



List of Restoration Project Proposals Submitted by Public in Response to the Dan River Coal Ash Release Scoping Document for Restoration Planning

Restoration is the goal of the Dan River Coal Ash Natural Resource Damage Assessment and Restoration (NRDAR) process. Accordingly, the Dan River Coal Ash Release Trustees¹ drafted the [Dan River Coal Ash Release Scoping Document for Restoration Planning](#) (Scoping Document) in October 2014 for public review and comment with the following goals: (1) presenting the Trustee's restoration project eligibility and evaluation criteria and preliminary restoration project concepts, and (2) soliciting input from members of the public and interested stakeholders on additional restoration activities with potential to meet the Trustee's restoration objectives. The list of projects proposed by the public in response to the Scoping Document is included in Table 1 (Dan River Coal Ash NRDAR Restoration Project Proposals from the Public). Table 1 is organized by county, and individual projects have not been ranked or prioritized. Input received from the public is also included in Appendix A. The Trustees have reviewed additional sources of information on existing restoration opportunities and priorities. For this list², refer to Table 2 (Dan River Coal Ash NRDAR Existing Restoration Project Information Sources). Projects and priorities identified in these sources will also be considered by the Trustees in restoration planning throughout the NRDAR process.

Working collaboratively with Duke Energy, the party responsible for the spill, the Trustees are focused on restoration early in the NRDAR process based on a mutual interest in integrating injury assessments with restoration planning. In the event that early restoration is pursued by Duke Energy, it is the Trustees' intent that any projects implemented satisfy the restoration criteria below. However, the ultimate determination of whether any early restoration projects implemented are sufficient is contingent upon completion of the injury assessment.

Criteria for Restoration Projects

Project selection criteria were outlined in the Scoping Document to allow Trustees to assess the potential restoration projects. Briefly, these criteria include, but are not limited to:

¹ The Department of the Interior (DOI) through the U.S. Fish and Wildlife Service (USFWS), the Commonwealth of Virginia through the Department of Environmental Quality (VADEQ), and the State of North Carolina through the NCDENR.

² The list of information sources reflects reports and existing information sources available to the Trustees currently and may not be exhaustive; additional sources are welcome and can be provided to the contacts listed below.

- **Nexus** – Does the project have a significant connection to the restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources or lost services?
- **Relevance** – Can the project effectively meet the Trustees’ restoration goals and objectives?
- **Cost Reasonableness** – What is the cost of the proposed restoration effort? Can the benefits be quantified? Is there an opportunity to share costs with other organizations and/or agencies?
- **Measurable** – Can a project deliver tangible and specific resource restoration results that are identifiable and measurable?
- **Efficacy** – How likely is it that the restoration project will be successful? What are the future maintenance needs for the project? Is the project vulnerable to natural or human-induced stresses following implementation?
- **Legality** – Does the restoration project comply with applicable/relevant Federal, State, and local laws and regulations? Does the project ensure protection of human health and safety?
- **Ecological leverage** – Will the restoration project promote other environmental benefits? Does the project avoid collateral injury to natural resources as a result of implementation? Is the project additional (e.g., not subject to an independent, prior obligation to perform the action)?
- **Compatibility** – Is the project compatible with the surrounding land use?

Restoration Alternatives

Through consideration of the criteria described above and the natural resources and associated services potentially impacted by the spill (habitat, surface water and sediment, aquatic biota, migratory birds, and human uses), the Trustees identified categories of potential restoration alternatives as follows:

- **Avoided Habitat Loss via Land Acquisition/Protection** – Acquire environmentally sensitive land vulnerable to conversion for public use or benefit.
- **Fish Passage** – Create or enhance opportunities for migratory fish to reach priority upstream habitats and restore genetic flow between populations.
- **Restoration of In-stream Habitats** – Create, restore, or enhance in-stream habitats to address existing water quality impairment and habitat degradation.
- **Restoration of Riparian and Wetland Habitats** – Create, restore, or enhance wetlands and riparian areas to address existing water quality impairment and habitat degradation.
- **Rare and Nongame Species Restoration** – Actions to improve integrity of populations and habitat for targeted species of conservation significance.
- **Improve quality of fishing experience** – Improve or create boating and fishing access.
- **Expand river-centered opportunities for public recreation and wildlife viewing** – Establish or expand recreational infrastructure at high priority recreational areas.

Timing of Project Selection

The Trustees have not established a schedule for selecting restoration projects because of uncertainties surrounding the time needed to complete the injury assessment (including studies in progress), evaluate

restoration options and projects against the injuries, and resolve the damage claim. The Trustees intend to release a Damage Assessment Plan for public review in early 2015 that documents the Trustees' basis for conducting a NRDAR, and provides additional detail regarding the proposed approach for determining and quantifying natural resource injuries and calculating the damages associated with injuries related to the spill. Our goal remains to begin restoration as soon as possible, either as a mutually agreeable early restoration effort or after the damage claim is resolved. Restoration projects will compensate the public for the loss of the natural resources and services from contamination in the Dan River resulting from the coal ash spill. In the event that early restoration actions are pursued, but are not sufficient to fully compensate the public's loss, the Trustees will revisit proposed restoration projects to fill the void.

We are grateful for the value that an informed and involved public brings to the process and to our decision-making.

More Information

www.fws.gov/raleigh/
www.fws.gov/northeast/virginiafield/news/news.html

If you have questions about the Dan River Coal Ash Spill NRDAR, please contact:

Sara Ward, U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
Phone: 919/856 4520 Ext. 30
Email: Sara_Ward@fws.gov,

or

Susan Lingenfelter, U.S. Fish and Wildlife Service
Virginia Ecological Services Field Office
Phone: 804-824-2415
Email: Susan_Lingenfelter@fws.gov

Table 1. Dan River Coal Ash NRDAR Restoration Project Proposals from the Public

County	Project Description	Avoided Habitat Loss / Land Protection	Fish Passage	Restoration of In-stream Habitats	Restoration of Riparian and Wetland Habitats	Rare and Nongame Species Restoration	Improve Quality of Fishing Experience	Expand River-Centered Public Recreation	No Specific Project Proposed	Other	Submitted By
Bedford (VA)	Genetic restoration of the Roanoke logperch population occupying Goose Creek, tributary to Roanoke River					x					Georgia Southern Univeristy, Virginia Tech, Conservation Fisheries Inc.
Caswell (NC)	Improve and dedicate public river access: Rte. 1526, Dix Rd (Dan R)						x	x			Roanoke River Basin Association
Caswell (NC)	Protect riparian corridor along Hogan's Creek - tributary to the Dan River	x									Piedmont Land Conservancy
Caswell (NC)	Protection of Highest Ranking Natural Heritage Sites: Cane Creek Slopes, Dan River/Blanch Levee and Slopes, Dan River/Milton Floodplains, Wolf Island Creek/Dan River Slopes	x									Piedmont Land Conservancy
Franklin (VA)	Removal of Power Dam on the Pigg River		x	x	x	x	x	x			Friends of Virginia Rivers
Halifax (VA)	Improve and dedicate public river access: Dan & Banister Confluence						x	x			Roanoke River Basin Association
Halifax (VA)	Improve and dedicate public river access: Rte 658, Melon Road (Paces)						x	x			Roanoke River Basin Association
Halifax (VA)	Improve and dedicate public river access: Rte 671, News Ferry Trail						x	x			Roanoke River Basin Association
Halifax (VA)	Improve and dedicate public river access: Rte 716, Wolf Trap Road (Bannister R)						x	x			Roanoke River Basin Association
Halifax (VA)	Improve and dedicate public river access: South Boston DGIF Access						x	x			Roanoke River Basin Association
Halifax (VA)	Improve and dedicate public river access: US-58						x	x			Roanoke River Basin Association
Halifax (VA)	Purchase conservation easements	x			x		x				Virginia Outdoor Foundation
Halifax (VA), Mecklenburg (VA)	Treatment of hydrilla in the Dan River, Staunton River, and upper end of Kerr Reservoir			x			x	x			USACE

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Halifax (VA)	Removal of sediment and silt from the boat ramp at Staunton River SP						x	x			USACE
Henry (VA)	Investments in land and facilities for a state park on the North and South Forks of the Mayo River in Henry County, VA	x					x	x			Conservation Fund
Henry (VA)	Ravenscroft stream restoration and watershed preservation Site (Ravenscroft)	x		x	x	x		x			Wildlands Engineering
Not specified	Early detection continuous water quality monitoring system on Dan River below Dan River Steam Station									x	City of Danville, VA
Not specified	Expand RRBA's UpperReach program to promote water-based recreational opportunities in the Roanoke River basin and to enhance access; educational outreach program and a regional, multi-state marketing campaign to promote recreational and tourism opportunities in the region.							x		x	Roanoke River Basin Association
Not specified	Independent water quality evaluation of the Dan River									x	City of Danville, VA
Not specified	Protection of 25 natural heritage conservation sites and five stream conservation units in the Dan River watershed	x									VA DCR, Natural Heritage Program
Not specified	Raw water impoundment to serve as emergency reserve (30-50 million gallon capacity)									x	City of Danville, VA
Pittsylvania (VA)	Abreu Grogan park improvements (including floating dock, signage kiosk, public restrooms, maps, and bank improvements)				x		x	x			City of Danville, VA
Pittsylvania (VA)	Bike Share Facilities providing rentals for for Riverwalk and trail users							x			City of Danville, VA

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Pittsylvania (VA)	City of Danville Riverwalk, remaining segments: 1) Sandy River Feature (paved trail, bridge over Sandy River and 300-ft. boardwalk); 2) Piedmont Drive/Robertson Bridge to Advance Street Feature; 3) Commerce to Advance Feature (connects Sandy River Feature and Piedmont Drive/Roberston Bridge to Advance Feature, and completes the contiguous trail along the north side of the Dan River).						x	x			City of Danville, VA
Pittsylvania (VA)	Creation of Riverfront Park - Downtown, 4.5 ac multiuse open space on the south bank of the Dan River, upstream of the Main Street bridge						x	x			City of Danville, VA
Pittsylvania (VA)	Improve and dedicate public river access: Birnam wood or Hwy 58 (Dan R)						x	x			Roanoke River Basin Association
Pittsylvania (VA)	Improve and dedicate public river access: Burford/Oak Ridge In. or Hwy 58 By-pass (Dan R)						x	x			Roanoke River Basin Association
Pittsylvania (VA)	Improve and dedicate public river access: Riverside Dr./Riverwalk Trail, City of Danville (Dan R)						x	x			Roanoke River Basin Association
Pittsylvania (VA)	North Bank Park /Trail Head: 4.6 acre property is located on the north bank of the river at the intersection of Main Street and River Street. The intended use of this property would be to serve as a trail head parking area, green space along the river and Riverwalk trail.						x	x			City of Danville, VA
Rockingham (NC)	Acquire Old Washington Mill Property for use as town park and river access in Mayodan						x	x			Piedmont Land Conservancy
Rockingham (NC)	Additional investments in facilities for the Mayo River State Park	x					x	x			Conservation Fund

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Rockingham (NC)	Expansion of the Mayo River State Park	x					x	x			Piedmont Land Conservancy, The Conservation Fund, Town of Mayodan, Troublesome Creek Outfitters, NC State Parks, and 68 members of the public
Rockingham (NC)	Improve and dedicate public river access: Acquire two additional tracts at confluence of Mayo and Dan Rivers for State Park (available for purchase)	x					x	x			Piedmont Land Conservancy
Rockingham (NC)	Improve and dedicate public river access: Rte. 880/Berry Hill (Dan R)						x	x			Roanoke River Basin Association
Rockingham (NC)	Improve and dedicate public river access: S. Fieldcrest Rd./Draper Landing (Dan R)						x	x			Roanoke River Basin Association
Rockingham (NC)	Protect High Priority Riparian Buffers identified by Dan River Watershed Plan (>40 tracts in plan near Eden) via riparian easements	x									Piedmont Land Conservancy
Rockingham (NC)	Protect Historical sites (Bartlett Canal, Spray Cotton Mill) with Roanoke looperch occurrences adjacent					x		x			Piedmont Land Conservancy
Rockingham (NC)	Protect Other High Priority Natural Heritage Sites: Bear Slide Bluff, Smith River Slopes, Jacob's Creek Slopes, Pleasantville Basic Forest, Smith River Bluffs	x									Piedmont Land Conservancy
Rockingham (NC)	Protection of highest ranking Natural Heritage Sites: Widemouth Creek Conglomerate, Rockhouse Creek Slopes, Fitzgerald Woodland, Miller/Coors, Rocky Branch Conglomerate	x									Piedmont Land Conservancy

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Rockingham (NC), Pittsylvania (VA), Halifax (VA), Mecklenberg (VA), Caswell (NC)	Establish a full-time waterkeeper for the Dan, from Eden, NC to Kerr Lake, NC in partnership with the Waterkeepers' Alliance									x	Roanoke River Basin Association
Stokes (NC)	Designate Dan River as a National Wild and Scenic River							x			Piedmont Land Conservancy
Stokes (NC)	Land acquisition adjacent to the Dan River between Danbury and Town Fork Creek confluence near Walnut Cove; Stokes Co Mountains-To-Sea Trail extension	x						x			Friends of Sauratown Mountains, Piedmont Land Conservancy, and 33 members of the public
Stokes (NC)	Improve and dedicate public river access: 7 Islands Bridge						x	x			Piedmont Land Conservancy
Stokes (NC)	Improve and dedicate public river access: NC 704 (Hart's access)						x	x			Piedmont Land Conservancy
Stokes (NC)	Improve and dedicate public river access: NC 89 / 268 intersection (Whitt's Access)	x						x			Friends of Sauratown Mountains, Piedmont Land Conservancy, and 27 members of the public
Stokes (NC)	Improve and dedicate public river access: Pine Hall Bridge						x	x			Piedmont Land Conservancy
Stokes (NC)	Improve and dedicate public river access: US 311						x	x			Piedmont Land Conservancy
Stokes (NC)	Improve and dedicate public river access: NC 6843 (in middle of "Dan River Gorge")						x	x			Piedmont Land Conservancy
Stokes (NC)	Improvements to facilities/infrastructure at Vade Mecum/Camp Sertoma			x				x			Piedmont Land Conservancy, Conservation Fund

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Stokes (NC)	Moore's Spring campground Sewer improvements			x				x			Friends of Sauratown Mountains, Friends of State Parks, Piedmont Land Conservancy and 25 members of the public
Stokes (NC)	Moratock Park Improvements (Boardwalk Riparian greenway trail; Upland trails; septic improvements; bank stability)			x	x			x			Piedmont Land Conservancy
Stokes (NC)	Permanently protect Sauratown Trail easements which connects Pilot Mountain to Hanging Rock through Sauratown Mountain	x						x			Piedmont Land Conservancy
Stokes (NC)	Protect Upper Dan River riparian corridor (from Flippin Road to NC 704, including the "Nationally Significant" Dan River Gorge) with trails and fishing/canoeing access	x					x	x			Piedmont Land Conservancy
Stokes (NC)	Protection of highest ranking Natural Heritage Sites: Dan River Bends, Dan River Cliffs, Dan River Hemlock, Dan River Shores, Flint Mill Hole, Little Dan River	x									Piedmont Land Conservancy
Stokes (NC), Patrick (VA)	Protect and augment Cardamine micranthera populations in the northern Dan River watershed (5-6 sites)	x				x					Piedmont Land Conservancy
Unspecified	Long-term monitoring of up to 5 years									x	Roanoke River Basin Association
General Comments:											
Not specified	General support of full range of viable projects related to all proposed restoration categories								x	x	NC Wildlife Resources Commission
Not specified	No specific project; hold leaders accountable.								x	x	Member of the Public

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Not specified	Support for restoration project concepts and evaluation criteria; recommend emphasis on the restoration and permanent protection of wetlands and forested riparian buffers (e.g., Conservation Reserve Enhancement Program style practices that accomplish both restoration and permanent land protection objectives)								x	x	The Nature Conservancy
Not specified	Consider privatizing some or all of this restoration work to obtain the most cost-effective compensation for the natural resource injuries								x	x	NC Environmental Restoration Association
Not specified	Agree with the restoration project concepts/categories; projects should be considered within the entire range of injured species, including outside the Dan River drainage basin. Projects with multiple benefits and larger landscape scales consisting of species habitat gains (eg. dam removals or projects in headwaters) should rank higher than other proposals									x	Friends of Virginia Rivers

Table 2. Dan River Coal Ash NRDAR Existing Restoration Project Information Sources

Source	Project Description
Dan River Watershed Restoration Plan For Agricultural Non-Point Sources of Pollution (2012)	Plan identified locations of needed BMP projects with goal of reducing fecal coliform bacteria, turbidity, soil erosion, nitrogen, and phosphorus loading in waters with known impairment in Stokes, Rockingham and Caswell counties
Eden Area Watershed Restoration Plan (2014)	Land conservation/preservation to protect water quality. Subwatersheds for focused preservation efforts: Town Creek, Matrimony Creek and Dry Creek, (all of priorities for BMP Implementation), and Middle Smith Creek, West Branch Cascade and Upper Smith Fall Creek
Eden Area Watershed Restoration Plan (2014)	Restoration actions to benefit riparian conditions and water quality including logging site management, cattle exclusion/fencing, riparian buffer establishment, wetland restoration, farm pond removal or repair, and stormwater BMPs. Priority watersheds identified for riparian habitat improvements include Matrimony Creek, Town Creek, Dry Creek (includes Eden, NC) based on existing sediment and bacteria sources and opportunities for enhancement
Feasibility Study for a State Park On the Mayo Rivers in Henry County and Mayo Scenic Rivers Study Henry County, Virginia (2007)	Study concludes that a state park on the Mayo Rivers in southwestern Henry County is feasible, and that there are two other viable park alternatives (priority tracts are identified); report also determined portions of the North and South Mayo Rivers in Henry County are good candidates for addition to the Virginia Scenic River system
Martinsville-Henry County Rivers & Trails Recreational Use Plan (2008)	Recreational use goals/opportunities for rivers and trails in Martinsville-Henry County, VA
NC Ecosystem Enhancement Program Roanoke River Basin Restoration Priorities (2009)	Plan identified for restoration and enhancement Targeted Local Watersheds (TLWs): several within the upper Dan River sub-basin above Danville, VA (Cataloging Unit 03010103); 62-square mile "Dan River - Middle" (03010103230040) TLW including an ~8-mile stretch of the mainstem Dan River and two priority subwatersheds (Town Creek and Dry Creek) within the Eden Area Watershed Plan; and Big Beaver Island Creek (03010103220010) TLW.
NC Wildlife Resources Commission Roanoke logperch (<i>Percina rex</i>) Cooperative Restoration Plan (June 2014 DRAFT)	Roanoke logperch demographic restoration. Candidate sites: for expansion (Mayo River above Madison and Dan River near Danbury) and/or augmentation (Smith River, Cascade Creek, and Wolf Island Creek).
Patrick County Comprehensive Economic Development Strategy Priority Projects (2013-2014)	Identifies priority recreational needs including walking/biking trail (along former Danville and Western Rail line) and Dan River Park trail expansion/enhancement and funding sources.
Patrick County Rivers and Trails Master Plan (2013)	Proposed initiatives outlined in the Rivers & Trails Master Plan in four categories: the Patrick Trail System, river and lake access development, accessibility improvements and signage

Table 2. Dan River Coal Ash NRDAR Existing Restoration Project Information Sources

Source	Project Description
Piedmont Land Conservancy Dan River Watershed Protection Plan (December 2006)	High value land conservation opportunities identified with parcel-level information from riparian corridor conservation design studies in Stokes and Rockingham Counties. Priorities include riparian areas throughout basin, Tributaries Near Fairy Stone State Park-Patrick County, Upper Peters Creek Watershed, Jessups Mill-Georges Mill Corridor, Dan River Bends/Hanging Rock Corridor, Mayo River Corridor and Tributaries, and Lick Fork Creek-Hogan's Creek Corridor
Piedmont Land Conservancy Dan River Watershed Protection Plan (December 2006)	Identifies priority areas for stream restoration, and the implementation of Agricultural Best Management Practices: Upper Dan River above Kibler Valley, Tributaries of the South Mayo near Stuart, Upper Smith River above Woolwine, tributaries to Dan River above Danbury, Middle Town Fork Creek West of Walnut Cove, Dan River near Pine Hall, Dan River Corridor from Madison to Eden and tribs, and Wolf Island Creek Watershed West of Ruffin.
Riparian Corridor Conservation Design Study For the Dan, Mayo and Smith Rivers in Rockingham County, NC (Hoover 2006)	GIS-based prioritization to select preservation (10) and restoration (3) sites along Dan, Mayo and Smith River Corridors
Smith / Mayo Rivers Watershed Implementation Plan (2013)	Identifies goals for improving water quality in impaired waters (part of Total Maximum Daily Load study for bacterial exceedances). BMP priorities focus on agricultural source reductions via installing livestock stream exclusion systems, improving pasture management, and cropland conversion to permanent vegetative cover or forest. Priority watersheds: South Mayo River, North Fork Mayo River, South Fork Mayo River, Blackberry Creek, Marrowbone Creek, Leatherwood Creek, and Smith River.
Virginia Department of Conservation and Recreation	Additional Best Management Practices on silvicultural and agricultural land (e.g., cover crops). Preliminary estimates = 65 practices; \$3.95 million. Multiple areas within Roanoke River basin.
Virginia Department of Conservation and Recreation	Additional Best Management Practices on silvicultural and agricultural land (e.g., cover crops). Preliminary estimates = 7 practices; \$183,400. Sites in Henry and Patrick Counties; within Dan River sub-basin.
Virginia Department of Conservation and Recreation	Livestock Exclusion Projects - remove livestock from stream and banks, creates buffers, provides upland treatment and off-site watering. Preliminary estimates = 27 practices; \$286,200. Multiple areas within Roanoke River basin.
Virginia Department of Conservation and Recreation	Livestock Exclusion Projects - remove livestock from stream and banks, creates buffers, provides upland treatment and off-site watering. Preliminary estimates = 27 practices; \$286,200. Sites in Pittsylvania, Halifax and Henry Counties; within Dan River sub-basin.
Virginia Department of Conservation and Recreation	Nutrient Management Planning Assistance - \$50,000/yr for plan writing on unpermitted Dairy and Beef operations or \$85,000/yr for a full-time specialist for the Dan & Roanoke basins.
Virginia Department of Conservation and Recreation	Shoreline erosion prevention and restoration - Burnt Chimney Road (Franklin; within Roanoke River basin).

APPENDIX A – Public input received in response to the Dan River Coal Ash Release Scoping Document for Restoration Planning

Note: The input provided in the following pages is organized by date received and has not been prioritized. Personally identifiable information of members of the public has been redacted to the extent possible for privacy purposes.



Ward, Sara <sara_ward@fws.gov>

FW: NRDA Proposal (UNCLASSIFIED)

Powell, Christopher C SAW <Christopher.C.Powell@usace.army.mil> Wed, Sep 3, 2014 at 4:01 PM
To: "Ward, Sara" <sara_ward@fws.gov>, "Hickok, Linda" <Linda.Hickok@duke-energy.com>
Cc: "Bartos, Myles" <Bartos.Myles@epa.gov>

Classification: UNCLASSIFIED
Caveats: NONE

Sara and others, please find our attached proposal for the NRDA due to the coal ash spill. Let me know if you have any questions or concerns. Thanks,

Chris Powell, CWB(r)
Conservation Biologist
USACE, John H. Kerr
1930 Mays Chapel Road
Boynton, VA 23917
434-738-6143 ext. 162

-----Original Message-----

From: Womack, Michael T SAW
Sent: Wednesday, September 03, 2014 11:25 AM
To: Powell, Christopher C SAW
Cc: Hosey, Michael L II SAW; Brown, Daniel S SAW; Opet, Charles A SAW; Dennis, Robert C SAW
Subject: NRDA Proposal (UNCLASSIFIED)
Importance: High

Classification: UNCLASSIFIED
Caveats: NONE

Chris,

Please forward to Sara and others as needed for consideration. Thanks.

Michael T. Womack
Operations Project Manager
John H. Kerr Reservoir

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

2 attachments

11/13/2014

DEPARTMENT OF THE INTERIOR Mail - FW: NRDA Proposal (UNCLASSIFIED)



NRDA Proposal Map.pdf
1303K



NRDA Proposal - USACE.pdf
702K



REPLY TO
ATTENTION OF:

**DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
JOHN H. KERR RESERVOIR
1930 MAYS CHAPEL ROAD
BOYDTON, VIRGINIA 23917-9725**

CESAW-OP-LK

September 3, 2014

MEMORANDUM FOR: U.S. Fish and Wildlife Service, Ms. Sara Ward

SUBJECT: Natural Resources Damage Assessment (NRDA) Restoration Project Proposal for Duke Energy Coal Ash Spill Impacting the Dan River and John H. Kerr Reservoir.

1. In response to the NRDA Trustees' request for restoration project proposals we have two suggested projects. Removal of silt and sediment from the boat ramp at Staunton River State Park and treatment of hydrilla in the Dan River, Staunton River, and upper end of Kerr Reservoir.
2. The boat ramp is located on the Staunton River side of the Park at the headwaters of John H. Kerr Reservoir (see enclosed map). The ramp is currently completely silted in and unusable. This limits recreational access to the Staunton River, Dan River and John H. Kerr Reservoir.
3. Removal of silt and sediment will benefit recreational opportunities along the Dan River and in the headwaters of the Reservoir where the coal ash has been detected. Recreational use in this area was adversely impacted by the spill when water quality warnings were posted.
4. The removal of silt and sediment will also help maintain the conservation pool of the Reservoir by offsetting possible loss of storage volume due to the movement of coal ash into the Reservoir. While only trace amounts of ash have been detected to date due to the amount ash released there is concern that ash will continue to move into the Reservoir reducing storage volume at a rate greater than would occur otherwise.
5. Hydrilla is a growing problem in the Reservoir and its watershed including the area impacted by the coal ash spill. Hydrilla impedes recreational use, out competes native vegetation, reduces water quality and adversely impacts fish populations. Control of hydrilla via herbicide treatments will reduce these adverse impacts.
6. Thank you for the opportunity to provide input into the NRDA process. If you have any questions please feel free to contact Mr. Chris Powell, Conservation Biologist at 434-738-6143 extension 162.

Michael T. Womack
Operations Project Manager
John H. Kerr Reservoir

Encl



Staunton River

Staunton River
State Park

Dan River

John H. Kerr Reservoir

Location of Silted in Ramp



Ward, Sara <sara_ward@fws.gov>

RE: [EXTERNAL] Dan River restoration scoping document available for public review and comment (UNCLASSIFIED)

2 messages

Powell, Christopher C SAW <Christopher.C.Powell@usace.army.mil>

Fri, Oct 3, 2014 at 5:08 PM

To: "Ward, Sara" <sara_ward@fws.gov>

Classification: UNCLASSIFIED
Caveats: NONE

Thanks Sara! Never heard anything back about the proposal we sent in on Sept 9th. Just want to make sure you all received it. Do we need to send it again as an official comment? Please let me know. Thanks,

Chris Powell, CWB(r)
Conservation Biologist
USACE, John H. Kerr
1930 Mays Chapel Road
Boydton, VA 23917
434-738-6143 ext. 162

-----Original Message-----

From: Ward, Sara [mailto:sara_ward@fws.gov]
Sent: Friday, October 03, 2014 11:24 AM
To: Powell, Christopher C SAW; Hosey, Michael L II SAW
Cc: Margaret Barbee
Subject: [EXTERNAL] Dan River restoration scoping document available for public review and comment

Hello,

Based on your interest in and/or input to the restoration planning process for the Dan River coal ash spill Natural Resource Damage Assessment and Restoration (NRDAR) process, we wanted to make you aware of the Trustees' recent release of the Dan River Scoping Document for Restoration Planning for public review and comment. Additional details, including a link to the document, are available at <http://www.fws.gov/raleigh/> and <http://www.fws.gov/northeast/virginiafield/news/news.html>. We welcome any input you may have on the document or potential restoration project activities that may address spill-related impacts to natural resources or services in the Dan River watershed area. Please feel free to share with other parties with interest in the Dan River Restoration Planning process. If you have any questions, please don't hesitate to contact me.

Take care, Sara

Sara E. Ward
U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
P.O. Box 33726
Raleigh, NC 27636-3726
Phone: 919-856-4520 Ext. 30, Fax: 919-856-4556
Email: Sara_Ward@fws.gov

Classification: UNCLASSIFIED
Caveats: NONE

Ward, Sara <sara_ward@fws.gov> Wed, Oct 15, 2014 at 6:28 PM
To: "Powell, Christopher C SAW" <Christopher.C.Powell@usace.army.mil>
Cc: Susan Lingenfelter <susan_lingenfelter@fws.gov>, Tom Augspurgen <tom_augspurgen@fws.gov>, Margaret Barbee <margaret_barbee@fws.gov>

Hi, Chris.

I apologize for my delayed response (I was on leave last week). The submittal that you provided on 9/3 via email includes most of this information that is requested in Section 5 of the Dan River scoping document (and would not need to be re-submitted since we have it in our records). It would be helpful, though, if you could provide details about the other types of information listed in Section 5 if available (e.g., cost estimates and timing/shovel readiness) for the hydrilla and ramp access projects you previously shared.

Feel free to give me a call if you would like to discuss or have any questions. Thanks for your early input to the process.

Take care, Sara

Sara E. Ward
U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
P.O. Box 33726
Raleigh, NC 27636-3726
Phone: 919-856-4520 Ext. 30, Fax: 919-856-4556
Email: Sara_Ward@fws.gov

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Ward, Sara <sara_ward@fws.gov>

Dan River restoration scoping document available for public review and comment

Ken Bridle <kbridle@piedmontland.org>
To: "Ward, Sara" <sara_ward@fws.gov>
Cc: "Martin, Keith (keith.martin@ncparks.gov)" <keith.martin@ncparks.gov>

Tue, Oct 7, 2014 at 3:15 PM

Hello Sara,

Thanks for sending the mitigation scoping document and providing me the opportunity to comment.

Given all the options for mitigation of the coal ash spill in Rockingham County I believe that the best mitigation project would be for Duke Energy to purchase the Mayo River Trust Fund properties. This simple action would allow the continued development of that important state park, in the same county as the coal ash spill, and only 10-12 miles from the Belews Creek coal ash pond in Stokes County.

The purchase of these floodplain and riverbank properties will allow the Mayo River State Park to access the river for over 10 miles. It will also put under state protection a significant aquatic habitat with at least 10 rare and listed aquatic species and adjacent terrestrial natural heritage features. This addition to the park would allow greater access and safety for the public to experience river based recreation and fishing, as well as typical state park camping, hiking and environmental education.

This purchase would also allow natural resource conservation, significant habitat protection, the possibility of restoration projects, Roanoke Logperch fishery augmentation and unrivaled amounts of human access compared to any other option for mitigation in the Dan River watershed. The purchase could happen quickly with only an investment of something less than 2 million dollars required for all the necessary purchases. No other project in the Dan River watershed, especially in Rockingham County, can provide as much ecological, economic and public benefit, regardless of the cost.

I have attached some documents that outline the listed species known from this river reach and a statement of the value of these properties to the park and also to the citizens of NC.

If you need any more information on this project please feel free to contact me.

Ken

Kenneth A. Bridle, Ph.D.

Piedmont Land Conservancy

P.O. Box 4025, Greensboro, NC 27404-4025

Stewardship Director

PLC Office 336-691-0088

Home office 336-591-5882



From: Ward, Sara [mailto:sara_ward@fws.gov]

Sent: Friday, October 03, 2014 11:20 AM

To: Kevin Redding; Ken Bridle

Cc: Margaret Barbee

Subject: Dan River restoration scoping document available for public review and comment

Hello,

[Quoted text hidden]

3 attachments



A List of Federal and State Listed Species of Mayo River State Park.docx
17K



statement of value of trust properties.doc
32K



trust properties map.pdf
1675K

A List of Federal and State Listed Species of Mayo River State Park, Rockingham County.

Common Name	Scientific Name	Federal Status	State Status	G-Rank	S-Rank
Mole Salamander	<i>Ambystoma talpoideum</i>	--	Special Concern	G5	S2S3
Riverweed Darter	<i>Etheostoma podostemone</i>	--	Special Concern	G4	S3
Roanoke Hog Sucker	<i>Hypentelium roanokense</i>	--	Significantly Rare	G4	S3
Bigeye Jumprock	<i>Moxostoma ariommum</i>	--	Threatened	G4	S1
Roanoke Logperch	<i>Percina rex</i>	Endangered	--	G1G2	S1
James Spinymussel	<i>Pleurobema collina</i>	Endangered	Endangered	G1	S1
Notched Rainbow	<i>Villosa constricta</i>	--	Special Concern	G3	S3
Eastern Creekshell	<i>Villosa delumbis</i>	--	Significantly Rare	G4	S3
Carolina Ladle Crayfish	<i>Cambarus davidi</i>	--	Significantly Rare	G3	S2S3
A mayfly	<i>Ephemerella bernerii</i>	--	Significantly Rare	G4	S3
Mountain River Cruiser	<i>Macromia margarita</i>	--	Significantly Rare	G3	S1S2
Edmund's Snaketail	<i>Ophiogomphus edmundo</i>	--	Significantly Rare	G1G2	S1
Southern Loosestrife	<i>Lysimachia tonsa</i>	--	Significantly Rare	G4	S2
Jacob's Ladder	<i>Polemonium reptans var. reptans</i>	--	Threatened	G5T5	S1
Virginia Cup-plant	<i>Silphium connatum</i>	--	Special Concern	G3G4Q	S2
	Basic Mesic Forest (Piedmont Subtype)	--	--	G3G4	S3S4
	Piedmont/Coastal Plain Heath Bluff	--	--	G3	S3

VALUE of TRUST PROPERTIES to MAYO RIVER STATE PARK

This statement is to illustrate the enormous value of the “Trust Properties” to the development of Mayo River State Park. These tracts are delineated on the first attachment labeled “trust properties map”.

The “Upper Trust Property” is listed on the Rockingham County GIS site as parcel number 101002, the owner of record is Karen Carter Martin, Trustee. The total acreage for the tract is 116.72 acres, and the property lays along 1.3 miles of river bank, on both sides of the river (comprising a total of 2.6 miles of riverbank), and also encompasses the last .3 mile of Fall Creek. This tract encompasses a section of the river bank (known as the Mayo Beach) that has been historically used as a public access. This section, in the vicinity of the Anglin Mill Rd Bridge over the Mayo, has class II and III whitewater runs, and is very popular among paddlers. Although the State Park system owns a very large tract surrounding the trust property, we are unable to develop the area by installing picnic or parking areas anywhere close by the river, as the river would naturally attract park visitors over on to private property (the trust property), and we would thus be inviting trespassing. Though the public does currently have access to get into the river to paddle, the landowners do not want anyone to use the river banks for any other activity, like fishing or picnicking. The reason for this is because of an extensive history of people coming to the area to engage in conduct that is disruptive to the peace, tranquility, and safety of the neighborhood. When law enforcement confronts these individuals, they almost always claim to be fishing, picnicking, or just sitting and enjoying the river. If this area were to become part of the state park, we could patrol the area frequently, control access, and greatly improve the quality of the experience of the legitimate users. Also, additional statutes would be in force under state park regulations that control visitor activities and prohibit disruptive and destructive behavior, as well as regulations that specifically protect the resource. Furthermore, the Commonwealth of Virginia owns the land across the northern border of the NC State Park boundary. A Virginia State Park area is planned there, and the goal is to be able to offer visitors hiking, paddling, and possibly camping access unfettered across the state line. The NC State Park system will be unable to provide adequate access to the river for park visitors without the ability to offer access at the Mayo Beach and along Fall Creek. Additionally, acquiring the Upper Trust would provide the public access to the Buffalo Creek tract, which is downstream, from the trust property on the west bank. Currently the Buffalo Creek tract is not accessible, though the addition of the trust property would allow visitors access to the tract by trail going downstream. The section of the Mayo River that is bordered by the trust properties is high quality water, as evidenced by the presence of a great many pollution-intolerant bio-indicators, including a number of threatened or rare species. Attached elsewhere in this information package are lists of special concern species and maps showing the general location along the river corridor where they can be found.

To date the Upper Trust Property has been surveyed, but because an impasse was reached in negotiations with the principles on the Lower Trust Property (Mayo Properties LLC),

no appraisal work has been done and no monetary values for the Upper Trust have been discussed between the Trust owners and NC State Parks.

The “Lower Trust Properties”, or the tracts associated with Mayo Properties LLC (for ease of communication, we refer to these tracts as the LLC tracts), lay on the east and west banks of the river and are listed in the Rockingham County GIS as parcel # 120925 (river right) and parcel # 123225Z1 (river left). The owner of record listed is Mayo Properties LLC, c/o Thomas Chandler PO Box 72 Alamance, NC 27201. The first parcel, on the west bank, comprises 168.33 acres, and it contains 3.2 miles of riverbank. The second parcel, on the east bank, comprises 185.98 acres and contains 2.8 miles of riverbank. The two tracts are situated across the river from each other. The first tract is longer and reaches further north, or upstream than the tract on the opposite bank. The two tracts end on the southern end almost directly across from the other. There are currently three tracts of land that are part of Mayo River State Park that are in close proximity to the Mayo River, but access to the river on these tract is blocked by these relatively thin strips of land. If the LLC tracts could be acquired, potential for public access areas along the Mayo River would be created in areas where it presently does not exist. To date there are three significant tracts of land that do reach the banks of the Mayo (two of which have no road access) which were funded by the EEP program. Because of this, no development can take place within 300 feet of flowing water, which blocks these tracts from having roadways and parking lots built as riverfront accesses for park users. Inclusion of the LLC tracts would not only allow access at the other tracts, it would allow access at tracts with less restrictive development parameters that would in turn allow for construction of park facilities to provide visitor services. The most notable example of significant benefits being gained by the access the LLC tract would afford to the river is at the large tract off of NC 770. This tract is transected by NC 770 and Pruitt Rd, about 1.7 miles from US 220, and is thus the most likely potential spot as the nucleus of Mayo River State Park – if access to the river could ever be gained. With access to the river, the Pruitt Rd tract might potentially be the location of our visitor center and a developed family campground, as well as being a base for hiking trails and paddling and fishing access. The LLC tracts would also form a contiguous land mass along the banks of the Mayo, allowing for extended hiking trails, enhanced access for anglers, and hopefully undeveloped back country camping that would be available only to walk-in and paddle-in campers. Additionally, the LLC tract on the east bank would allow access to the river at a park-owned tract just off of Nickel Plate Rd. This tract lays about halfway down the roughly 12 mile section between the Anglin Mill area and Mayodan. It is the only tract within that 12 mile section that is on the east side of the river. Gaining access there by acquiring the LLC property would not only prove to be a benefit to the public in terms of convenience, it would also prove to be a tactical advantage from a public safety standpoint in that it would allow access to emergency responders coming from the east, without having to drive up to Anglin Mill Rd, or down to Mayodan to cross a bridge, and then circle back upstream or downstream to reach an access point to get to the incident.





