilderness resource.

The environmental analysis for this project will utilize the public comments and issues received from this scoping to develop alternatives and guide the analysis. The Regional Forester will be the Deciding Official. A decision is expected by September of 2011. Responding to this scoping notice is your opportunity to become involved in this decision. If you have additional questions, please contact Dawn Kirk, at the Glenwood and Pedlar Ranger District, P.O. Box 10, Natural Bridge Station, VA, 24579-0010, or by phone at (540) 291-2188. Please be as specific as possible when responding, and submit your comments to us by June 24, 2011.

In accordance with 36 CFR 215.6(a)(3), individuals or organizations wishing to be eligible to appeal must provide the following information:

- 1) Your name and address.
- 2) Title of the Proposed Action.

3) Specific comments (215.2) on the proposed action, along with supporting reasons that the Responsible Official should consider in reaching a decision.

4) Your signature or other means of identification verification. For organizations, a signature or other means of identification verification must be provided for the individual authorized to represent your organization.

Comments must be postmarked or received within 30 days beginning the day after publication of this notice in the Roanoke Times. Oral or hand-delivered comments must be received within our normal business hours of 8:00 a.m. to 4:30 p.m. Comments may be mailed electronically to our office, in a common digital format, at:

comments-southern-georgewashington-jefferson-glenwoodpedlar@fs.fed.us

Thank you for your interest in the management of your National Forest.

/s/ Annie Downing
ANNIE DOWNING
District Ranger