



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
NASHVILLE, TENNESSEE 37243-0435

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**Via Electronic Submittal at NPS.gov**

Attn: Tom Blount, Chief of Resource Management  
Big South Fork National River and Recreation Area  
4564 Leatherwood Road  
Oneida, Tennessee 37841

Dear Mr. Blount:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the National Park Service (NPS) Big South Fork National River and Recreation Area (Big South Fork NRRA, or “the park”) *Contaminated Mine Drainage (CMD) Mitigation and Treatment Programmatic and Site Specific Draft Environmental Impact Statement (Draft EIS)* which proposes four alternatives for the mitigation and treatment of CMD within Big South Fork NRRA.<sup>1</sup> The purpose of the Draft EIS is to develop a programmatic approach and guidance for the Big South Fork NRRA to improve water quality through the remediation of CMD sites in a manner that protects resources, visitor use/ experience, and the human health and safety in Big South Fork NRRA.<sup>2</sup> CMD sites impact water quality by lowering pH and raising acidity, often increasing the concentration of metals and other contaminants in the water and sediment. Decreased water quality can adversely impact aquatic habitats and ecosystems in the Big South Fork River and its tributaries. While the EIS is programmatic and provides a management framework for the NPS to install and maintain remedial treatment systems throughout Big South Fork NRRA, eight specific CMD sites were selected for analysis as part of the Draft EIS. The eight sites selected for analysis in the Draft EIS are all in Kentucky, but the programmatic nature of the Draft EIS has future implications on Tennessee CMD sites.<sup>3</sup>

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<sup>1</sup> Big South Fork NRRA encompasses approximately 125,310 acres on the Cumberland Plateau in Tennessee and Kentucky, approximately 70 highway miles northwest of Knoxville, Tennessee in an area that was subject to extensive coal mining and timber harvesting from the 1800’s to the late 1960’s; the environmental impacts from the coal mining activities persist in the form of CMD.

<sup>2</sup> This EIS will provide Big South Fork NRRA a broad framework to remediate CMD locations throughout the Big South Fork NRRA, along with providing a framework for treatment at specific CMD sites identified in previous investigations.

<sup>3</sup> During the 1990s, NPS conducted field investigations to better understand and prioritize the degree of contaminated water flowing from CMD sites into Big South Fork NRRA surface waters. These studies consisted of water sampling at CMD sites to establish a baseline to determine water quality by using pH, dissolved oxygen, temperature, and metal concentrations. Water quality was then used to characterize CMD sites for remedial activities. These studies identified approximately 17 CMD locations situated on both the eastern and western sides of the Big South Fork River. In 2003, a draft Environmental

Actions considered in detail within the Draft EIS include:

- **Alternative 1: No Remediation.** Under the No Remediation alternative, current conditions and management strategies for treating CMD sites would remain unchanged. The park may periodically monitor these sites. If the No Remediation alternative is selected, CMD sites would continue to produce contaminated water and poor water quality would persist in many of the tributary streams, surface waters, and the Big South Fork River within the park. Under the No Remediation alternative, no action would be planned; NPS would have to initiate remediation on a case by case basis.
- **Alternative 2: Full Access (Proposed Action).** Under Alternative 2, the park would have full access to remediate potential CMD sites. As access would not be limited, most programmatic CMD sites (approximately 17 based on current information on the locations of CMD sites within Big South Fork NRRRA), could be accessed for remediation. Additionally, all 8 specific CMD sites could be remediated. NPS would clearly articulate the programmatic management framework to remediate CMD sites located within Big South Fork NRRRA and to ensure long-term protection of the park resources and values. NPS would ensure that park resources are protected during the construction of new access, maintained access, upgrades of existing access, and the CMD remedial approach and its necessary operations and maintenance (O&M) activities.
- **Alternative 3: Moderate Access (Preferred Alternative).** Under Alternative 3, NPS could use existing routes identified in the current General Management Plan (GMP) with the ability to widen routes for CMD construction and long-term maintenance, use and improve historic access routes, and construct up to 0.1 mile of new access road to sites, with the exception of hiking and mountain biking trails, which could not be utilized for access unless the trail is co-located on historic logging road, or mining road, excluding historic tramways. As access would be somewhat limited (where there are no limitations to access under Alternative 2), not all treatable CMD sites could be accessed for remediation under Alternative 3. An estimate of up to 8 programmatic CMD sites could be remediated under the programmatic implementation of Alternative 3 for the purposes of evaluation in this EIS. Additionally, only 5 of the specific CMD sites could be remediated. NPS would actively implement CMD technology using all suitable CMD technologies and O&M as required.
- **Alternative 4: Minimal Access.** Under Alternative 4, the NPS could use existing roads and larger access routes identified in the current GMP, such as horse trails and multiple use trails, and construct new access roads to sites that are less than 0.1 mile in length, but could not use historic access routes, such as former logging roads or tramways, or smaller access routes, such as hiking or mountain biking trails. Access improvement standards would be consistent with those described for Alternative 3. As access would be very limited, much more so than under