The Mayo Properties LLC tracts have been surveyed and appraised. The State of NC has made an offer to the Mayo Properties representatives, but the offer was met with a much

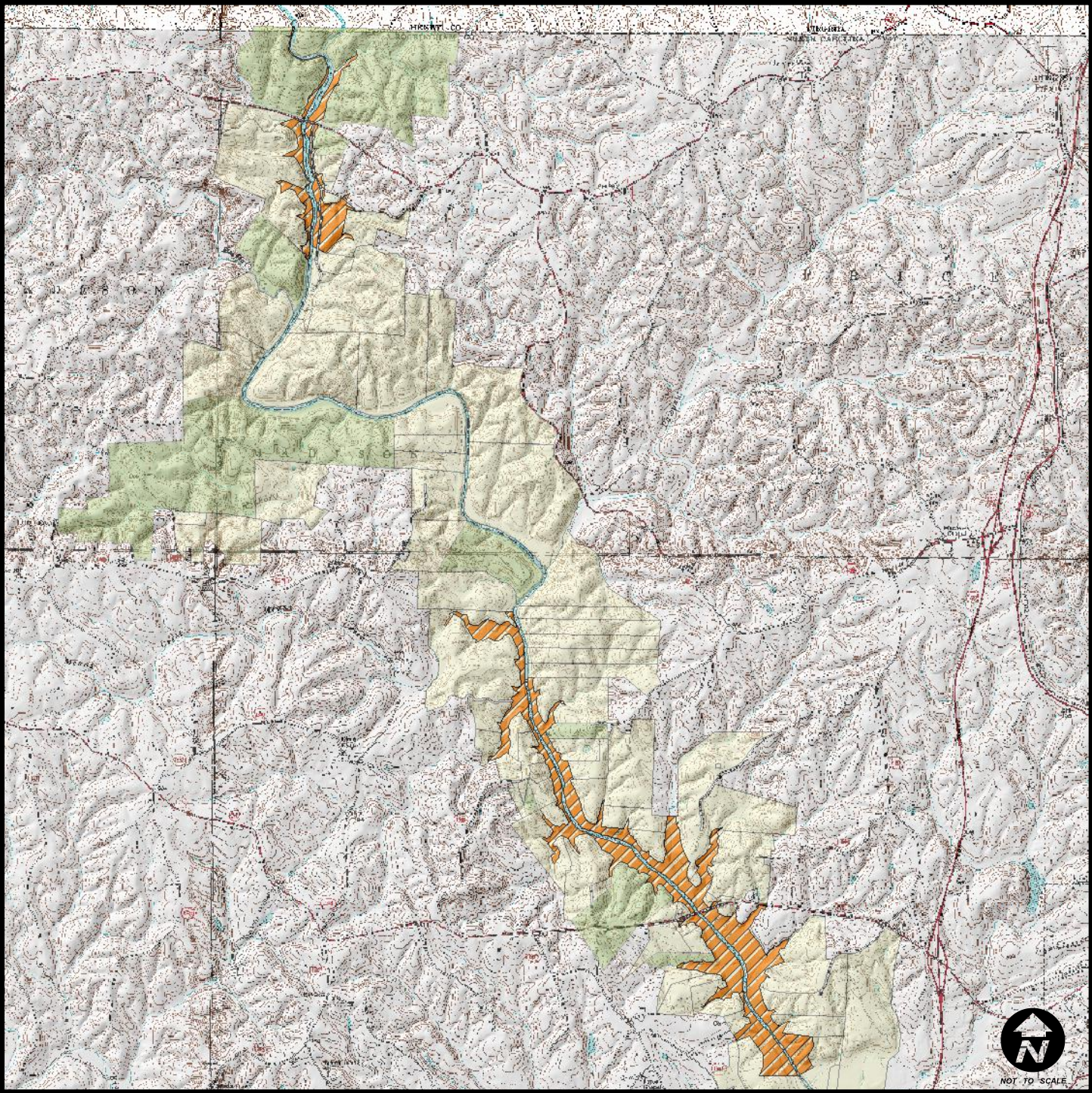
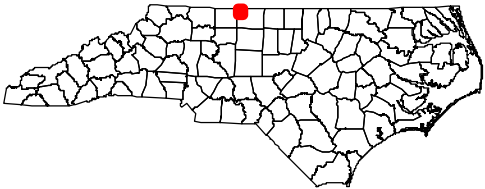
higher counter offer. The state's position is that it cannot pay above the fair market appraisal for the land. The landowner's position is that the land they own is so critical to the development of a state park, and that such a tremendous amount of benefit would come from the land being included into the park from both an environmental and economic standpoint, that the land is worth far more than the appraised fair market value. Representatives from the state met with the principles from the LLC (two of whom are also part of the Upper Trust group, and are related to the remainder of the Upper Trust group) to discuss what remedy they might find to solve the impasse to everyone's satisfaction, but were unable to do so. Several suggestions were made, including the possibility of a long term lease, or sale of the portions of the LLC tracts that are within the statutory floodplain. The LLC rejected the suggestions saying these remedies would satisfy the needs of the state and therefore weaken their bargaining position to get the figure they want for the sale of the land.

Mayo River State Park

DATE: JUNE 1, 2010

Legend

-  Subject
-  State Parks Unit
-  State Lake
-  Future Need



NOT TO SCALE

0 4,000 Feet



Ward, Sara <sara_ward@fws.gov>

Idea to fix the coal ash problem m

1 message

Mack Arrington [REDACTED]
To: sara_ward@fws.gov

Fri, Oct 10, 2014 at 9:05 AM

Hi Sara,

I would like to raise a concern over preventing future situations similar to the coal ash problem as well as the current situation.

As an executive and life coach with a Psychology background, I'd like to mention three "principles" to support my idea.

1. People change when something costs them enough
2. It takes leadership to address the problem
3. What gets measured gets done

The CEO of Duke Energy gets a high salary (\$929,167—more than \$75,000/month) and a multimillion dollar bonus each year (total package of \$6.5 million). It is also usual for the Senior Leadership Team to get substantial bonuses. Whether it's fair or not, they are the decision-makers ultimately responsible for everything that happens with Duke Energy.

If you want to see highly responsible attention paid to the coal ash and any other hazardous issue, consider garnishing the pay of the leadership team, and requiring at least 50% of their bonus money to pay for the cleanup. Their pay gets restored when the cleanup is done, the poisoned wells and city water supplies are addressed, and the measurable threat is at zero according to standards agreed upon by the damaged parties.

Duke Energy reports CEO Lynn Good's compensation at \$6.5M

http://www.bizjournals.com/charlotte/blog/power_city/2014/03/duke-energy-reports-ceo-lynn-good-s-compensation.html

Considering how long the threat of a coal ash spill has been there, it would be appropriate to note the dates of the first written concern about the coal ash ponds, and charge previous senior leadership from that time forward with neglect and include them to help pay the cleanup costs.

Considering that we know the negative health effects of exposure to hazardous materials might not surface until decades later, it would be appropriate to create a health fund to address any health-related problems 20-30 years into the future.

If an Insurance Company Won't Cover It, Do You Really Want to Do It?

One way to measure might be the response of the insurance companies to cover the risks of damage to environment and health. We are dealing with what the insurance industry would describe as a "low probability, high risk" situation. Even though the probability of damage might be low, there would be no way to really cover the amount of risk if the event occurred. For example, this is why you can't get insurance to cover a nuclear waste site: low probability of nuclear material leaching into the Eastern Aquifer and poisoning the water supply for the East coast, high risk that you could never pay for the damage if it happens.

What if you get the insurance companies to assess the threat and also ask them what they expect the impact on health to be down the road? The fact that you can't buy insurance for a given threat, or that you have to pay a higher premium for a higher risk, should be an indicator of how big the threat is. Note that I have seen no mention

of Duke Energy having insurance to cover any of the damage. This should tell us something.

Getitng to the Point

When we make the leaders personally responsible to pay the costs for their decisions, actions and omissions, and to measure up to higher standards to protect the people they serve, then we should see a more responsible consideration of things like disposal of hazardous materials, use of carcinogenic agricultural chemicals on our food and fracking.

If we apply the three principles and make leaders personally accountable for paying the costs against a measurable standard, I expect it would ripple throughout the ethics of corporate America. By today's standards this might sound crazy or unfair, but shouldn't leaders be personally accountable for their decisions and what their companies do?

All my best,

Mack Arrington



Buckminster Fuller famously said: "You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete."

Jobs are a symptom of successful businesses. Support the businesses and the jobs will follow.

Confidentiality Notice

The information contained in this e-mail transmittal is privileged and confidential intended for the addressee only. If you have received this e-mail in error, please notify the person transmitting the information immediately.

=====



Ward, Sara <sara_ward@fws.gov>

FW: A possible mitigation project for Duke Energy

Martin, Keith <keith.martin@ncparks.gov>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Thu, Dec 4, 2014 at 9:59 AM

From: Martin, Keith
Sent: Wednesday, October 15, 2014 5:49 PM
To: 'Sara_Ward@fws.gov'
Subject: A possible mitigation project for Duke Energy

Ms. Ward,

I read the material generated by the USFWS concerning the coal ash spill, and got the link to contact you in order to express my opinion from that release. I believe Ken Bridle, of the Piedmont Land Conservancy, has already made you aware of the existence of two very significant tracts of land along the Mayo River corridor that would make great additions to Mayo River State Park. Saying that these two tracts would make great additions to the park is actually an understatement. Both of the tracts are really keystone properties that, if included into the park, would allow the NC Division of Parks and Recreation to offer vastly improved public access to the Mayo River corridor for a variety of recreational pursuits. As a result, the addition of these properties would thus serve as an economic stimulus in an underserved piedmont county by growing eco-tourism in the region. Perhaps most importantly, acquisition of these tracts for inclusion in the state park system will enhance the level of protection for this relatively pristine section of river, which sustains diverse ecosystems that include copious numbers of common (for now) aquatic and terrestrial plant and animal species, as well as a number of species which are listed as being of special concern, threatened, and endangered. I believe the combined benefits of preserving an outstanding natural resource, protecting sensitive aquatic habitat, securing public access to what has mostly been an inaccessible river corridor, and enhancing the region from an economic standpoint would make for a truly meaningful mitigation effort. For these reasons, I would like for the USFWS consider asking Duke Energy to purchase the tracts referenced in the attached documents, and donate them outright to the State of North Carolina to be incorporated into Mayo River State Park for the protection of the Mayo River's significant natural resources as well as for the benefit, enjoyment, education, and enrichment of all of our citizens and visitors. If you have any questions about my proposal, the attached information, or anything about the park, please do not hesitate to contact me. Thank you,

Keith D. Martin
Park Superintendent
Mayo River State Park
500 Old Mayo Park Rd
Mayodan, NC 27027

12/4/2014

DEPARTMENT OF THE INTERIOR Mail - FW: A possible mitigation project for Duke Energy

(336) 427-2530

keith.martin@ncparks.gov

2 attachments



statement of value of trust properties.doc

32K







trust properties map.pdf

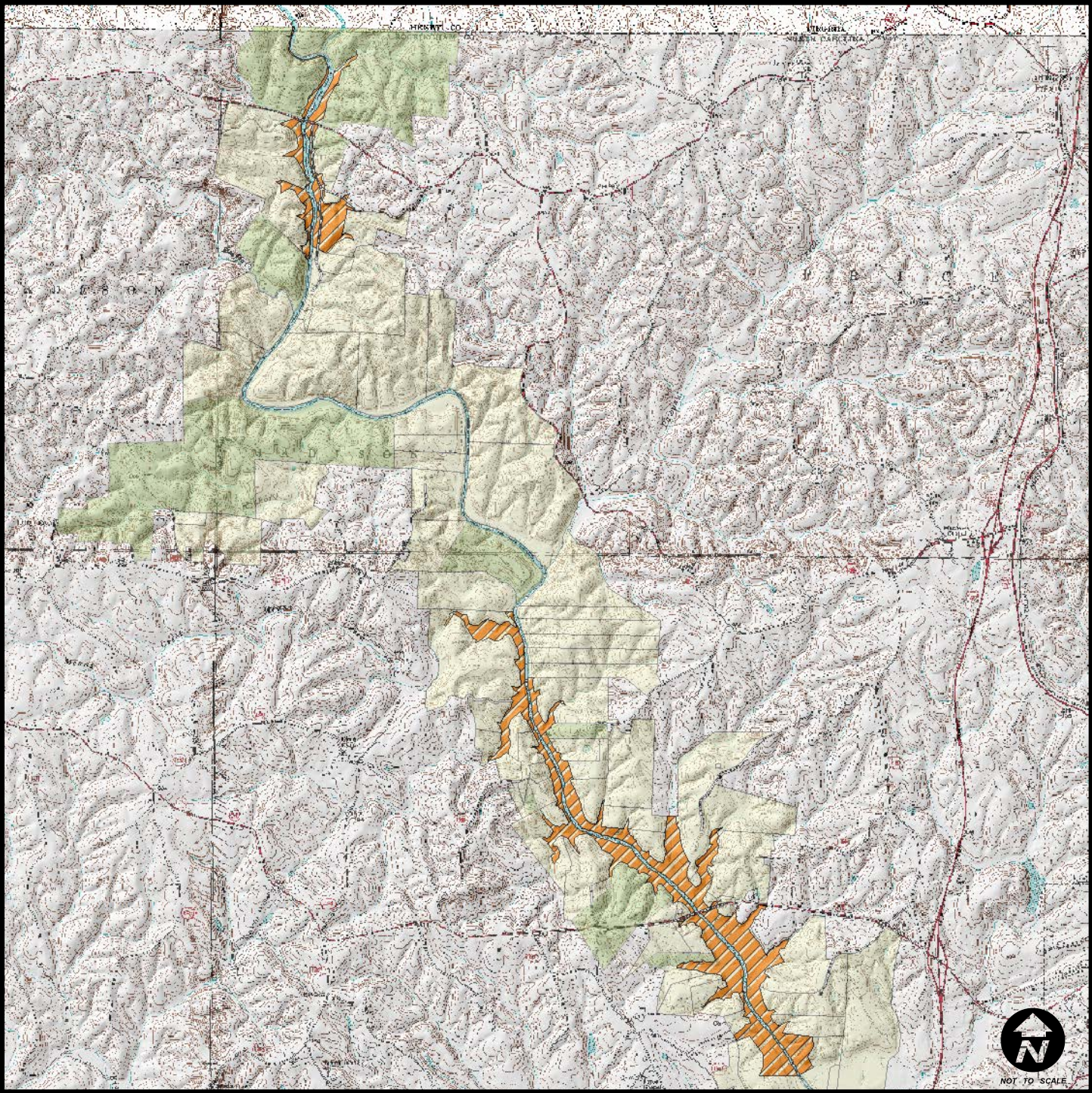
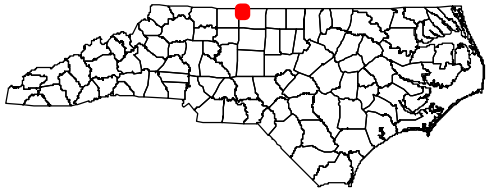
1675K

Mayo River State Park

DATE: JUNE 1, 2010

Legend

-  Subject
-  State Parks Unit
-  State Lake
-  Future Need



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VALUE of TRUST PROPERTIES to MAYO RIVER STATE PARK

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higher counter offer. The state's position is that it cannot pay above the fair market appraisal for the land. The landowner's position is that the land they own is so critical to the development of a state park, and that such a tremendous amount of benefit would come from the land being included into the park from both an environmental and economic standpoint, that the land is worth far more than the appraised fair market value. Representatives from the state met with the principles from the LLC (two of whom are also part of the Upper Trust group, and are related to the remainder of the Upper Trust group) to discuss what remedy they might find to solve the impasse to everyone's satisfaction, but were unable to do so. Several suggestions were made, including the possibility of a long term lease, or sale of the portions of the LLC tracts that are within the statutory floodplain. The LLC rejected the suggestions saying these remedies would satisfy the needs of the state and therefore weaken their bargaining position to get the figure they want for the sale of the land.



Ward, Sara <sara_ward@fws.gov>

Possible Dan River Mitigation Project

CONNIE FOX [REDACTED]
To: Sara_Ward@fws.gov

Fri, Oct 17, 2014 at 2:37 PM

Ms. Ward,

It is my understanding that a possible mitigation project for the Duke Energy coal ash spill in Eden, North Carolina could be Duke's purchase of the Mayo River Trust Fund properties for the purpose of growing Mayo River State Park, located in the same county as the spill. I would like to extend my full support for this effort.

The Mayo River is a major tributary of the Dan River. The Mayo joins the Dan well upstream of the spill. The advantages of purchasing the Trust properties for public use are many. First and foremost, the largely undeveloped river would benefit the protection of rare and endangered aquatic species living in the Mayo like the Roanoke Logperch and James Spiny mussel. The property would also provide greatly needed access for recreational opportunities to the public in an underserved county, providing river access for paddling, fishing, etc. Inclusion of the property in the state park would provide additional land for development of camping, hiking and other amenities as well as opportunity for educating the public on environmental, natural and cultural resource issues.

The purchase of the Trust properties is an opportunity that should not be taken lightly. The property has long been considered critical to the development of Mayo River State Park. Negotiations with current landowners are at an impasse due to cost differences. Mitigation efforts for this tragic spill could be the best, and possibly only, way to acquire the land and accomplish protection, conservation and recreational goals that would greatly benefit the public.

Thank you,

Connie S. Fox



Ward, Sara <sara_ward@fws.gov>

Comments Letter - Dan River NRDAR Restoration Scoping Document

1 message

Tim Morris [REDACTED] Fri, Oct 17, 2014 at 2:10 PM
 To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>
 Cc: [REDACTED]

Sara – Attached is a comment letter from the North Carolina Ecosystem Restoration Association regarding the Dan River Spill Scoping Document. Feel free to call me with any questions or comments you may have. Our group would enjoy the opportunity to discuss this document with you in more detail if that is of interest to you and the Trustees.

Thank you.


Tim Morris
 President
 NC Ecosystem Restoration Association

And

Senior Associate
 KCI Associates of NC, P.A.
 Landmark Center II, Suite 220
 4601 Six Forks Road
 Raleigh, NC 27609
 Office – 919-278-2511



www.kci.com

 NCERA - Dan River Spill - Scoping Letter Comments.pdf
 131K

North Carolina Environmental Restoration Association

Timothy J. Morris, President, President
W. Scott Hunt, Vice President
Shawn Wilkerson, Secretary
Kenneth Peeples, Treasurer

Ms. Sara Ward
551F Pylon Drive, Raleigh NC 27606
919-856-4520
sara_ward@fws.gov

Post Office Box 1800
Raleigh, NC

October 13, 2014

NCERA Membership:

BB&T Insurance and Bonding

Environmental Banc and Exchange

ICA Engineering

KCI Technologies, Inc.

Land Management Group

Land Mechanic Design

Michael Baker International

North State Environmental

Resource Institute, Inc.

Restoration Systems LLC

Riverworks, Inc.

Stantec

WK Dickson & Company, Inc.

Wildlands Engineering, Inc.

Wright Contracting LLC

Dear Ms. Ward,

On behalf of the membership of the North Carolina Environmental Restoration Association (NCERA) I would like to submit formal comments to the *Dan River Coal Ash Release, Natural Resource Damage Assessment and Restoration Scoping Document for Restoration Planning*. NCERA is a collaboration of environmental consultants, mitigation bankers, contractors, scientists, engineers, surveyors and financial professionals with an interest in promoting and expanding the environmental restoration industry in North Carolina. Our member firms have completed numerous environmental restoration projects and are recognized leaders in the field of environmental restoration in the Southeast.

As you are aware, a Responsible Party (RP) for the Dan River Spill has been identified through the Natural Resource Damage Assessment and Restoration (NCDAR) process and this party has entered into a Funding and Participation Agreement with the Trustees. We believe that this process can ultimately result in positive benefits to the Dan River and its tributaries if appropriate restoration opportunities are identified and implemented by the Trustees in a timely manner.

The NCERA would like the Trustees to consider privatizing some or all of this restoration work to obtain the most cost-effective compensation for the natural resource injuries currently being assessed in the Dan River associated with the coal ash spill.

Reflected in your Scoping Document is the Trustees objective to restore resources affected by the release. Preliminary restoration alternatives have been identified and include: land acquisition/protection, fish passage, in-stream restoration, riparian zone and wetland restoration, rare and non-game species restoration, improvement of fishing experience and expansion of river centered opportunities for public recreation and wildlife viewing. The NCERA concurs that these are all valuable restoration opportunities, but believes that the most direct link to the resource damages will involve in-stream restoration work on the Dan River and its tributaries as well as the riparian and wetland restoration work that could occur directly adjacent to the river basin network.

While we agree that there is value in traditional land preservation actions, the specifics of this spill dictate a more active restoration approach is needed to offset the injury.

We believe that this work would be most efficiently and effectively carried out through the release of a Request for Proposal (RFP) that would allow the private sector to identify and compete for the most suitable restoration sites draining to the affected area. A model that can be used by the Trustees and/or the RP for this type of procurement would be the NC DENR, Ecosystem Enhancement Program's Full Delivery Mitigation RFP. The basis behind this type of restoration procurement would be that private restoration providers with demonstrated expertise in site reconnaissance, land acquisition, assessment, design, permitting and monitoring would be competing with each other for viable sites, resulting in projects that are forced to meet the evaluation criteria contained in the RFP and will ensure the highest degree of conformance with the goals and objectives of the Restoration Planning Process. Another recommended procurement mechanism would be a direct purchase of banked restoration credits (if available) that conformed to the Eligibility Criteria outlined in the Scoping Document. The benefit to purchase of these credits would be the minimization of temporal resource loss. Both of these procurement alternatives will benefit the Trustees and the RP in that they are turn-key delivery mechanisms that provide cost-certainty through contracting and cost-control through competition.

NCERA would be happy to talk to you or the RP in more detail on the merits of our request should you have any questions or comments. I can be reached at 919-278-2511.

Thank you for your time and attention to this important matter.

Sincerely,



Timothy J. Morris
President
North Carolina Environmental Restoration Association



Ward, Sara <sara_ward@fws.gov>

FW: Dan River Coal Ash Release - Mitigation Areas

Susan Lingenfelter <susan_lingenfelter@fws.gov>
To: sara_ward@fws.gov
Cc: Margaret Barbee <margaret_barbee@fws.gov>

Tue, Oct 21, 2014 at 7:53 AM

From: Smith, Larry (DCR) [mailto:Larry.Smith@dcr.virginia.gov]
Sent: Monday, October 20, 2014 4:21 PM
To: susan_lingenfelter@fws.gov
Subject: Dan River Coal Ash Release - Mitigation Areas

Susan, I have a list of 25 natural heritage conservation sites and five stream conservation units in the Dan River watershed that I would like to discuss with you. I would think that some of these would be good candidates for future mitigation areas. What would be the best way to present these sites to you and your team?

Larry Smith

Natural Area Protection Manager

DCR - Natural Heritage Program

600 East Main Street, 24th Floor

Richmond, Virginia 23219

Office Phone: 804-371-6205

Cell Phone 804 380-7424

Fax: 804-371-2674

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www.dcr.virginia.gov/natural_heritage

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CONSERVATION SITE	BRANK	SiteTotAcres	SiteProtAcres	SitePercProt	PFTotAcres	PFProtAcres	PFPerProt	Status
DIFFICULT CREEK	B2	4,679.71	792.72	16.94	1,124.51	594.24	52.84	4 - not protected
LOWER ROANOKE (STAUNTON) RIVER	B2	4,288.48	441.79	10.30	501.16	31.29	6.24	4 - not protected
DAN RIVER ISLANDS	B3	500.87	0.53	0.11	14.84	0.00	0.00	4 - not protected
BIG REED ISLAND CREEK HEADWATERS	B3	534.15	0.00	0.00	8.53	0.00	0.00	4 - not protected
BLUEWING CREEK UPLANDS	B3	699.34	0.00	0.00	280.58	0.00	0.00	4 - not protected
BROWNS DAN RIVER TRIBUTARY	B3	118.77	0.00	0.00	1.25	0.00	0.00	4 - not protected
DAN RIVER WILDLIFE MANAGEMENT AREA	B3	877.02	0.00	0.00	283.79	0.00	0.00	4 - not protected
EASTERN ELK CREEK TRIBUTARY	B2	383.27	0.00	0.00	1.45	0.00	0.00	4 - not protected
ELK CREEK	B2	1,517.64	0.00	0.00	16.46	0.00	0.00	4 - not protected
HOOKERS CREEK	B2	731.16	0.00	0.00	11.58	0.00	0.00	4 - not protected
LARRYS STORE	B2	790.74	0.00	0.00	81.62	0.00	0.00	4 - not protected
LONG BRANCH	B2	850.45	0.00	0.00	33.39	0.00	0.00	4 - not protected
MABRY MILL	B5	388.94	0.00	0.00	32.05	0.00	0.00	4 - not protected
MAPLE SWAMP BRANCH	B4	306.41	0.00	0.00	13.88	0.00	0.00	4 - not protected
MEADOWS OF DAN	B3	350.29	0.00	0.00	1.39	0.00	0.00	4 - not protected
MOUNTAIN VIEW ROAD	B4	105.77	0.00	0.00	1.93	0.00	0.00	4 - not protected
PETERS CREEK CENTRAL	B2	346.28	0.00	0.00	12.51	0.00	0.00	4 - not protected
PETERS CREEK NORTH	B2	417.55	0.00	0.00	10.00	0.00	0.00	4 - not protected
PETERS CREEK SOUTH	B2	346.24	0.00	0.00	48.24	0.00	0.00	4 - not protected
PETERS CREEK TRIBUTARY AT RT. 660	B2	112.11	0.00	0.00	7.71	0.00	0.00	4 - not protected
RT 623 FLATWOODS	B2	7.41	0.00	0.00	0.37	0.00	0.00	4 - not protected
SANDY CREEK - PATRICK COUNTY	B2	423.33	0.00	0.00	4.73	0.00	0.00	4 - not protected
SIMMONS MOUNTAIN CREEK	B3	514.51	0.00	0.00	0.39	0.00	0.00	4 - not protected

CONSERVATION SITE	BRANK	SiteTotAcres	SiteProtAcres	SitePercProt	PFTotAcres	PFProtAcres	PFPerProt	Status
STATE LINE TRIBUTARY	B4	236.77	0.00	0.00	0.82	0.00	0.00	4 - not protected
STONE MOUNTAIN CREEK WETLANDS	B4	455.33	0.00	0.00	4.38	0.00	0.00	4 - not protected
AARONS CREEK SCU (Stream Conservation Units)	B3	5.70						UNKNOWN
ROANOKE RIVER - DAN RIVER SCU (Stream Conservation Units)	B5	81.70						UNKNOWN
BUFFALO CREEK - MECKLENBERG SCU (Stream Conservation Ur	B5	5.72						UNKNOWN
DAN RIVER - RT. 645 BRIDGE CROSSING SCU (Stream Conservat	B3	18.30						UNKNOWN
BROWNS DAN RIVER - RT. 645 BRIDGE CROSSING SCU (Stream I	B4	10.46						UNKNOWN



Ward, Sara <sara_ward@fws.gov>

Small-anthered bittercress recovery project for mitigation

Ken Bridle <kbridle@piedmontland.org>

Tue, Oct 21, 2014 at 11:34 AM

To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Hello Sara,

One other project that I would like to have considered for funding from the Coal Ash Mitigation action would be an effort to protect and augment *Cardamine micranthera* populations in the northern Dan River watershed. As you know this is a federally endangered plant that only occurs in creeks draining into the upper Dan River in Stokes and Patrick Counties. It is quite possible that we could use a relatively small amount of money to purchase key properties or easements on riparian corridors of existing high quality sites and/or augment good habitat in the historic range and reach the goals of the species conservation plan and delist.

I have worked on this plant doing inventories with Nora Murdock, Marg Boyer, Shawn Oakley, Carolyn Wells and most recently Moni Bates over the last 25 years. Since the Stokes County Natural Heritage Inventory was completed, Piedmont Land Conservancy periodically gets calls from interested landowners who would like to sell their property or an easement, but we have not had funds to act on those opportunities. With last years species survey (attached) we know which populations in NC are good and we also know something about the landowners.

I think it would be possible to get enough easements to consider the species protected and to help manage and possibly augment populations with a little as \$250,000 to pay for the purchase of easements and transactional costs. Since this species also occurs in Virginia it might be a good opportunity for PLC to partner with another group across the state line and consider the entire population range in this effort.

At a minimum we could use the funds to educate the landowners about the plant and help provide management guidelines that would make the populations more healthy and stable, even if we don't purchase. I am sure that we will be able to make headway on the goals of the species recovery plan as funding allows.

The additional benefits of working on these creek tributaries to the Dan River would include headwater resource protection and protection of additional listed aquatic species and other components of the Nationally Significant Dan River Corridor in northern Stokes County.

If this is an opportunity that you think is worth considering, we can flesh out a more detailed proposal and budget.

Thanks

Ken

Piedmont Land Conservancy


P.O. Box 4025, Greensboro, NC 27404-4025

Stewardship Director

PLC Office 336-691-0088

Home office 336-591-5882



 Cardamine micranthera status survey report_2013.pdf
5466K

Small-anthered bittercress (*Cardamine micranthera*) in North Carolina

October 2013

Final Report to U.S. Department of the Interior – Fish and Wildlife Service

by

North Carolina Natural Heritage Program

Report submitted by

Laura Robinson, Department of Environment and Natural Resources,
Office of Conservation, Planning, and Community Affairs, NCNHP,
1601 MSC, Raleigh, NC 27699-1601. www.ncnhp.org

Surveys completed by Moni Bates, contract botanist, Summerfield, NC.

Agreement No: F11AC01382
DUNS NO: 809785280

I. Project Background

Small-anthered bittercress (*Cardamine micranthera*) is a federally endangered plant that is endemic to the Dan River Basin in North Carolina and Virginia. The species is globally imperiled (G2) due to its limited range and vulnerable habitat. Populations occur in seeps beside small streams, where the soil is usually saturated but sheet flow is minimal. The seeps are believed to be the permanent habitat for persistent populations, although seeds are periodically washed downstream, creating opportunities to colonize new areas when suitable habitat exists downstream. Some of the North Carolina populations occur in watersheds that have been severely altered by timbering, agricultural uses, and encroachment of invasive species. Approximately sixteen extant populations occur in North Carolina (all in Stokes County).

Prior to the 2013 survey, only three of these populations had been visited in the last fifteen years. Most of the populations were last visited in 1992 to 1996. More recent visits to populations indicate that the species may be in decline in North Carolina. The purpose of this project was to gain landowner permission, visit and collect data from as many populations as possible, and determine the current status of the populations.

II. Methods

In North Carolina, all the known populations of Small-anthered bittercress (*Cardamine micranthera*) are located on private property. Prior to site visits in 2013, landowners were either called or sent letters in March and April to seek permission to access their property. Only one population was not visited because both landowners declined to participate in the survey. Two other populations were partially surveyed because a few of the landowners granted permission while others declined.

Landowners participated in four of the field surveys. Other landowners requested to receive results of the survey. These landowners were called after each survey and provided a verbal synopsis of their site.

Twenty element occurrences were visited by Moni Bates from April 18 to May 31, 2013. Nineteen of these were surveyed by foot and one extirpated population was surveyed for suitable habitat from a state road bridge. Kelly Griffith, an intern with the University of North Carolina at Greensboro, participated in four days of field surveys. Each element occurrence was mapped and GPS points taken. Maps of the populations are provided in Figures 1-7.

Numerous resources were studied prior to the field survey. A Google Earth aerial map was used to determine land practices on each parcel that supports the populations and across the watershed. Type of land cover such as forested, recent timbering, pastures, or row cropping was noted, especially for the upstream watershed.

The N.C. Natural Heritage Program's Element Occurrence Records (EORs) were reviewed for historical population size, natural community descriptions, presence of seeps, and other information recorded by botanists. Typically, botanists recorded the number of plants and only rarely the number of clumps. Often the numbers were given

as a range or approximation. During the 2013 survey, the number of plants with number of reproductive stems was recorded at each GPS coordinate (see Table 1 and Appendices A and B). Population status and trends were determined by comparing recent population and occurrence data from previous years. Based on this data, populations were given the following trend ranks shown below. The trend categories were modified from the population trend guidelines developed by the NC Plant Conservation Program Scientific Committee for the Comprehensive Threat Assessment of all Plants tracked by the NC Natural Heritage Program in 2008.

- Severe Decline (Population is confirmed extirpated or zero plants were found)
- Rapid decline (Decline of more than 50% in population, range, area occupied, and/or number or condition of occurrences)
- Decline (decline of approximately 20-50%)
- Stable (unchanged or remaining within +/- 20% fluctuation)
- Increasing (increase in population of >20%)
- Unknown
- Null (Criterion not assessed)

III. Results

Twenty-one sites were included in this project (some of the populations are composed of multiple patches or sites). Nineteen of these sites were visited and surveyed on foot. Table 1 shows a summary of findings in 2013. An extirpated population was surveyed from a state road bridge. Due to lack of landowner participation, one site was not visited and partial surveys were conducted on two sites. Results for each visited site are provided below and grouped by watershed or regions as follows:

- A. Extirpated Population
- B. Isolated Occurrences on Small Tributaries that flow into the Dan River on the Hanging Rock Quad
- C. Snow Creek Watershed
- D. Buck Island Creek Watershed
- E. Peters Creek and Little Peters Creek Watershed
- F. Tributaries that flow into the Dan River – South Side
- G. Tributaries that flow into the Dan River – North Side

Table 1: Summary of findings in 2013

NCNHP Site Name EOR	EO Rank*	Number of plants (2013)	Population Trend	
Extirpated Population				
001	Belews Creek Bog and Marshes	X	0	Severe decline (Extirpated)
A. Isolated Occurrences on Small Tributaries flowing into the Dan River on the Hanging Rock Quad				
017	Dan River Bends	D	30	Stable
016	Stokes River Inventory Site	D	12	Rapid Decline
008	Bonds Branch Rare Plant Site	F	0	Severe Decline (Failed to Find)
015	Little Creek Bittercress Site	A	94 (partial survey only)	Estimated Stable
B. Snow Creek Watershed				
23.018	Snow Creek and Tributaries: East of Snow Hill	D	2013: Unknown – landowner permission not granted in 2013. (~ 70 plants in 1997).	Unknown
23.019	Snow Creek and Tributaries: Snow Creek at Mill Creek	F	0	Severe Decline (Failed to find)
014	Stokes County Inventory Site	D	46	Stable
006	Lackey Store/Snow Creek Forests	C	147	Stable
C. Buck Island Creek Watershed				
020	Buck Island Creek	F	0	Severe Decline (failed to find)
D. Peters Creek and Little Peters Creek Watershed				
24.005	Peters Creek at SR-1497 Bridge	D	4	Rapid Decline
24.012	Lum Hall Forests	B	254	Decline
009	Aaron’s Corner Rare Plant Site	D	21 (partial survey)	Estimated Decline
24.022	Upper Reaches of Little Peters Creek	F	0	Severe Decline (failed to find)
24.002	Little Peters Creek Bluffs	AB	507+	Stable
E. Tributaries that flow into the Dan River-South Side				
021	Georges Mill Bittercress Site	F	0	Severe Decline (failed to find)

NCNHP Site Name EOR		EO Rank*	Number of plants (2013)	Population Trend
004	Georges Mill Bittercress Site	C	104	Stable
007	Jessups Mill/George's Mill Corridor	A	705	Increase
F. Tributaries that flow into the Dan River-North Side				
003	Jessups Mill/George's Mill Corridor	D	10	Stable
011	Jessups Mill/George's Mill Corridor	BC	275	Stable
010	Jessups Mill/George's Mill Corridor	A	1,276	Stable

*EO rank definitions:

- A – Excellent estimated viability
- B – Good estimated viability
- C – Fair estimated viability
- D – Poor estimated viability
- F – Failed to find
- H – Historical
- X – Extirpated

A. Extirpated Population

EOR 001 Belews Creek Quad

Population Trend: Severe decline/Extirpated

The Belews Creek population is known from a 1955 herbarium collection and has not been observed since. In 1984, Steve Leonard searched and reported that the habitat was destroyed and was a pasture. Alan Weakley noted that he searched in 1990, both up- and downstream and found no plants.

Bates conducted a drive-by survey on May 18, 2013. A deciduous canopy is present. However, the shrub and herb layers are grazed by cattle. The livestock have access to both stream banks and the channel. Upstream of the Goodwill Church Road (SR 1791) bridge, forests border both stream banks. The Google Earth aerial map shows a watershed with agricultural fields adjacent to Belews Creek and uplands dominated by open fields. Due to the degraded habitat, a stream survey was not conducted and the extirpated rank remains valid.

B. Isolated Occurrences on Small Tributaries that flow into the Dan River on the Hanging Rock Quad

EOR 017 Dan River Bends

Population Trend: Stable

2013: 30 plants with 42 reproductive stems

1996: 20 – 50 plants

This population is located south of NC 89 and confined to one tax parcel and one small seepage tributary. A range of 20 to 50 plants were observed in 1996. On May 2, 2013, 30 plants were noted with buds, flowers, and fruit during a 45 minute survey. All these plants grow among rocks and saturated soil of an intermittent seep that flows into the south side of an abandoned and drained pond, and just upstream of the old dam. To access the population, one walks south across the dam and slightly upstream to the seepage area. The draw that forms the seep is evident on the U.S.G.S. Hanging Rock quad. The slope quickly gains elevation which limits the habitat for Small-anthered bittercress (*Cardamine micranthera*).

The adjacent slopes support a hardwood forest that has not been timbered recently. Beech (*Fagus grandifolia*) and Tulip tree (*Liriodendron tulipifera*) are dominant canopy trees with other species such as Red oak (*Quercus rubra*) and Ironwood (*Carpinus caroliniana*) in the subcanopy. Sedges (*Carex crinita*) are common in the seep. The slopes support herbs such as Dimpled trout-lily (*Erythronium umbilicatum* ssp. *umbilicatum*), New York fern (*Thelypteris noveboracensis*), Southern lady fern (*Athyrium asplenoides*), and Christmas fern (*Polystichum acrostichoides*).

The lower slopes have been timbered and support Virginia pine (*Pinus virginiana*) and Running cedar (*Lycopodium flabelliforme*) dominates the herb layer. Dense Rosebay (*Rhododendron maximum*) grows on the south side of the abandoned pond and upstream of the seep. The abandoned pond slopes, dam, and downstream stream banks support invasive species such as Multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), and Japanese grass (*Microstegium vimineum*). The stream channel downstream of the dam has steep, straight banks with no cobbles or pebbles or few mud, sand, or gravel bars. No suitable habitat for *Cardamine micranthera* was noted. Ken Bridle reported that he has searched downstream to the Dan River and other streams on this parcel and not found other subpopulations. This parcel is confined by NC Highway 89 on the north and the Dan River on the west. All the tributaries on this parcel are short in length and lack the dynamics of sites with multiple seeps from which plants spread downstream.

The EO Rank is D – poor estimated viability. Due to the lack of suitable habitat for the species to establish downstream and small population size, this is an appropriate rank.

FOR 016 Stokes River Inventory Site

Population Status: Rapid Decline

2013: 12 stems were counted (all reproductive)

1996: about 100 plants

In 1996, about 100 plants were counted in poor quality habitat and given an EO rank of D - poor estimated viability. On April 30, 2013, during an hour survey only 12 stems were counted (all reproductive). The individual plants were not counted, but there were 10 or fewer. These plants occur in a gravel bar and in an area of approximately one by two meters. Logging roads bisect the parcel and were used to access the stream. The upper

stream has incised banks that support Multiflora rose (*Rosa multiflora*) which hangs over the channel and completely shades the water.

The floodplain supports wildlife plots planted with red clover or kept open through bush hogging. The small population was noted downstream of a ford used to access the wildlife plots and deer stands. Small seepages with degraded vegetation occur between the wildlife plots and stream channel. Due to the past and current land uses and the small declining population the EO rank of D is still appropriate.

EOR 008 Bonds Branch Rare Plant Site

Population Status: Severe Decline, Failed to find

2013: no plants seen

1992: one plant in Bonds Branch; about 500 plants in tributary

Bonds Branch includes two separate locations, one on the main branch and the other on a tributary. In 1992, one plant was noted on the main branch. On April 30, 2013, no plants were found. Access to this parcel is along an old dirt road south of Powell-Lankford Road (SR 1498) to Bonds Branch. A ford crosses the stream and the half hour search covered upstream to a bend with a rock outcrop in the stream channel and downstream to the property line. The dirt path parallels Bonds Branch to the Dan River. The adjacent slopes support a Mesic Mixed Hardwood Forest with high herb diversity. Excessive woody debris clogs the stream channel downstream of the ford.

The second area location is upstream and at the confluence of Bonds Branch and an intermittent tributary. In 1992, this area supported about 500 plants in an area of over one plus hectares with an EO rank of AB – excellent or good estimated viability. Two searches were conducted on April 18 and May 14, 2013 for two hours. The intermittent tributary was hiked from North Stokes School Road (SR 1499) to the confluence with Bonds Branch. A topographic map with Marj Boyer's location notes from 1992 was used while searching this population. The seep referred to by Boyer occurs between two tributaries, of which both were searched. This parcel has not been timbered in the recent past. The adjacent slopes on the upstream parcel have been thinned and the understory and shrub layer cleared for pasture. The uplands support grassy fields. A fence and power line right-of-way crosses a small section of the tributary where seepage flows into the trib. This is upstream of Boyer's location. No plants were noted along the length of the tributary.

EOR 015 Little Creek Bittercress Site

Population Status: Partial Survey, Stable

2013: More than 94 reproductive stems (all reproductive)

1996: Approximately 500 clumps

Permission to survey was not granted on the two parcels that support the bulk of this population. However, a one hour survey was conducted where access was granted on the downstream parcel on April 30, 2013, from the confluence with Little Creek and upstream to the property boundary.

In 1996, about 550 clumps were counted along the entire tributary. In 2013, 94 bolting stems were counted on just the downstream parcel. Due to timber debris that encroaches over and in the stream channel, hiking and visual observation was difficult to impossible in some areas. Logging roads cross the tributary in several locations.

Two seepages were documented on the south side near two property boundaries. Intermittent tributaries flow into the main tributary, however, the dense herbaceous vegetation made surveys impossible along these small seepages. Japanese grass (*Microstegium vimineum*) often dominates the herb layer.

Habitat on the adjacent parcels appears to be of higher quality as viewed from the Google Earth aerial map and, from visual observation, have not been recently timbered. Because 94 stems were counted in a small portion of the total population and in the most degraded habitat, it's probable that the upstream habitat supports similar numbers found in 1996. However, further survey is required to determine if the EO rank of A – excellent estimated viability is still appropriate.

C. Snow Creek Watershed

Parent Element Occurrence 23: Includes EOR 018 and 019

EOR 018 Snow Creek and Tributaries: East of Snow Hill

Population Trend: Unknown, No Permission Granted

2013: Unknown

1997: Approximately 70 plants

This population was not surveyed in 2013 because both landowners declined to participate, and, therefore, access was not possible. The population is located on intermittent tributaries in the headwaters of Snow Creek. The Google Earth aerial map shows that the parcels support hardwood forests, pine plantations, and open fields. In 1997, about 70 plants were noted scattered in stream and small streamside seeps. Provided the seeps have not been disturbed, this population may remain viable.

