



United States
Department of
Agriculture

Forest
Service

Mark Twain National Forest
Potosi – Fredericktown
Ranger District

Highway 8 W., P.O. Box 188
Potosi, Missouri 63664
(573) 438-5427 TTY (573) 438-4411
FAX (573) 438-2633

File Code: 1950

Date: May 3, 2004

Dear Neighbor,

INTRODUCTION

This scoping letter is being sent out to solicit comments on a proposal that would restore and maintain fen habitat at a location known locally as Barton Fen. The primary purpose of the proposal is to maintain the fen with prescribed burning to reduce woody vegetation, and noxious weeds. In addition, activities that would improve the natural water movement through the fen, and reduce dehydration, erosion and soil disturbance of the fen would occur. Some interpretation of the fen and its ecological importance would also be undertaken as part of this proposal.

LOCATION

The Barton Fen complex is located along Neal's Creek in Section 17, T34N, and R1W of the Viburnum East 7.5 min quadrangle approximately 3 miles southeast of Bixby on the Potosi/Fredericktown Ranger District, in Iron County. See attached map.

BACKGROUND

A fen is a marsh-like natural community characterized by a nearly constant supply of cold ground water. A fen occurs when water flows through limestone until encountering a resistant bedrock layer. The flow then follows this bedrock layer until surfacing along typically lower slopes in headwater ravines or along broad valleys.

Although Ozark fens make up a small part of the landscape, they are extremely diverse, and often support many rare plants and a few rare animals. Vegetation ranges from open sparse stands of grasses, low sedges, and marsh fern to dense, luxuriant sedge mats with a rich grass component, to dense shrub thickets. Since many fen sites are protected from temperature extremes by constant supplies of cold groundwater, fens serve as a refuge for organisms more frequently found far north of Missouri.

Two primary natural processes drive the health of fen natural communities: rainfall and fire. Barton Fen is influenced primarily by rainfall in the surrounding watershed, which affects the availability and movement of groundwater through the fen.

Historically, fire played an important role in maintaining the health and vigor of fens and their surrounding landscape. Fires directly influence the development of fire-adapted grass, sedge, herb groundcover, and soils in the fen. Soils are the key to absorbing and holding rainfall, and supplying groundwater to the fen.



FOREST PLAN DIRECTION

The 1986 Mark Twain National Forest Land and Resource Management Plan (Forest Plan), as amended, provides general guidance and direction for the Proposed Action. The Forest Plan recognizes Barton Fen as specialized habitat and designates it as a Special Area under Management Prescription 8.1 (FLRMP IV-195). This management prescription allows for activities that will protect or maintain the plant and animal communities typically associated with these Special Areas.

PURPOSE AND NEED

The natural diversity and structure of Barton Fen is currently being threatened. Past land use within and around the fen has led to dehydration of the fen. Water diversion structures and channelization of the fen that was implemented over a century ago, during the period when the fen was used for grazing or farmland, today continues to lead to disruption of natural ground and surface water flow through the fen. The unnatural dehydration of the fen is further increased by the illegal use of off-highway vehicles (OHV) in the fen, which causes trenching and erosion. Because of these past and current disturbances to the fen, the vegetation of the fen has changed. The drier fen soils created by water diversion and erosion have allowed many invasive plants and woody shrubs and trees to become established within the fen. These encroaching, undesirable plants absorb water from the fen and contribute to fen dehydration. The exclusion of fire within the fen also has allowed many of these invasive plants to gain a foothold in the fen.

PROPOSED ACTION

The proposed action is to implement activities that would reach each of the 4 goals listed below:

- 1) Minimize groundwater runoff, caused by unnatural trenching and rutting, that is leading to dehydration of the fen.
- 2) Remove exotic and invasive plants that threaten the native flora and are contributing to dehydration of the fen.
- 3) Restore a fire regime to the fen to increase diversity of fen species, while reducing the abundance of exotic and invasive plant species.
- 4) Increase public understanding of the value and uniqueness of Barton Fen.

In order to meet these four goals, the following activities are proposed:

- Removal of old water control ditches and structures, including stone water diversion structures that were historically built to drain the fen. Repair existing ruts and trenches by backfilling or leveling, as needed.
- Block illegal OHV access by using concrete barriers, guard rails, soil berms, gates, etc.
- Implement selective cutting and removal of undesirable plants (multiflora rose, honeysuckle, etc), and eastern red cedar within 200 feet of the fen. Undesirable shrubs and plants may be piled and burned. No herbicides would be used as part of this proposal.
- Conduct periodic prescribed burns, within and surrounding the fen. Landscape burning on about 840 acres would likely occur during the fall or winter, and burning of the fen itself (about 26 acres) would occur during the period of November through April, most likely during the spring.
- Develop interpretive signs for the fen and vernal pond. Create an interpretive foot trail extension from the proposed Ozark Trail, possibly using a boardwalk design to protect the fen from foot traffic.

DECISION TO BE MADE

The decision to be made is whether to implement the Barton Fen Restoration activities as proposed above. These activities would encompass approximately 866 acres in Iron County, Missouri, to reduce invasive plants and restore a natural vegetation and water flow pattern to the fen.

HOW TO COMMENT

Please send your comments to the address above by June 4, 2004. Comments received in response to this solicitation, including names and addresses of those who comment, will be considered part of the public record on this proposed action and will be available for public inspection.

If you have any questions or need more information, please contact Lynda Mills at the above address or phone number. Comments or requests for information may also be sent via the Internet to: comments-eastern-mark-twain-potosi@fs.fed.us

Sincerely,

Janet Fraley

JANET FRALEY
Acting District Ranger

Enclosure