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Assessment (EA) was prepared that analyzed eight CMD locations (the Laurel Branch sites were combined as one site) from a Gannett Fleming, Inc. Phase III evaluation (Gannett Fleming, Inc. 1998). The draft EA included an analysis of two action alternatives for remediation and recommended various passive treatment and source control technologies. Based on the potential impacts to park resources, the draft EA was not completed, and the NPS decided to develop this EIS to address remedial activities at CMD sites.

Alternatives 2 or 3, most CMD sites could not be accessed for remediation. An estimate of up to 6 CMD sites could be remediated under the programmatic implementation of Alternative 4 for the purposes of evaluation in this EIS. Additionally, only 4 of the specific sites could be remediated. Under Alternative 4, the NPS would actively treat CMD using suitable remedial technologies that have a low, infrequent, and/or minor O&M, and would have a preference for passive remedial approaches.

TDEC has the following comments regarding the proposed action and its alternatives.

### **Cultural Resources**

Based on information provided in the Draft EIS, the proposed action and its alternatives have the potential to disturb significant archaeological resources at future CMD sites remediated in Tennessee. TDEC recommends that all future CMD locations to be disturbed by earthmoving activity be examined by a qualified professional archaeologist prior to project initiation.<sup>4</sup>

### **Solid Waste**

TDEC acknowledges the Resource Conservation and Recovery Act mining overburden exclusion (40 CFR 261.4(b)(3) and TDEC Division of Solid Waste Management (DSWM) Rule 0400-12-01-.02(d)(2)(iii)) that will be utilized during the remediation that follow a proposed action. For any and all wastes generated, TDEC recommends that the Final EIS reflect that they be evaluated (e.g., waste determinations) and managed in accordance with the Solid and Hazardous Wastes Rules and Regulations of the State (TDEC DSWM Rule 0400 Chapters 11 and 12, respectively) in addition to other applicable regulations (federal, state, e.g. SPCC rules) and previously described best management practices (Appendix F) and NPS management policies.

### **Water Resources**

Regardless of the alternative selected, future CMD projects in Tennessee are highly likely to require Aquatic Resource Alteration Permits (ARAP) and construction stormwater permits (CGP). TDEC will have to work with NPS on a site specific basis to determine how much access and disturbance is considered appropriate for each CMD site. TDEC recommends that the Final EIS include discussion relating to permits required for future CMD sites remediated based on the programmatic EIS. Further, if an active treatment system is selected as a remediation strategy for a CMD site there may be additional permitting required for the discharge from the active treatment system.<sup>5</sup>

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<sup>4</sup> This is a state-level review only and cannot be substituted for a federal agency Section 106 review/response. Additionally, a court order from Chancery Court must be obtained prior to the removal of any human graves. If human remains are encountered or accidentally uncovered by earthmoving activities, all activity within the immediate area must cease. The county coroner or medical examiner, a local law enforcement agency, and the state archaeologist's office should be notified at once (Tennessee Code Annotated 11-6-107d).

<sup>5</sup> Active Treatment would include chemical dosing (dosers), mixing and frequent O&M to operate the system.

TDEC appreciates the opportunity to comment on this Draft EIS. Please note that these comments are not indicative of approval or disapproval of the proposed action or its alternatives, nor should they be interpreted as an indication regarding future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,



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