EOR 019 Snow Creek and Tributaries: Snow Creek at Mill Creek

Population Trend: Severe Decline, No Plants Seen

2013: No Plants Seen

2007: 5 remaining plants replanted in stream project area

2004: 15 plants replanted in stream project area – flushed away by hurricane

Another 10 plants replanted in stream project area

2002: About 41 plants prior to stream restoration project

In 2003-2004, a stream restoration project was conducted on Snow Creek and a tributary. Thirty plants in the project area were removed and kept in a greenhouse until the conclusion of the restoration project, when the plants were re-introduced to the site. The EOR states that high storm flow washed away many if not all of the transplanted individuals. On May 31, 2013, the tributary on the north was searched for Small-anthered bittercress (*Cardamine micranthera*); however, no plants were seen. A second tributary west of Moir Farm Road (SR 1652) was searched. Gravel bars in Snow Creek

were also searched, however, due to high water; some potential habitat was not accessible.

The easternmost population of this species in NC is composed of EORs 018 and 019. Future surveys are necessary to determine if the current D rank for both is appropriate. A search of Snow Creek between these two occurrences would help determine the status. The USFS Quad map depicts fairly steep slopes along much of Snow Creek and some areas with broad floodplains. Numerous intermittent streams flow into Snow Creek. Future surveys would determine if seep habitat occurs at the base of the slopes and along the intermittent tributaries. Few open fields are visible on the Google Earth aerial map, and small patches of pines are evident. The majority of the watershed in this section appears to be hardwood forests. Snow Creek widens into a fairly large stream a short distance west of Moir Farm Road and the habitat quality diminishes east of Moir Farm Road with agricultural farm land and a wide stream channel with high flow.

EOR 014 Stokes County Inventory Site

Population Trend: Stable

2013: 46 plants counted with 145 reproductive stems

1996: 30 clumps counted, estimated fewer than 100 total plants

On May 2, 2013, 46 plants were counted during a 1.5 hour survey. No plants were seen on the intermittent tributary shown on the USGS quad. All plants observed occur from the confluence of the mapped tributary with a small unmapped, intermittent seepage trib. The seepage tributary is about two feet wide and rocky with a riparian buffer of ruderal vegetation. Cut stumps were noted and exotic Multiflora rose (*Rosa multiflora*), Common chickweed (*Stellaria media*), and Japanese grass (*Microstegium vimineum*) dominate the herb and shrub layers in many areas.

The Google Earth aerial map shows agricultural fields that wrap around the two tributaries with a wide hardwood riparian buffer and agricultural land in the watershed. The structure of the tributary is intact and excessive silt deposition was not noted. Due to the small population, a continuation of the EOR rank of D – poor estimated viability - is reasonable.

EOR 006 Lackey Store/Snow Creek Forests

Population Trend: Stable

2013: 147 plants

1996: 100 – 200 plants estimated

1992: 66 vegetative plants

Of all the Snow Creek populations, this one is located in the highest reach of the watershed. It occurs on an intermittent tributary where the plants grow in numerous seeps and are scattered downstream to nearly the confluence with Snow Creek.

This population has remained fairly stable since 1992 when there were 66 plants counted over more than one hectare, to an estimated 100 – 200 plants in 1996, and 147 plants counted on May 3, 2013. Timber was recently harvested from both of the western parcels. Where the stream gradient lessens, silt covers the rocks in the stream bed,

copious amounts of debris from fallen trees occur on the banks and channel, and incised stream banks are common. These traits occur mainly near the confluence with Snow Creek.

There are two seeps on an upstream parcel where three intermittent tributaries converge. The plants in these seeps may serve as a seed source for downstream habitat. The upstream parcel supports a hardwood forest with Beech (*Fagus grandifolia*) dominating the canopy, Ironwood (*Carpinus caroliniana*) in the subcanopy, and Spicebush (*Lindera benzoin*) in the shrub layer. Saxifrage (*Saxifraga micranthidifolia*) occurs in some locations with Small-anthered bittercress (*Cardamine micranthera*).

Since this population has been stable since 1992, the EO rank of C – fair estimated viability is appropriate.

D. Buck Island Creek Watershed

EOR 020 Buck Island Creek

Population Trend: Severe Decline, No Plants Seen

2013: No plants seen

2008: 6 plants

2006: 2 plants

After 1.25 hours of searching on April 18, 2013, no plants were seen at this site. The search on Buck Island Creek included habitat up and downstream of the NC Highway 8 Bridge. Explicit directions were recorded in the EOR for the location of plants noted in 2006 and 2008. These areas were located and searched. Upstream habitat was searched to the confluence with an intermittent tributary on the east side of Buck Island Creek. This tributary was hiked along the length of several bends. On Buck Island Creek, beaver slides and cut wood were noted along the stream banks. Agricultural fields and forests border the creek to the north and a mature hardwood forest occurs on the slopes to the south. A short distance downstream, Buck Island Creek flows into the Dan River.

Two plants were noted in 2006, six in 2008, and no plants in 2013. No seepage habitat was noted for potential seed sources for this population. Additional searches will help determine whether to change the rank from D - poor estimated viability to extirpated. The intermittent tributary is within a short distance to a dam, which forms a small pond that eliminates habitat for Small-anthered bittercress (*Cardamine micranthera*). Buck Island Creek continues upstream on the Bennett parcel which, as viewed on the Google Earth aerial map, has been timbered, along with other parcels in the upper watershed.

E. Peters Creek and Little Peters Creek Watershed

Parent Element Occurrence 024: Includes EOR 005, 012, 002 and 022

EOR 005 Peters Creek at SR-1497 Bridge

Population Trend: Rapid Decline

2013: 4 plants with 14 reproductive stems

2012: 1 plant

2008: 69 plants
2007: 29 plants
1996: 61 plants
1995: 25 plants
1992: about 100 plants
1991: 1 – 10 rosettes

Since 1992, this population, which is located beside Peters Creek, has steadily declined. The variable counts that range from 61 to 69 in 1996 and 2008 and 25 to 29 in 1995 and 2007 may be due to differences in surveyed area. Four plants were noted in a 0.25 x 0.25 meter area on May 2, 2013 during an hour up and downstream search from Hart Road Bridge (SR 1497). The four plants grow on the east bank of the stream along the edge of the water; the old bridge supports are upstream of these plants.

On the west side of Peters Creek on the Hutchins parcel, the riparian buffer is about 15 to 20 feet wide and the floodplain is row cropped. A small drainage ditch in the field leads directly to Peters Creek. Due to agricultural and timbering practices, there is excessive erosion that has formed large silt and mud bars and caused bank undercutting and tree falls on Peters Creek. No seepage habitat was noted at this site. The Google Earth aerial map shows heavy agricultural practices upstream of this site and to the confluence with Little Peters Creek. Given the land use, lack of quality habitat, and declining numbers of plants, the current EO rank of D – poor estimated viability is appropriate.

EOR 012 Lum Hall Forests

Population Trend: Decline

2013: 254 plus plants with more than 383 reproductive stems
1996: 767 clumps

This population is part of the Lum Hall Forests Significant Natural Heritage Area and is located on an intermittent tributary that flows into Peters Creek. The May 10, 2013 survey began at the south property boundary of the Hughes parcel and continued for 3.5 hours upstream until no further plants were observed. The downstream plants start about eight feet downstream from a cable that crosses the stream and at the confluence with another intermittent tributary. An ATV path that crosses the channel is located just upstream of the cable. Plants are scattered from the cable to the north property boundary and onto the adjacent parcel.

The plants were past peak flowering and flattened due to high water. Some plants and reproductive stems were partially covered with sand. The dense herb layer along the stream bank made it difficult to see the stems, especially the ones that were horizontal. For these reasons, the plant and reproductive stem counts are on the low side. In 1996, 767 clumps were counted and reported as probably an underestimation, thus, given an EO rank of A – excellent estimated viability. In 2013, 254 plants were counted. Even though this count is probably low, the population is most likely still in decline and the population rank has been reduced to a B rank – good estimated viability.

Two seeps west of the stream and in the upper stream reach serve as seed sources. Due to the dense herb layer, the counts in these seeps are low. Seventy-two plus plants were

counted in the 10 x 20 meter seep and 10 plants in a smaller seep. Another 10 x 10 meter seep is located on the stream right at 36.53238° N and 80.28990° W; however, no plants were observed in this area.

There has been no recent timbering in the riparian buffers on either side of the stream. The upland habitat is early successional hardwood growth and pines. In general, the habitat is poor with severe bank incising and slumping, presence of invasive species such as Japanese honeysuckle (*Lonicera japonica*), Japanese grass (*Microstegium vimineum*), Privet (*Ligustrum sinense*), and pasture species such as Common Burdock (*Arctium minus*). There are excessive deposits of sand in the upstream reaches and, in some stretches; the sand completely fills the stream channel along with large amounts of woody debris. The Google Earth aerial map shows exposed fields and agricultural land upstream of this population which may contribute to the silt deposition in the stream channel.

The adjacent slopes are typically dominated with Beech (*Fagus grandifolia*) and Red maple (*Acer rubrum*). The understory and shrub layers are open with Ironwood (*Carpinus caroliniana*) and Spicebush (*Lindera benzoin*). The seeps support species such as a sedge (*Carex crinita*), New York fern (*Thelypteris noveboracensis*), American royal fern (*Osmunda spectabilis*), and Jewel-weed (*Impatiens capensis*).

A *Baptisia* species was noted near a family cemetery on the south side of a dirt road that leads to an old home site (GPS coordinates 36.53261° N and 80.29454° W; accuracy of 19 feet). No flowers or fruit were present for identification purposes. These plants may have been planted by previous landowners.

FOR 009 Aaron's Corner Rare Plant Site
Population Trend: Partial Survey, Predicted Decline

2013: 21 plants with 20 reproductive stems

1996: 50 – 100 plants

1995: approximately 50 plants

1992: approximately 1,000 plants

This population is location near the Virginia/North Carolina state line and on an intermittent tributary of Peters Creek. The population spans two tax parcels, of which no permission was granted on the downstream parcel with the majority of plants. The upstream habitat was surveyed for 45 minutes on May 22, 2013. The hike began at a small pond and continued downstream to the property boundary. Both parcels have been timbered in the recent past. The stream is narrow and invasive species such as Multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), Japanese grass (*Microstegium vimineum*), and Privet (*Ligustrum sinense*) are dominant. Woody debris often blocks passage in the stream channel. No seepage habitat was observed.

Twenty-one plants were noted during the survey. In 1992, about 1000 plants were estimated in the population and the counts declined to 50 in 1995 and about 50 – 100 in 1996. Given the timbering and decline from 1992 to 1996, it is probable that the

population has continued to decline and the EO rank of D – poor estimated viability is suitable.

FOR 022 Upper Reaches of Little Peters Creek

Population Trend: Severe Decline; No Plants Seen

2013: no plants seen

1993: about 41 plants

This population is located on an intermittent tributary of Little Peters Creek and close to the Virginia/North Carolina state line. After a two hour hike with the property owner, no plants were observed at either location described in the EOR. Both parcels to the north were recently clear cut and one was replanted with pines. Cattle have access to the stream channel upstream of where plants were known to occur in 1993 when 40 plants were located at the confluence with Little Peters Creek and one plant in an upstream bend of the tributary. Cattle graze on the southern parcel and the fence is close to the stream bank. The cattle pastures are visible on the Google Earth aerial map.

Due to timbering and grazing, the habitat is badly degraded. The stream banks are incised and large and deep sand deposits occur in the stream channel. Excessive woody debris fills the stream bed in some areas. Early successional hardwood growth or pine plantations occur on the uplands and invasive species such as Japanese honeysuckle (*Lonicera japonica*), Japanese grass (*Microstegium vimineum*), and Common chickweed (*Stellaria media*) dominate along the stream.

Additional searches will help determine whether to change the rank from D - poor estimated viability to X - extirpated.

FOR 002 Little Peters Creek Bluffs

Population Trend: Stable

2013: 507 plus plants (100's more prior to flooding) with 674 reproductive stems

1995: large population

1992: approximately 1,000 plants

1989: 418 plants

1988: approximately 400 plants

1985: approximately 150 plants

This population is located on Little Peters Creek between its confluence with Peters Creek and NC Highway 704. The survey included the distance between the Black northern property boundary on Little Peters Creek to its confluence of with Peters Creek. The survey was conducted on two days, May 3 and 22, 2013.

On the May 3rd survey, the entire stream length was hiked on both sides. The downstream Priddy parcel has plants scattered on both stream banks. Little Peters Creek flows through a mini-gorge and the adjacent steep slopes support hardwood forests on both sides of the stream. At the confluence of Little Peters Creek and Peters Creek is a cleared field in the floodplain and past timbering has occurred on the uplands. Grading on both sides of the stream bank has degraded the habitat. The stream bank is incised and heavy deposits of silt cover the rocks in the stream channel. The population terminates at

this point. Sixty-six plants were counted and juveniles noted on the Priddy property from the degraded habitat upstream to the Black parcel. No seepage habitat was noted on the Priddy property.

The Black parcel is on the west side of Little Peters Creek and the Kallam parcel on the east side. Fifty-four plants were counted in five locations on the Kallam parcel. No seepage habitat was noted on this parcel and the adjacent slopes are dry and support Mountain laurel (*Kalmia latifolia*). One stem of Virginia Cup-plant (*Silphium connatum*) was noted on a large rock in the center of Little Peters Creek.

The majority of Small-anthered bittercress (*Cardamine micranthera*) plants and high quality habitat are on the Black parcel. There are rock outcrops, intermittent tributaries, and seepages along the steep northeast-facing slopes that provide moist habitat for Small-anthered bittercress (*Cardamine micranthera*) at the base of the slope. Numerous areas support saxifrage (*Saxifraga micranthidifolia*). The slopes support a mature Mesic Mixed Hardwood Forest.

On the first survey date, 224 plants were counted on the Black parcel. Additionally, there were two areas where the plants were too dense to obtain an accurate count. Each of these areas was estimated to support hundred's of plants. An estimation of 500 total plants on the Black parcel is reasonable. On the second survey date, 298 plants were counted and there were no areas that were too dense to count. Between the two survey dates, major flooding occurred on Little Peters Creek (personal communication with Terri and Mark Black) that most likely scoured the two areas with the high density of plants.

In the last year, a hydroelectric pipe and pump were installed along the base of the slope to generate electricity for a cabin. The input pipe is on the Black north property boundary and the pipe runs along the base of the slope to two small generating pumps at their south property boundary. Plants occur scattered along the pipe. The installation and operation of the hydroelectric power pipe and pumps does not appear to have altered the habitat or diminished the population.

The Blacks are interested and excited that they are the stewards of a rare plant species. They are currently constructing a house in an upland open field and plan to move to the property. Additionally, when Priddy, the landowner to the south of Blacks, was called with the results, he welcomed NCNHP to call him any time in the future if botanists wish to visit his property.

A total of 507 plus 100's more plants prior to the flooding were counted in this population in 2013. The 2012 record of only 3 – 4 plants included the very beginning of the population. Still a large population was reported in 1995 and about 1,000 plants over 1 hectare in 1992. From 1985 to 1989, a range of 150 to 418 plants were reported. Although the numbers in 2013 are fewer than the estimate in 1992, they are relatively consistent with numbers reported previously, therefore this population is considered relatively stable.

Previously, the EO rank was D – poor estimated viability. The habitat for this population was the best observed during the 2013 Stokes County, NC survey and the number of plants have sustained since the 1980’s. Therefore, a higher rank of AB was assigned. This population also has excellent potential for protection since all the seeps are located on one parcel. Two other parcels, Kallam and Priddy, are important to protect a buffer from the population from timbering and other land disturbance.

F. Tributaries that flow into the Dan River – South Side

EOR 021 George’s Mill Bittercress Site

Population Trend: Severe Decline; Failed to find

2013: no plants found

1993: 13 plants

On May 14, 2013, this site was searched for 2.5 hours, which included tributaries and seeps that flow from the steep north-facing slopes into the Dan River. A dirt farm road parallels the Dan River which alters seepage flow from vertical rock outcrops into the river.

In 1993, Marj Boyer documented 13 plants on the tributary that forms the northeast property boundary. In 2013, no plants were observed at the exact location as marked on a topographic map by Boyer. Additional searches will determine whether to change the rank from D - poor estimated viability to X - extirpated. However, given the apparently suitable habitat and interested landowner, this parcel holds potential for a re-introduction project.

Two Virginia Cup-plant (*Silphium connatum*) were noted along the edge of a small seepage tributary.

EOR 004 George’s Mill Bittercress Site

Population Trend: Stable

2013: more than 104 plants, with 192 reproductive stems

2001: 105 plants

1996: 226 plants

1995: about 1,000 plants

1993: about 300 plants

1992: none found

1988: about 100 plants

A 2.5 hour survey was conducted east of Tom Mix Road (SR 1455) to the Dan River on May 18, 2013. No permission was granted on the parcels west of Tom Mix Road. Plants are scattered along the entire length of the perennial stream from the bridge to the Dan River. Two seepage areas were noted on the south side of the stream where intermittent tributaries flow into the seeps. The dense herb layer in the seeps made counting Small-anthered bittercress (*Cardamine micranthera*) difficult to impossible, and therefore, the counts for these areas are low. The seeps are dominated with sedges (*Carex crinita*) and a diversity of other species such as Cinnamon fern (*Osmundastrum cinnamomeum*), False nettle (*Boehmeria cylindrica*), Water hemlock (*Cicuta maculata*), Jewel-weed (*Impatiens*

capensis), Jack-in-the-pulpit (*Arisaema triphyllum*), sedges (*Carex* species), and Coneflower (*Rudbeckia laciniata*).

The parcel to the north of the stream and east of Tom Mix Road has been timbered and is fenced. It appears that cattle once grazed in the understory. An area has an open canopy along the stream and is dominated with Tree-of-heaven (*Ailanthus altissima*), Privet (*Ligustrum sinense*), Multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), Chinese yam (*Dioscorea polystachya*), Japanese grass (*Microstegium vimineum*), and Common chickweed (*Stellaria media*). Weedy species that commonly occur in pastures were also noted such as Common Burdock (*Arctium minus*), Corn-salad (*Valerianella* sp.), and Ragweed (*Ambrosia artemisiifolia*). Excessive woody debris occurs in the stream channel and the stream banks are incised.

Previous counts from the east side of Tom Mix Road include zero in June of 1992, 300 in 1993, about 1,000 in 1995, 226 in 1996. The 2013 survey count was 104 plus. On July 18, 2001, Marj Boyer and Moni Bates counted 105 plants east of Tom Mix Road to the Dan River in a 45 to 60 minute search. Discounting the estimate of 1000 plants in 1995, this population remains fairly stable. For this reason, and the presence of seeps that support plants, the current EO rank of C – fair estimate viability may be suitable at this time.

FOR 007 Jessups Mill/George's Mill Corridor

Population Trend: Increase

2013: 705 plus plants with 845 reproductive stems

1992: 200 – 250 plants

This is the only known population that appears to be increasing, based on the 705 plus plants counted during three hour survey on May 14, 2013 compared to 200 to 250 plants in 1992. Five seeps were noted and recorded on the east side of the stream. The seepage areas support a dense herb layer with species such as sedges (*Carex crinita*), Jewel-weed (*Impatiens capensis*), Cowbane (*Oxypolis rigidior*), Mayapple (*Podophyllum peltatum*), Cinnamon fern (*Osmunda cinnamomea* var. *cinnamomea*), and Foamflower (*Tiarella cordifolia* var. *cordifolia*). In some seeps, saxifrage (*Saxifraga micranthidifolia*) is the dominant herb with sedges (*Carex crinita*). The shrub layer includes Elderberry (*Sambucus canadensis*) and Spicebush (*Lindera benzoin*).

One seep that flows over a rock outcrop and supports Small-anthered bittercress (*Cardamine micranthera*) is west of the stream. Most of the adjacent parcels support hardwood forest and the seeps and riparian buffer are in excellent condition.

The EO rank was adjusted from B? – possibly good estimated viability, to A – excellent estimated viability, given the increase in the plant count and seepage habitat with seed sources.

G. Tributaries that flow into the Dan River – North Side

FOR 003 Jessups Mill/George's Mill Corridor

Population Trend: Stable

2013: 10 plants with 19 reproductive stems

1988: 3 plants

Elk Creek is a wide perennial stream that was flowing high during the May 4, 2012 survey due to heavy rainfall the previous day. No permission was granted on the parcel west/southwest of the stream, and due to high water and the wide channel, the survey could not be conducted by hiking in the stream. However, due to a steep and impassible slope and rock outcrop, Elk Creek was crossed a few times and plants were documented on stream right. The two hour hike began at Puckett Road (SR 1433) and continued downstream to the Dan River.

In 1988, only three plants were noted in one location. In 2013, ten plants were observed in four locations. No seepage habitat was seen. Since ten plants were observed, it would be beneficial to search upstream of Puckett Road to determine if there is suitable stream and seepage habitat in the upper watershed. However, from the Google Earth aerial map, the upstream habitat appears to be degraded from agriculture and timbering. The parcel to the west/southwest was recently timbered. The west side of the parcel adjacent to the Dan River (Brown parcel) was timbered and currently supports dense early successional hardwood growth and pines.

Two locations with three plants of Virginia Cup-plant (*Silphium connatum*) were noted during this survey.

This population has an EO rank of D – poor estimated viability. This is appropriate with the small number of plants, no seepage habitat, and high flow of water in Elk Creek that may scour plants.

FOR 011 Jessups Mill/George's Mill Corridor

Population Trend: Stable

2013: 275 plants with 294 reproductive stems

1996: 216 plants

On May 4, 2013 during a 1.25 hour survey, 275 plants were counted with 294 reproductive stems in this population. The plants are well distributed from the start to end GPS coordinates. The stream is a only couple feet wide. The adjacent slopes support a Mesic Mixed Hardwood Forest with Beech (*Fagus grandifolia*), Pawpaw (*Asimina triloba*), Ironwood (*Carpinus caroliniana*), and Spicebush (*Lindera benzoin*) with a diversity of species in the herb layer such as Common black-cohosh (*Actaea racemosa*), Mayapple (*Podophyllum peltatum*), Northern maidenhair (*Adiantum pedatum*), A Sedge (*Carex crinita*), Foamflower (*Tiarella cordifolia* var. *cordifolia*), Jewel-weed (*Impatiens capensis*), Jumpseed (*Tovara virginiana*), Wild Geranium (*Geranium maculatum*), Jack-in-the-pulpit (*Arisaema triphyllum*), Catesby's trillium (*Trillium catesbaei*), Bloodroot (*Sanguinaria canadensis*), and Solomon's seal (*Polygonatum biflorum*). Invasive species

such as Multiflora rose (*Rosa multiflora*) and Japanese honeysuckle (*Lonicera japonica*) are occasionally mixed with the native species.

In 1996, a count of 216 discrete clumps “with more probably present, but most of habitat searched”) is consistent with the 2013 count of 275 plants. The EO rank is BC – good or fair estimate viability.

FOR 010 Jessups Mill/George’s Mill Corridor

Population Trend: Stable

2013: 1276 plants with 1577 reproductive stems

1996: 1700 plants

On May 4, 2013, this population was surveyed for 1.75 hours. Plants are well distributed from the start to end GPS coordinates. One seepage area was noted on the west side of the stream.

The stream channel and vegetation is degraded in sections of the upper reach where the topography is flat. The stream banks are incised and invasive species, such as Multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), and Japanese grass (*Microstegium vimineum*), dominate. Still, Small-anthered bittercress (*Cardamine micranthera*) plants were noted growing in these areas. The Google Earth aerial map shows few open fields in this watershed and no timbering in the recent past.

The reduced number of plants between counts may represent a decline, depending on the method of counting in 1996 when the number represents, “discrete clumps in leaf, flower, and fruit”; however, overall the population remains stable. The EO rank is A-excellent estimated viability.

IV. Discussion

The 2013 survey of populations and habitat revealed some new insights into one of the most important factors likely to influence population stability. Where seeps are found in close proximity to *Cardamine micranthera* populations, the seeps are believed to be the most stable habitat and the long-term genetic repository, housing plants that return year after year, a possible seed bank, and serving as a source for seeds that may wash downstream and colonize new areas in the future. These seeps are important areas for conservation.

The plant counts from the 2013 survey were compared to the past records from the NCNHP EORs. Of the nineteen sites visited in 2013, nine populations appear to be declining, nine remain relatively stable, and one is increasing. One partial survey revealed the population is likely stable and another partial survey was predicted to be in decline. The Population Trend Table below shows the conclusion of the survey.

Table 2: Population Trends

Population Trend	Number of Populations	Comments
Stable	9	One was a partial survey, and we predict that if the entire EO was surveyed the trend would be stable.
Severe Decline to Decline	10	No plants were seen at a total of 5 sites in 2013. One site, Belews Creek, was confirmed extirpated. One was a partial survey, and we predict if whole area was surveyed the trend would be in decline.
Increase	1	
No permission	1	

In five of the ten populations in decline, no plants were observed during the 2013 survey. All these populations require future surveys to determine if their ranks should be reconsidered.

No plants were observed at the site of the stream restoration project on Snow Creek. Two populations, Buck Island Creek (EOR 020) and a tributary to Little Peters Creek (EOR 022) had low plant counts in the past and no plants were seen in 2013. Both of these populations are located in watersheds with high intensity agricultural practices.

Another population on a tributary that flows directly into the Dan River on the south side, EOR 021, had a low plant count in 1993 and no plants were seen in 2013. The habitat appeared undisturbed and other tributaries and seeps on this parcel appeared to have suitable habitat. This parcel has potential as a re-introduction project.

The Bonds Branch (EOR 008) population underwent the most alarming decline. In 1992, about 500 plants were noted and, after two site visits, no plants were seen in 2013. The exact location was searched and the habitat appears unaltered.

Only one population appears to have increased. EOR 007 is a tributary on the south side of the Dan River. In 1992, about 200 to 250 plants were recorded and, in 2013, 705 plus plants with 845 reproductive stems. The number of plants counted in the seeps is on the low side because of the dense herb layer. Five seeps were documented and all of these on the east side or stream right which includes two tax parcels. The adjacent habitat supports hardwood forests with no recent timbering and minimal agricultural row cropping in the watershed.

On the north side and across the Dan River from EOR 007 are two tributaries that support stable populations (EOR 010 and 011). These tributaries parallel one another and plants are fairly regularly scattered along the small channels. Currently, the watershed supports hardwood forests that have not been timbered in the recent past. Similar to EOR 007,

little to no agricultural row cropping is visible on the Google Earth aerial map in these watersheds.

The last notable stable population is EOR 002 on Little Peters Creek between its confluence with Peters Creek and NC Highway 704. In between the two site visits, high flood waters washed away two large patches of plants. The count, after the flood, included 507 plus plants with 674 reproductive stems.

A high priority parcel owned by the Blacks, has rock outcrops, seeps, mature hardwood buffer, and the majority of plants. The adjacent slopes on both sides of the stream support fairly mature hardwood forests. There are open, grassy fields in the uplands, but minimal to no agricultural row cropping seen on the Google Earth aerial map. The site of a new home construction on the Black parcel is visible; however, it has no impact on the stream habitat. Downstream, and on the Priddy parcel, the stream flows through a mini-gorge and fairly mature hardwood forests on the adjacent slopes. It appears that the Black parcel supplies the seed and plant source for the downstream Priddy parcel.

From site visits, historic and current plant counts, habitat, watershed land use, and landowner engagement, the highest priority sites for protection efforts for Small-anthered bittercress (*Cardamine micranthera*) are EOR 002 and 007. The next two populations for priority protection efforts are EOR 010 and 011.

Appendices

Appendix A provides the GPS coordinates (decimal degrees) for each location within each EO. For a single point, the latitude and longitude is recorded, along with the GPS coordinate accuracy, in feet. When plants were scattered fairly regularly along the stream, start and end point coordinates were recorded. Area estimation for the point coordinates are given in meters.

Information about whether the GPS coordinate points were on the stream left or right, facing downstream, is provided. This is important because the tributaries often form property boundaries and, for conservation purposes, the location of the plants and seeps by tax parcel is beneficial. This is especially true for the seepage areas that serve as seed sources for downstream stream habitat.

Appendix B provides the number of plants and reproductive stems at each coordinate within each EO. The number of plants with numbers of reproductive stems is given. Each number recorded in the column is the number of plants counted at the given GPS coordinate with that number of reproductive stems at the top of the column.

Figure 1: Overview map of *Cardamine micranthera* Element Occurrences

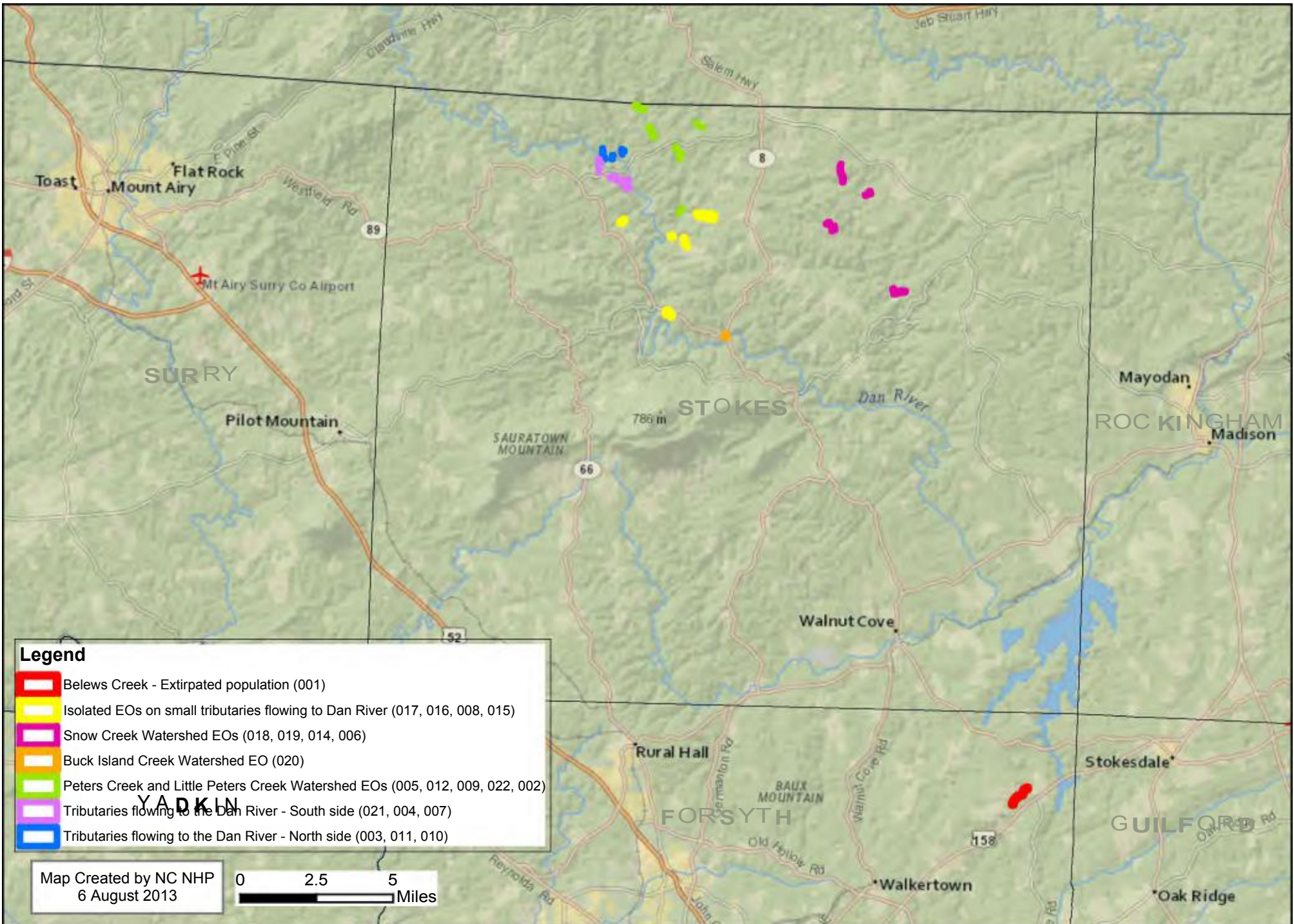
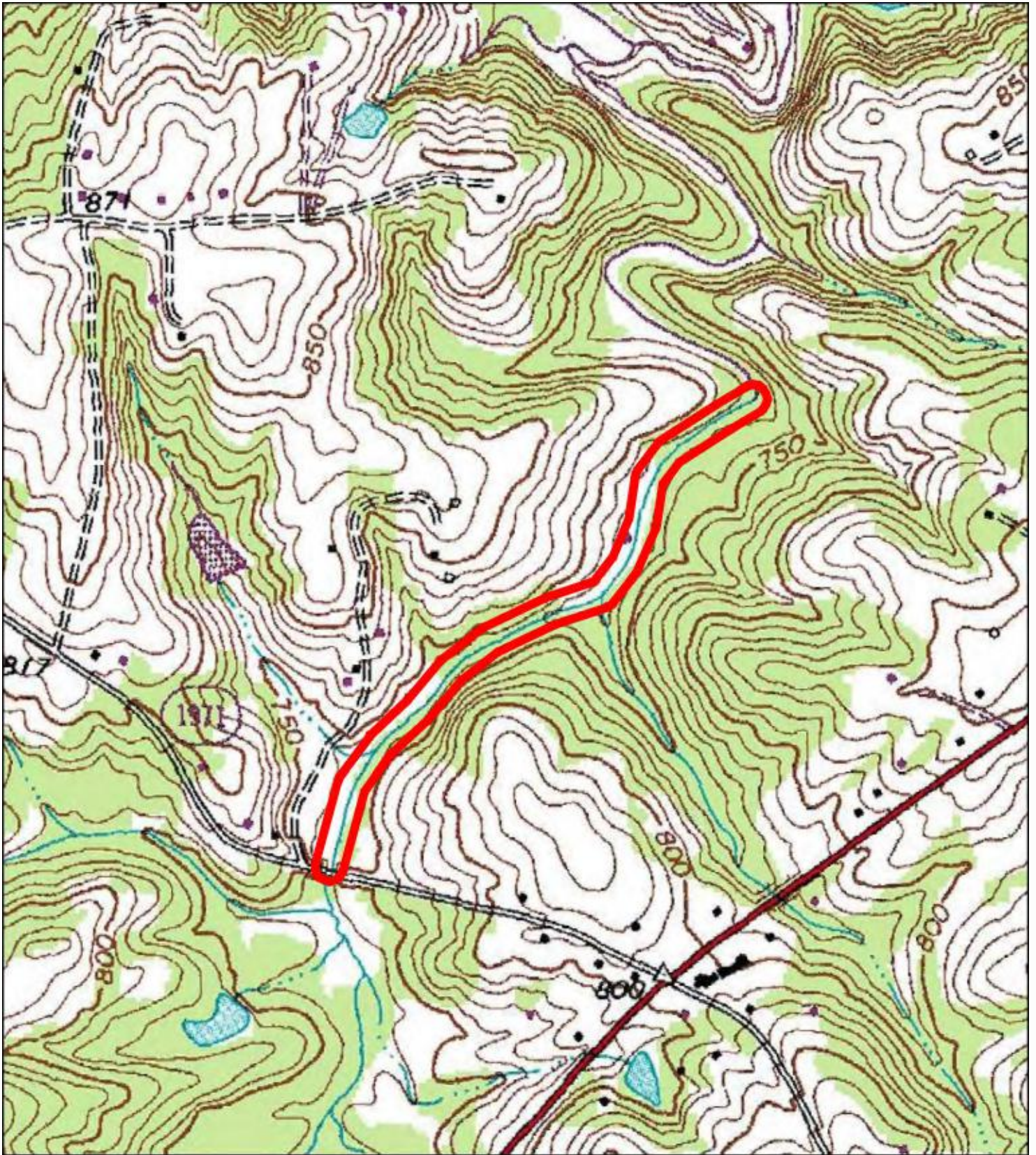



Figure 2: *Cardamine micranthera* Extirpated Population
Belews Creek EO 001



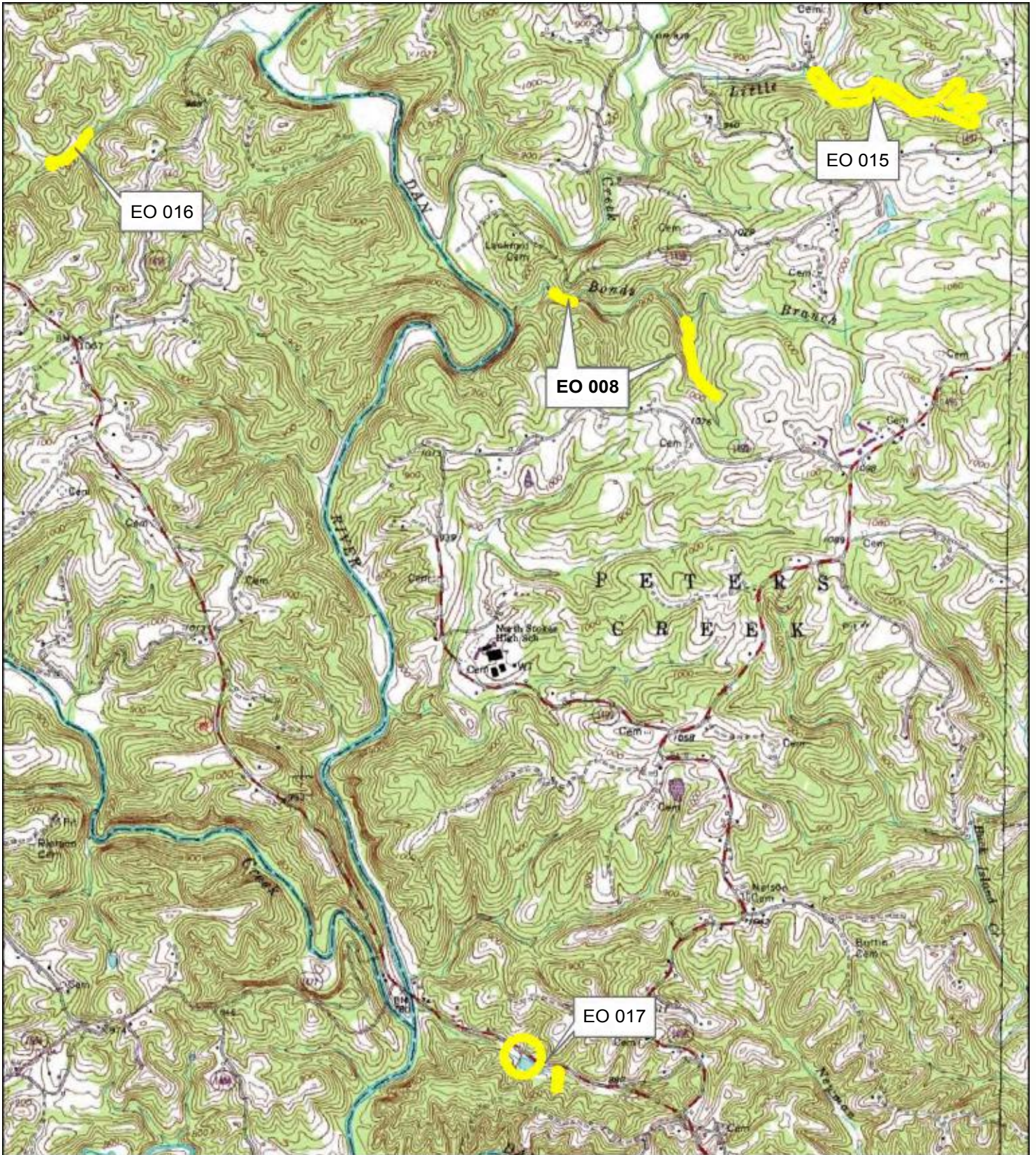
Legend

 Belews Creek - Extirpated population (001)


0 0.095 0.19
Miles

Map Created by NC NHP
3 September 2013

Figure 3: Isolated *Cardamine micranthera*
Element Occurrences on small tributaries flowing
into the Dan River



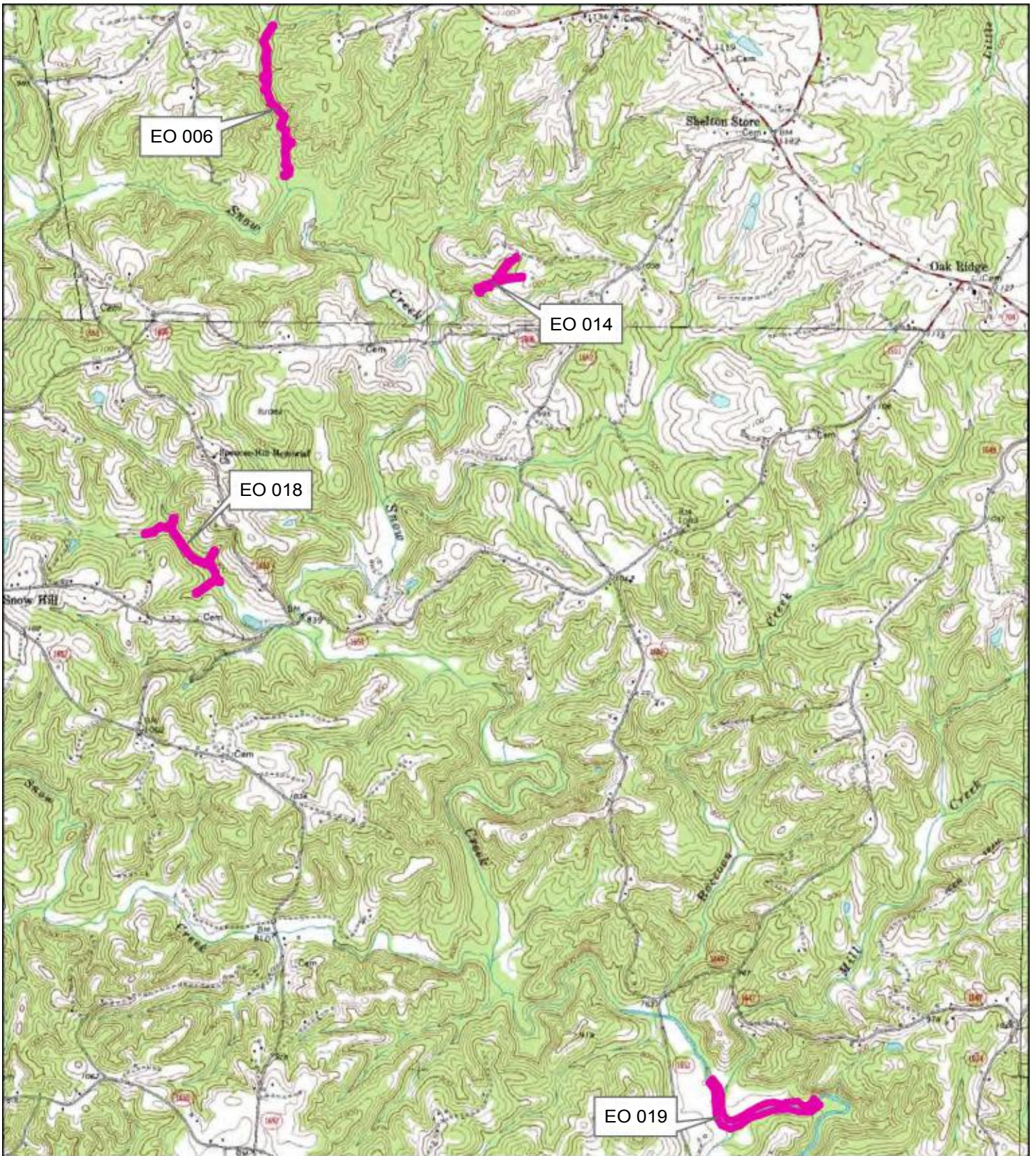
Legend

 Isolated EOs on small tributaries flowing to Dan River (017, 016, 008, 015)

0 0.25 0.5
Miles

Map Created by NC NHP
3 September 2013

Figure 4: Snow Creek Watershed
Cardamine micranthera Element Occurrences




Legend
Snow Creek Watershed EOs (018, 019, 014, 006)

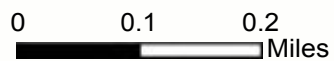
0 0.3 0.6
Miles

Map Created by NC NHP
3 September 2013

Figure 5: Buck Island Creek Watershed
Cardamine micranthera
Element Occurrence 020

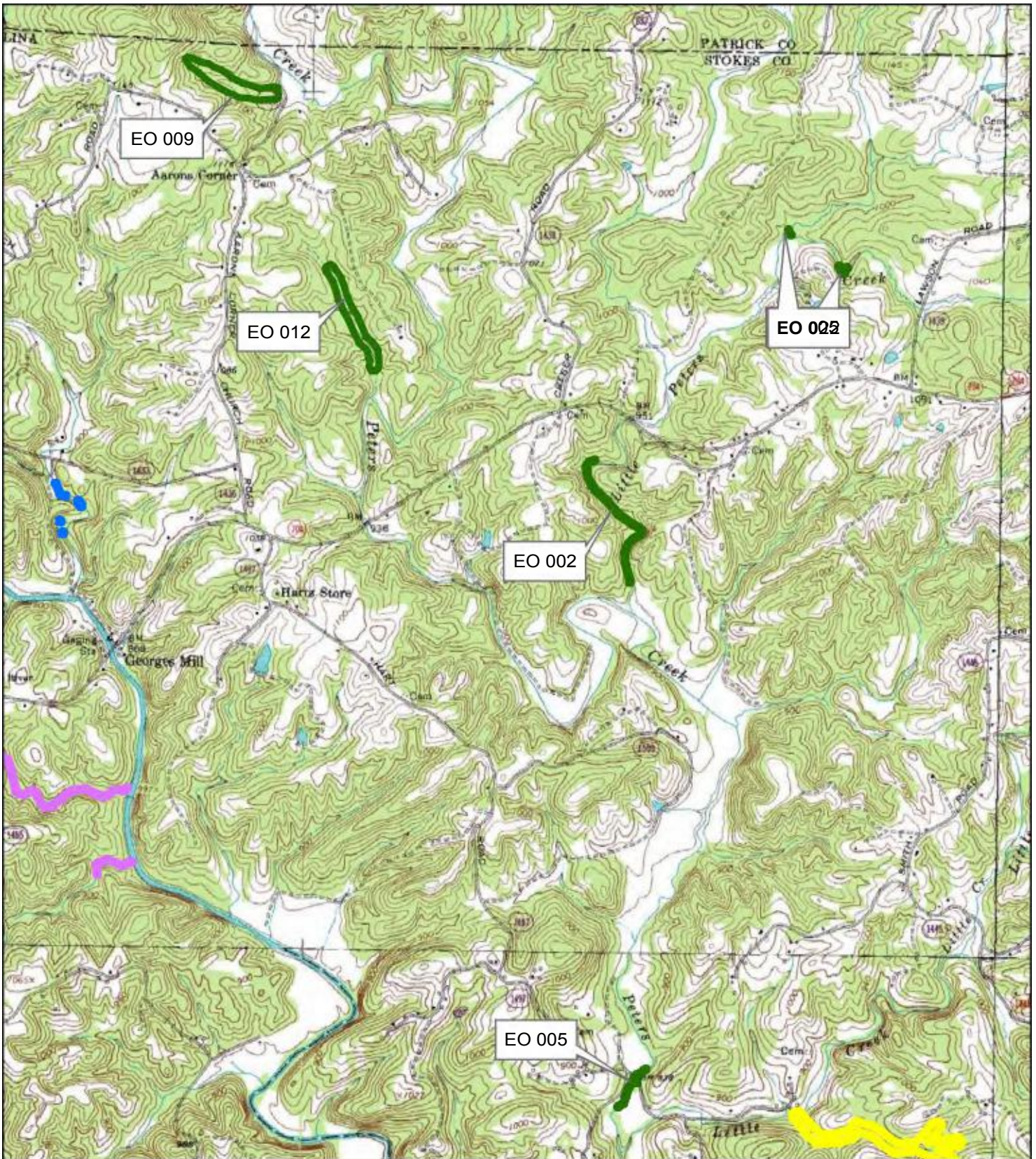


Legend
 Buck Island Creek Watershed EO (020)



Map Created by NC NHP
3 September 2013

Figure 6: Peters Creek and Little Peters Creek Watershed
Cardamine micranthera Element Occurrences



Legend

- Peters Creek and Little Peters Creek Watershed EOs (005, 012, 009, 022, 002)
- Tributaries flowing to the Dan River - South side (021, 004, 007)
- Isolated EOs on small tributaries flowing to Dan River (017, 016, 008, 015)
- Tributaries flowing to the Dan River - North side (003, 011, 010)

Map Created by NC NHP
 3 September 2013

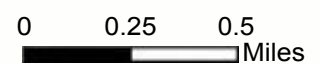




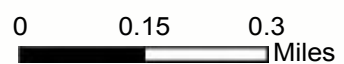
Figure 7: *Cardamine micranthera* Element Occurrences on Tributaries that flow into the Dan River - North and South sides



Legend

-  Tributaries flowing to the Dan River - North side (003, 011, 010)
-  Tributaries flowing to the Dan River - South side (021, 004, 007)

Map Created by NC NHP
3 September 2013



Appendix A: *Cardamine micranthera* 2013 EO survey GSP data - collected and compiled by Moni Bates

EOR #	Site Name	Location (for EOs with multiple GPS points)	EO points (Decimal degrees)		EO linear (decimal degrees of starting and ending points)				GPS Accuracy (ft)	Size Estimate of EO (m)	Seepage/ Stream
			Latitude	Longitude	Start		End				
					Latitude	Longitude	Latitude	Longitude			
A. Extirpated population											
001	Belews Creek		Extirpated								
B. Isolated Occurrences on Small Tributaries flowing into the Dan River on the Hanging Rock Quad											
017	Dan River Bends	A	36.44434	80.27592					19	0.25 x 0.25	
		B	36.44441	80.27600					23		left
		C	36.44407	80.27597					19		
		D	36.44368	80.27602					20	0.5 x 2	seep, left
016	Stokes River Inventory Site ST42		36.48751	80.30667					21	1.0 x 2	stream right
008	Bonds Branch Rare Plant Site		no plants								
015	Little Creek Bittercress Site	A	36.49136	80.26060					14	0.25 x .0.50	stream right
		B	36.49126	80.26059					14		stream right
		C	36.49117	80.26040					18		stream left
		D	36.49128	80.26022					17	0.25 x 3.0	stream right
		E	36.49109	80.26018					16	1 x 2	stream center
		F	36.49099	80.25935					18		stream left
		G	36.49099	80.25948					17	0.25 x 2	seepage, left
		H	36.49125	80.26045					18		seepage, left
C. Snow Creek Watershed											
018	Snow Creek and Tributaries: East of Snow Hill		no permission granted on site	not visited							
019	Snow Creek and Tributaries: Snow Creek at Mill Creek		no plants noted								
014	Stokes County Inventory Site ST37	A	36.50200	80.16273					19	0.25 x 1	confluence of 2 tributaries

		B	36.50193	80.16275					19	1 x 1	stream right
		C	same coordinate as above								stream left
		D	36.50214	80.16258					18		stream right
		E	36.50223	80.16235					18		stream right
		F	36.50222	80.16215					19	0.1 x 0.25	stream center
		G			36.50228	80.16207	36.50235	80.16195	19		stream left
		H			within end and start of above						stream right
		I	36.50260	80.16157					18	1 x 3	stream right
		J	same coordinate as above								stream left
		K	36.50262	80.16147					18	0.1 x 0.1	stream left
		L	36.50266	80.16138					18	0.5 x 2	stream left
006	Lackey Store/Snow Creek Forests - Nettleridge	A	36.50987	80.17626					24		stream right, oxbow
		B	36.51031	80.17632					23	0.1 x 0.25	stream right
		C	36.51307	80.17774					25	0.25 x 0.25	stream right
		D	36.51379	80.17779					20	2 x 5	seep, stream left
		E	36.51387	80.17767					22	1 x 2	same seep
		F	36.50889	80.17626					21	0.1 x 0.1	stream left
		G	36.50830	80.17631					21	0.1 x 0.1	stream right
D. Buck Island Creek Watershed											
020	Buck Island Creek		no plants found								
E. Peters Creek and Little Peters Creek Watershed											
005	Peters Creek at SR-1497 Bridge		36.49382	80.27118					18	0.25 x 0.25	stream right
012	Lum Hall Forests	A	36.52851	80.28770					32	0.1 x 0.1	stream right
		B	36.52931	80.28775					29	0.1 x 0.25	stream right
		C	36.52944	80.28776					21	0.25 x 1	stream left
		D	36.52953	80.28769					20	0.1 x 0.25	stream left
		E	36.52990	80.28828					17		stream left
		F	36.52988	80.28828					21	0.1 x 0.1	stream left
		G	same coordinate as above							5 x 1	stream right
		H	36.53004	80.28847					25	0.1 x 0.1	stream left
		I	36.53016	80.28847					21	0.25 x 1	stream left
		J	36.53014	80.28869					25	0.5 x 1	stream right

		K	36.53032	80.28862					18	0.1 x 0.1	center left
		L	36.53034	80.28873					25	0.25 x 0.25	stream right
		M	36.53041	80.28871					21	0.1 x 0.25	stream right
		N	36.53064	80.28891					26	0.25 x 1	stream right
		O	36.53051	80.28896					27	0.5 x 0.5	stream left
		P	same coordinate as above								stream right
		Q	36.53146	80.28923					26		seep, stream right
		R	36.53192	80.28975					24	1 x 1	stream right
		S	36.53247	80.58967					25	0.25 x 0.50	stream left
		T	36.53260	80.28968					27	10 x 20	seep, stream right
		U	36.53266	80.28962					30	5 cm x 5 cm	stream right
		V	36.53275	80.28969					27	10 cm x 10 cm	stream right
		W	36.53305	80.29034					25	10 cm x 10 cm	stream left
		X	36.53317	80.29063					32	5 cm x 10 cm	stream right
		Y	36.53317	80.29063					32	5 cm x 10 cm	stream right
		Z	36.53338	80.29050					20	5 cm x 10 cm	stream right
		AA	36.53353	80.29073					21	0.25 x 1	stream left
		BB	36.53363	80.29009					20	10 cm x 10 cm	stream left
		CC	36.53420	80.29128					21	10 cm x 10 cm	stream left
		DD	36.53445	80.29169					21	0.25 x 1	stream right
009	Aaron's Corner Rare Plant Site	A	36.54201	80.29620					26	10 cm x 10 cm	stream center
		B	36.54220	80.29621					29	0.5 x 1	stream left & right
		C	36.54204	80.29585					31	10 cm x 10 cm	stream left & right
022	Upper Reaches of Little Peters Creek		no plants found								
002	Little Peters Creek Bluffs	A			36.52374	80.27459	36.52396	80.27441	18		stream right
		B	36.52377	80.27481					22	2 x 3	trib, stream right
		C	36.52376	80.27470					32	10 cm x 10 cm	
		D	36.52224	80.27411					35		rock outcrop, stream right
		E	36.52245	80.27360					20		stream left
		F	36.52254	80.27380					21		stream left
		G	36.52242	80.27393					22		stream left
		H	36.52314	80.27454					20	2 x 4	stream left
		I	36.52360	80.27467					24	10 cm x 10 cm	stream left
		J	36.52076	80.27139					22	10 cm x 10 cm	stream right
		K	36.50206	80.27147					25		stream center
		L	36.51956	80.27203					21	2 x 3	stream left
		M	36.51943	80.27224					22	2 x 3	stream right

		H	36.51546	80.31912					20		stream left & right
		I	From above GPS to Dan								stream left & right
		J			36.51714	80.31987	36.51704	80.32024	22		stream left
		K									back on main stream
		L	36.51561	80.31857					21		seep, stream right
		M	36.51545	80.31878					20		seep, stream right
		N			36.51468	80.31905	36.51432	80.31911	25		seep, stream right
G. Tributaries that Flow into the Dan River - North Side											
003	Jessups Mill/Gorges Mill Corridor	A	36.52166	80.30523					18	1 x 10	stream left
		B	36.52147	80.30504					22		stream left
		C	36.52069	80.30630					21	0.5 x 2	stream right
		D	36.52013	80.30614					21		stream left
011	Jessups Mill/Gorges Mill Corridor				36.51801	80.31188	36.51981	80.32147	20		edges of stream
010	Jessups Mill/Gorges Mill Corridor	A			36.51730	80.31649	36.52076	80.31793	19		
		B			36.51788	80.31644			20		
		C			36.51855	80.31686			22		
		D			36.51915	80.31750			20		
		E			36.51989	80.31765			18		

Appendix B: *Cardamine micranthera* 2013 Number of plants and flowering stems - collected and compiled by Moni Bates

EOR #	Site Name	Location*	Top Row is number of reproductive stems on individual plants -flowering (FL)/fruiting (FR)/budding; values represent number of plants in each location with this number of reproductive stems																Total individuals with FL/FR stems	2013 EO Total	Comments
A. Extirpated Population																					
001	Belews Creek																		0		
B. Isolated Occurrences on Small Tributaries flowing into the Dan River on the hanging Rock Quad																					
017	Dan River Bends	A	12	5															17	30 plants	
		B		1															1		
		C			1														1		
		D	1	5	1			1	1	2									11		
016	Stokes River Inventory Site ST-42																	12	10 or fewer plants	Counted number of FL/FR stems instead of plants	
008	Bonds Branch Rare Plant Site			2	1											1		4	4 plants		
015	Little Creek Bittercress Site	A																20	94 FL/FR stems	Individual plants not counted. Counted number of FL/FR stems instead of plants.	
		B																6			
		C																1			
		D																12			
		E																37			
		F																5			
		G																5			
		H																8			Totals not accurate due to dense timbering
C. Snow Creek Watershed																					
018	Snow Creek and Tributaries: East of Snow Hill																		Not visited		
019	EOR 019 Danbury																		Not Visited		

EOR #	Site Name	Location*	Top Row is number of reproductive stems on individual plants -flowering (FL)/fruiting (FR)/budding; values represent number of plants in each location with this number of reproductive stems																				Total individuals with FL/FR stems	2013 EO Total	Comments		
014	Stokes County Inventory Site ST-37	A	3																		1	4	46 plants				
		B	3	1	1		1																	6			
		C	1																					1			
		D				1																		1			
		E		1																				1			
		F									1													2			
		G	8	1	2			1																12			
		H	1																					1			
		I	4		1	1		1																7			
		J	1																					1			
		K	2																					2			
		L	6	1			1																	8			
		006	Lackey Store/Snow Creek Forests	A																				1	1	147 plants	
B	2																						2				
C	5			1																			6				
D																							119	FL/FR stems not counted			
E																							16	FL/FR stems not counted			
F	2																						2				
G											1												1				
D. Buck Island Creek Watershed																											
020	Buck Island Creek																								0		
E. Peters Creek and Littke Peters Creek Watershed																											
005	Peters Creek at SR-1497 Bridge																								0	0	
012	Lum Hall Forests	A																							15	15 total plants with 7 FL/FR stems	
		B																							14	14 total plants with 33 FL/FR stems	
		C			2	5																			7		
		D	1					1																	2		
		E	1																							1	
		F	2	1																						3	
		G	2	6	2																		9			19	

EOR #	Site Name	Location*	Top Row is number of reproductive stems on individual plants -flowering (FL)/fruiting (FR)/budding; values represent number of plants in each location with this number of reproductive stems																				Total individuals with FL/FR stems	2013 EO Total	Comments
		H	1		1																2				
		I	6	3	2																11		Plants covered with sand, difficult to count FL/FR stems		
		J	2	8	3	1	1														15				
		K																			1		1 plant with 33 FL/FR stems		
		L	3	4																	7				
		M			1	1															2				
		N	3																		3				
		O	7	6																	13				
		P	1																		1				
		Q																			10		10 total plants with 20 FL/FR stems		
		R		1	2	1								1							5				
		S	6	1			1														8				
		T																			72		72 total plants with 63+ total FL/FR stems		
		U		1	1																2				
		V	2	4																	6				
		W	3																		3				
		X		5	5	2															12				
		Y	1	1																	2				
		Z	1	1		1															3				
		AA	2				1														3				
		BB	1	1		1															3				
		CC	1											1							2				
		DD		3	1	2	1														7				
009	Aaron's Corner Rare Plant Site	A		2																	2	21			
		B	1	16																	17			Partial survey	
		C		2																	2				

EOR #	Site Name	Location*	Top Row is number of reproductive stems on individual plants -flowering (FL)/fruiting (FR)/budding; values represent number of plants in each location with this number of reproductive stems																				Total individuals with FL/FR stems	2013 EO Total	Comments		
022	Upper Reaches of Little Peters Creek																							0	No plants noted		
002	Little Peters Creek Bluffs	A																				298	507+ plants	496 total FL/FR stems			
		B		4	2		1				1													8			
		C	1	2																				3			
		D																									
		E		3																				3			
		F		5																				5			
		G		1																				1			
		H		22	1						1													24			
		I								1														1			
		J		1																				1			
		K		3	1	1																		5			
		L	1	7	1			1			1													11			
		M		5	2	1	2						1											11			
		N		13	2	1																		16			
		O	1	3																				4			
		P		1																				1			
		Q		2																				2			
		R		1																				1			
		S					1																	1			
		T			1																			1			
U		1																			1						
V		1																			1						
W									2												2						
X		4	1		1																6						
Y																					100's		100's more prior to flooding				
F. Tributaries that flow into the Dan River - South Side																											
021	George's Mill Bittercress Site																							0	No plants noted		
004	George's Mill Bittercress	A																		2		2		104 plants	Inaccurate count in one seep due to lack of access		

EOR #	Site Name	Location*	Top Row is number of reproductive stems on individual plants -flowering (FL)/fruiting (FR)/budding; values represent number of plants in each location with this number of reproductive stems																				Total individuals with FL/FR stems	2010 plants	Comments		
007	Site	B	7																		24	705 plants	20 total FL/FR stems				
		C	4				1												1		6		8 total FL/FR stems				
		D																			11						
		E																		1			2				
		F	4	1																			6				
		G	2				1																4				
		H	2	7																			15				
		I			1		1																2				
		J																					1				
		K																					30	Inaccurate count due to very dense herb layer			
		L		3																			3				
		M		1																			1				
		007	Jessups Mill/Georges Mill Corridor																					1			
A	2																				2						
B																					19	7 total FL/FR stems					
C				7			1														8						
D	1			5	1																7						
E																						56	138 total FL/FR stems				
F				18	1			1													68	55 total FL/FR stems					
G																						55	73 total FL/FR stems				
H																						121	172 total FL/FR stems				
I	2			21	7			4	1	2										1	2	41					
J				12	5	1			2	1	2	1	1								1	27					
K	1			6	1																	8					
L																						75	56 total FL/FR stems				
M																				150	FL/FR stems not counted						
N	3	35	6	1	1	1													1	48							
G. Tributaries that flow into the Dan River - North Side																											
003	Jessups Mill/Georges Mill Corridor	A		4	2																6	10 plants					
		B		1																	1		Partial survey due to lack of access				
		C		2																	2						
		D																		1	1						
011	Jessups																					275	294 total FL/FR stems				

BOR #	Site Name	Location*	Top Row is number of reproductive stems on individual plants -flowering (FL)/fruiting (FR)/budding; values represent number of plants in each location with this number of reproductive stems																				Total individuals with FL/FR stems	2013 EO plants	Comments	
	Mill/Georges Mill Corridor																									
010	Jessups	A																						1276 plants	1577 total FL/FR stems	
	Mill/Georges Mill Corridor	B																								
		C																								
		D																								
		E																								

*See corresponding location and GPS point in Appendix A



Ward, Sara <sara_ward@fws.gov>

Dan River Restoration

John Hutton <jhutton@wildlandseng.com>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Oct 22, 2014 at 4:48 PM

Hi Sarah,

We have a stream restoration project under option in the Dan River basin near Martinsville, VA. We are planning to submit a concept proposal in response to the Scoping Document that is currently out for the coal ash spill. I was hoping to set up a time to come to your office and discuss the site as well as what you are interested in seeing in any proposal that might be submitted. If you are open to this, please let me know some times over the next couple weeks that work for you.

We are currently working with Emily Jernigan and Sarah McCrae on a dam removal project that has potential to open up habitat for Cape Fear Shiner on the Rocky River. Thought I'd mention it in case you want to ask them about some of the work we are doing.

Thanks and I look forward to meeting you.

.....
John Hutton | Vice President

O: 919.851.9986 x102 M: 919.723.8203

[Wildlands Engineering, Inc.](#)

312 West Millbrook Road, Suite 225

Raleigh, NC 27609



Ward, Sara <sara_ward@fws.gov>

Some letters of support for the Mayo River Trust Property Purchase as Mitigation

Ken Bridle <kbridle@piedmontland.org>
To: "Ward, Sara (sara_ward@fws.gov)" <sara_ward@fws.gov>

Tue, Oct 28, 2014 at 5:20 PM

Hello Sara,

I am not sure if you have these, but they sent this to me and I wanted to make sure it was part of the comments.

Thanks

Ken

Kenneth A. Bridle, Ph.D.

Piedmont Land Conservancy


P.O. Box 4025, Greensboro, NC 27404-4025

Stewardship Director

PLC Office 336-691-0088

Home office 336-591-5882



 Letters of Support fro Acquisition of Trusts as Mitigation.pdf
433K



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

June 11, 2014

Mr. David Cook, North District Superintendent
12700 Bayleaf Church Rd
Raleigh, NC 27614 - 9633

Dear Mr. Cook,

I am writing in reference to the proposal that DENR request Duke Energy to make provisions for the acquisition of the Upper and Lower Trust Properties to be donated to Mayo River State Park as a part of the mitigation effort resulting from the coal ash spill. As you are well aware, both of these tracts of land are critical to the development of Mayo River State Park, and to the conservation of the Mayo River corridor. Both tracts encompass a significant portion of the Mayo River corridor, about nine miles of river bank if you count the linear total along both sides of the river. Acquisition of the Upper Trust would protect irreplaceable habitat for a number of threatened species, guarantee continued public access to the hugely popular "Boiling Hole" area near Anglin Mill Rd, and bolster the joint effort with the Commonwealth of Virginia to develop the Mayo River corridor for recreational access. Acquisition of the Lower trust Properties would join several isolated tracts already belonging to the State Park system together and form a contiguous land mass that would allow for public access to a very significant percentage of the river, as well as to provide an opportunity to begin planning and installation of park facilities to include areas for camping, picnicking, hiking, fishing, and paddling. The acquisition of both properties would further serve to protect the watershed and all associated resources they encompass in perpetuity. For these reasons, I am asking that the Division ask DENR to request that Duke Energy acquire the Upper and Lower Trust Properties as part of their efforts to mitigate damage from the coal ash spill, and donate these tracts to Mayo River State Park.

Sincerely,

Keith Martin, Park Superintendent
Division of Parks and Recreation, NCDENR
Mayo River State Park
500 Old Mayo Park Rd
Mayodan, NC 27027



LINDLEY S. BUTLER, PH. D.
North Carolina and Maritime History Consultant

Mayo River State Park
500 Old Mayo Park Road
Mayodan, NC 27027

June 8, 2014

Rising on the Blue Ridge escarpment in Virginia, the North and South Mayo rivers have been declared Virginia Scenic Rivers. These two streams meet just south of the North Carolina border to form the Mayo River, which flows some 17 miles through underserved and economically distressed Rockingham County to join the Dan River at Madison. In a forested and pastoral landscape, the near pristine Mayo is the highest-quality tributary of the Dan and worthy of scenic river designation. It is a gem in the populous piedmont and has provided recreation for a century in a region that today has more than two million people within two hours' drive.

A dozen years ago founders of the Dan River Basin Association revived the long-dormant project of establishing a state park to protect the Mayo River. In the early months of 2003 we organized a park steering committee, secured legislation authorizing the park, sponsored a professional plan, and guided state park personnel. By 2010 about 2000 acres had been acquired, mostly non-contiguous, and an interim facility was opened on 400 acres near Mayodan.

If this park is to develop to its recreational and economic potential for the citizens in the region, more of the river corridor must be acquired. There are two keystone floodplain tracts, the Upper and Lower Trust Properties, which were acquired in the mid- and late twentieth century for power dams that will never be built. As a member of the Mayo River State Park Advisory Committee, I encourage you to request that DENR ask for a portion of the coal ash spill mitigation fund from Duke Energy be earmarked for acquisition of these two trust properties along the Mayo River, and that these tracts be donated to the Division of Parks and Recreation to be added to Mayo River State Park.

Within these corridors is the best-preserved series of 1000-year-old Native American stone fish weirs in the state—our oldest man-made structures. There are unique North Carolina Natural Heritage Areas that include rare and endangered wildflowers, fish, mussels, and land animals, including uncommon black bear, otter, beaver, and plentiful wild turkeys and deer.

As a native of Eden I grew up on the Dan and Smith rivers and have been boating on them for over 60 years. By preserving the Mayo River, Duke Energy will receive the gratitude of thousands in the Dan River Basin and create a preservation legacy that will have a positive and lasting impact on current and future generations.

Sincerely yours,

Lindley S. Butler
Mayo River State Park Advisory Committee



ROCKINGHAM
SOIL AND WATER CONSERVATION DISTRICT
Natural Resources Conservation Service

525 NC 65, Suite 100
Reidsville, NC 27320-8861
Phone: (336) 342-0460 Ext. 3
Fax: (336) 361-0062

June 10, 2014

Mr. Keith Martin
Park Superintendent
Mayo River State Park
500 Old Mayo Park Rd.
Mayodan, NC 27027

Dear Mr. Martin,

I would like to voice my opinion as a member of the Park Advisory Committee in regards to an opportunity that may bring great progress to the continuing formation of the Mayo River State Park land base. I understand that there may be mitigation needs from the recent coal ash spill into the Dan River on the part of Duke Energy and I fully support the acquisition of the Upper and Lower Trust properties on the Mayo River for inclusion in the park. The reasons for so advocating this are many and I feel that there could be no better choice made.

To begin with, in my position as District Watershed Conservationist, the protection of these properties certainly will enhance efforts to protect the quality of the waters and natural life that exists in and around those waters. There are a wide variety of special concern species whose level of listings range from significantly rare to endangered. The addition of these properties would enable the park to establish permanent access points for paddling, fishing, picnicking, hiking and camping consequently allowing all citizens the opportunity to be close to nature and understand more about our wonderful natural world. Everyday these opportunities seem to be dimishing and once lost cannot easily be re-established.

When considering the economic aspects of this opportunity it is important to remember that Rockingham County is a Tier I county and is in great need of any opportunity to put forward a positive face and be able to offer a quality outdoor experience that will bring people here to visit and support our local businesses and perhaps even consider that Rockingham County would be a nice place to live and work. In fact it really is and we are fortunate to have the ambience of a pleasant community and wish to build on what is already here and in place.

Best Regards,

J. Kevin Moore

Park Advisory Committee member, District Watershed Conservationist,
Director- Rockingham County Soil & Water Conservation District



9 June 2014

Mr. Keith Martin, Superintendent
Mayo River State Park
500 Old Mayo Park Road
Mayodan, NC 27027

Dear Keith:

As a member of the Mayo River State Park Advisory Committee (Education member) I am writing in support of adding the two trust properties along the Mayo River in Rockingham County to mitigation with Duke Energy for the settlement of the Coal Ash Spill in the Dan River near Eden, North Carolina. The two trust properties would make an invaluable addition to the Mayo River State Park.

The upper trust land includes the confluence of the north and south Mayo rivers just below the Virginia State Line. This section of the Mayo includes the best whitewater canoeing in Piedmont North Carolina. The area is very popular with canoeists from the Piedmont Triad. The property has a number of rare and endangered wildflowers and plants as well as points of interest to cultural historians. These include: a beautiful 12 foot waterfall at the old DeShazo gristmill site, the best preserved Native American fish trap on the Mayo River, and the remains of the one-half mile long Anglin gristmill race that is located on the east bank of the river. The mill, erected in 1845, has long since disappeared. The area was also the site of an early nineteenth century crossing point of the Mayo known as King's Ford. In 1895 a covered bridge was erected near the ford and survived until the 1920s. The highway through the area is still known as Anglin Mill Road.

The second trust property is located approximately four miles south of the Anglin Mill site in the vicinity of the N.C. 770 highway bridge on the Mayo. This section of the river contains no whitewater rapids but is popular with less skilled canoeists who enjoy the scenic views along the river. If this trust property could be acquired the area could perhaps become the site for the Mayo River State Park visitor center and park headquarters since the area is located midway between the Virginia Line and the Town of Mayodan. The site would be ideal for this purpose.

For over thirty years I have hiked the hills of the Mayo River Valley and found a large amount of interesting subjects ranging from botany, geology, and cultural history. The Mayo River State Park has all these things and more but to reach its full potential for the citizens of North Carolina the park needs the two trust properties. If Duke Energy would purchase these properties for the Mayo River State Park, it would be a wonderful gift to the citizens of North Carolina.

Sincerely,

Bob Carter

Bob Carter
Rockingham County Historian

Mayo River State Park

500 Old Mayo Park Rd

Mayodan, NC 27027

Atten: Keith Martin, Park Superintendent

I understand that there is an idea being discussed that would involve Duke Energy using some of its funding as a result of the coal ash spill mitigation to purchase the upper and lower trust properties along the Mayo River and then donating that property to the Mayo State Park. I am very much in favor of that happening and would see it as a great boost to the community and an improvement to the natural area that would at least try to replace some of the damage done to the environment by the coal ash spill. I am an avid canoeist and have went through that area of the Mayo River several times and have always marveled at its scenic and natural beauty and would love to see it added to the park system so that it could be protected for future generations.

Please put forth the maximum effort to encourage Duke Energy to purchase and donate the property.

Sincerely,


Paul W Butler



PARTNERSHIP FOR ECONOMIC & TOURISM DEVELOPMENT

Partnering for Economic Progress in Rockingham County, N.C.

June 12, 2014

Mr. Keith Martin
Park Superintendent
Mayo River State Park
500 Old Mayo Park Rd.
Mayodan, NC 27027

Dear Mr. Martin,

As a member of the Mayo River State Park Advisory Committee and on behalf of the Rockingham County Tourism Development Authority I would like to fully support that Duke Energy be requested by DENR to include acquisition of the of the Upper and Lower Trust properties along the Mayo River to be donated to Mayo River State Park. This request is part of the mitigation effort for the coal ash spill in Rockingham County, NC. The acquisition of these properties is key to the continued development of the park and outdoor recreation in Rockingham County.

As Director of the Rockingham County Tourism Development Authority, the protection of these waters will contribute to the ongoing efforts of promoting river recreation in our community. The importance of protecting the quality of the waters and the natural wildlife surrounding this area is vital to our community. Rockingham County is a Tier 1 county and we rely on the economic impact of attracting visitors to our community to experience our natural resources. The addition of the properties to the Mayo River State Park would allow additional areas of recreation to attract visitors to our community.

Again, I would request that DENR ask for a portion of the coal ash spill mitigation fund from Duke Energy be earmarked for acquisition of these two trust properties along the Mayo River and that these tracts be donated to the Division of Parks and Recreation to be added to Mayo River State Park.

Sincerely,

Robin Yount
Rockingham County Tourism Development Authority

June 12, 2014

Mayo River State Park
500 Old Mayo Park Road
Mayodan, NC 27027
Attn: Keith Martin
Park Superintendent



Dear Mr Martin

I realize I am a Virginia resident but I am writing this letter never-the-less to express my dissatisfaction and concerns over the Duke Energy contamination of 70 miles of the Dan River. Here in Danville they have shut down the only public access to the river above the Schoolfield Dam for cleanup purposes during the Summer months making use of the river off limits for boating. I too am a boater. I am a member of the Smith River Valley Canoe Club. Besides kayaking on the Dan River, I often kayak the section of the South Mayo River which includes the upper and lower trust properties in the area of the "boiling Hole, S-Turn and Beach". This is a pristine area of the river and is often in dispute.

If Duke Energy should offer a mitigation package to the DENR, I would ask that it include purchase of the two trust properties mentioned above. This property could then be donated to the Mayo River State Park who in turn could make the area a public park to be used by all.

Respectfully Yours

A handwritten signature in black ink that reads "Robert D Schasse".

Robert D Schasse

June 14, 2014

[REDACTED]

Keith Martin
Park Superintendent
Mayo River State Park
500 Old Mayo Park Road
Mayodan, NC 27027

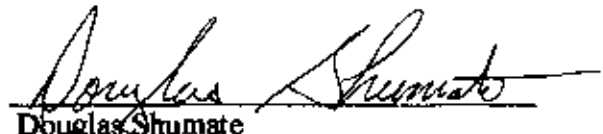
Attn: Keith

It has come to my attention there is an idea that Duke Energy might consider the purchase of some land known as the Upper and Lower Trust Properties along the Mayo River in Rockingham County which could then be donated to the Mayo River State Park. As a Member of the Mayo River State Park Advisory Committee, a paddler, a hiker, owner of Troublesome Creek Outfitters in Eden, NC, and resident of Rockingham County, I want to express my support of this means of mitigation for the coal ash spill which happened in Eden.

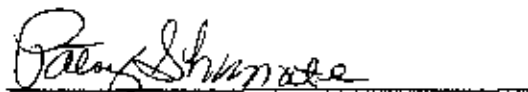
The sections of the Dan river which flows from the Duke Energy plant in Eden to Hwy 700 and onto Berry Hill Bridge (the upper most section affected by the coal ash spill) are sections which a group of us paddlers paddled fairly regularly (3 or 4 times a year). Several of Troublesome Creek Outfitters customers paddled and fished those sections regularly also. The next section downstream was used regularly by fishermen customers of Troublesome Creek Outfitters. The coal ash spill will cause us and others to stay off these sections for some time. The protection of the Mayo River by the Mayo River State Park would help assure that the Dan would continue to have a clean tributary which would aid in cleaning the affected sections of the Dan river. It would also show Duke Energy's concern for natural pristine rivers in the the affected county. The Mayo River, particularly the Upper Tract, is an area which has often been plagued by vandals, much trash and debris, and on occasions there have been concerns of safety of those wanting to enjoy the scenic and natural beauty of the area particularly the area of the Boiling Hole and S-Turn rapids. This area is often used by local paddling clubs, as well as out of state paddlers and fishermen. The ownership of this property by the Mayo River State Park would improve environmental conditions, improve cleanliness, and make it safe and acceptable for more use by a much larger group of people.

I want to encourage Duke Energy to consider the purchase of the Upper and Lower Trust Properties along the Mayo river and donation of those properties to the Mayo River State Park as mitigation of the coal ash spill.

Thank you,


Douglas Shumate

Owner, Troublesome Creek Outfitters
Resident of Rockingham County
Member of Mayo River State Park Advisory Committee



Patsy Shumate
Kayaker and concerned citizen
Resident of Rockingham County

[REDACTED]

Mayo River State Park
Attn: Keith Martin, Park Superintendent
500 Old Mayo Park Road
Mayodan, NC 27027

June 24, 2014

Dear Mr. Martin,

Thanks for taking time to talk with me about the "keystone properties" that would help improve Mayo River State Park. Members of the Carolina Canoe Club have enjoyed paddling the river for many years.

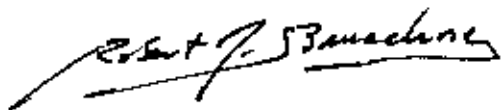
It is our hope that if money becomes available from a mitigation settlement with Duke Energy or from any other source, that the park will be able to purchase the upper and lower trust properties to provide river access areas and hiking trails. (See map link below.) The parcels' river frontage of about nine miles will provide a good buffer and help protect the river's water quality.

The club appreciates your efforts to provide great recreational opportunities for outdoor enthusiasts and to protect the river.

I'll also suggest that the club work on a cleanup at the Mayo this fall.

Thanks again for your help.

Sincerely,



Bob Brueckner
Carolina Canoe Club conservation chair



Coastal Canoeists
PO Box 566
Richmond, Virginia 23218
Coastals.org



Keith Martin, Park Superintendent
Mayo River State Park
500 Old Mayo Park Road
Mayodan, NC 27027

Dear Mr. Martin,

Coastal Canoeists, a recreational paddling club based in Virginia, supports using a portion of Duke Energy funds coming because of their coal combustion byproduct spill in Dan River to acquire more land for Mayo State Park in North Carolina. This will help preserve clean water, keep land natural, and expand recreational opportunities.

We do ask that any park expansion include adequate facilities for canoe and kayak putins and takeouts. We also ask that such putins and takeouts be accessible at all times and that there not be a fee or residence restriction on users.

Thank you very much.

Sincerely,

David Bernard, Conservation Chair

Phone 804-658-3712

creek1r

From: [REDACTED]
Date: Monday, June 30, 2014 9:49 AM
To: "Bryant Bev" [REDACTED]
Subject: Mayo River

To: Superintendent Keith Martin,

I support, as part of the Duke Power Coal Ash Mitigation, the purchase and transfer of the trust property, known as the Boiling Hole section of the Mayo River, to the Mayo River Park system.

I have canoed this area for 30 years and do frequently.

Sincerely,



B R Bryant

Member Smith River Valley Canoe Club

[REDACTED]
[REDACTED]

Edward Knight

16 June 2014

NCDENR c/o Mayo River State Park
Keith Martin, Park Superintendent
500 Old Mayo Park Road
Mayodan, NC 27027

RE: Duke Energy

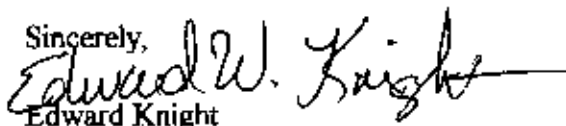
As you may know, there is an idea gaining momentum that would be an excellent opportunity for North Carolina DENR and Duke Energy to consider. In relation to the recent coal ash controversy that has given Duke Energy a black eye, a positive method of making amends has surfaced. This is that a portion of the mitigation project from Duke Power Company be specifically earmarked for acquisition of the Upper and Lower Trust Properties along the Mayo River. These tracts would then be donated to the Division of Parks and Recreation to be added to Mayo River State Park.

The attempts the park has made to acquire these properties have reached an impasse due to the appraised value of the land and the price the land owners are asking. If Duke Power would purchase and donate it to the park then that would resolve the issue. This would be something done within the county affected by the coal ash spill and the results would help preserve a clean source of Dan River water.

Such an act would secure protection for a pristine river corridor that holds a wide variety of special concern species, whose level of listings range from significantly rare to endangered. From a recreational standpoint this would ensure permanent access for paddling, fishing, picnicking, camping, and hiking, and provide a means for visitors to be assured a safe and secure environment. From an economic standpoint the improved access and recreational opportunities would have a noticeable impact on tourism and raising the quality of life for residents in an under served county. Inclusion of this property into the park system would benefit a very wide and divergent cross section of the public, on a local, regional, and statewide level.

Additionally, the benefit to both our state and to Duke Energy would be substantial. Duke especially has taken a staggering hit in the area of public relations. Many residents have also expressed skepticism that the state will hold Duke responsible in meaningful ways. Such an effort as described above would show the public that Duke is sincere about being a good neighbor as well as publicly supported business. It would demonstrate a willingness to listen to their customers' concerns and address them in a positive manner. And it would show that our state government is indeed following through with protection of the public interest. Instead of vilifying a company, specific person, or agency, this would be an opportunity for everyone to work together in a positive manner, to benefit all involved. Please consider this idea.

Sincerely,


Edward Knight

[REDACTED]
June 13, 2014

Mayo River State Park
500 Old Mayo Park Road
Mayodan, North Carolina 27027

Attention: Keith Martin, Park Superintendent

**Re: Proposal for the Purchase of Upper and Lower
Trust Properties of Mayo River**

Dear Mr. Martin:

We are avid canoe and kayak paddlers, and as such, have long understood the inestimable value of clean rivers for their contribution to fish, wildlife, and recreational opportunities. Before we retired a few years ago, we lived within minutes of the Dan and Mayo Rivers, and it was on those waters that we learned and developed paddling skills. The immense joy and spiritual restoration that we experienced through the North and South Forks of the Mayo River culminated in an incredibly beautiful and meaningful run through the mile or so south of the confluence through an area known by boaters as the "Boiling Hole", 'S' Turn, and the Beach. While we lived in nearby Rockingham County, we worked with other boaters to try to create a state park along the Mayo River, ultimately resulting in the present Mayo State Park.

The glaring omissions from an otherwise solid attraction for recreational users of the Mayo River continue to be privately owned lands commonly referred to as the Upper and Lower Trusts. As is evident from a topographic map of this area of the Mayo River, and as paddlers (and undoubtedly fishermen) are painfully aware, these Trust properties are vital to a meaningful public use of the Mayo River.

Keith Martin, Mayo River State Park Superintendent

June 13, 2014

Page Two

It appears that the time has come for a workable solution to filling this void. In the wake of the recent environmental damage done by spills of coal ash into rivers located in the county where the Mayo River lies, Duke Power faces unprecedented, harsh scrutiny and accountability. The citizens of Stokes County and around the state of North Carolina who are familiar with the unique beauty and extensive recreational potential of that county's water resources realize that DENR and Duke Power have an opportunity as never before to demonstrate their collective commitment to providing quality of life enhancement for the public they are designed to serve.

We urge you to relay to DENR and Duke Power our proposal that as a part of Duke Power's restitution for environmental damage done by the coal ash spills, Duke Power and DENR form an agreement whereby Duke Power would purchase the Upper and Lower Trusts along the Mayo River, then donate those lands to the Mayo State Park, thereby satisfying part of its responsibility to mitigate the damage done to environmental interests from coal ash spills. Mere fines - substantial though they may be to the offending company - would not attain the level of impact on the public good that this particular contribution to the Mayo State Park would achieve. The elevation of Duke Power's public image from such a solid, effective boost to tourism for Stokes County, and demonstrated concern for the environment and natural resources there, would hopefully be sufficient incentive for that company to strongly consider this proposal. For its part, DENR would be viewed as a creative entity truly focused on restoring, creating and preserving responsible quality

Keith Martin, Mayo River State Park Superintendent
June 13, 2014
Page Three

of life opportunities for the people of North Carolina,
as well as visitors from neighboring states.

Thank you for your consideration and help in passing
this message along to the appropriate officials at DENR
and Duke Power. If we may be of assistance in these
regards, please let us know: our contact information
is set forth below. If it useful to you, our
background information is also noted below.

Respectfully submitted,

William L. Schwenn
Mary B. Schwenn
William and Mary Schwenn

Phone: [REDACTED]

Email: [REDACTED]

William Schwenn is an attorney and former Clerk of
Bankruptcy Court, Middle District of North Carolina,
Greensboro.

Mary Schwenn is a former employee of Burlington
Industries at its Greensboro headquarters office
(engineering section), as well as a former employee of
the Forsyth County Department of Environmental Affairs.

From: WILLIAM TANGER [mailto:████████████████████]
Sent: Wednesday, October 29, 2014 10:47 AM
To: Lingenfelter, Susan - FWS-Fishkill TF
Cc: Smith, Will - FWS 2014; Byrd, David - FWS Pigg Dam
Subject: Scoping comments re Dan River funds

Susan: I sent this by postal mail as well, as I mentioned on the phone. --- Bill Tanger, FORVA

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Rick Roth, Treasurer
Friends of the New River
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Juanita Callis
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Karen Firehock
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Staunton River Watch
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Headwaters Watch
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Friends of the Rappahannock
Charles Vandervoort
Friends of the Shenandoah
Jeff Wold
Float Fishermen of Virginia

October 28, 2014

Susan Lingenfelter, U.S. Fish and Wildlife Service
Virginia Ecological Services Field Office

Re: Public comments regarding Scoping Document for Restoration Planning: Dan River Coal Ash Release

FORVA is pleased to provide the following comments and recommendations concerning the above referenced scoping document and a restoration project:

- We agree with the restoration project concepts or categories. However, projects should be considered within the entire range of injured species, including projects outside the Dan River drainage basin. Projects with multiple benefits and larger landscape scales consisting of species habitat gains (eg. dam removals or projects in headwaters) should rank higher than other proposals.
- Projects should include sites outside the Dan River drainage that benefit non-game species affected by the spill, especially Roanoke Logperch and James Spiny mussel due to the rarity and limited range of these species. In addition, given the 70+ miles of river channel impacted by the spill, limiting restoration efforts to within the Dan River drainage may not be effective in compensating for injury to these rare species. Project eligibility should include rivers outside the Dan system considering the range of occurrence for these species is limited to only 2 states presenting a substantial nexus between North Carolina and Virginia for restoration efforts to be eligible in both the Dan and James River watersheds.
- Opportunities exist in Virginia for single projects that would address injuries through multiple categories of restoration activities. For example, dam removal in the Pigg and Roanoke River systems and their tributaries would restore fish passage, instream habitat, wetlands, rare and non-game species, expanded public recreation, water quality, and fishing opportunities while limiting negative impacts to a relatively small area. FORVA holds fee title to one project presented below.
 - a. Contact: Bill Tanger, PO Box 1750, Roanoke, VA 24008-1750, Cell: [REDACTED] info@FORVA.org, or [REDACTED]
 - b. Project Title: Power Dam Removal
 - c. Location: Pigg River, Town of Rocky Mount, Franklin County, Virginia
 - d. Restoration category: fish passage, restoration of instream habitat, restoration of riparian habitat, rare and nongame species restoration, improve quality of fishing experience.
 - e. the project would compensate for injury to Roanoke logperch and other nongame and game fish occurring in the Dan River drainage basin.
 - f. estimated cost for dam removal is \$750,000, public access improvements \$150,000

- g. natural resource benefits include restoring fish passage and instream habitat for Roanoke logperch, Roanoke bass, and game fish; restoring over 2 miles of instream and riparian habitat, increasing the length of and access to the Franklin County Blue Way.
- h. project could be fully completed within 2 years of funding received. Work completed to date includes sediment sampling and analysis, engineering surveying and initial plans, permitting, state historical resources clearance, and contractor quotes for the work. Work must occur outside time of year restrictions for Roanoke logperch (March 1-July 30).
- i. the Power Dam Removal Project would provide multiple benefits associated with restoration of rare and nongame fish, fish passage, instream and riparian habitats, and recreational fishing and boating experiences within a short time period.

In summary, projects should be considered within the entire range of injured species, including projects outside the Dan River drainage basin. Projects with multiple benefits and larger landscape scales consisting of species habitat gains (eg. dam removals and reforestation and protection in headwaters) should rank higher than other proposals.

Formed in 1987, Friends of the Rivers of Virginia (FORVA) is a non-profit organization dedicated to the conservation, preservation and enhancement of Virginia's river resources. Our goal is to provide input into the planning and coordinating of many of the projected uses of Virginia's rivers, including supplying objective information on environmental, economic, recreational, scenic and historical values. FORVA's activities include identifying, assessing and resolving river related problems and opportunities through research, education, communication and activism.

Sincerely,



Bill Tanger, Chair



Ward, Sara <sara_ward@fws.gov>

Mayo River

billybocock [REDACTED]

Sat, Nov 1, 2014 at 7:41 AM

Reply-To: [REDACTED]

To: Sara_Ward@fws.gov

As a paddler and fishermen I would like to offer my support for the expansion of the Mayo River park.

Sent from Samsung Mobile



Ward, Sara <sara_ward@fws.gov>

I support Duke Power buying land to add to Mayo River State Park k

Lucas Conkle <[REDACTED]>
To: Sara_Ward@fws.gov

Sat, Nov 1, 2014 at 7:32 AM

The area around the Boiling Hole has a unique combination of historical and biological, and geological unique resources. It is important that the state protect and manage those resources while also continuing the hiking, swimming, and recreational river uses that have been going on for decades.



Ward, Sara <sara_ward@fws.gov>

Urging acquisition of Upper and Lower Trust Lands along Mayo River for Mayo State Park

Skip and Mary Schwenn [REDACTED]
To: Sara_Ward@fws.gov

Sat, Nov 1, 2014 at 4:08 PM

Saturday, Nov. 1, 2014 (4 p.m.)

Dear Ms. Ward,

My wife and I are writing to you to express our hope that property known as the Upper and Lower Trusts along the Mayo River near and downstream from the confluence of the South and North Forks of the Mayo River might be acquired for inclusion in the Mayo State Park. We think this would be particularly appropriate as a means of Duke Power helping to mitigate the massive damage done to heavily recreated rivers by recent intrusions of coal ash. Clean water for animal life, fishing, and boating is a long-time, precious resource of Rockingham and Stokes Counties in North Carolina, drawing outdoor enthusiasts and tourists from wide-ranging areas.

My interest in fishing creeks and rivers stems from invaluable trips with my grandfather that began when I was four years old. When we moved to North Carolina to establish our careers (mine in the federal court system, and Mary's with Burlington Industries headquarters office and the Forsyth County Environmental Affairs Department) in 1979, we immediately sought outdoor recreational activities, and were extremely gratified to realize that the Dan and Mayo Rivers were easily accessible to our home (first in Greensboro, and later on farm land in Rockingham County). We quickly developed a serious love for whitewater boating (initially canoeing, then kayaking), which we eagerly anticipated most weekends.

The experience most meaningful to us was decidedly traveling about four miles on one of the Mayo Forks through the confluence, then downstream through a section (below a bridge) commonly referred to as "the beach". That last mile was especially beautiful, both for the contours of the surrounding land and the incredibly pretty whitewater rapids that beginners and advanced paddlers could enjoy equally. For those reasons, it is a section unique along the many miles of the Mayo River. It was there that we learned many basic skills that we have since applied to other rivers closer to where we now reside, enriching our lives beyond measure. The first time that we paddled that section of the Mayo River, we realized that it was an area that by any reason or from any perspective should be available and well maintained for public access and enjoyment. Nearby restaurants and tourism would certainly benefit from a publicized Mayo State Park that included this section of the Mayo River.


Naturally beautiful landscapes that offer residents and vacationers clean, healthy outdoor experiences are becoming fewer as commercial and housing development overtake landscapes everywhere. At this critical juncture in the evolution of our country and state, this seems to be an incredibly timely opportunity for the public to be awarded an easily sustainable park area that is suitable for multiple recreational uses. Adding the Upper and Lower Trust lands along the Mayo

River to the Mayo State Park would substantially boost the park's value to its visitors, increase patronage of area merchants, and make the surrounding area more attractive to land- and home-owners.

The enhanced benefit to outdoor recreation enthusiasts by adding these lands to the Mayo State Park cannot be overstated. Please do everything you can to make that happen – for our present citizenry, and for future generations who deserve to have opportunities to experience the beauty and joys of outdoor recreation as we have.

Respectfully,

William (Skip) and Mary Schwenn





Ward, Sara <sara_ward@fws.gov>

Letter of Support for Mayo River State Park Land Acquisition

Lydia Westmoreland [REDACTED]
To: Sara_Ward@fws.gov

Mon, Nov 3, 2014 at 10:26 AM

Good Morning, Sara,

I'm writing in support of the acquisition of the Upper and Lower Trust Properties along the Mayo River in Rockingham County (i.e. Boiling Hole, S-turn and Beach Areas) as part of the mitigation project by Duke Power, who would then donate this property to the Mayo River State Park. This would insure that this pristine river land would be available for recreational boating and camping use until perpetuity and would furthermore, assure protection of the land from future residential and/or commercial development. As a kayaker and camper, I urge you to please support this effort. By adding this property to the Mayo River State Park, this unique area would perpetually be preserved and protected as a safe and clean environment for boaters, campers, fishermen, hikers and all outdoor enthusiasts who cherish this property.

Thank you for your support!

Sincerely,

Lydia Westmoreland
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Mayo River Properties

Katherine Mull [REDACTED]
To: Sara_Ward@fws.gov

Tue, Nov 4, 2014 at 2:49 PM

Dear Ms. Ward,

I recently learned of an initiative to acquire land along the Mayo River. Acquisition for public park purposes of the land known as the Upper and Lower Tracts is vital to so many interests: fishing, wildlife habitat, boating access for both rapids and flat water, bird watching, hiking, camping, picnicking and others.

At no other area along the Mayo River can so many needs be met in one place. With the Mayo River state parks established in both North Carolina and Virginia, acquisition of the upper and lower tracts for inclusion in the Mayo River State Park makes a great deal of sense and should be a top priority.

Best regards,
Katherine K. Mull



Ward, Sara <sara_ward@fws.gov>

Support for Mayo River Park Project

Alex Ashton [REDACTED]

Wed, Nov 5, 2014 at 10:25 AM

Reply-To: [REDACTED]

To: "sara_ward@fws.gov" <sara_ward@fws.gov>

Cc: Jacob Leech <jacobleeche@piedmontconservation.org>, Gail Hughes <ghughes@orangecountync.gov>

Sara,

Please see the attached letter of support for Piedmont Land Conservancy's effort to acquire more land for Mayo River State Park with funding from Duke Energy.

Please confirm receipt.

Best,

Alex Ashton
[REDACTED]



Mayo R Support Letter.pdf
34K

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Name: Alex Ashton

Address: 

Telephone: 

Mayo R. could be enhanced as a superb paddling & fishing destination for the region.

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.



Ward, Sara <sara_ward@fws.gov>

Restoration Projects for Duke Energy

Betty Byron [REDACTED]
Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Nov 5, 2014 at 7:58 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: [REDACTED]

Address: [REDACTED]

Telephone: [REDACTED]

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.



Ward, Sara <sara_ward@fws.gov>

Public Comment on Use of Duke Energy's Coal Ash Mitigation Fund s

Anne Cassebaum <[REDACTED]>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Nov 5, 2014 at 10:52 AM

Sara Ward

U.S. Fish and Wildlife Service,
Raleigh Ecological Services Office

Dear Sara Ward,

I hope that you will use funds to mitigate the impacts of Duke Energy's coal ash spill to expand the Mayo River State Park to include canoe access and general public access to the river.

The best way to protect rivers is to allow public access to them. When people come to know rivers, they can safeguard and defend them.

If you look at Alamance County, you will find that one of the best ways to improve the local economy is to safeguard the river and promote river access. In this county, businesses are thriving along the river, promoting tourism and the local economy. People are drawn to healthy rivers.

Of course, protection of additional riverside acres would safeguard miles of river habitat and ensure protective buffers which are one of the keys to water quality.

Like others, I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Anne Cassebaum

[REDACTED]

[REDACTED]

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Kathy Comer [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 3:59 PM

Ms. Ward,

As a resident of the North Carolina Piedmont, I support the Piedmont Land Conservancy's recommendation that one of the most important actions the Dan River Coal Ash Spill Trustees can take to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Our state has a unique opportunity to turn an environmental disaster into an environmental victory with this action.

Thank you for your consideration,

Kathy B. Comer

[REDACTED]

[REDACTED]

[REDACTED]

—
What shall I return to the Lord for all his bounty to me? Psalm 116:12



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Cassie [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 5:43 PM

Ms. Ward,

I'm writing regarding the NRDAR process and to address the ongoing impacts of the Duke Energy coal ash spill.

I believe that one of the most important actions to mitigate the impacts of the spill on the Dan River would be to expand the Mayo River State Park. I am an avid user of the North Carolina State Parks system and I believe that one of the distinguishing features of our state is the lovely and varied collection of parks - our state does a great job of protecting and preserving these wild places.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, and would add greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration.

Best regards,
Cassie Crawford

Required Information:

Name: [REDACTED]

Address: (business) [REDACTED]

Telephone: (business) [REDACTED]



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

Doggettja [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Nov 5, 2014 at 10:36 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park. It will take many years to overcome the damage of the coal ash spill and expanding the Mayo river state park will help educate people to maintaining river health and hopefully protect more river.

I

Thank you for your consideration,

Required Information:

Name: _____ [REDACTED]

Address: _____ [REDACTED]

Telephone: _____ [REDACTED]

Sent from iPad
Jane Doggett



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Steve Earp <[REDACTED]>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Nov 5, 2014 at 9:42 AM

Ms. Ward:

I grew up along the Dan River and have loved it all my life. I also am an owner of a business in Rockingham County, North Carolina, close to the Mayo River. I strongly urge the Coal Ash Trustees to use some of the funds being set aside by Duke Energy to expand the Mayo River State Park. The park needs to acquire riverfront land to protect many river miles of animals and plants (including some rare species), and it would create a truly exceptional park for the public to enjoy. This use of the funds thus would provide significant environmental, economic and public benefit.

Thank you for your good work on this project.

Steve Earp

[REDACTED]
[REDACTED]
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Dan River

Stanley Faeth [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:59 AM

Dear Ms. Ward:

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: [REDACTED]

Address: [REDACTED]

Telephone: [REDACTED]

-

Stan Faeth
Head and Professor of Biology
The University of North Carolina at Greensboro
PO Box 26170, Greensboro NC 27402-6170

email: shfaeth@uncg.edu
dept office phone: 336-334-4960
lab office phone: 336-256-1072
fax: 336-334-5839
<http://biology.uncg.edu>
http://www.uncg.edu/bio/faculty/Stan_Faeth/lab/index.html
http://www.uncg.edu/bio/faculty/Stan_Faeth/
<http://gk12.uncg.edu/>



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Ronnie Grabon [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:48 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

ronnie

Ronnie S. Grabon, SPHR, BCC

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]





Ward, Sara <sara_ward@fws.gov>

Mitigation of coal ash spill

janis hammett [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 3:19 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: [REDACTED]

Address: [REDACTED]

Telephone: [REDACTED]

janis Hammett



Ward, Sara <sara_ward@fws.gov>

Expand Mayo River State Park

Herbert House [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:12 AM

One of the most important thing that can be done to reduce the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park. Protecting these riverside acres will prevent the loss of miles of significant river habitat with at least ten rare and/or endangered aquatic species as well as adding greater access for the public to river-based recreation.

Expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: Herbert House

Address: [REDACTED]
[REDACTED]
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

Jenny Huffaker [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 7:17 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: _____

Address: _____

Telephone: _____



Ward, Sara <sara_ward@fws.gov>

Please expand the Mayo River! State Park!

Anne Jones <[REDACTED]>
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:27 AM

Dear Ms. Ward:

I believe that one of the most important actions to mitigate the impact of Duke Energy's coal ash spill is to expand the Mayo River State Park! In addition, protection of additional riverside acres will help safeguard significant river habitat with at least ten rare or endangered aquatic species! It will also help us have access to river-based recreation.

I recently sold a part of my farmland to Hanging Rock State Park so that the park could be expanded to provide additional access to the public! It has been a great feeling to support our state park system. I believe if we expand the Mayo River State Park, we will provide ecological, economic and public benefit now and for generations to come.

Thank you very much for your consideration. You are performing an important job for our state!

Sincerely,

Anne Markey Jones
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Ed Knight <[REDACTED]>
Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Nov 5, 2014 at 6:40 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Eddie Knight
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Regarding Dan River coal ash spill mitigation funds

Lyn McCoy <[REDACTED]>
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 12:09 PM

Dear Ms. Ward,

I am delighted that the U.S. Fish and Wildlife Service is collecting public recommendations regarding the mitigation funds for the Dan River coal ash disaster.

I know many people who use the Mayo River State Park for leisure activities and want to recommend that these funds be used to expand the park; it would be an appropriate and very beneficial way to mitigate the impact of the coal ash spill.

This expansion would protect miles of notable river habitat with at least ten rare and/or endangered aquatic species and would add greater access for the public to river-based recreation, in general providing significant ecological, economic and public benefit.

For these reasons, I recommend that the Dan River Coal Ash Spill mitigation funds be used to expand the Mayo River State Park.

Thank you for your consideration,

Lyn McCoy
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Trena McNabb [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 2:00 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: _____ Trena McNabb _____

Address: _____ [REDACTED] _____

Telephone: _____ [REDACTED] _____

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.

Please visit my web site at:

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Jean Murdick [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:07 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Jean Murdick
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

Deborah Nolan [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 8:22 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: _____ Deborah Nolan _____

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Please expand the Mayo River State Park

John Nygren [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 2:02 PM



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

Alice Patterson [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:44 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you-----I am hopeful that this expansion will be completed as soon as possible.

Alice Conger Patterson, PhD

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Coal Ash Mitigation Fund

Marlene Pratto <[REDACTED]>
To: sara_ward@fws.gov

Wed, Nov 5, 2014 at 11:35 AM

I believe the mitigation funds could well be used to expand the Mayo River State Park. Expanding the park and protecting the additional riverside acres would provide more space and resources for endangered species. There at least ten rare or endangered aquatic species in that area. We may be injuring some species by the coal ash spill, but perhaps we can save some others.

Thanks for considering the Mayo River State Park expansion.

Sincerely yours,

[REDACTED]

--

Just be nice.

Marlene R. Pratto



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Richard Schmidt [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 3:20 PM

Dear Sara,

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: Richard Schmidt

Address: [REDACTED]

Telephone: [REDACTED]

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.



Ward, Sara <sara_ward@fws.gov>

Please expand the Mayo River State Park

Paula Stober [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:10 AM

We believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

We believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Paula Stober & Bill Bucklen

[REDACTED]

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

geoswz@aol.com [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:59 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: __George Sweazey _____

Address: _____

Telephone: _____

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.



Ward, Sara <sara_ward@fws.gov>

Expand the Mayo River State Park

William Wells [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 9:08 AM

Dear Ms. Ward,

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

William T. Wells
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Kitty Williams [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 5, 2014 at 10:18 AM

I support the Piedmont Land Conservancy's position to expand the Mayo River State Park.

The towns of Madison and Mayodan both have been excited about Mayo State Park since its inception, as it supports our desire to increase educational and recreational use of our local rivers - the Dan, the Mayo, Beaver Island Creek, etc.

Our local Small Town Economic Programs had already begun looking for grants to create more river access points in this area and to expand Mayo Park. We are thrilled, although not surprised, that PLC finds this as important as we do.

Therefore:

I personally believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand Mayo State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least 10 rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Katherine Williams
Chair, Madison Historic Districts and Properties Commission
Madison STEP Team, Environmental Recreation Strategy Group member
West Rock Friends of Rivers and Trails member





Ward, Sara <sara_ward@fws.gov>

Mitigation Funds from coal ash spill

[REDACTED]

Wed, Nov 5, 2014 at 5:29 PM

To: Sara_Ward@fws.gov

Please see attached suggestion about use of mitigation funds from the coal ash spill.

 Mayo River State Park.docx
158K

Dear Ms. Ward

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park. Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name:

Beth Wright

Address:

[REDACTED]

[REDACTED]

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Mayo River Mitigation Funds

randy yates [REDACTED]
Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Nov 5, 2014 at 9:08 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: ___Randall Yates _____

Address: [REDACTED]
[REDACTED]

Telephone: ___[REDACTED]_____



Ward, Sara <sara_ward@fws.gov>

(no subject)

Patricia Zonneveld Bain <[REDACTED]>
Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Nov 5, 2014 at 9:31 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Name: Patricia Bain

[REDACTED]
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Mayo River

Thu, Nov 6, 2014 at 10:31 AM

To: Sara_Ward@fws.gov

Please protect additional riverside acres to help mitigate the impacts of Duke Energy's coal ash spill.

Through the expansion of Mayo River State Park, we could safeguard miles of significant river habitat, increase environmental awareness specific to the river corridor and add greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,
Karen Berry



Ward, Sara <sara_ward@fws.gov>

Duke Energy Mitigation Projects

Mary Ellen Boelhower [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Thu, Nov 6, 2014 at 5:36 AM

Dear Ms. Ward,

In my opinion, one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species and add greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit, and I strongly recommend funds be used for this important public resource.

Thank you for your consideration and the opportunity to comment.

Mary Ellen Boelhower
[REDACTED]
[REDACTED]

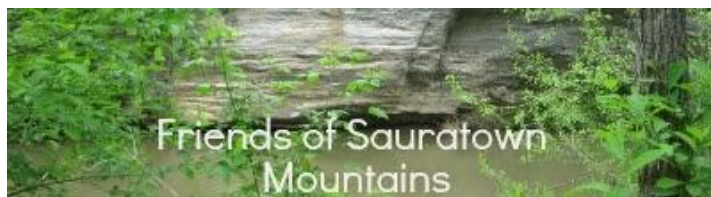


Ward, Sara <sara_ward@fws.gov>

Public comment NRDAR process

Susan Dabbs <[REDACTED]>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Thu, Nov 6, 2014 at 10:28 PM



Dear Ms Ward,

I am Susan Dabbs, a board member of the Friends of Sauratown Mountains group supporting Hanging Rock State Park in Stokes County. In response to the coal ash spill near Eden earlier this year, Duke Power agreed to fund mitigation projects in the Dan River basin as part of a Natural Resource Damage Assessment and Restoration (NRDAR). Stokes County lies in the upper basin of the Dan and is eligible for funding for these projects. Along with my fellow Friends Of Sauratown Mountains members, Please consider these three projects for priority funding:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality.

We hope to get your support toward helping protect our beautiful Dan River.

Susan Dabbs



Ward, Sara <sara_ward@fws.gov>

EXPAND MAYO RIVER ST. PARK

Scotty Folds [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 6, 2014 at 7:39 AM

Dear Madam:

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Scotty Folds

[REDACTED]

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

Lee Hatling [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 6, 2014 at 1:07 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Lee Barnhardt Hatling
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

(no subject)

Dick Mearns <[REDACTED]>
Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Thu, Nov 6, 2014 at 9:44 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Richard Mearns

[REDACTED]
[REDACTED]

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Mindy Mock [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 6, 2014 at 12:57 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Mindy Mock
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Katherine Schlosser [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 6, 2014 at 9:59 PM

As a member of the Friends of Sauratown Mountains, I would like to urge support of the following projects:

1. Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
2. Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
3. Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality.

Thank you.

Katherine K. Schlosser

Katherine K. Schlosser

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public comment NRDAR process

Brian Grogan [REDACTED]
To: Sara_Ward@fws.gov

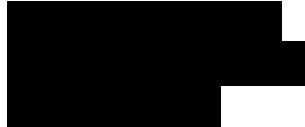
Fri, Nov 7, 2014 at 12:02 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,
Brian Grogan





Ward, Sara <sara_ward@fws.gov>

NDAR

Frank M. Grove III [REDACTED]

Fri, Nov 7, 2014 at 10:02 AM

To: Sara_Ward@fws.gov

Cc: Jay Young [REDACTED]

Dear Ms. Ward,

I would like to ask you to look into using the NDAR funds for land acquisition for the area between the Dan River and Danbury, N.C. and also a new access to the Dan River for boating usage.

Thank you,

Frank M. Grove III



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Mike Linville <[REDACTED]>
Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Fri, Nov 7, 2014 at 7:49 PM

Sara Ward

As a member of the Friends of Sauratown Mountains organization, it has come to my attention that there discussions going on about possible projects to be funded from Duke Power coal ash mitigation funds. As one who has spent much of my life enjoying the Sauratown Mountain resources, I would like to offer the following input on this topic.

I feel very strongly that projects that focus on land acquisition should take priority whenever feasible. It reduces the cost that would be incurred at some future date and the land can be managed to improve stream water quality and stream access as well.

With that said, I would like to see land acquisition opportunities pursued in Stokes County that would facilitate the development of the Mountains-To-Sea Trail (MST) across Stokes County and its integration with the existing Sauratown Mountains resources. I personally am convinced this is the most expedient way to extend MST through Stokes County. The completion of MST through Stokes County will open up other funding resources to expand its use in Stokes County. Getting the trail in place has to be the first priority and Stokes County offers the best opportunity. Forsyth County is not capable of being an option for MST - just not serious about funding any greenway type projects to make MST happen. I do not think it will be a good use of this funding option for development of MST supporting infrastructure in anticipation that the MST will be built unless land acquisition is not an option. So I would like to see land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove be a priority with the available funding options. This is good for the Dan River mitigation process.

If additional funds are available, land acquisition funds for Dan River access points should be considered as well. As a one who spent many years canoeing on the Dan River and tributaries, river access was always a challenge.

Thank you for your consideration of this input.

Mike Linville
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Expand Mayo River State Park for Coal ash spill mitigation option

Jean Pudlo [REDACTED]
To: Sara_Ward@fws.gov

Fri, Nov 7, 2014 at 10:26 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Jean Pudlo
[REDACTED]

Jean Burns Pudlo
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Jim and Patricia Smith [REDACTED]
To: Sara_Ward@fws.gov

Fri, Nov 7, 2014 at 5:43 PM

Dear Ms. Ward:

This email is in support of the projects that may be able to be funded by the NRDAR process here in Stokes County, NC. While I support any and all of these projects my priority support would be for the following in order of my support:

- 1) Sewer improvements for the newly acquired Moore's Spring campground. This would allow the park to fully utilize the campground and would also improve water quality.
- 2) Land acquisition at the intersection of NC 89 and NC 268, Lynchburg Road north of Danbury. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

Thanks for consideration of all these projects.

Sincerely
Patricia Smith



Ward, Sara <sara_ward@fws.gov>

mitigation funds and Mayo River State Park expansion

ANN SOMERS [REDACTED]

Fri, Nov 7, 2014 at 1:27 PM

Reply-To: ANN SOMERS [REDACTED]

To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Dear FWS,

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Ann Berry Somers
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Randy Young [REDACTED]
To: Sara_Ward@fws.gov

Fri, Nov 7, 2014 at 11:51 AM

Hello, I'm Randy Young with the Friends of Sauratown Mountains organization in Stokes County, North Carolina. We support both Hanging Rock and Pilot Mountain as part of the Friends of State Parks. While the coal ash spill did not occur near our two state parks, the fallout did affect the area. Most people heard of the spill, but did not realize that it occurred 60 miles downstream from our area. They instead chose to stay away from the Dan completely.

Several local groups were affected. NC River Angler, The Dan River Company, Froggy Ribbet's Outdoors, Danbury General Store(a tubing outfitter), as well as Hanging Rock State Park that does have a river access.

For that reason, I would like to ask for your support in the following three projects:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Springs campground. This will allow Hanging Rock State Park to fully utilize the campground and improve water quality.

I thank you for your time.

Sincerely,

Randy Young

11/12/2014

DEPARTMENT OF THE INTERIOR Mail - Public Comment NRDAR Process

Vice President

Friends of Sauratown Mountains



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Karen Ciener [REDACTED]
To: Sara_Ward@fws.gov

Sat, Nov 8, 2014 at 3:22 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: ___ Karen Ciener _____

Address: [REDACTED]
[REDACTED]

Telephone: ___ [REDACTED]

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park expansion

Bob Lassiter [REDACTED]
To: Sara_Ward@fws.gov

Sat, Nov 8, 2014 at 6:19 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: ___Robert Lassiter_____

Address: ___[REDACTED]_____

Telephone: ___[REDACTED]_____



Ward, Sara <sara_ward@fws.gov>

Coal Ash cleanup

Helen Beets [REDACTED]
To: Sara_Ward@fws.gov

Sun, Nov 9, 2014 at 7:45 PM

I am in favor of the following proposed projects related to the Duke Power coal ash spill:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allows the park to fully utilize the campground and improve water quality.

Thank you.

Helen Beets
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Comments on the Mayo River

Diana Carter [REDACTED]
Reply-To: Diana Carter [REDACTED]
To: "sara_ward@fws.gov" <sara_ward@fws.gov>

Sun, Nov 9, 2014 at 8:20 PM

See attached document.



COMMENTS TO THE USFWS.doc
25K

To the USFWS:

I want to make a few comments about one of Rockingham County's greatest treasures – the Mayo River. The Mayo is one of the cleanest rivers in the eastern part of the country and we should do all we can to keep it that way. Any property that could be purchased in the Mayo River corridor would help preserve this beautiful river. The land along the river contains areas of interesting botany and geology unique to Piedmont North Carolina.

For over thirty years I have hiked the hills along the river, canoed its waters, and observed the great abundance of wildlife living along the river. I have also noted many interesting historic sites along the river. These include the site of Avalon, a textile village 1900-1912, several gristmill sites and Native American fish traps. The rapids of the Anglin Mill section contain the finest whitewater canoeing in Piedmont North Carolina. A tributary, Fall Creek, contains a fifteen foot waterfall, one of the most beautiful in the region.

Again, any land that could be added to the Mayo River State Park would help preserve this natural treasure.

Bob Carter
Rockingham County Historian

████████████████████
████████████████████



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Mgconstine@aol.com <[REDACTED]>

Sun, Nov 9, 2014 at 8:49 PM

To: Sara_Ward@fws.gov

To Sara Ward at the US Fish and Wildlife Service

I understand that Duke Poser is funding a mitigation project in the Dan River basin in response to the coal ash spill. I would like to support consideration of these projects for priority funding.

Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.

Sewer improvements for the newly acquired Moore's Spring campground. This allows the park to fully utilize the campground and improve water quality.

Thank-you,

Marilyn Constine
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Dan River

Karl Fields [REDACTED]
To: Sara_Ward@fws.gov

Sun, Nov 9, 2014 at 9:25 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: _____ Karl B. Fields _____

Address: _____
[REDACTED]

Telephone: _____
[REDACTED]

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Jerry Barker [REDACTED]
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 3:28 PM

Duke Power agreed to fund mitigation projects in the Dan River basin as part of a Natural Resource Damage Assessment and Restoration (NRDAR). Stokes County-which is home to part of the Sauratown Mountains portion of the MST and Hanging Rock State Park-lies in the upper basin of the Dan and is eligible for funding for these projects. I support funding for the following 3 projects that will be excellent for water quality enhancement and recreational access to the Dan River, state parks and trails in the area, and ultimately improve economic development and tourism in the area.

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This will allow an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268/Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. (This would replace one closed several years ago known as Whitt's Access.)
- 3) Sewer improvements for the newly acquired Moore's Spring campground that will allow the park to fully utilize the campground and improve water quality.

I know these projects are top priority for the Friends of Mountains to Sea Trail task force leader Jay Young and the many volunteers who support the MST in that area. I love the Mountains to Sea Trail and have recently hiked in this area with several friends.

Jerry Barker, [REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment on NRDAR Process

L. SCOTT CAVINESS [REDACTED]
Reply-To: "L. SCOTT CAVINESS" [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Mon, Nov 10, 2014 at 9:14 AM

Dear Sara,

Please consider the following project for funding under the NRDAR program...

Project suggestion by Friends of the Mountain to Sea Trail:

"Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality."

Any consideration on this project would be greatly appreciated.

Respectfully Submitted,

L. Scott Caviness
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Handspring Bodywork <[REDACTED]>
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 11:22 AM

Dear Ms. Ward

I live in Winston-Salem, North Carolina, and frequently hike and paddle on the Dan River in Stokes County. This is an important recreation area for many people and the beauty of this part of the world brings economic benefit to Stokes County. I understand there is money for funding mitigation projects from Duke Power.

Please give priority to funding these projects:

1) Land Acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

2) Land Acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.

3) Sewer improvements for the newly acquired Moore's Spring campground. The campground has been closed for several years, impacting public access to the Dan River. These improvements would allow the park to fully utilize the campground and also improve water quality.

I'm sure there are many deserving projects, but these three would convey enormous recreational and economic benefits to an area that sorely deserves them.

thank you,

--

Nancy Crooks, [REDACTED]
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

John French [REDACTED]
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 9:56 AM

Ms Sara Ward,

Please support the actions itemized below. As you know, Duke Power's agreement is to fund mitigation projects in the Dan River basin as part of a Natural Resource Damage Assessment and Restoration (NRDAR). Stokes County-which is home to part of the Sauratown Mountains portion of the MST and Hanging Rock State Park-lies in the upper basin of the Dan and is eligible for funding for these projects.

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality.

What we are asking you to do is send an email in support of one or all of these projects. The more responses we generate, the better our chances for funding. But time is of the essence; the deadline is Friday, November 14th.

Thank you for your time and support.

John French
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Dan River Coal Ash Spill Trustees

Jeff Hatling [REDACTED]
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 4:55 PM

To Whom It May Concern:

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Jeff Hatling

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR

Kathy Kellam <[REDACTED]>
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 9:42 AM

Dear Ms. Ward,

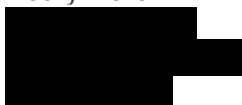
I would like to support three projects for funding with the NRDAR mitigation money to be paid by Duke Power for the recent coal ash spill.

All three of these projects would enhance water quality and environmental protection along the Dan River. As well, they would increase or improve public access to areas near the river.

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allows the park to fully utilize the campground and improve water quality.

Thank you for your consideration of my comments.

—
Kathy Kellam





Ward, Sara <sara_ward@fws.gov>

Public comment nrdar process

Amanda <[REDACTED]>
To: sara_ward@fws.gov

Mon, Nov 10, 2014 at 9:28 AM

I would like to voice my support for the following project.

2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.

Safe, permanent public canoe/kayak access does many things. It provides a reliable recreational access that means paddlers won't have to gain access through private land. It concentrates access to a manageable location where impact on the natural resources is minimized. It encourages people to get out on the river and enjoy it as a resource. Paddlers are often very good stewards of the environment. They also contribute economically to the communities near access areas. This project would be a win for paddlers, the environment and the local community and state. As a paddler myself, I often travel long distances for good access areas and scenery that is worth the drive.

Thank you for considering my comments!

Respectfully,
Amanda Lasley
Sent from my Verizon Wireless 4G LTE DROID



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

tom mann [REDACTED]
Reply-To: tom mann [REDACTED]
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 11:18 AM

As a frequent visitor to Hanging Rock State Park, I endorse the following requests for funding:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allows the park to fully utilize the campground and improve water quality.

Thomas W. Mann, [REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

AMATHEWS@alumni.ecu.edu <[REDACTED]>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Mon, Nov 10, 2014 at 9:03 AM

Good Morning,

In response to Duke Power agreeing to fund projects in the Dan River Basin as part of the Natural Resource Damage Assessment and Restoration, here are three projects I would like to see get priority funding:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality.

Thank you,

Andrea Mathews



Ward, Sara <sara_ward@fws.gov>

Public Comment, NRDAR Project

Lynne Mitchell [REDACTED]
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 7:38 AM

Ms. Ward,
As a frequent user of Hanging Rock State park, I support all 3 mitigation projects (two land acquisition projects and one sewer project) being submitted for priority funding.
Thanks,
Lynne Mitchell
[REDACTED]

Sent from my ASUS Eee Pad



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Jeffra Patton [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Mon, Nov 10, 2014 at 8:41 PM

Dear Ms. Ward,

Please consider my request in the support of the following projects to be considered for funding:

1. Land acquisition adjacent to the Dan River between Danbury and the confluence of the Town Fork Creek near Walnut Cove to be used as an extension of the Mountain-to-Sea Trail across Stokes County.
2. Sewer improvements to the newly acquired Moore's Spring campground to allow for its full utilization.

Regards,

Jeffra Patton

Sent from my iPhone



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

David Pudlo [REDACTED]
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 3:53 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,
David Pudlo



Ward, Sara <sara_ward@fws.gov>

Support of Mayo River protection

doug@troublesomecreek.com [REDACTED]

Mon, Nov 10, 2014 at 9:00 AM

To: Sara_Ward@fws.gov

Ms. Ward,

It has come to my attention that as coal ash spill mitigation, Duke Energy might consider the purchase of some land known as the Upper and Lower Trust Properties along the Mayo River in Rockingham County which would then be donated to the Mayo River State Park. As a Member of the Mayo River State Park Advisory Committee, a paddler, a hiker, owner of Troublesome Creek Outfitters in Eden, NC, and resident of Rockingham County, I want to express my support of this means of mitigation for the coal ash spill which happened in Eden.

The sections of the Dan river which flow from the Duke Energy plant in Eden to Hwy 700 and onto Berry Hill Bridge are sections which a group of us paddlers paddled fairly regularly (3 or 4 times a year). Many of Troublesome Creek Outfitters customers as well as Three Rivers Outfitters customers also paddled and fished those sections regularly. The next section downstream from Berry Hill Bridge and on into Danville, VA was also used regularly by paddlers and fishermen customers of Troublesome Creek Outfitters and Three Rivers Outfitters. It also has an island which was a favorite spot for fishing and camping. The coal ash spill has caused us and others to stay off these sections for a while. The protection of the Mayo River by the Mayo River State Park would help assure that the Dan would continue to have a clean tributary within the county and just upstream of the affected sections of the Dan River which would aid in cleaning the affected sections. It would also show Duke Energy's concern for natural pristine rivers in the affected county. I fear that residential or commercial development of the properties in question would forever spoil the natural beauty and public value as well as public access and use of this special area. The Mayo River, particularly the Upper Tract, is an area which has often been plagued by vandals leaving graffiti and much trash and debris. On numerous occasions there have been threats of personal safety of those wanting to enjoy the scenic and natural beauty of the area by locals desiring to cause trouble. This area is often used by two local paddling clubs, as well as out of state paddlers and fishermen. Its popularity was enhanced by Bob Benner's CAROLINA WHITEWATER book first published in 1973 and continues to be a much sought after destination for paddlers. I have personally met paddlers from NY, TN, FL, and VA paddling that area. The ownership of this property by the Mayo River State Park would improve environmental conditions, improve cleanliness, and make it safe and acceptable for more use by a much larger group of people by including hiking trails and camping facilities. Another consideration is that the state of Virginia has purchased Virginia properties adjacent to the Upper Tract (I assisted in guiding Va. officials down that section of river when they were considering the purchase) which could allow a connection (even possibly an interstate park) to provide a longer paddle trail which would attract many people. As a member of the Mayo River Advisory Committee, I know this area to be THE KEY area needed by the park for park development. I believe no better mitigation could be found than this.

I want to encourage the purchase of the Upper and Lower Trust Properties along the Mayo river by Duke Energy and donation of those properties to the Mayo River State Park as mitigation of the coal ash spill.

Thank you for your consideration.

Sincerely,
Douglas Shumate

Owner, Troublesome Creek Outfitters





Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Fortner, Sharon <[REDACTED]>
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 11:13 AM

Please support funding for the following three projects at Hanging Rock State Park.

—

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.

- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allows the park to fully utilize the campground and improve water quality.

Thank you.

Sharon Fortner
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

maya river park

Pearman, Keith [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Mon, Nov 10, 2014 at 2:56 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park. Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation. I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit. Thank you for your consideration,
Name: Keith Pearman
Address: [REDACTED]
Telephone: [REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

rodhall2@aol.com <[REDACTED]>
To: Sara_Ward@fws.gov

Mon, Nov 10, 2014 at 2:57 PM

Being a resident near Hanging Rock, I am in favor of the Land Acquisition between Danbury, NC and Town Fork Creek and the Land Acquisition between NC Route 89 and NC Route 268 known as the Lynchburg Road. I hope the Park will be able to acquire the land acquisitions for the enlargement and benefit of the residents of NC.



Ward, Sara <sara_ward@fws.gov>

Donation support

bjbower@gmail.com [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Tue, Nov 11, 2014 at 12:38 AM

Sent from my iPhone

As a paddler that has traveled many rivers across the US, I would encourage the efforts to protect sensitive habitat and waterways, as well as promote recreational access in the Dan River Basin. I support a plan for Duke Energy to purchase the Upper and Lower Trust Properties along the banks of the Mayo River and donate them to Mayo River State Park.
Bonita Bower



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Grace Broughton [REDACTED]
To: Sara_Ward@fws.gov

Tue, Nov 11, 2014 at 9:49 AM

To whom it may concern,

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Grace Broughton
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Fwd: Mayo river time running out

Paul Butler <[REDACTED]>
To: Sara_Ward@fws.gov

Tue, Nov 11, 2014 at 9:32 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park. Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation. I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit. Thank you for your consideration,

Name Paul W Butler

Address: [REDACTED]

Telephone: [REDACTED]

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Thomas Griffin [REDACTED]
To: Sara_Ward@fws.gov

Tue, Nov 11, 2014 at 9:13 AM

I recommend acquiring land adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove.

This acquisition would help protect water quality and could serve as an extension of the Mountains-to-Sea Trail across Stokes County.

Regards,

Tom Griffin



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Thomas Griffin [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Tue, Nov 11, 2014 at 9:15 AM

I recommend acquiring land at the intersection on NC 89 and NC 268, Lynchburg Road.

This land could be used for a permanent public canoe and kayak access to the Dan River, which is much needed in the area.

Regards,

Tom Griffin



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Phyllis Jessup <[REDACTED]>
To: Sara_Ward@fws.gov

Tue, Nov 11, 2014 at 8:26 PM

Dear Ms. Ward:

In response to the coal ash spill near Eden earlier this year, it is my understanding that Duke Power agreed to fund mitigation projects in the Dan River basin as part of a Natural Resource Damage Assessment and Restoration (NRDAR).

Stokes County lies in the upper basin of the Dan and is eligible for funding for these projects. I would like to request that you support funding for land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

I believe this is a project worthy of funding and will serve to provide citizens with a trail by which to enjoy hiking in the great outdoors and also promote better health in all those who use the trail.

Thanks for your support.

Phyllis Jessup
Interested Citizen



Ward, Sara <sara_ward@fws.gov>

PUBLIC COMMENT NRDAR PROCESS

Tue, Nov 11, 2014 at 4:44 PM

To: Sara_Ward@fws.gov

I SUPPORT THE 3 ACQUISITIONS OF LAND to protect our environment.

Roberta Pettit



Ward, Sara <sara_ward@fws.gov>

Support for Purchase of the Mayo River Upper and Lower Tracts by Duke Energy

Nancy Poole <[REDACTED]>
To: Sara_Ward@fws.gov

Tue, Nov 11, 2014 at 10:52 AM

Dear Ms. Ward:

I would like to express my support for extending the Mayo River State Park. As a long-time paddler in the area (particularly on the Dan and Mayo Rivers), I know how much enhanced preservation will mean to many who come to the area specifically for recreational purposes. As an outsider, I know that I bring in revenue as an eco-tourist. What draws me and many others from out of the area (as well as out-of-state) is the scenic beauty and outdoor recreation offered in this area. We need to protect the state park and the rivers, and to increase the area dedicated to preserving the resources for that is what attracts people who will support the economy in the area.

The effects of the coal ash spill were devastating and must be prevented from reoccurrence. I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill (and to prevent the effects of such spills in the future) is to expand the Mayo River State Park. Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Nancy Origer Poole, MBA, MLIS
PhD Candidate, UNCG
Information Specialist & Consultant

The U.S. Fish and Wildlife Service is collecting public comments for the Natural Resource Damage Assessment and Restoration (NRDAR) process, which will recommend restoration projects to address coal ash spill-related impacts to the Dan River. Additional details, including a link to the NRDAR report, are available at <http://www.fws.gov/raleigh/>.



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

JULIA [REDACTED]
To: Sara_Ward@fws.gov

Tue, Nov 11, 2014 at 1:37 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Name: Julia Pyron

Address: [REDACTED] [REDACTED]

Telephone: [REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Jim Richardson [REDACTED]

Tue, Nov 11, 2014 at 10:37 PM

To: Sara_Ward@fws.gov

Cc: Jay Young [REDACTED], robin.riddlebarger@ncparks.gov, [REDACTED]
<FSPExec@ncfsp.org>

Dear Ms. Ward,

I understand Duke Power has agreed to fund mitigation projects in the Dan River basin as part of a Natural Resource Damage Assessment and Restoration (NRDAR). I would like to recommend a grant be made for sewer improvements at the newly acquired Moore's Spring campground. This will allow Hanging Rock state park to fully utilize the campground, improve water quality, and support greater visitation - all benefits for Stokes county.

Sincerely,

Jim Richardson
Friends of State Parks





Ward, Sara <sara_ward@fws.gov>

Proposal for consideration by the Dan River Coal Ash Release Natural Resource Trustee Council

Jamie Roberts [REDACTED] Tue, Nov 11, 2014 at 4:44 PM
To: "Ward, Sara" <sara_ward@fws.gov>, Susan Lingenfelter <Susan_Lingenfelter@fws.gov>
Cc: Paul Angermeier <biota@vt.edu>, Eric Hallerman <ehallerm@vt.edu>, Patrick Rakes [REDACTED],
"J.R. Shute" [REDACTED] >

Dear Ms's. Ward and Lingenfelter,

Please see the attached proposal for a new conservation project focused on genetic restoration of Roanoke logperch. This proposal is being provided for the consideration of the Dan River Coal Ash Release Natural Resource Trustee Council, in response to the call for proposals in the "DAN RIVER COAL ASH RELEASE NATURAL RESOURCE DAMAGE ASSESSMENT AND RESTORATION Scoping Document for Restoration Planning" released by the Trustee Council on 1 October 2014.

Please contact me if you have any questions about the proposal or would like additional information.

Best Regards,

Jamie Roberts

<>< <>< <>< <>< <>< <>< <><

Jamie Roberts, PhD
Assistant Professor
Department of Biology
Georgia Southern University
4324 Old Register Road
Statesboro, Georgia, USA 30458
Phone: +1 912-478-4687
Email: jhroberts@georgiasouthern.edu
Lab website: robertsfisheries.weebly.com

NRDAR_Roanoke_logperch_genetic_restoration_proposal_11-11-14.pdf
152K

Proposal authors and affiliations

James H. Roberts¹, Paul L. Angermeier^{2,3}, Eric M. Hallerman³, Patrick Rakes⁴, and J.R. Shute⁴

¹Department of Biology, Georgia Southern University, Statesboro, GA 30460-8042; Phone: 912-478-4687; Email: jhroberts@georgiasouthern.edu

²United States Geological Survey, Virginia Cooperative Fish and Wildlife Research Unit, Blacksburg, VA 24061

³Department of Fish and Wildlife Conservation, Virginia Tech, Blacksburg, VA 24061

⁴Conservation Fisheries, Inc., 3424 Division St., Knoxville, TN 37919

Proposed project title

Genetic restoration of endangered Roanoke logperch

Location of the proposed restoration project

This project is focused on genetic restoration of the Roanoke logperch population occupying Goose Creek, tributary to Roanoke River, near Huddleston, Virginia.

Restoration project category

Rare and Nongame Species Restoration

Details about the proposed project's nexus to potential natural resource or natural resource services injuries

The coal ash spill from Duke Energy's Dan River Facility on 2 February 2014 is believed to have negatively impacted fish and wildlife species in the Dan River (Dan River Coal Ash Release Natural Resource Trustee Council 2014). Among the affected species was the Roanoke logperch (*Percina rex*), a federally endangered fish that is restricted to Virginia and North Carolina (Rosenberger 2007). The exact distribution and abundance of Roanoke logperch in the impacted segment of the Dan River was unknown prior to the leak, so the impacts of immediate or delayed effects to survival and reproduction of the species are difficult to estimate. However, any such population-level impacts represent a serious threat to the species as a whole, which persists only in a few watersheds that are isolated from each other by dams and unsuitable habitat (Roberts et al. 2013). This isolation not only prevents natural re-colonization of habitats following local extinction events, but also results in elevated levels of inbreeding and the loss of genetic diversity. These genetic factors are believed to be some of the most immediately pressing risks to the persistence of Roanoke logperch as a species (Roberts 2012).

The optimal management goal for counteracting these genetic risks is the restoration of natural levels of migration and gene flow between populations that once were connected but now are isolated. This could be accomplished by removing barriers to fish movement such as large hydroelectric dams, but this option is not logistically or politically feasible in many cases. Alternatively, gene flow could be restored by strategically transplanting fish from genetically diverse populations to genetically impoverished populations. This practice, termed "genetic restoration", has effectively reduced inbreeding and boosted genetic diversity, and thereby reduced extinction risk, in various other threatened fish and wildlife populations (Minckley et al. 2003; George et al. 2009; Hedrick and Frederickson 2010). Genetic restoration is thus a promising key tactic for increasing the size and viability of individual Roanoke logperch

populations, which is the primary mechanism through which the species could ultimately recover from its endangered status.

In theory, genetic restoration could be applied to the Dan River population of Roanoke logperch, to offset impacts to population size and genetic diversity that occurred there as a result of the coal ash spill. However, scientific understanding of the pre- and post-spill genetic composition of this population is poorly known, largely due to the difficulty of locating and capturing Roanoke logperch in this large, turbid river system (Robert Nichols, North Carolina Wildlife Resources Commission, personal communication; authors, personal observation). Moreover, scientists generally agree that in a genetic restoration program, transplanted individuals should originate from a donor population that is genetically closely related to the receiving population in order to avoid outbreeding depression, loss of local adaptations, and other genetic problems that arise from mixing dissimilar gene pools (George et al. 2009). In the case of the Dan River, the closest relatives would be fish located elsewhere in the Dan River basin, including upper and lower Smith River, Town Creek, Mayo River, Big Beaver Creek, and Wolf Island Creek (Rosenberger 2007; R. Nichols, personal communication). However, with the possible exception of the upper Smith River (upstream of Philpott Reservoir), Roanoke logperch appear to be rare in all of these locations, and the upper Smith River population occupies a geographically small area (Roberts 2012). Hence, populations in these rivers may not be able to sustain harvest and therefore would not make suitable donors for the Dan River. The first rule of conservation management is to “do no harm”. In light of this philosophy, considerable uncertainty about the demographic and genetic status of Roanoke logperch within the impacted area, and the lack of a suitable donor population, we believe the risks of attempting genetic restoration in the Dan River itself at this time outweigh the potential benefits. Instead, we propose to compensate for the loss of Roanoke logperch in Dan River by enhancing the quality and quantity of the species in another population.

In contrast to the Dan River and its tributaries in North Carolina, knowledge of the status and genetic characteristics of other Roanoke logperch populations is relatively good. Moreover, one of these populations in particular, that occupying Goose Creek (tributary to Roanoke River) in the Piedmont of Virginia, is considered a very high priority for genetic restoration and has a well-matched potential donor population in the upper Roanoke River (upstream of Smith Mountain Lake). In fact, restoring the Goose Creek population was identified as a top-priority conservation action by a multi-agency workshop conducted in 2014 to examine restoration opportunities for Roanoke logperch. We therefore propose that Roanoke logperch impacts due to the coal ash spill be offset by genetic restoration of the Goose Creek population of logperch. This restoration effort offers significant benefits to Roanoke logperch while avoiding collateral injury to other natural resources. Further, restoring logperch in Goose Creek would rectify loss of natural resources there due to a history of environmental degradation.

Genetic restoration of Roanoke logperch in Goose Creek has a clear nexus to the Dan River coal ash spill for two reasons. First, it directly contributes to the recovery of an endangered species that was further imperiled by the coal ash spill. This allows the Trustees to meet the primary goal of offsetting through natural resource benefits the natural resource injuries that were incurred due to the leak. Although outside of the Dan River, restoration in Goose Creek places management activities where they are expected to have the greatest positive impact on the

species' recovery, as part of a holistic strategy for Roanoke logperch conservation (Roberts 2012). Second, any lessons learned during genetic restoration of the Goose Creek population about optimal transplantation and monitoring strategies potentially could be applied to the Dan River and other populations, if managers decided to employ such strategies more broadly in the future. Thus, restoration activities in Goose Creek can and should be viewed as a pilot study for management tactics that could eventually be utilized in the Dan River or elsewhere.

The goal of the proposed restoration project is to facilitate an increase in genetic diversity and the genetically effective population size within the Goose Creek population and a decrease in genetic divergence between the Goose Creek and Roanoke River populations. Our success toward this goal will be assessed quantitatively. Diversity and divergence will be measured using well-known genetic statistics that are readily calculated from genetic marker data collected from Roanoke logperch populations (Roberts et al. 2013). We would non-lethally collect DNA samples, analyze genetic marker data, and calculate genetic statistics both before and after transplantation of Roanoke logperch from the Roanoke River to Goose Creek. This before-after approach provides a quantitative measurement of the success of the restoration; that is, the ability of transplanted fish to assimilate into a new population, boost the genetic diversity of that population, and re-establish gene flow between the donor and recipient populations. Although transplantation of Roanoke logperch has not been attempted to date, success with other native fish species such as smoky madtoms, yellowfin madtoms, Citico darters, silver shiners, telescope shiners, and mirror shiners (George et al. 2009; Moyer and Williams 2012) suggests it is a cost-effective restoration tactic.

The proposed genetic restoration project on Goose Creek will be undertaken by a team of experts with many years of experience with Roanoke logperch, conservation management, population genetics, and endangered fish capture, transport, stocking, and monitoring. Drs. Roberts, Angermeier, and Hallerman have over 50 years of combined experience in scientific study of the ecology, genetics, and conservation of Roanoke logperch. Dr. Hallerman is a noted authority on the conservation genetics of fishes and has authored a textbook on the subject (Hallerman 2003). Patrick Rakes and J.R. Shute of Conservation Fisheries, Inc., have over 60 years of combined experience with the husbandry and restoration of southeastern native fish populations, including propagation of Roanoke logperch. This diversity of basic and applied scientific expertise ensures that the restoration will be implemented quickly and in a manner that employs best scientific data, appropriate field and statistical methods, and risk-averse safeguards against harm to human health, fish health, water resources, and populations of aquatic species. This expertise also confers a high likelihood of project success, in that the project will be designed to provide valuable feedback about the efficacy of genetic restoration for Roanoke logperch, regardless of the outcome of the restoration. All restoration activities will be conducted using scientifically accepted protocols that follow local, state, and federal permits, regulations, and laws. This project has no connection or conflict with any previous, ongoing, or planned future project in the Goose Creek watershed or elsewhere.

Estimated cost

The estimated direct cost of this seven-year project is \$83,000.

Anticipated natural resource or resource service benefits

We anticipate that this genetic restoration project will provide three primary benefits. First, we expect that this project will increase the genetic diversity of the Goose Creek population of Roanoke logperch, which will lessen the short-term extinction risk and increase the long-term adaptive potential of this population. Second, we expect this project to provide insight into the general feasibility and efficacy of genetic restoration as a recovery tactic for Roanoke logperch and other imperiled fish species. This knowledge could be valuable for future restoration activities in the Dan River basin and elsewhere. Third, we anticipate that positive impacts to the Goose Creek population of Roanoke logperch will provide a step toward recovery and down-listing of the species as a whole.

Timing

The duration of this project is seven years, which is necessary to observe whether or not Roanoke River genes successfully become assimilated into the Goose Creek population. Research in the first year of the project would be devoted to characterizing the pre-transplantation genetic composition of populations. In the second year, we would capture Roanoke logperch in the Roanoke River, analyze them genetically, and transplant them to Goose Creek. In the fourth year, we would sample Goose Creek to search for genetic evidence of first-generation (F_1) descendants of the transplanted fish. In the seventh year, we would sample Goose Creek to search for genetic evidence of second-generation (F_2) descendants of the transplanted fish. Data from the 4th and 7th years will form the basis for assessing project success.

Potential to benefit more than one natural resource/service

Lessons learned during the genetic restoration project for Roanoke logperch likely would prove applicable to future recovery efforts devoted to other vulnerable fish species that co-occur with Roanoke logperch in the Dan River, such as the orangefin madtom and Roanoke bass.

Literature cited

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- Roberts, J.H., Angermeier, P.L., and E.M. Hallerman. 2013. Distance, dams and drift: what structures populations of an endangered, benthic stream fish? *Freshwater Biology* 58:2050-2064.
- Rosenberger, A.E. 2007. An update to the Roanoke logperch Recovery Plan. Final Report to the U.S. Fish and Wildlife Service, Gloucester, VA.



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

Janice Siebert [REDACTED]

Tue, Nov 11, 2014 at 11:27 AM

Reply-To: [REDACTED]

To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Janice Siebert
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Kirby Young [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Tue, Nov 11, 2014 at 7:59 AM

Please consider funding the following three mitigation projects with the funds that will be provided by Duke Power:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality.

Thank you for your consideration.

Kirby Young
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Henry Fansler [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 12, 2014 at 7:23 PM

Dear Ms. Ward,

I began volunteering at Hanging Rock State Park in 1994. I have always loved the area and I understand what it means to the folks in who live in Stokes County. I would like to add my support for the proposed fund mitigation projects in the Dan River basin as part of a Natural Resource Damage Assessment and Restoration (NRDAR). These have been proposed by the Friends of Sauratown Mountains of which I am a member. I am also a member of the Hanging Rock State Park Advisory Committee. Please read my comments that follow the proposals.

1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality. My Comments: I hope that the town of Danbury some day could have Mountains to Sea Trail Days just as Damascus, VA has Appalachian Trail Days.

2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access. My comments: I have not been able to lead canoe / kayak outings here because I lost a suitable access when the Moore's Spring campground was closed. The proposed access would give folks who want to spend a day on the Dan River a longer option, especially paddle boarders. No private canoes, and no kayaks or paddle boards can be allowed on the lake at Hanging Rock State Park.

3) Sewer improvements for the newly acquired Moore's Spring campground. This allows the park to fully utilize the campground and improve water quality. My comments: I volunteer most often in the visitor center during the spring break, Fourth of July, Labor Day and fall color times. I have to tell more folks that I can count that our campgrounds are filled and sometimes also those of Pilot Mountain State Park. There are few other options. Reopening this campground with suitable facilities would make the weekend for many North Carolinians. Best of all, the campground is on the Dan River!

My grandchildren now come to Hanging Rock with their friends to hike and camp. The area is both a precious part of our natural heritage and an economic asset for Stokes County.

Thank you for your consideration,

Henry Fansler

Henry Fansler

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Fwd: EXPANDING THE MAYO PARK

Becky H [REDACTED]
To: Sara_Ward@fws.gov

Wed, Nov 12, 2014 at 6:20 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Name: __REBECCA HOOK_____

Address: [REDACTED]

Telephone: [REDACTED]_____



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Brandon Belcher [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 4:38 PM

Ms. Ward,

It has been brought to my attention that after the Dan River Coal Ash spill Duke Energy agreed to fund mitigation projects in the Dan River basin as part of a Natural Resource Damage Assessment and Restoration (NRDAR). I have also learned that there are important projects in Stokes County, an area in much need, that could be the recipient of these funds.

I would like to write in support of land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove for a trail corridor. Such an acquisition would go far towards the revitalization of the tourist industry in Stokes County.

Thank you for your consideration,

Brandon Belcher
Associate Professor of English and Humanities
Guilford Technical Community College



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Don Bergey <[REDACTED]>
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 2:43 PM

Dear Ms. Ward,

I am a frequent visitor and supporter of recreational opportunities in Stokes County.

I have three projects that I would like to see priority for funding:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality.

Thank you for your consideration of these projects,

Don Bergey

--

Don Bergey
Retired - Clinical Exercise Physiologist and Instructor, Wake Forest University
Board of Directors - Fiddle & Bow Folk Music Society
Board of Directors - Friends of the Mountains-to-Sea Trail
Board of Directors - Friends of Sauratown Mountains



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Kitty Ray Brown <[REDACTED]>

Thu, Nov 13, 2014 at 1:17 PM


Reply-To: [REDACTED]

To: Sara_Ward@fws.gov

As a property owner of Stokes County I hope our county is successful in acquiring this money from Duke Power to help fund these projects.

I am especially interested in the Mountains-to-Sea Trail and the improved sewer system for Moore's Spring Campground.

Kitty Brown
[REDACTED]

 FSM: need your help with an email.eml
1K



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Haley Burch [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 4:34 PM

I support these three projects.

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality.

Haley Burch
Member of The Friends of MST



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

rrcobb@ncsu.edu <rrcobb@ncsu.edu>

Thu, Nov 13, 2014 at 11:55 AM

To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Sara,

I am writing to you to express my interest and concern for the allocation of funding due to the Dan River coal ash spill. It is my preference that funding be directed toward projects along the state park in construction, the Mountains to Sea Trail, and in particular the following projects:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This will allow the park to fully utilize the campground and improve water quality.

Thanks

Rick Cobb
Master of Landscape Architecture 2015
College of Design | North Carolina State University
rrcobb@ncsu.edu



Ward, Sara <sara_ward@fws.gov>

NRDAR public comment for the Dan River

David Duff <[REDACTED]>
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 9:25 PM

Ms Ward,

As a Board member of the Piedmont Land Conservancy, I believe the most important action to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park by acquiring the Mayo River Trust Properties.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Name:

Address:

Telephone:

David Duff
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Coal Ash Spill

Shirley Gunn [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 12:17 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Name: ___Miss Shirley Ann Gunn_____

Address: ___[REDACTED]_____

Telephone: ___[REDACTED]_____



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

David Heller [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 7:46 PM

Ms. Ward,

We would like to voice our support for Duke Energy expanding the Mayo River State Park as an action to mitigate the impact of the recent coal ash spill. We believe that providing additional riverside acreage would be meaningful to many people of all ages who enjoy river-based recreation year after year for generations.

Thank you for your consideration.

Respectfully,
David and Stacey Heller
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Janis Henderson-Hunsucker [REDACTED]

Thu, Nov 13, 2014 at 4:00 PM

To: Sara_Ward@fws.gov

Mrs. Ward-

I would like to see the Friends of the Sauratown Mountains and Hanging Rock State Park projects funded. In particular, Sewer improvements for the newly acquired Moore's Spring campground should be funded. This will allow the park to fully utilize the Moore's Springs campground (in Stokes County) and improve water quality.

Thank you.

Janis Henderson- Hunsucker



Ward, Sara <sara_ward@fws.gov>

Dan River Projects

King, Stephen <kingsb@wfu.edu>

Thu, Nov 13, 2014 at 9:32 AM

To: Sara_Ward@fws.gov

Dear Sara

I am writing to make my support known for the following projects as part of the Natural Resource Damage Assessment and Restoration in Stokes County.

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection of NC 89 and NC 268, Lynchburg Road north of Danbury. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This would allow the park to fully utilize the campground and would also improve water quality.

Thank you for your consideration

Bruce King

—

S. Bruce King
Associate Provost of Research
Professor of Chemistry
Wake Forest University
336-758-5774
Email: kingsb@wfu.edu



Ward, Sara <sara_ward@fws.gov>

Mayo River/Dan River Conservation

King, Stephen <kingsb@wfu.edu>
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 9:27 AM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Bruce King



—
S. Bruce King
Associate Provost of Research
Professor of Chemistry
Wake Forest University
336-758-5774
Email: kingsb@wfu.edu



Ward, Sara <sara_ward@fws.gov>

NRDAR Public Comment

Palmer McIntyre <pmcintyre@piedmontland.org>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Thu, Nov 13, 2014 at 10:32 AM

As a staff member of the Piedmont Land Conservancy, I believe the most important action to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park by acquiring the Mayo River Trust Properties.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Palmer McIntyre

[Redacted signature line]

[Redacted contact information]



Ward, Sara <sara_ward@fws.gov>

Piedmont Land Conservancy Public Comments for the NRDAR Process

Palmer McIntyre <pmcintyre@piedmontland.org>

Thu, Nov 13, 2014 at 9:57 AM

To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Cc: Kevin Redding <kredding@piedmontland.org>, Ken Bridle <kbridle@piedmontland.org>, Kalen Kingsbury <kkingsbury@piedmontland.org>

Hello Sara,

Attached are Piedmont Land Conservancy's official statements of public comment for the NRDAR process. We greatly appreciate this opportunity to recommend potential projects.

We have included the purchase of the Mayo River Trust Properties as a separate comment, as our highest priority, and you have probably received a number comments from our supporters regarding this. You have received more detailed documentation of this proposal from Ken Bridle.

At your recommendation, we have also attached a longer list of projects that reflect our "conservation wish list" for the watershed. These represent our highest priority conservation projects in the Dan River that will benefit multiple natural resources (aquatic and terrestrial), are recognized by multiple agencies for their high conservation values, would provide long-term ecological, economic, and/or public use/recreational benefits, and, for many of the listed projects, are in close proximity to the spill location.

Because we are a land trust, these projects focus on land/resource protection and public access to the river and its tributaries, as a means to protect this important natural asset in our region.

Please let us know if you have any questions.

Thank you,

Palmer McIntyre (for Kevin Redding)

Palmer McIntyre

Conservation Planner

Piedmont Land Conservancy


Office: 336-691-0088


Cell: 336-402-6551

www.piedmontland.org



2 attachments

 PLC NRDAR Comment - Mayo Trust Properties.docx
828K

 PLC NRDAR Comment - Project List FINAL.docx
839K

November 13, 2014

Sara Ward, U.S. Fish and Wildlife Service

Raleigh Ecological Services Field Office

Sara_Ward@fws.gov

RE: NRDAR Scoping Document – Public Comments



Dear Sara,

Thank you for the opportunity to make recommendations to the Dan River Coal Ash Spill Trustees as requested by the Natural Resource Damage Assessment and Restoration (NRDAR) Scoping Document.

As the highest priority for the mitigation process, Piedmont Land Conservancy specifically recommends the purchase of the two Mayo River Trust Properties, called the Lower and Upper Mayo River Trust Properties, located north of Mayodan.

These properties would add nearly 500 floodplain and adjacent acres and would protect approximately 9 miles of river frontage, protecting significant habitat for at least 10 rare and endangered aquatic species and adjacent terrestrial natural heritage features. This addition to the park would allow greater access and safety for the public to experience river-based recreation and fishing, as well as typical state park camping, hiking and environmental education. Increased public recreational access is a critical need because there is no current public access through State Park properties to the Mayo River.

These properties are located upstream of the coal ash spill location, in a pristine section of river on one of the most significant North Carolina tributaries to the Dan, and only 10-12 miles from the Belews Creek coal ash pond in Stokes County.

This purchase would also allow natural resource conservation, significant habitat protection, the possibility of restoration projects, Roanoke Logperch fishery augmentation and unrivaled amounts of human access compared to any other option for mitigation in the Dan River watershed. We believe that no other project in the Dan River watershed, especially in Rockingham County, can provide as much ecological, economic and public benefit, regardless of the cost.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to be "K. Redding", written in a cursive style.

Kevin Redding

Executive Director

November 13, 2014

Sara Ward, U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
[Sara Ward@fws.gov](mailto:Sara_Ward@fws.gov)

RE: NRDAR Scoping Document – Public Comments



Dear Sara,

Thank you for the opportunity to make recommendations to the Dan River Coal Ash Spill Trustees as requested by the Natural Resource Damage Assessment and Restoration (NRDAR) Scoping Document.

Piedmont Land Conservancy submitted as our highest priority the acquisition of the Mayo River Trust Properties. However, we are also submitting a longer list of high priority projects we believe would have exceptional water quality, recreational, economic, ecological and educational benefits. This list is attached at the end of this letter.

These projects represent our "Conservation Wish List" for the Dan River in our region covering Stokes, Rockingham and Caswell Counties. These projects are at various stages of achievability, and can be successful with financial support and focused attention. All of these projects would involve active collaboration with partner organizations in the watershed.

Please let me know if there is any additional information that would be useful to you. We look forward to the results of the prioritization of the NRDAR process.

Sincerely,

A handwritten signature in blue ink, appearing to read "K. Redding", is positioned above the typed name.

Kevin Redding
Executive Director

PIEDMONT LAND CONSERVANCY PROPOSED PRIORITY PROJECTS FOR DAN RIVER WATERSHED

Protect Title	Project Summary	Water Quality Impacts	Additional Comments
STOKES COUNTY			
Upper Dan River Corridor - from Flippin Road to NC 704, including the “Nationally Significant” Dan River Gorge	Protected riparian corridor with trails and fishing/canoeing access	Habitat for federally endangered James River Spineymussel	
Small Anthered Bittercress (<i>Cardamine micranthera</i>) Sites	Protect 5-6 sites where this federally endangered species grows (no sites on currently protected land)	Grows on edge of Dan River tributary streams in Stokes, so will provide riparian protection	Small-anthered Bittercress only grows in the Dan River basin in several areas in NC and VA, and is a “globally-imperiled” species
Upgrades to Vade Mecum and Moore's Spring	Make sewer improvements to these recently acquired state park properties to help provide much-needed camping access for Hanging Rock	Reduce potential for water quality pollution	
Moratock Park Improvements	Boardwalk Riparian greenway trail; Upland trails	Enhance public access facilities along river	
Improved River Access	Improve and dedicate public river access: <ul style="list-style-type: none"> • NC 6843 (in middle of “Dan River Gorge” area) • NC 704 (Hart’s access) • NC 89 Bridge (Whitt’s Access) • 7 Islands Bridge • US 311 • Pine Hall Bridge 	Stabilize existing river access points and create new ones	
Sheep Rock – Danbury Trail Connector	Develop a trail to connect Sheep Rock (within Hanging Rock State Park) to Danbury		
Sauratown Trail	Permanently protect Sauratown Trail easements which connects Pilot Mountain to Hanging Rock through Sauratown Mountain	Trail crosses tributaries to Dan River	Increased recreational access
Protection of highest ranking Natural	<i>(Ranking of importance)</i>	Sites on Dan River channel or on	

Heritage Sites In Stokes County	<ul style="list-style-type: none"> • Little Dan River (<i>State</i>) • Dan River Bends (<i>Regional</i>) • Dan River Shores (<i>Regional</i>) • Dan River Hemlock (<i>State</i>) • Flint Mill Hole (<i>Regional</i>) • Dan River Cliffs (<i>Regional</i>) 	tributaries	
Designate Dan River as a National Wild and Scenic River		National recognition	
ROCKINGHAM COUNTY			
Expand Mayo River State Park – Acquisition of Trust Properties	Protect Lower and Upper Trust Properties to add nearly 500 acres and 9 river miles, protecting 10 rare and endangered aquatic species and increased river access	Protected river corridor	
Acquire Old Washington Mill Property	For use as a town park and river access in Mayodan	Increased river access and protect riparian area	
Improved River Access	Acquire two additional tracts at confluence of Mayo and Dan Rivers for State Park (available for purchase)	Protect riparian area and provide access	
Protection of highest ranking Natural Heritage Sites In Rockingham County near Coal Ash Spill Site	<p>Highest ranking sites near coal ash spill site (<i>Ranking of importance</i>):</p> <ul style="list-style-type: none"> • Widemouth Creek Conglomerate (<i>Regional</i>) • Rockhouse Creek Slopes (<i>State</i>) • Fitzgerald Woodland (<i>State</i>) • Rocky Branch Conglomerate (<i>State</i>) • Miller/Coors (<i>State</i>) 	Located on small tributary streams with proximity to the main channel of the Dan River	
Protect Other High Priority Natural Heritage Sites	<ul style="list-style-type: none"> • Jacob’s Creek Slopes (<i>State</i>) • Pleasantville Basic Forest (<i>Regional</i>) • Smith River Bluffs (<i>County</i>) • Smith River Slopes (<i>Regional</i>) • Bear Slide Bluff (<i>Regional</i>) 	Located on tributaries to the Dan River	
Protect High Priority Riparian Buffers Near Spill Site	Target high priority tracts identified by Dan River Watershed Plan for riparian easements through landowner outreach and education	Riparian buffers protected	Plan identified more than 40 high priority tracts just above and below Eden on the Dan River

Protect Historical sites	Bartlett Canal, Spray Cotton Mill	Increased river-based access	
CASWELL COUNTY			
Hogan's Creek	Protect riparian corridor along this significant tributary to the Dan River	Highest ranking water quality stream in Caswell County and designated the highest priority landscape	
Protection of Highest Ranking Natural Heritage Sites In Caswell County	<ul style="list-style-type: none"> • Wolf Island Creek/Dan River Slopes • Dan River/Milton Floodplains • Dan River/Blanch Levee and Slopes • Cane Creek Slopes 	Would protect riparian areas along Dan River below spill site	

Sources:

- Stokes Natural Heritage Inventory 1998 (NC Natural Heritage Program)
- Rockingham Natural Heritage Inventory 1999 (NC Natural Heritage Program)
- Caswell County Natural Heritage Inventory 2011 (NC Natural Heritage Program)
- Upper Dan River Corridor Survey 2000 (Clean Water Management Trust Fund/Stokes County section)
- Dan River Corridor Study 2006 (PLC/CWMTF, Rockingham County)
- Dan River Watershed Protection Plan 2006 (PLC/CWMTF)
- Dan River Sediment and Fecal Coliform Study 2009 (Stokes and Rockingham Counties; 16 sampling stations collected monthly for two years)
- *Cardamine micratherea* Status Report 2013 (NC Natural Heritage Program)
- Eden Area Watershed Restoration Plan 2014 (Piedmont Triad Regional Council)



Ward, Sara <sara_ward@fws.gov>

Expanding Mayo River State Park

Bill McNeil [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 9:17 PM

Hello Sara,

I am writing to support expanding Mayo River State Park as a way to offset the consequences of Duke Energy's damaging ash spill on the Dan River. Duke's coal ash spill has impacted the economy both upstream and downstream from the immediate site in Eden. The public and tourism-related businesses would benefit greatly from expanding Mayo River State Park, specifically by adding more recreational access points and facilities on the Mayo and the Dan, locations close to thousands of potential users in Rockingham County, Guilford County and other communities in the Piedmont.

Please add my voice to those of the Piedmont Land Conservancy and other citizens calling for using mitigation funds to projects that will attract more visitors to Mayo River State Park.

sincerely,

Bill McNeil
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Thu, Nov 13, 2014 at 1:02 PM

To: Sara_Ward@fws.gov

November 13, 2014

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

I love to walk my dog, kayak, and just enjoy the beauty and smells in the outdoors. This would be a great addition for so many of us that love the outdoors. I greatly urge this expansion so we may all enjoy this earth.

Sincerely,

Carol Boersema





Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

gramahiker <[REDACTED]>

Thu, Nov 13, 2014 at 3:39 PM

Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Attn: Sara Ward with the US Fish and Wildlife Service

We are members of Friends of Sauratown Mountain and would like to see funding for the following projects near Hanging Rock State Park.

1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

2) Sewer improvements for the newly acquired Moore's Spring campground. This will allow the park to fully utilize the campground and improve water quality.

We hope you will give these serious consideration. Your time and effort is appreciated.

Mickey and Sharon Walker



Ward, Sara <sara_ward@fws.gov>

Public Comment for NRDAR Process

Taylor Owens <towens@piedmontland.org>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Thu, Nov 13, 2014 at 1:06 PM

Sara,

As a staff member of the Piedmont Land Conservancy, I believe the most important action to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park by acquiring the Mayo River Trust Properties.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Name: Taylor G. Owens

[REDACTED]

[REDACTED]

Taylor Owens, Database Specialist

Piedmont Land Conservancy

towens@piedmontland.org

Ph: (336) 691-0088





Ward, Sara <sara_ward@fws.gov>

Dan River basin as part of a Natural Resource Damage Assessment and Restoration (NRDAR)

Greg&Germaine Yahn [REDACTED]
To: Sara_Ward@fws.gov

Thu, Nov 13, 2014 at 12:28 PM

Hi Susan,

As a member of the Friends of Sauratown Mountains, I want to let you know I support the following project:

Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

Thanks,

Greg Yahn



Ward, Sara <sara_ward@fws.gov>

WRC Comments: Dan River Coal Ash Scoping Document

Deaton, Shannon L. <shannon.deaton@ncwildlife.org>

Fri, Nov 14, 2014 at 1:02 PM

To: "Ellison, Michael" <Michael.Ellison@ncdenr.gov>

Cc: "Culpepper, Linda" <linda.culpepper@ncdenr.gov>, "sara_ward@fws.gov" <sara_ward@fws.gov>, "Martin, Mallory G." <mallory.martin@ncwildlife.org>

Mr. Ellison –

Attached please find comments from the North Carolina Wildlife Resources Commission regarding the draft “Dan River Coal Ash Spill Natural Resources Damage Assessment and Restoration: Scoping Document for Restoration Planning”. A hard copy of this letter has also been placed in the mail to you.

Thanks for the opportunity to comment and let us know if you have any questions.

Shannon Deaton



Shannon L. Deaton
Program Manager of Habitat Conservation



1721 Mail Service Center, Raleigh, NC 27699-1721

Tel: 919-707-0222 | Fax: 919-707-0028

shannon.deaton@ncwildlife.org | www.ncwildlife.org



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Dan River Coal Ash Draft Scoping Document_WRCcomments_111414.pdf
374K



North Carolina Wildlife Resources Commission

Gordon S. Myers, Executive Director

November 14, 2014

Michael Ellison, Director
NC DENR - Ecosystem Enhancement Program
1652 Mail Service Center
Raleigh, NC 27699

Dear Mr. Ellison,

I am writing to you to express the opinions of the North Carolina Wildlife Resources Commission staff regarding the draft "Dan River Coal Ash Spill Natural Resources Damage Assessment and Restoration: Scoping Document for Restoration Planning" (Scoping Document). As you know, the Commission is listed in the NRDAR agreement as a non-voting Advisor and has contributed information to the development of the Scoping Document. We have reviewed the draft Scoping Document and support the collaborative efforts to restore and enhance wildlife resources and recreational opportunities for NC citizens.

In particular, we would like to express support for the full range of viable projects identified in the Scoping Document. These include actions related to land acquisition, fish passage, species restoration, recreational fishing enhancement, restoration of habitats, and river-based recreation that would greatly benefit the natural resources and services that were lost or impaired as a result of the coal ash release. Dan River has a diverse ecological history which provides habitats, food sources, and recreational opportunities for a wide variety of natural resources and users. The Commission anticipates that the Trustees will identify an equivalent set of diverse restoration projects to truly achieve the goals of the Scoping Document.

We welcome the opportunity to continue to work with the Trustees throughout the scoping and implementation phases of the NRDAR process. Please contact me at your convenience if you need additional information on any of the projects identified in the scoping process.

Sincerely,

Mallory Martin, Chief Deputy Director
North Carolina Wildlife Resources Commission

cc: Sara Ward, US Fish and Wildlife Service
Linda Culpepper, NCDENR Division of Waste Management



Ward, Sara <sara_ward@fws.gov>

comments on Dan River Coal Ash NRDA & Restoration Plan

Holman, Bill <bholman@conservationfund.org>

Fri, Nov 14, 2014 at 7:45 PM

To: Sara Ward <sara_ward@fws.gov>, Susan Lingenfelter <susan_lingenfelter@fws.gov>

Cc: "Michael Ellison (michael.ellison@ncdenr.gov)" <michael.ellison@ncdenr.gov>, "Tingley, Carol"

<carol.tingley@ncparks.gov>, "Linda Culpepper (linda.culpepper@ncdenr.gov)" <linda.culpepper@ncdenr.gov>

Ms. Ward & Ms. Lingenfelter:

Thank you and the other natural resource trustees for developing and for seeking public review and comment on the Scoping Document for Restoration Planning for the Dan River Coal Ash Release Natural Resource Damage Assessment and Restoration (October 2014).

The scoping document identifies potential injuries to natural resources and services, including surface water & sediment, aquatic fish and wildlife, migratory birds, stream & wetland habitats, and recreational uses; and restoration opportunities.

The Conservation Fund respectfully makes the following comments.

The Dan River, a major tributary of the Roanoke River, is a valuable natural resource shared by the citizens of North Carolina and Virginia and managed as a public trust by the State of North Carolina and the Commonwealth of Virginia. The Dan and its tributaries provide water supplies for municipalities and industries, cooling water to Duke Energy, recreational and economic opportunities to the public, and important habitat for migratory birds, fish and other aquatic species.

The Dan River is an economic as well as environmental asset. It offers wonderful scenery, paddling and fishing opportunities. However, public access – and therefore economic opportunities – to the Dan and its tributaries such as the Mayo and Smith Rivers in both states is limited.

As the natural resource trustees and Duke Energy work together to identify investments to restore both the environment and economy in the Dan River Basin The Conservation Fund recommends that trustees and Duke give priority to projects that can be implemented in the near term and lay the groundwork for future private and public investments that restore the river and boost the economy in the region.

In 2003 the NC General Assembly established Mayo River State Park to provide new recreational & economic opportunities in Rockingham County in the wake of major layoffs at textile mills. State Parks has acquired the former & historic Washington Mills park on the Mayo River. The Mayo Mountain Access section of the park opened in 2010 as an interim facility. Additional investments in land and facilities are needed in order for the state park to reach its potential as a recreational and economic asset to the region. The 2007 Virginia General Assembly authorized a study of the feasibility of creating a state park on the North and South Forks of the Mayo River in Henry County. Investments in land and facilities are also needed in Virginia. An interstate park would increase both the recreational and economic impact of these investments.

The Conservation Fund has worked with many communities, such as Columbus, Georgia, that have revitalized their economies by focusing on public access to the rivers flowing through them and redeveloping their former textile mills. Danbury, Madison, Mayodan, Eden, Danville, and other communities could benefit from a similar strategy.

In 2014 the NC General Assembly transferred Camp Sertoma on the Dan River in Stokes County from 4-H (NC State University) to NC State Parks to be managed as part of Hanging Rock State Park. Many facilities at Camp Sertoma, including the inn/restaurant, stable, cabins, trails, and river access need to be improved and upgraded before state parks can lease them to entrepreneurs and before they can attract more visitors to the Dan River and Stokes County. TCF understands that NC State Parks is assessing the condition of the buildings and facilities at Camp Sertoma and will soon have estimates of the cost to repair and renovate the facilities so that they can be leased and/or reopened to the public.

Local land trusts such as the Piedmont Land Conservancy and The Conservation Fund's Strategic Conservation, Natural Capital Investment Fund, Resourceful Communities, and Real Estate programs are available to assist the natural resource trustees, local communities and Duke Energy in improving the environment and economy in the Dan River Basin.

Thank you for your consideration.

Bill

Bill Holman

NC State Director

The Conservation Fund

Box 271

Chapel Hill, NC 27514

919-951-0119

bholman@conservationfund.org

www.conservationfund.org



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Thu, Nov 13, 2014 at 1:02 PM

To: Sara_Ward@fws.gov

November 13, 2014

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

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I love to walk my dog, kayak, and just enjoy the beauty and smells in the outdoors. This would be a great addition for so many of us that love the outdoors. I greatly urge this expansion so we may all enjoy this earth.

Sincerely,

Carol Boersema





Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

gramahiker <[REDACTED]>

Thu, Nov 13, 2014 at 3:39 PM

Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Attn: Sara Ward with the US Fish and Wildlife Service

We are members of Friends of Sauratown Mountain and would like to see funding for the following projects near Hanging Rock State Park.

1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

2) Sewer improvements for the newly acquired Moore's Spring campground. This will allow the park to fully utilize the campground and improve water quality.

We hope you will give these serious consideration. Your time and effort is appreciated.

Mickey and Sharon Walker



Ward, Sara <sara_ward@fws.gov>

Public Comment for NRDAR Process

Chrissy Kayhko <ckayhko@piedmontland.org>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Fri, Nov 14, 2014 at 1:25 PM

As a staff member of the Piedmont Land Conservancy, I believe the most important action to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park by acquiring the Mayo River Trust Properties.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Name: Chrissy Kayhko

Address: [REDACTED]

Telephone: [REDACTED]

Chrissy Kayhko
Database Manager
Piedmont Land Conservancy
ckayhko@piedmontland.org
336 691 0088



Ward, Sara <sara_ward@fws.gov>

Dan River Coal Ash Release Restoration

Andrew Lester [REDACTED]

Fri, Nov 14, 2014 at 2:14 PM

To: "sara.ward@fws.gov" <sara.ward@fws.gov>, "sara_ward@fws.gov" <sara_ward@fws.gov>

Sara Ward
U. S. Fish and Wildlife Service
Raleigh Ecological Services Field Office

Ms Ward:

Thank you for the opportunity to review and respond to the "Dan River Coal Ash Release Natural Resource Damage Assessment and Restoration" document of October 1, 2014.

The Roanoke River Basin Association (RRBA) is a 69 year old non-profit organization whose mission is to be the voice for the development, use, preservation, and enhancement of the Roanoke River Basin resources. More information on the organization's history and current projects can be found at www.rba.org.

Over the years, RRBA has been the leading regional force in addressing the significant issues facing this 410-mile river and its 9,600 square mile basin. The region entails all of the rivers and lakes between Blacksburg, Virginia and the Albemarle Sound, North Carolina. The Dan River Basin is a sub basin of the entire Roanoke Basin system. Thus, as an organization serving both North Carolina and Virginia, we are directly and actively involved in preserving the well-being of the Dan. In addition, our home office is located in Danville, VA, just a short walk from the riverbank.

In order to mitigate and heal the damage caused by the coal ash release to the river and to the people of the Dan River community, we believe there are three steps which must be undertaken:

1. **Restoration**. The quality of the river must be restored as quickly and effectively as possible. This not only means a mitigation of the coal ash in the river, but also a recovery from the long-term damage to the river's fishery and the wildlife that depends on the river. This will need long-term monitoring of up to 5 years, since many of the negative impacts on the water populations will not show up for several years. If serious damage is found to the fish population, then re-stocking may be required. Estimated investment is \$482,250.

2. **Enhancement**. Along with restoration, we must overcome the tarnished image which now hangs over the Dan and the communities in the basin. To achieve this goal, we propose to expand RRBA's existing program, UpperReach, which was established to promote water-based recreational opportunities in the Roanoke River basin and to enhance access to the water resource. The details of this program expansion can be found in the

attachment to this letter. In addition, we propose to begin an educational outreach program and a regional, multi-state marketing campaign to promote recreational and tourism opportunities in the region. Estimated investment is \$2,763,670

3. Long-Term Monitoring and Protection. At this time, the Dan River does not have an official waterkeeper or a comprehensive water quality and ecosystem monitoring program. We propose to serve as a full-time waterkeeper for the Dan, from Eden, NC to Kerr Lake, NC in partnership with the Waterkeepers' Alliance. This program will ensure future protection of the river, its ecosystem, and the communities. Estimated investment is \$647,300.

In summation, the total investment of \$3,893,220 that we are seeking to help us overcome this disaster amounts to about a one cent investment for each lb of toxic waste released into the river.

RRBA is the oldest and largest non-profit water group in the basin. We are highly respected in both states. We are experienced in addressing the issues faced by this river and the communities with demonstrated quality results, and we are ready to act on this matter to everyone's satisfaction. .

Please contact me with any questions or comments. I am looking forward to discussing with you further the measures for restoring and protecting the Dan River.

Best regards,

Andrew Lester
Executive Director
Roanoke River Basin Association
Institute for Advanced Learning and Research
150 Slayton Ave
Danville, VA 24540
434-766-6727
exdir@rrba.org

www.rrba.org www.upperreach.org



Duke Energy-Dan River Access Proposal (1).pdf
783K

Proposal for Enhanced River Access along the Dan River -
Eden, NC to John H. Kerr Lake

November 14, 2014

The Roanoke River Basin Association (RRBA) together with local municipalities, state agencies and other stakeholders have partnered to preserve and to create the Southern Virginia Wild Blueway. These efforts along with past efforts within the Dan River Basin has resulted in over 200 miles of water trails within the NC/VA piedmont regions. The blueways provide recreational opportunities for paddlers of hand launched craft and serve as a vital economic and environmental stewardship stimulus to the region. Recent economic assessments report that the economic impact for paddling activities within the Roanoke River Basin for Virginia alone totals:

\$47,071,318 of Income (\$20,828,017 direct paddling +\$26,243,301 indirect) and 1,180 Jobs (694 direct paddling + 486 indirect) in the Roanoke River Basin.*

*Assessing Economic Impacts of Ecotourism in the Roanoke River Basin: Metrics Program Development Services – Ellerbock 2014

Today the effort to create a system of public access sites and launch facilities along the Dan River from Eden, NC to John H. Kerr Dam remains incomplete (Reference DCR 2013 Outdoors Plan-Districts 12 & 13). Long stretches of the Dan River remain inaccessible due in part to a lack of adequate public access sites. The recent coal ash spill further crippled the team's ability to attract visitor interest to the Dan River, already a challenging mission. Funding is needed to provide facilities to existing sites, acquire easements or purchase critical access sites and to offset the damaging effects of the coal ash spill.

This proposal by RRBA and DRBA seeks to engage Duke Energy in this partnership to create a legacy along this historic Dan River Blueway that will honor the river, the region, and its present and future generations.

Project Scope:

The project would create and/or enhance 8 to 15 river access sites along the Dan River and its immediately adjacent tributaries. A typical paddle trip needs an entry and exit and point for most river trips and to attract more users, an access should be located at least every 6-8 miles.

The range of sites that have been identified and mapped (see Attachment A) include:

Level A - those that need only interpretive and/or wayfinding signage (\$ 5K-10K ea.),

Level B - those that need additional facility enhancements for parking and/or river access (\$ 50K - \$75K ea.),

Level C - search areas for needed public access and facility development (\$200K-250K ea.)

required for ongoing maintenance. Representative river access projects undertaken by this team are included below:



US-1 Steel Bridge Landing - a universally accessible floating hand-launch

Location: Roanoke River/Lake Gaston
Mecklenburg County, VA

Partners: A partnership between RRBA, Mecklenburg County and Dominion

Completed: September 2014



King's Bridge Landing - a stair step river hand-launch

Location: Banister River
Halifax County, VA

Partners: A partnership between RRBA, Town of Halifax, and VDOT

Completed: Fall 2014



John H. Kerr Tailrace Park - a universally accessible river hand-launch

Location: Roanoke River/John H. Kerr Tailrace

Partners: A partnership between RRBA, USACE

Completed: May 2013

Location of the proposed restoration project:

Dan River – Eden, NC to John H. Kerr Lake

Restoration project category:

Expand river-centered opportunities for public recreation and wildlife viewing

Contact Information:

Andrew Lester – Managing Director RRBA



Proposal Title:

Proposal for Enhanced River Access along the Dan River - Eden, NC to John H. Kerr Lake

Estimated cost:

\$ 2,500,000 to \$ 2,700,000 (varies depending on easement/property acquisition, number of access sites)

Anticipated natural resource or resource service benefits (“uplift”);

The partnering and development of the Dan River Blueway-Eden, NC to John H. Kerr Lake will foster environmental stewardship through enhanced recreation. Improved access enables volunteer groups could get on and off the river at more locations to conduct evaluation of the conditions of the river and its banks, for clean-up and habitat restoration, to conduct clean-up (litter/debris) and restoration activities, enhanced accessibility for safety and evacuation operations and to provide enhanced fishing and paddling access for hand-launched craft. Current access is insufficient in many locations for volunteer and community led activities. Monitoring and evaluating historic resources including river navigation, adjoining historic transportation and commercial uses along the river and Native American cultural sites would also be improved with better access.

Public awareness of the partnership and river-based projects in the affected communities will refocus the public’s attention on river resources, habitat, history of the Dan River Basin/and its tributaries and the important role it plays in all our lives.

Timing:

The process of developing, managing and promoting the use of blueways is already underway in the region. Regular stakeholder meetings are held and effective working relationships are in place among the stakeholders. Additional stakeholders will be engaged and activities will focus on the Dan River section of the blueway system. Although some targeted access areas will

require the identification of suitable sites others exist and are ready for facility enhancement. Public awareness of the team's activities and promotion of the use of the blueway will be featured on existing websites from Day 1. These sites include:

Roanoke River Basin Association www.rrba.org

RRBA – Upper Reach www.upperreach.org

Dan River Basin Association – www.danriver.org

Southern Virginia Wild Blueway - www.sovawildblueway.com

The duration of the project is estimated at 3 years. While initial publicity and awareness building will begin within the first four months, capital improvements will only be visible at the end of year one. Targeted access sites involving easement acquisition will extend into year three.

Partial List of Stakeholders and Partners:

US Army Corps of Engineers (USACE)

Dan River Basin Association (DRBA)

Virginia Department of Conservation and Recreation (DCR)

North Carolina Division of Parks and Recreation (NCPR),

Virginia Department of Transportation (VDOT),

North Carolina Department of Transportation (NCDOT),

VA Department of Game and Inland Fisheries (DGIF),

Virginia Tobacco Indemnification and Community Revitalization Commission (TICR),

Virginia Tourism Corporation (VTC)

Dominion,

Halifax County,

Mecklenburg County,

Rockingham County,

Caswell County,

City of Danville, VA

Town of Eden, NC

Town of South Boston, VA

Links – Virginia 2013 Outdoors Plan

http://www.dcr.virginia.gov/recreational_planning/documents/voppd12.pdf

http://www.dcr.virginia.gov/recreational_planning/documents/voppd13.pdf

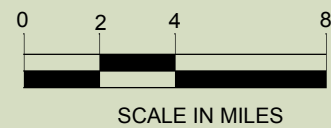
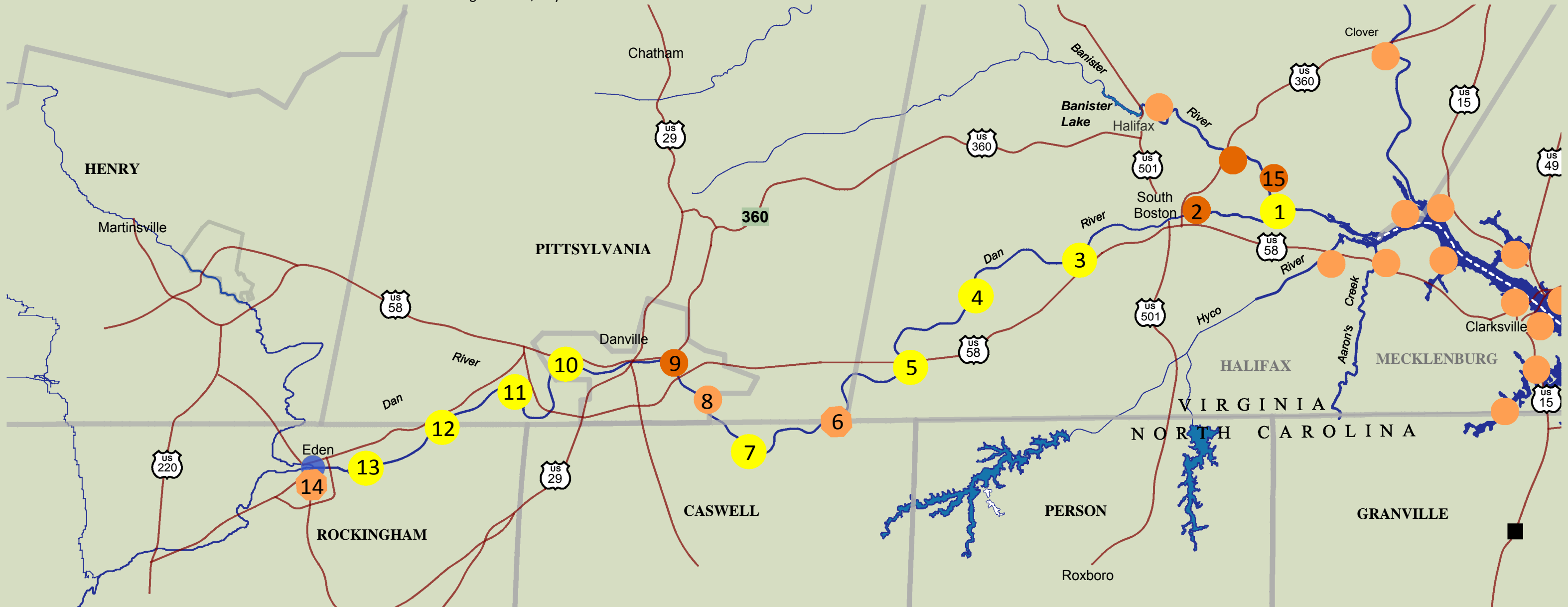
End

Existing and Potential Sites Identified

Legend

- Existing Public Access with Launch Facilities
- Existing Public Access - Launch Facilities Needed
- Public Access and Launch Facilities Needed

- 1 - Dan & Banister Confluence - Level-C
- 2 - South Boston DGIF Access - Level-A/B
- 3- Rte 671, News Ferry Trail - Level C
- 4 - Rte 658, Melon Road (Paces) - Level C
- 5 - US-58 - Level C
- 6 - NC 62, NCWRC Boating Access Area - Level A
- 7 - Rte. 1526, Dix Rd. - Level C
- 8 - Angler's Park, City of Danville - Level A
- 9 - Riverside Dr./Riverwalk Trail, City of Danville - Level B
- 10 - Birnam wood or Hwy 58 - Level C
- 11 - Burford/Oak Ridge In. or Hwy 58 By-pass - Level C
- 12 - Rte. 880/Berry Hill - Level C
- 13 - S. Fieldcrest Rd./Draper Landing - Level A
- 14 - S.Van Buren Rd and Hwy 770/14 - Level A
- 15 - Rte 716, Wolf Trap Road - Level B





Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

John McCulloch [REDACTED]
 To: Sara_Ward@fws.gov

Fri, Nov 14, 2014 at 8:26 AM

I am writing this note as a citizen and member of the Friends of the Mountain to Sea Trail. I have volunteered hundreds of hours to help provide a scenic and safe trail for our citizens. Several projects come to mind that could be realized using Duke Funding.

- Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality

Thank you for the opportunity to respond to this important issue

John

John McCulloch
 [REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment for Dan River NRDAR Process

John McLendon <[REDACTED]>
To: Sara_Ward@fws.gov

Fri, Nov 14, 2014 at 10:56 AM

To: Sara Ward, US Fish & Wildlife Service, Raleigh Ecological Services Field Office

As a member of the [Board](#) of Directors of Piedmont Land Conservancy, I believe the most important action that can be taken to mitigate impacts of the coal ash spill in the Dan River will be to expand the Mayo River State Park by acquiring properties along the Mayo River. Acquisition and protection of land along the Mayo River will safeguard significant habitat with rare and endangered aquatic species, provide public access for recreation, and protect water quality in the Mayo and Dan Rivers. Expanding the Mayo River State Park will provide significant ecological, economic, and water quality benefits.

Thank you for considering my input in the NRDAR process.

John A. McLendon Jr.
[REDACTED]



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Fri, Nov 14, 2014 at 7:54 PM

[REDACTED]
To: Sara_Ward@fws.gov

Hello Sara Ward,

I'm writing in support of three proposed NRDAR projects in Stokes County. I work a several with area non-profits, such as the Sauratown Trails Association, to supports recreational trail and land conservation efforts in Stokes County. I feel the following projects would help with the river's recreation and conservation needs:

The first, and in my view the most important project, is the need for land acquisition along the Dan River between Moratock Park in Danbury and Duke Power's Belews Creek Dam (not far from Walnut Cove). There has been a long term interest, from multiple parties, in establishing a land based trail system from Danbury to the vicinities of Walnut Cove and Belews Lake. The Mountains-to-Sea Trail (MST) has been umbrella project most interest parties have gathered under, because it is a State Trail in need of a route from Hanging Rock State Park to the Greensboro Watershed Trails. Routes are being secured from Greensboro to Stokesdale and from Hanging Rock to Moratock Park, but little has happened between Moratock Park and Stokesdale. The Dan River and Belews Lake form a natural corridor between those two points, suitable for a natural surface trail. Efforts to build a trail have been stalled due to the lack of ongoing conservation projects along this stretch of the Dan River. If land could be acquired along the river, it would go a long way toward completing the trail in Stokes County. It would also help protect the river's banks, water quality and view-shed, by creating a buffer between the river and neighboring development.

Second, there is a need for a permanent, public river access near the intersection of NC268 and NC89. There was once an access in this area, known as Whitt's Access, but it was not permanently secured. The loss of this access has limited the public's ability to paddle one of the more scenic stretches of the Dan River. The NC89 bridge is 6.6 miles downstream of the Hart's Access and 6.3 miles upstream of the Hanging Rock Access. Without a public access in the area, paddlers have to either have commit to a 12.9 mile trip to experience this part of the Dan, or they have to make special arrangements with private land owners to access the river. The acquisition of land midway between those two existing accesses would greatly alleviate the situation. Depending on the amount of land available, an access in this area could also create another buffer along the Dan River.

Finally, Hanging Rock State Park recently acquired the old Moore's Spring campground. This campground has direct access to the Dan River, and is easily accessible by car. In my many camping trips across North Carolina, I've found Moores Springs to be among the most scenic and tranquil tent camping spots in the state; however, the campground has one major drawback. The existing sewer system is in a dilapidated state. The old bathroom building is unusable, because waste water leaks into the river. When the campground was in operation last year (by a different entity) human waste had to be managed by port-a-johns, and potable water could only be obtained by one spigot near the campground's gate. This resulted in some unsanitary practices in the campground, such as campers defecating in the waters of the Dan and Cassacades creek, rather than walking to a smelly port-a-john. The campground is in urgent need of a new sewer system which meets the needs of campers and preserves the water quality of the Dan River. With the multiple facilities Hanging Rock State Park has recently acquired, it would be difficult for them to correct this situation quickly, in the current budget climate. The park could use help addressing this water quality issue.

Please consider the above as potential mitigation projects in the Dan River Basin of Stokes County.

Thank you,
Steven Mierisch



Ward, Sara <sara_ward@fws.gov>

TNC comments on Scoping Document

Chuck Peoples <cpeoples@tnc.org>

Fri, Nov 14, 2014 at 2:26 PM

To: "Ward, Sara (sara_ward@fws.gov)" <sara_ward@fws.gov>

Cc: Rick Studenmund <rstudenmund@tnc.org>, Will Morgan <wmorgan@tnc.org>

Sara,

Appreciate the work you and others put into preparing such a well-thought out scoping document for the Dan River NRDAR. Please accept the attached comments from TNC for incorporation into the record regarding this scoping.

Best regards,

Chuck

Please consider the environment before printing this email

Chuck Peoples
Northeast NC Program Director

cpeoples@tnc.org
(252) 583-0007 (Phone)
(252) 583-1187 (Fax)
(252) 578-4115 (Mobile)

nature.org

The Nature Conservancy
Roanoke River Field Office
PO Box 327 (mailing)

105 King St. (shipping)
Halifax, NC 27839



Dan_River_Scoping_TNC.pdf
71K



Roanoke River Field Office
PO Box 327,
105 S. King Street
Halifax, NC 27839

Tel (252) 583-0007
Fax (252) 583-1187

nature.org

November 14, 2014

Sara Ward, U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
Transmitted via Email to: Sara_Ward@fws.gov

RE: Dan River Coal Ash Release Natural Resource Damage Assessment and Restoration –
Scoping Document for Restoration Planning , October 1, 2014

Dear Ms. Ward:

The Nature Conservancy has reviewed the scoping document prepared by the Dan River Coal Ash Release Natural Resource Trustee Council regarding potential restoration alternatives for natural resources impacted by the coal ash spill. We appreciate the opportunity to provide comments pertaining to the document, strategies, and future project opportunities.

The scoping document details the resource impacts and possible alternative project pathways for remediation. We find the trustees have developed restoration project concepts and evaluation criteria that should lead to achieving stated objectives for restoring impacted resources. Further, the document conveys the broad suite of conservation tools necessary to affect positive conservation outcomes. While we appreciate the need to employ the full complement of remediation actions, we believe that to achieve lasting conservation gains, emphasis should be placed on the restoration, where necessary, and permanent protection of wetlands and forested riparian buffers. To that end, projects can and should achieve a synergy of benefits, following, as example, Conservation Reserve Enhancement Program style practices that accomplish both restoration and permanent land protection objectives. Application of such an approach in a well-planned and strategic manner is most likely to result in meaningful conservation gains for the benefit of impacted resources.

The Nature Conservancy appreciates the opportunity to provide feedback on the scoping document and would welcome future occasions to participate in the project development process. Please feel free to contact me with any questions regarding this response, either via email to cpeoples@tnc.org or by phone at 252-583-0007.

Sincerely,

A handwritten signature in black ink that reads "Chuck Peoples". The signature is written in a cursive, flowing style.

Chuck Peoples
Northeast NC Programs Manager



Ward, Sara <sara_ward@fws.gov>

FW: VOF proposal re: Dan River Scoping Document - resend

Susan Lingenfelter <susan_lingenfelter@fws.gov>
To: sara_ward@fws.gov

Mon, Nov 17, 2014 at 8:20 AM

From: Vance, Tamara (VOF) [mailto:tvance@vofonline.org]
Sent: Friday, November 14, 2014 3:35 PM
To: Susan Lingenfelter
Cc: Buttrick, Sherry (VOF)
Subject: RE: VOF proposal re: Dan River Scoping Document

Dear Susan - thank you for the opportunity to submit this proposal. If you need further information, please contact me or Sherry Buttrick (copied here and listed in the proposal).

Tamara Vance

Deputy Director

Virginia Outdoors Foundation

900 South Main Street

Blacksburg, VA 24060

(540)951-2822

fax (540) 951-2695

From: Susan Lingenfelter [mailto:susan_lingenfelter@fws.gov]
Sent: Friday, October 03, 2014 10:27 AM
To: Vance, Tamara (VOF)
Subject: Dan River Scoping Document available for public review and comment

Good Morning Tamara,

Based on your prior input to the restoration planning process for the Dan River Natural Resource Damage Assessment and Restoration (NRDAR) process, I wanted to make you aware of the Trustees' recent release of the Dan River Scoping Document for Restoration Planning for public review and comment. Details are available at <http://www.fws.gov/raleigh/> and <http://www.fws.gov/northeast/virginiafield/news/news.html>. We welcome any

11/20/2014

DEPARTMENT OF THE INTERIOR Mail - FW: VOF proposal re: Dan River Scoping Document - resend

input you may have on the document, or potential restoration project activities that may address spill-related impacts to the Dan River. If you have any questions, please don't hesitate to contact me.

Take care, Susan

Susan Lingenfelter

U.S. Fish and Wildlife Service

6669 Short Lane

Gloucester, VA 23061

my new office phone # 804-824-2415



VOF Dan River NRDAR proposal 11-14-14. pdf.pdf
2356K



Project Proposal

To: Dan River Coal Ash Release Natural Resource Trustee Council

From: Virginia Outdoors Foundation (VOF), Charlottesville Office, 1010 Harris Street #4, Charlottesville, VA 22903

Contacts: Sherry Buttrick, Assistant Director of Easements: 434-293-3423;

sbuttrick@vofonline.org and Tamara Vance, Deputy Director for Easements, Blacksburg Office: 540-951-2822; tvance@vofonline.org

Project Title: Dan River Conservation Easement Purchase Program.

Project location: this project is located along the Dan River approximately 15 miles east of Danville.

Restoration Project Categories (Restoration Alternatives): Avoided Habitat Loss via Land Protection; Restoration of Riparian and Wetland Habitats; and Expand river-centered opportunities for public recreation and wildlife viewing.

Project Proposal: The project proposal is to purchase conservation easements along the Dan River which would protect wildlife habitat and create a riparian buffer along the Dan River. The properties proposed adjoin an existing project recently recorded by VOF in 2014 (Edmunds easement), which protects 732 acres fronting on the Dan River and would augment the protection begun through that project. A map is provided showing the Solomon family tracts, totaling approximately 1500 acres, for which landowners have indicated preliminary interest in a purchased conservation easement. VOF outreach could result in additional acreage from other landowners immediately adjacent to (or within a certain distance of) the river willing to participate and protect their property in a permanent conservation easement. Conservation easements accepted as part of this project would meet or be more restrictive than VOF Guidelines for reduced building density (e.g. one dwelling per 100 acres), riparian buffer width (35 ft or greater), impervious surface restriction(limit to 1%), and other protections in the template VOF easement.

Nexus with Natural Resources and Natural Resource Services of the River: Protection of land in permanent conservation easement ensures the natural and open-space character of the land is not subject to conversion to non-rural uses which destroy natural habitat and produce excess run-off, damaging downstream waterways. VOF open-space easements limit the amount of building that can occur and the amount of impervious surface that can be maintained on properties under easement. Riparian buffer strips are included as a provision of the easements to protect vegetation adjacent to waterways, provide important wildlife habitat, and catch fine sediment and help protect the river's water quality. In addition, the protection of land along the banks of the Dan River will enhance the experience of fishermen and other recreational boaters on the river by ensuring that the pastoral quality

of the river and the views from it are maintained in perpetuity. Preventing intensive development, and requiring vegetated riparian buffers, will also contribute to the viability of fish populations and other aquatic life by preventing unnatural increases in water temperature and filtering pollutants. The Dan River in this segment is a multi-agency proposed Blueway and the Dan River Loop of the DGIF Virginia Birding and Wildlife Trail runs along River Road which lies just on the north side of the Dan River. The properties proposed for easements under this project are visible from that road, which is also a Virginia Byway (a state scenic road designation), and from the Tobacco Heritage Trail (a public rails-to-trails project), which lies very near the river on its north side.

Estimated Cost: \$3,305,000. This includes purchase of easements on 3000 acres at \$1000 * per acre for approximately three million dollars; implementation costs of \$50,000* *per project (for six projects) totaling \$300,000; and VOF implementation outreach costs of \$5000 ***.

* \$1000 per acre is based on a recent VOF donated easement value on a nearby similar property.

* * \$50,000 per project includes: \$25,000 for survey, appraisal, title and other legal/closing costs (amount based on average for other purchase of easement projects by VOF using federal funds, e.g. USDA Farm and Ranch Protection Program funds, an Army Compatible Use Buffer [ACUB at Ft. Pickett and Ft. AP Hill programs], and USFWS Coastal Program grant); allowing up to \$5000 for reimbursement of landowner legal fees; plus \$20,000 stewardship endowment for performance monitoring and future enforcement.

*** \$5000 VOF implementation outreach cost covers VOF staff time for travel, landowner meetings, project development, and printed materials for distribution.

The estimated acreage of the landowners who have expressed interest ("shovel ready") is approximately 1500 acres (see map for location of two projects for Solomon family members). Additional outreach by VOF could result in additional landowners willing to participate, for a total estimated 3000 acres on parcels adjoining (or very near) the river in the same area.

Anticipated natural resource and natural resource services benefit: Permanent vegetated or forested buffers along the Dan River could be created, with upland areas restricting building and very strictly limiting impervious surfaces, such that very low development density is achieved in the area, protecting the health of the wildlife habitat and the waterway. This would add to the 14,067 feet of river buffer already established by the recent VOF 2014 easement project. Further, the protection of significant open-space land adjoining this existing protected property of 732 acres would further protect the open-space values, including wildlife habitat and scenic views from the river, of that property.

Timing: Anticipated project completion: Two phases: First phase: 1500 acres by December 2015 (landowners which have already expressed interest), and Second phase: 1500 acres by December 2016, resulting from outreach efforts conducted in 2015, with project completion the following year.

Potential benefit to more than one natural resource or service: Building on an existing block of protected land (732 acres), this project would create a total of more than two thousand contiguous acres in open space. This protected open space would protect a total of over 18,000 feet of Dan River frontage that would benefit water quality in the Dan which has been affected by the ash release, as well as providing scenic enjoyment for fishermen and other recreational users of the river. The block of protected open space would provide a significant contiguous area of over two thousand acres of bird and other wildlife. The properties proposed for this project contain frontage on Route 60, 747 and 836 and would provide scenic enjoyment for the travelers of those roads. The protection of these properties would also contribute to the viability of agriculture and forestry in the area by ensuring the availability of over two thousand acres for these uses. Outreach by VOF has the potential to interest additional landowners in an area important to the protection of water quality in the Dan River and of its bird, fish and other wildlife populations. The area is at present relatively pristine and unusually intact and great benefit could be realized as a result of outreach by VOF with the incentive that funds to purchase easements would provide.

Duke Energy Map

Halifax County



Legend

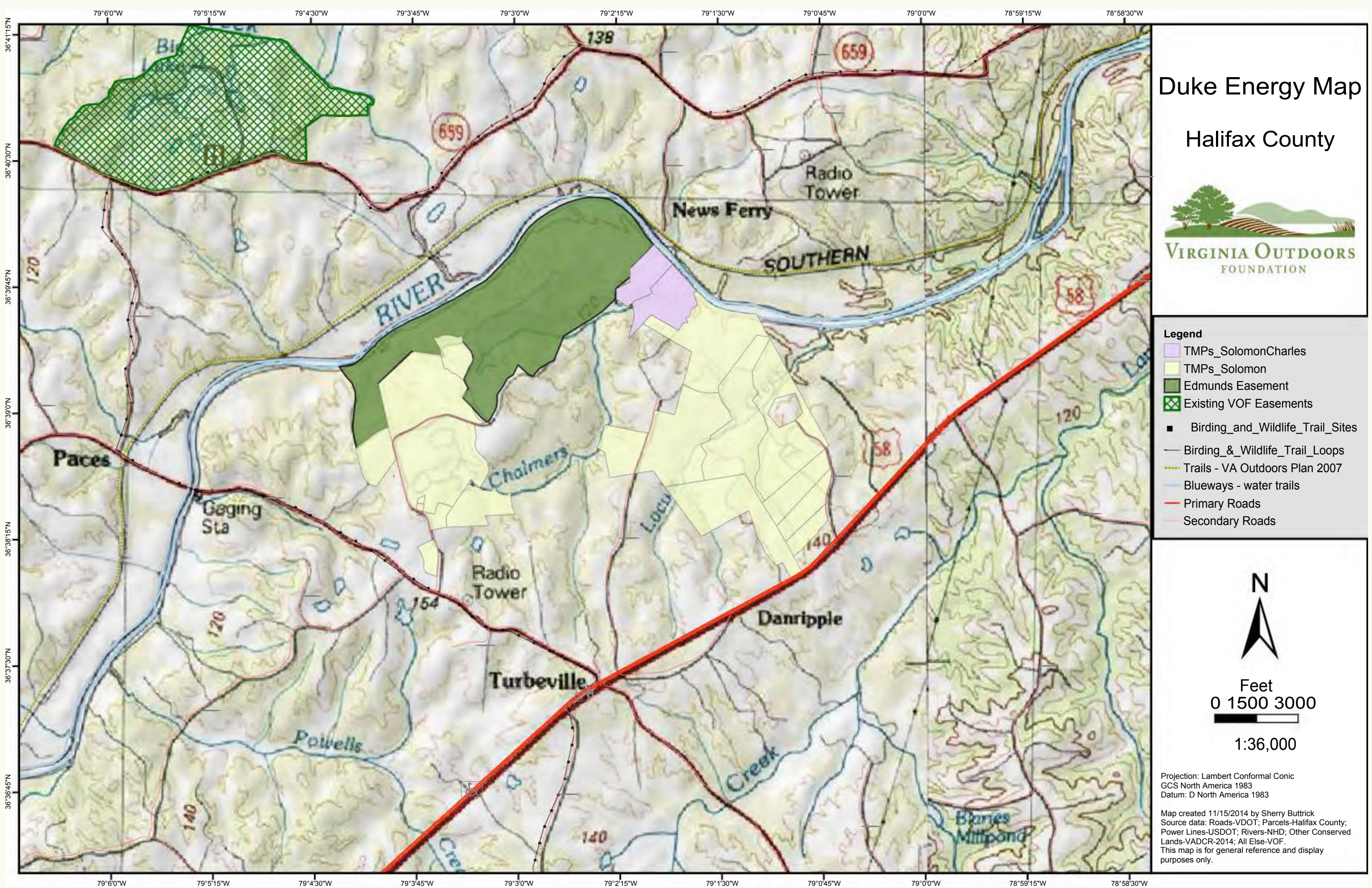
- TMPs_SolomonCharles
- TMPs_Solomon
- Edmunds Easement
- Existing VOF Easements
- Birding_and_Wildlife_Trail_Sites
- Birding_& Wildlife_Trail_Loops
- Trails - VA Outdoors Plan 2007
- Blueways - water trails
- Primary Roads
- Secondary Roads



Feet
0 1500 3000
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Projection: Lambert Conformal Conic
GCS North America 1983
Datum: D North America 1983

Map created 11/15/2014 by Sherry Buttrick
Source data: Roads-VDOT; Parcels-Halifax County;
Power Lines-USDOT; Rivers-NHD; Other Conserved
Lands-VADCR-2014; All Else-VOF.
This map is for general reference and display
purposes only.





Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Thu, Nov 13, 2014 at 1:02 PM

To: Sara_Ward@fws.gov

November 13, 2014

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

I love to walk my dog, kayak, and just enjoy the beauty and smells in the outdoors. This would be a great addition for so many of us that love the outdoors. I greatly urge this expansion so we may all enjoy this earth.

Sincerely,

Carol Boersema





Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

gramahiker <[REDACTED]>

Thu, Nov 13, 2014 at 3:39 PM

Reply-To: [REDACTED]
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Attn: Sara Ward with the US Fish and Wildlife Service

We are members of Friends of Sauratown Mountain and would like to see funding for the following projects near Hanging Rock State Park.

1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.

2) Sewer improvements for the newly acquired Moore's Spring campground. This will allow the park to fully utilize the campground and improve water quality.

We hope you will give these serious consideration. Your time and effort is appreciated.

Mickey and Sharon Walker



Ward, Sara <sara_ward@fws.gov>

RE: Comments of the City of Danville, Virginia on the Scoping Document for Restoration Planning Dated October 1, 2014.

Whitfield, Clarke <WhitfCC@danvilleva.gov>

Fri, Nov 14, 2014 at 4:26 PM

To: "Wiegard, Maxwell H." <MWiegard@gentrylocke.com>, "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>, "Susan_Lingenfelser@fws.gov" <Susan_Lingenfelser@fws.gov>

Cc: "Williams, Charles L." <Williams@gentrylocke.com>, "Puvak, Jon" <Puvak@gentrylocke.com>

Thanks to everyone.

Clarke

W. Clarke Whitfield, Jr.

City Attorney

P.O. Box 3300

Danville, VA 24543

Phone (434)799-5122

Facsimile (434) 797-8972

From: Wiegard, Maxwell H. [mailto:MWiegard@gentrylocke.com]

Sent: Friday, November 14, 2014 4:23 PM

To: Sara_Ward@fws.gov; Susan_Lingenfelser@fws.gov

Cc: Williams, Charles L.; Puvak, Jon; Whitfield, Clarke

Subject: Comments of the City of Danville, Virginia on the Scoping Document for Restoration Planning Dated October 1, 2014.

Ms. Ward and Ms. Lingenfelser:

On behalf of Charlie Williams, counsel for the City of Danville, Virginia, I write to submit the attached letter summarizing the City's comments on the Scoping Document for Restoration Planning dated October 1, 2014. Should you have any questions regarding the attached letter, please do not hesitate to call Mr. Williams at 540-983-9375 or me at 540-983-9350.

Regards,

Max Wiegard



web | bio | map

Maxwell H. Wiegard

Direct Dial: 540.983.9350 | Cell: 540.815.8040

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GENTRY LOCKE

RAKES & MCDRE'

Attorneys

Charles L. Williams

(540) 983-9375

wilfams@gentrylocke.com

Facsimile 540.983.9400

Post Office Box 40013

Roanoke, Virginia 24022-0013

November 14, 2014

Via Certified Mail and Electronic Mail

Ms. Sara Ward
U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
551F Pylon Drive
Raleigh, North Carolina 27606
Sara_Ward@fws.gov

Ms. Susan Lingenfelter
U.S. Fish and Wildlife Service
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, Virginia 23061-4410
Susan_Lingenfelter@fws.gov

Re: Public Comments to the Dan River Coal Ash Release Natural Resource Damage Assessment and Restoration Scoping Document for Restoration Planning

Dear Ms. Ward and Ms. Lingenfelter:

Our firm represents the City of Danville in connection with the Dan River coal ash release on February 2, 2014. On behalf of the City of Danville, we submit the following comments on the Scoping Document dated October 1, 2014.

As a significant stakeholder in the Dan River Basin area, the City of Danville has been closely following the activities of the Trustees as the Trustees assess the impact of the coal ash release and progress through the Natural Resource Damage Assessment and Restoration ("NRDAR") process. We recognize that a fundamental aspect of the NRDAR is to obtain public participation and input at each step of the process and we appreciate the opportunity to participate as a stakeholder.

We believe that the scope of the proposed restoration project concepts are comprehensive and show that a tremendous amount of analysis and assessment has yet to be completed. Although the full breadth of the natural resource injuries is being determined, we do know that the public perception and trust of the Dan River has been adversely impacted. In order to restore the public trust, the City of Danville has identified a number of potential restoration projects that are consistent with the preliminary restoration project concepts identified by the Trustees. For

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U.S. Fish and Wildlife Service

November 14, 2014

Page 2

your reference, we have enclosed a chart of the proposed restoration projects. The identified projects most likely fall under the "Surface Water and Sediments" and "Recreational Uses" category. In recent years, the City of Danville has taken many steps to expand access to the Dan River and enhance river-based recreation in the City. We believe that the projects identified accomplish this goal and provide a direct nexus and benefit to and from the natural resource. The enclosed list briefly describes each restoration project. The City of Danville would be happy to provide additional details including: specific locations, estimated costs, graphics/schematics, and anticipated timeframe for implementation.

The City of Danville appreciates the work of the Trustees to this point and looks forward to future participation in the NRDAR process. I thank you for your consideration. Should you require additional information from the City of Danville or have any questions, please do not hesitate to contact me.

Very truly yours,

GENTRY LOCKE RAKES & MOORE, LLP



PP/ Charles L. Williams

Enclosure

cc: The Honorable Sherman Saunders, Mayor, City of Danville
The Honorable Gary P. Miller, M.D. F.A.C.C., Vice-Mayor, City of Danville
W. Clarke Whitfield, Jr., Esq., City Attorney, City of Danville
Mr. Joe King, City Manager, City of Danville
Mr. Jefferson D. Reynolds, Director, Enforcement Division, VDEQ
Maxwell H. Wiegard, Esq. (*via electronic mail only*)
Jonathan D. Puvak, Esq. (*via electronic mail only*)

Potential Restoration Projects - Proposed by the City of Danville

Revised 11-14-2014

Category: Surface Water and Sediments	
Project Name/Topic	Project Description
Independent Water Quality Evaluation of Dan River	Identify possible contamination in the watershed (coal ash and others) and determine what impact they may have on the potable water treatment plants located on the Dan River. Evaluation would also determine mitigation alternatives with associated costs.
Early Detection System on Dan River below Dan River Station	To be located upstream from the City of Danville water treatment plant. Equipment would continuously monitor the water quality on the Dan River and in the event of unusual water quality, all parties would have advance notice. Costs would include purchasing or leaseing the property and installing the necessary equipment. The City of Danville has identified an ideal location in the Berry Hill Industrial Park. A small tract of land (50 feet by 50 feet) will be needed to put up a small building to house solar powered equipment along with an access road to the building from the main road.
Raw Water Impoundment	Locate, construct and operate impoundment for 30-50 million gallons. Impoundment would serve as an emergency reserve.

Category: Expanded River-Centered Opportunities for Public Recreation and Wildlife Viewing

Abreu-Grogan Park Improvements	The three acre Abreu-Grogan Park is the only access to the 14-mile section of the Dan River designated as a Virginia Scenic River. Improvements could include a floating dock for use by motorboat operators, a signage kiosk for park regulations, public restrooms, maps and donor recognition, and riverbank improvements to minimize erosion, yet provide for bank fishing.
Riverfront Park - Downtown	This park will be located on the south bank of the Dan River, upstream of the Main Street bridge on property not owned by the City of Danville. A conceptual drawing of this park has been completed as part of the City of Danville River District Master Plan done. This property is approximately 4.5 acres in size and would be designed as an urban park that takes advantage of the river. This park would directly support the downtown area and provide access to the Dan River in the form or providing open/multi use space.
North Bank Park / Trail Head	This 4.6 acre property is located on the north bank of the river at the intersection of Main Street and River Street. The intended use of this property would be to serve as a trail head parking area, green space along the river and Riverwalk trail. The Riverwalk is already designed to come across the Main street bridge in the northbound lane and come along this property going east before joining back up with the existing Riverwalk trail along the Abecrombie Oil property line.
Riverwalk through the City of Danville - Sandy River Feature	The City of Danville has planned and is currently implementing a Riverwalk trail system. The Riverwalk will expand the recreational opportunities and accentuate the river. The City of Danville has secured funding for some elements of the Riverwalk, but there are additional segments to be constructed. The remaining segments to be constructed include: 1) Sandy River Feature (The project includes paved trail, bridge over Sandy River and a 300-ft. boardwalk); 2) Piedmont Drive/Robertson Bridge to Advance Street Feature; 3) Commerce to Advance Feature (Final segment of Riverwalk trunk line, connecting the Sandy River Feature and the Piedmont Drive/Roberston Bridge to Advance Feature, and will complete the contiguous trail along the north side of the Dan River).
Bicycle Share Facilities	Provide rental bicycle facilities for Riverwalk and trail users.



Ward, Sara <sara_ward@fws.gov>

Public Comment NRDAR Process

Jay Young <[REDACTED]>
To: Sara_Ward@fws.gov

Fri, Nov 14, 2014 at 4:58 PM

I am writing on behalf of the Friends of Sauratown Mountains and the citizens of Stokes County. The coal ash spill by Duke Power damaged lives and economies beyond those down river of the spill. Many of our neighbors, friends, and members were damaged economically upstream from the spill just by association when mentioning the Dan River. To that end, Stokes County should be compensated in part by the funds available from the mitigation process. We propose the following three projects for funding:

- 1) Land acquisition adjacent to the Dan River between Danbury and the confluence of Town Fork Creek near Walnut Cove. This would be used for an extension of the Mountains-To-Sea Trail across Stokes County and the land would also protect water quality.
- 2) Land acquisition at the intersection on NC 89 and NC 268, Lynchburg Road. This would be used for a permanent public canoe and kayak access to the Dan River. This would replace one closed several years ago known as Whitt's Access.
- 3) Sewer improvements for the newly acquired Moore's Spring campground. This allow the park to fully utilize the campground and improve water quality.

Respectfully submitted,

Jay Young, President
Friends of Sauratown Mountains



Ward, Sara <sara_ward@fws.gov>

NRDAR proposal

Angela Allen <aallen@wildlandseng.com>
To: "sara_ward@fws.gov" <sara_ward@fws.gov>

Fri, Nov 14, 2014 at 4:05 PM

Ms. Ward,

A hard copy of the proposal I just sent you will be in the mail next week.

Angela Allen

.....

Angela Gardner Allen, PE, | Water Resources Engineer

O: 919.851.9986 x106 M: 703.655.6110

Wildlands Engineering, Inc.

312 W Millbrook Rd, Suite 225

Raleigh, NC 27609



November 14, 2014

Ms. Sara Ward
U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
551F Pylon Drive
Raleigh, NC 27606

RE: Proposal for the Ravenscroft Stream Restoration and Watershed Preservation Site
Dan River Coal Ash Release – Natural Resources Damage Assessment and Restoration

Dear Ms. Ward:

Wildlands Engineering, Inc. (Wildlands) is pleased to submit the Ravenscroft Stream Restoration and Watershed Preservation Site (Ravenscroft) to the Dan River Coal Ash Release Natural Resource Trustee Council as a restoration project for natural resources impacts due to the Dan River coal ash spill that occurred in February, 2014. The Ravenscroft site is located 9.1 miles northeast of Martinsville, and is positioned on the slopes and valleys of Turkeycock Mountain in the headwaters of the Leatherwood Creek watershed, which drains to the Smith River then ultimately into the Dan River in Eden, NC.

Ravenscroft is based on a watershed management approach to ecological and water quality restoration in the headwaters of Leatherwood Creek, and consists of three elements:

- **Ravenscroft Stream Restoration Site:** consists of restoration, enhancement, and preservation of perennial streams and riparian buffers on a 323 acre active agricultural parcel situated on the East Fork and West Fork of Leatherwood Creek (HUC: 03010103)
- **Blue Knob Preservation Area:** consists of preservation of an a 1,830 acre forested parcel containing 80,000 LF of streams on East Fork Leatherwood Creek, West Fork Leatherwood Creek, Lee Branch, Peters Branch, North Fork Leatherwood Creek, and their headwater tributaries (HUC: 03010103)
- **Grassy Fork Preservation Area:** consists of preservation of an a 397 acre forested parcel containing 14,500 LF of Grassy Fork and Crab Creek, and their headwater tributaries (HUC: 03010101)

There are several unique qualities of the Ravenscroft site. It contains one of the only agricultural parcels located along Turkeycock Mountain and as such presents an excellent opportunity to improve water quality and wildlife connectivity. On a larger scale, the ecological importance of Turkeycock Mountain is recognized in The Nature Conservancy's Watershed Approach to Compensation Planning for the Virginia Aquatic Restoration Trust Fund (2009), which lists it as a priority conservation area. The Blue Knob Preservation Area is connected to the Turkeycock Wildlife Management Area, which provides the opportunity to expand and improve recreational activities in this area.

Through a combination of restoration, enhancement, and preservation, Ravenscroft will protect and restore a high quality of ecological function to a total of 108,450 linear feet (LF) of perennial streams, protect and preserve 2,227 acres of forested land, and restore 322 acres of riparian buffers in the Leatherwood Creek and Grassy Fork watersheds. This will help offset several of the potential impacts

caused by the Dan River coal ash spill identified by the Trustee Council in the October 2014 Scoping Document for Restoration Planning:

- Surface water and sediments
- Aquatic fish and wildlife
- Stream and wetland habitats
- Recreational uses

At Wildlands, we have the support of 30 professionals who focus solely on ecosystem restoration and mitigation. Our staff have successfully managed and designed over 50 miles of stream restoration projects. Our company is built on creating ecological solutions through innovative engineering practices and specializes in the restoration of streams like those on the Ravenscroft site. Our company is one of the few vertically integrated mitigation banking/design engineering firms with the ability to develop, finance, manage, design, oversee construction, and monitor major mitigation projects. We have built our company for projects like yours.

We strongly feel the Ravenscroft project will help to offset the natural resource services injuries caused by the Dan River Coal Ash Spill. We hope that you share Wildlands' excitement and confidence in our ability to successfully complete this project. We look forward to the opportunity to continue to work with you.

Sincerely,



Shawn D. Wilkerson
President
Wildlands Charlotte
704-332-7754 x 100
swilkerson@wildlandseng.com



RAVENS CROFT STREAM RESTORATION AND WATERSHED PRESERVATION PROJECT

Henry County, VA
Dan River Basin: HUC 03010103



WILDLANDS
ENGINEERING

1430 South Mint Street, Suite 104, Charlotte, NC 28203

PHONE: 704.332.7754, FAX: 704.332.3306



This report is printed on recycled paper

Introduction

Wildlands Engineering, Inc. (Wildlands) is pleased to submit the Ravenscroft Stream Restoration and Watershed Preservation Site (Ravenscroft) to the Dan River Coal Ash Release Natural Resource Trustee Council as a restoration project for natural resources impacts due to the Dan River coal ash spill that occurred in February, 2014. The Ravenscroft site is located 9.1 miles northeast of Martinsville (see Figure 1) within the Piedmont Physiographic Province. The majority of the site is positioned on the slopes and valleys of Turkeycock Mountain in the headwaters of the Leatherwood Creek watershed, which drains to the Smith River then ultimately into the Dan River in Eden, NC (hydrologic unit code, HUC: 03010103).

Ravenscroft is based on a watershed management approach to ecological and water quality restoration in the headwaters of Leatherwood Creek, and consists of three elements (see Figure 2):

- **Ravenscroft Stream Restoration Site:** consists of restoration, enhancement, and preservation of perennial streams and riparian buffers on a 323 acre active agricultural parcel situated on the East Fork and West Fork of Leatherwood Creek (HUC: 03010103)
- **Blue Knob Preservation Area:** consists of preservation of a 1,830 acre forested parcel containing approximately 80,000 LF of streams on East Fork Leatherwood Creek, West Fork Leatherwood Creek, Lee Branch, Peters Branch, North Fork Leatherwood Creek, and their headwater tributaries (HUC: 03010103)
- **Grassy Fork Preservation Area:** consists of preservation of a 397 acre forested parcel containing approximately 14,500 LF of Grassy Fork and Crab Creek, and their headwater tributaries (HUC: 03010101)

There are several unique qualities of the Ravenscroft site. It contains one of the only agricultural parcels located along Turkeycock Mountain and as such presents an excellent opportunity to improve water quality and wildlife connectivity. On a larger scale, the ecological importance of Turkeycock Mountain is recognized in The Nature Conservancy's Watershed Approach to Compensation Planning for the Virginia Aquatic Restoration Trust Fund (2009), which lists it as a priority conservation area. The Blue Knob Preservation Area is connected to the Turkeycock Wildlife Management Area, which provides the opportunity to expand and improve recreational activities in this area.

Through a combination of restoration, enhancement, and preservation, Ravenscroft will protect and restore a high quality of ecological function to a total of 108,450 linear feet (LF) of perennial streams, protect and preserve 2,227 acres of forested land, and restore 322 acres of riparian buffers in the Leatherwood Creek and Grassy Fork watersheds. This will help offset several of the potential impacts caused by the Dan River coal ash spill identified by the Trustee Council in the October 2014 Scoping Document for Restoration Planning:

- Surface water and sediments
- Aquatic fish and wildlife
- Stream and wetland habitats
- Recreational uses

A more detailed description of the site and the proposed restoration, enhancement, and preservation measures are provided in the following sections.

A. Company Overview and Contact Information

Wildlands is a multidisciplinary group of water resources professionals with offices in Charlotte, Raleigh, Asheville, Fairfax (VA), and Charleston (SC). In Virginia, Wildlands is a certified Small Business (SWaM). Our 30-person team consists of engineers, environmental scientists, GIS specialists, planners, ecologists, and hydrologists, all of whom are dedicated solely to improving the water quality, stability, and ecological health of our watersheds. Wildlands is a leader in ecosystem restoration and water resources engineering in the southeastern and mid-Atlantic United States due to the skills and abilities of its diverse and talented staff. We are committed to improving the environment and we continually exceed our clients' expectations by providing expert services in an ethical, innovative, and time sensitive manner.

Wildlands has vast experience in stream restoration projects throughout the southeast and mid-Atlantic. In the past several years, Wildlands has completed several large scale stream and wetland mitigation projects in Virginia and North Carolina:

- **Lone Oak Stream Mitigation Bank** (Albemarle County, VA) resulted in the restoration and enhancement of approximately 38,000 linear feet of Ballinger Creek and several tributary streams
- **VDOT's Malbone Wetland Mitigation Design-Build Project** (Virginia Beach, VA) resulted in the creation or enhancement of approximately 24 acres of wetlands
- **NCEEP's Devil's Racetrack Stream and Wetland Mitigation Site** (Johnston County, NC) resulted in the restoration of over 18,900 LF of streams and the restoration of over 60 acres of wetlands
- **NCEEP's Norkett Branch Stream Mitigation Site** (Union County, NC) resulted in the restoration of over 10,500 lf of Norkett Branch.
- **NCEEPs' Candy Creek Stream Mitigation Site** (Guilford County, NC) will result in the restoration, enhancement, and preservation of approximately 20,000 LF of Candy Creek
- **NCEEP's Underwood Stream Mitigation Site** (Chatham county, NC) resulted in the restoration, enhancement, and preservation of over 14,000 LF of streams and the restoration and creation of approximately 14 acres of wetlands

Overall as a company, Wildlands has....

ASSESSED MORE
THAN
551,000 LF
OF STREAMS

DESIGNED OVER
271,000 LF
OF STREAM
RESTORATION

PROVIDED CONSTRUCTION
SERVICES FOR MORE THAN
134,000 LF
OF STREAM RESTORATION



Contact Information	References
<p>Wildlands Engineering, Inc. Attn: Shawn Wilkerson 1430 South Mint St, Suite 104 Charlotte, NC 28203 P: 704-332-7754 SWilkerson@Wildlandseng.com</p>	<ul style="list-style-type: none"> • Jeff Jurek Procurement Manager, North Carolina Ecosystem Enhancement Program, Credit Management and Procurement Section Phone: 919-707-8291 Jeff.Jurek@ncdenr.gov • Leo C. Snead, Jr.; PWS Natural Resources Program Manager, VDOT Central Office, Environmental Division Phone: 804-840-0686 Leo.Snead@VDOT.Virginia.gov • Danee McGee Charlotte Mecklenburg Storm Water Services 704.336.4102 DMcGee@ci.charlotte.nc.us

B. Proposed Project Name

The proposed project is referred to as the Ravenscroft Stream Restoration and Watershed Preservation Site (Ravenscroft). As stated previously, Ravenscroft consists of three elements:

- **Ravenscroft Stream Restoration Site:** restoration of 8,347 LF of perennial streams, preservation of 4,941 linear feet (LF) of perennial streams, enhancement of 662 LF of perennial streams, and restoration of 323 acres of riparian buffers on an active agricultural parcel situated on the East Fork and West Fork of Leatherwood Creek (see Figure 3)
- **Blue Knob Preservation Area:** consists of preservation of 1,830 acres of mature forests and 80,000 LF of streams on the East Fork Leatherwood Creek, West Fork Leatherwood Creek, Lee Branch, Peters Branch, North Fork Leatherwood Creek, and their headwater tributaries
- **Grassy Fork Preservation Area:** consists of preservation of 397 acres of mature forests and 14,500 LF of Grassy Fork, Crab Creek, and their headwater tributaries

Wildlands has a recorded option with the land owner for the Ravenscroft Stream Restoration Site. Wildlands has submitted an option agreement to the landowner for the Blue Knob and Grassy Fork Preservation Areas. Wildlands will be the default long term steward until such time as another long term steward is identified and approved by the Trustee Council.

C. Proposed Project Location

The Ravenscroft site is located 9.1 miles northeast of Martinsville (see Figure 1) within the Piedmont Physiographic Province. The majority of Ravenscroft is located on the southern slopes of Turkeycock Mountain in Henry County, with a small portion located in Franklin County along the ridgeline of Turkeycock Mountain. The site is positioned in the headwaters of the Leatherwood Creek and Grassy Creek watersheds. Leatherwood Creek drains to the Smith River then ultimately into the Dan River in the town of Eden, NC (hydrologic unit code: 03010103). Grassy Fork drains to Snow Creek and the Pigg River, and ultimately to the Roanoke River. The location at the downstream end of site is LAT 36° 46.1' N and LONG 79° 47' W.

D. Restoration Category and Natural Resource Benefits

Ravenscroft will protect and restore a high quality of ecological function along a total of 108,450 LF of perennial streams and their headwater tributaries in the Leatherwood Creek and Grassy Fork watersheds. Ravenscroft will also preserve over 2,227 acres of forested land on the slopes of Turkeycock Mountain and restore 323 acres of riparian buffer along the East Fork and West Fork of

Leatherwood Creek. These project components address several of the restoration goals identified by the Trustee Council in the Scoping Document, which are summarized in Table 1.

Table 1. Restoration Project Categories for Ravenscroft

Restoration Goal	General Description of Proposed Project Elements
Avoided Habitat Loss via Land Acquisition / Protection	Acquisition and protection of approximately 2,227 acres of high-quality forested land owned by Dominion Woodlands LLC through fee simple property purchase. Purchase deed restrictions on approximately 323 acres of agricultural land owned by Henry Wall to provide the opportunity to restore and enhance degraded streams and wetlands. Combined, these parcels contain 108,450 LF of Leatherwood Creek, Grassy Fork, and their headwater tributaries.
Restoration of In-stream Habitats	Restore 8,347 LF and enhance 662 LF of perennial streams on an active agricultural parcel situated on the East Fork Leatherwood Creek to reduce existing water quality impairment and habitat degradation through the following actions: <ul style="list-style-type: none"> • Restore the pattern, dimension, and profile of these perennial streams using natural channel design techniques (Priority 1 restoration and enhancement) • Place In-stream structures to improve substrate materials and restore degraded aquatic habitat • Reduce bank erosion and channel incision with plantings of native riparian species
Restoration of Riparian and Wetland Habitats	Restore riparian buffer areas along 9,009 LF of perennial reaches on East Fork Leatherwood Creek through the following actions: <ul style="list-style-type: none"> • Installation of cattle exclusion fencing • Invasive species vegetation management • Re-establishment of a riparian buffer by planting native tree, shrub, and herbaceous species and seeding with native grasses
Rare and Nongame Species Restoration	Protect and restore aquatic habitat for the Roanoke logperch (<i>Percina rex</i>) and other targeted species of conservation through the following actions: <ul style="list-style-type: none"> • Targeted land habitat conservation of approximately 2,227 acres of high-quality sections of East Fork Leatherwood Creek, West Fork Leatherwood Creek, Lee Branch, Peters Branch, and their headwater tributaries • Water quality and habitat improvements on 9,009 LF of perennial reaches on East Fork Leatherwood Creek
Expand river-centered opportunities for public recreation and wildlife viewing	Expand recreational opportunities in the Turkeycock Mountain Wildlife Management Area (WMA) by protecting and preserving approximately 2,227 acres of high-quality forested areas directly adjacent to the WMA. This would provide an opportunity to expand trails and hiking opportunities, wildlife viewing areas, and improve the quality of other aquatic recreational experiences.

E. Project's Nexus to Potential Natural Resource Injuries

Ravenscroft will address several of the potential natural resource or natural resource services injuries as specified in the Scoping Document. A brief discussion for each of the known or suspected impacts are presented in this section.

Surface Water and Sediments

The Ravenscroft Stream Restoration Site (see Figure 3) offers an opportunity to improve water quality and dramatically reduce sediment load into Leatherwood Creek. The property is one of the last agricultural parcels located along Turkeycock Mountain. The pastured portions of the property located in the lower stream valleys along the East and West Forks of Leatherwood Creek are currently used for cattle and horse grazing, where livestock have full access to the streams. The combination of land conversion, historic channelization, livestock access, and watershed land use practices have contributed to the current impaired and degraded condition of the streams running through the lower valley.

These pastured stream reaches typically exhibit a low width depth ratio and are incised. They lack riffle and pool morphology and exhibit moderate to severe stream bank erosion. Since these streams are open to cattle access, the banks have been trampled which has resulted in the lack of well-defined channel dimension, fine sediment aggradation, and decreased vegetation cover. Riparian vegetation has been cleared and converted to pasture, with the exception of a few large overstory trees scattered along the streambanks and across the floodplain that include black walnut, sour wood, and tag alder. Restoration and enhancement of these degraded stream reaches will improve water quality and dramatically reduce sediment loads to Leatherwood Creek, the Smith River, and the Dan River.



Typical stream bank conditions in pastures

In contrast, the high quality headwaters streams within the forested areas on the slopes of Turkeycock Mountain proposed for preservation are highly stable stream channels with small waterfall and step pool morphology and mature buffers. The channel substrate is generally comprised of cobble, gravel, and large woody debris with frequent bedrock outcroppings. Observations of this stream reach indicate a diverse macro-invertebrate habitat. The riparian buffers are hardwood stands comprised of species generally associated with Rich Cove and Slope Forests, including red maple, American sycamore, witch hazel, hickory, dogwood, beech, spice bush, ironwood, and mountain laurel. Preservation and protection of these headwater streams will help to preserve their high quality aquatic habitat and protect water quality conditions downstream in Leatherwood Creek, the Smith River, and the Dan River.



Typical high quality conditions of headwater streams

Rare and Nongame Species Restoration

The United States Fish and Wildlife Service's (USFWS) Information, Planning, and Conservation System (IPac) Environmental Conservation Online System identified the James spiny mussel (*Pleurobema collina*), Roanoke logperch (*Percina rex*), Smooth coneflower (*Echinacea laevigata*) for the project site. The initial

conclusions based on site visits conducted by the USFWS indicated that there would be no effect on the James spiny mussel and Smooth coneflower and a “not likely to adversely affect” for the Roanoke logperch. FWS indicated that potential habitat for the Roanoke logperch (*Percina rex*) may be available within the preservation reaches associated with the project site. Due to currently degraded conditions, the species was not observed within the project site. However, the proposed approach on approximately 9,000 LF of streams targeted for restoration and enhancement will improve water quality and aquatic habitat, creating deeper pools and runs and a silt-free substrate preferred by the Roanoke logperch, which could result in their recolonization and/or reintroduction. These improvements to aquatic habitat will also benefit other resident species and other targeted species of conservation and recovery significance. Wildlands will consult with state and federal agencies to incorporate specific habitat restoration components into the design to support aquatic species restoration and recovery at the site.

Stream and Wetland Habitats

One of the primary benefits of Ravenscroft is to stream and wetland habitats. The Blue Knob and Grassy Fork Preservation Areas will protect and preserve over 108,450 LF of high-quality headwater streams, riparian wetlands, and their mature, forested riparian buffers in the Leatherwood Creek and Grassy Fork watersheds. The long-term preservation of these high-quality areas will protect the water quality and aquatic habitat conditions in Leatherwood Creek, the Smith River, and the Dan River.

Ravenscroft will also significantly improve stream and wetland habitat conditions on approximately 9,009 LF of severely degraded perennial streams located on an active agricultural operation. Water quality and stream habitat conditions will improve greatly through the restoration and enhancement of the stream channels, placement of in-stream habitat structures, and re-establishment of a native riparian buffer.

Recreational Uses

One component of Ravenscroft, the Blue Knob Preservation Area, connects directly to the 2,679 acre Turkeycock Wildlife Management Area (WMA). Together, the WMA and Ravenscroft would protect and preserve over 5,200 acres of Turkeycock Mountain. This will provide an opportunity to significantly expand the recreational opportunities in this area, such as fishing, hunting, hiking, nature observation, and other uses.

F. Project Costs

The estimated project costs for each component of Ravenscroft are as follows:

- **Ravenscroft Stream Restoration Site:** \$3.5 million for restoration of 8,347 LF of perennial streams, enhancement of 662 LF of perennial streams, preservation of 4,941 linear feet (LF) of perennial streams, and preservation and restoration of 322 acres of riparian buffers on the East Fork and West Fork of Leatherwood Creek
- **Blue Knob Preservation Area:** \$4.4 million for preservation of 1,830 acres of mature forests and 80,000 LF of streams on the East Fork Leatherwood Creek, West Fork Leatherwood Creek, Lee Branch, Peters Branch, North Fork Leatherwood Creek, and their headwater tributaries
- **Grassy Fork Preservation Area:** \$960,000 for preservation of 397 acres of mature forests and 14,500 LF of Grassy Fork, Crab Creek, and their headwater tributaries

These costs are dependent on the timing of the contract, payment schedules, and additional studies, monitoring, land management, or endowments that may be required.

G. Project Schedule

The schedule for implementation of each project component is as follows:

- **Ravenscroft Stream Restoration Site:**
 - Design and permitting will be complete with one year after execution of the contract
 - Construction will be completed within six months after completion of design and acquisition of permits
- **Blue Knob Preservation Area:** Conservation easements would be recorded within six months after execution of the contract
- **Grassy Fork Preservation Area:** Conservation easements would be recorded within six months after execution of the contract

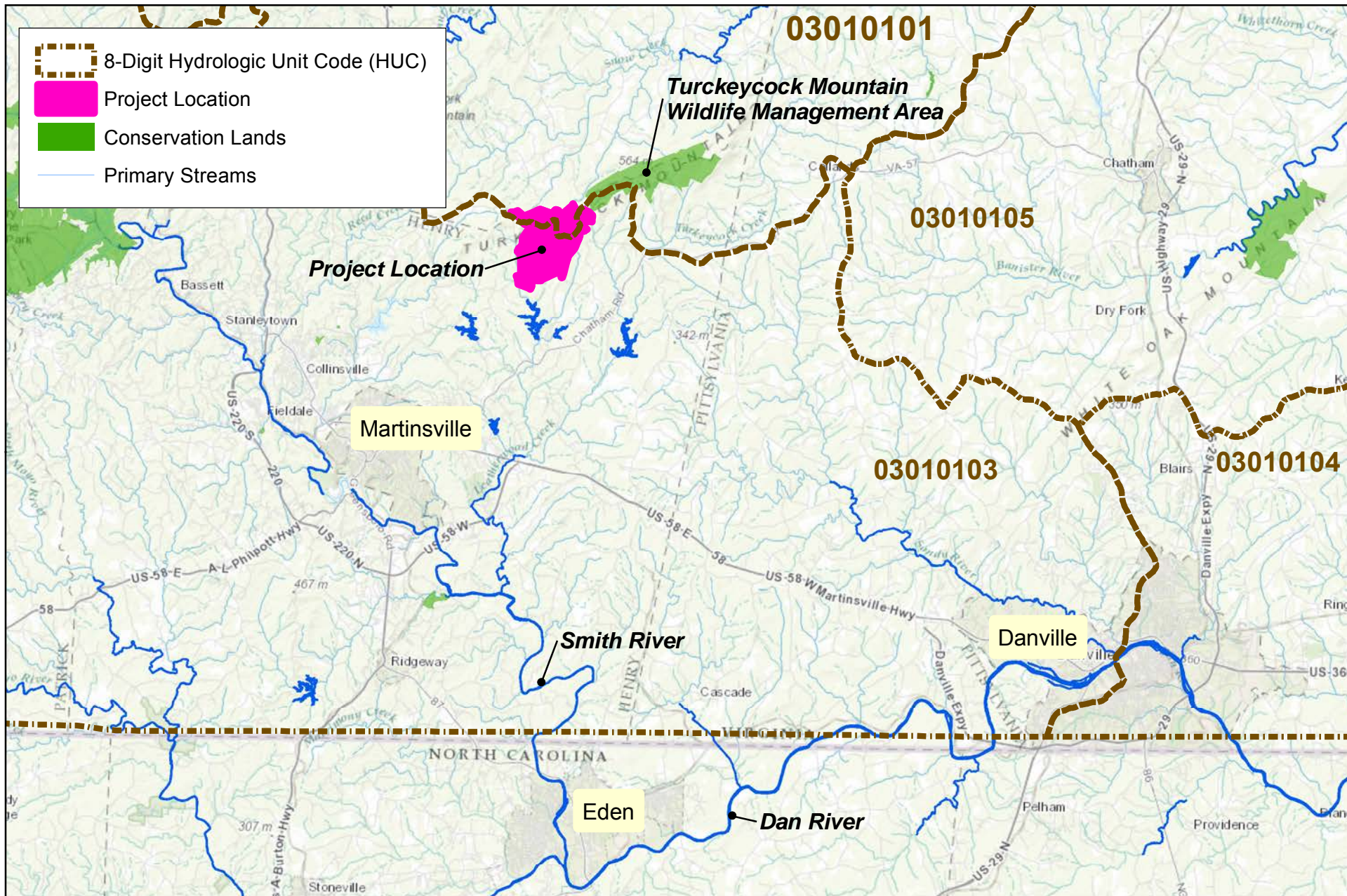


Figure 1 Vicinity Map
Ravenscroft Stream Restoration and
Watershed Preservation Project

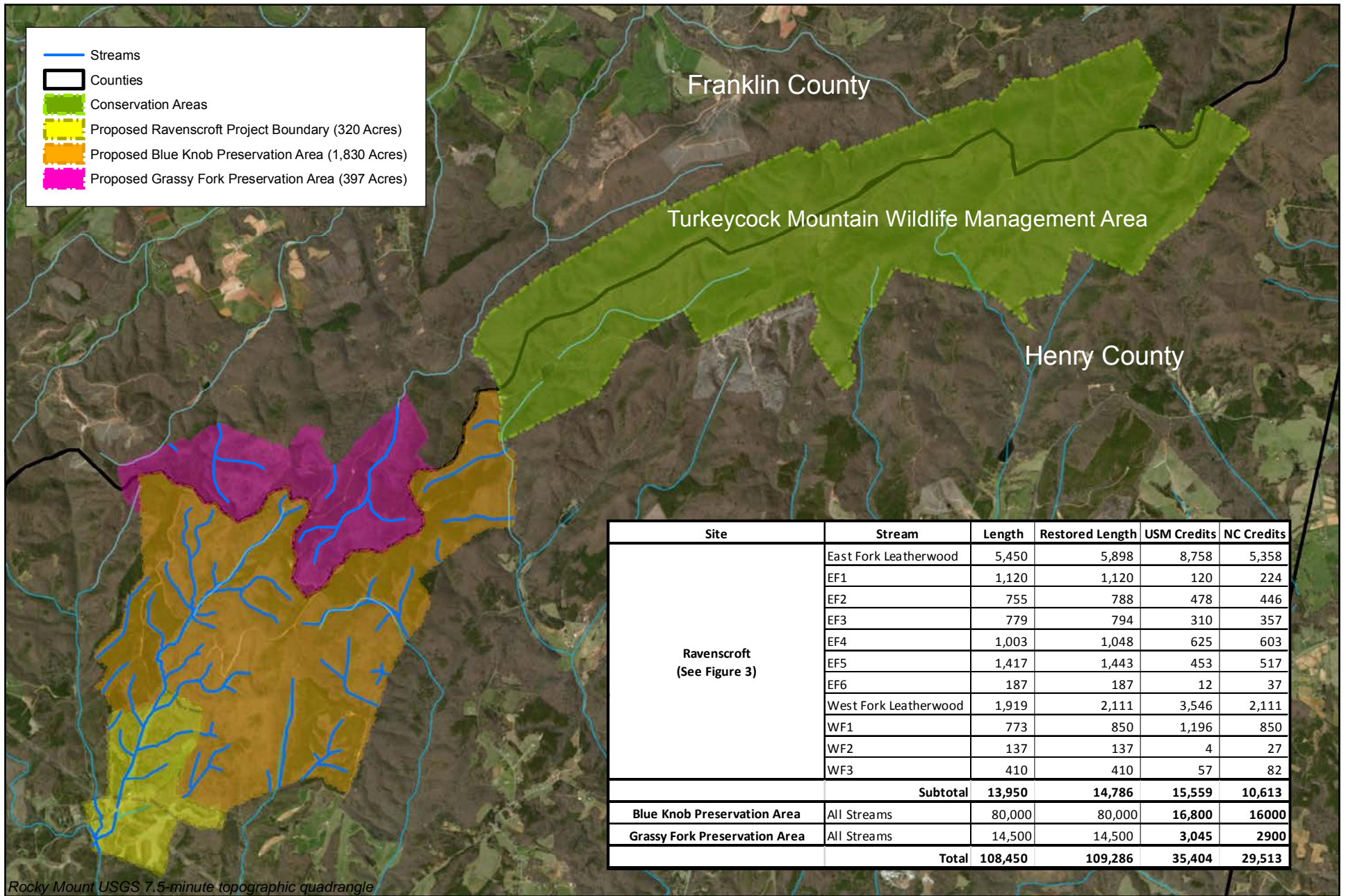
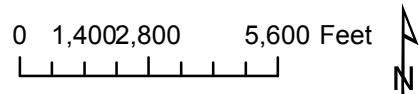


Figure 2. Project Summary Map
Ravenscroft Stream Restoration and
Watershed Preservation Project

Henry County and Franklin County, VA



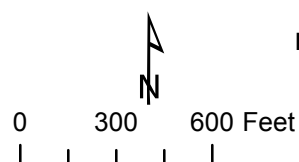
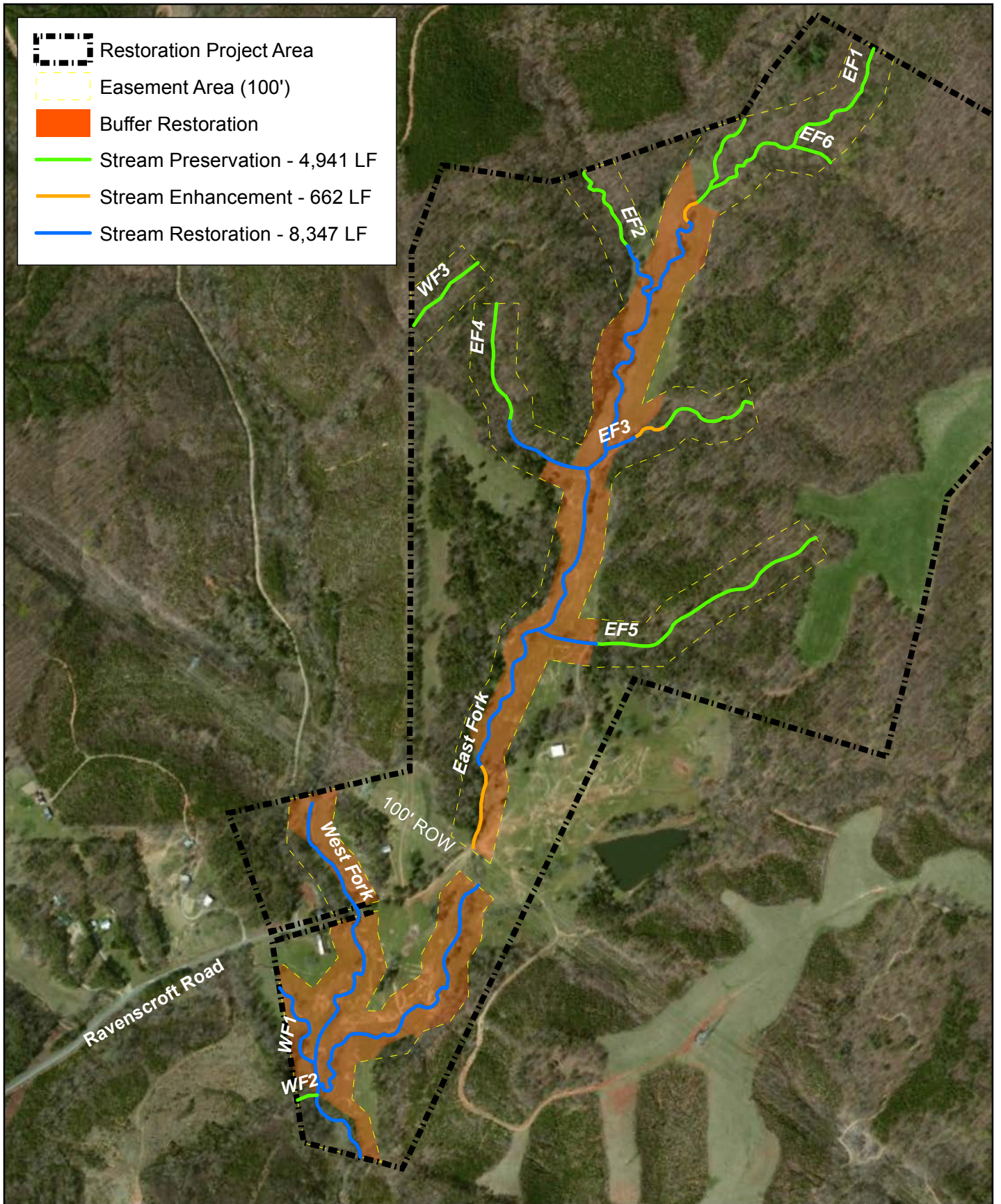


Figure 3: Restoration Concept Map Ravenscroft Stream Restoration and Watershed Preservation Project



Ward, Sara <sara_ward@fws.gov>

Mayo River State Park

Michael Brandt <mbrandt@townofmayodan.com>

Mon, Nov 17, 2014 at 2:04 PM

To: Sara_Ward@fws.gov

Ms. Ward- Please see the attached letter regarding mitigation funding for the Duke Energy Dan River Station Coal Ash Spill.

Thank you-

Michael M. Brandt, AICP

Mayodan Town Manager


210 West Main Street


Mayodan, NC 27027

(336) 427-0241

www.townofmayodan.com

2 attachments

 support letter for mitigation funding- FWS.doc
30K

 trust properties map.pdf
1675K

TOWN OF MAYODAN OFFICE OF THE TOWN MANAGER

210 W. MAIN STREET • MAYODAN, N.C. 27027 • (336) 427-0241

FAX (336) 427-7592

mbrandt@townofmayodan.com

November 17, 2014

Sent Via Electronic Mail

Sara E. Ward
U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
P.O. Box 33726
Raleigh, NC 27636-3726

Ms. Ward:

As a governmental member of the Mayo River State Park Advisory Committee, I strongly support all efforts to secure property along the Mayo River so that it can be incorporated and developed in the State Park. The area known at the "Trust Properties" (see attached map) is critical to this effort due to its large size, accessibility, and importance to the further development of the park. It is my understanding that there may be an opportunity for the Fish and Wildlife Service to develop a mitigation plan for the recent coal ash spill in the Dan River at the Duke Energy power plant near Eden, North Carolina. Acquisition of the Trust Properties with mitigation funding would clearly demonstrate a commitment to the environment and the economic development of the area. The fact that the Mayo River is a tributary of the Dan, and is located within the same county as the Dan River Coal Station makes for a clear link for mitigation funding of the Mayo Properties Trust.

The importance of the Mayo River State Park can not be understated. The park helps to preserve a pristine river corridor with a variety of rare fish species including the Roanoke Hog Sucker, the Bigeye Jumprock, and the Riverweed Darter. The river provides potable water to over 5,000 people in two towns and also provides a secure supply of water for major industries such as Frontier Spinning and Sturm, Ruger, Co., Inc.

In addition, Mayodan has been reinventing itself as a regional tourist destination due to the proximity to Mayo State Park and the beautiful rural piedmont landscape. The economic development potential of tourism includes paddling and kayaking, fly fishing, picnicking, camping and other family-friendly activities. We are targeting our downtown to become a focal point for tourist oriented businesses.

If I can be of any assistance in support of efforts to secure the Mayo Trust Properties or other properties that will enhance the Mayo State Park please do not hesitate to contact me.





Yours in Service,

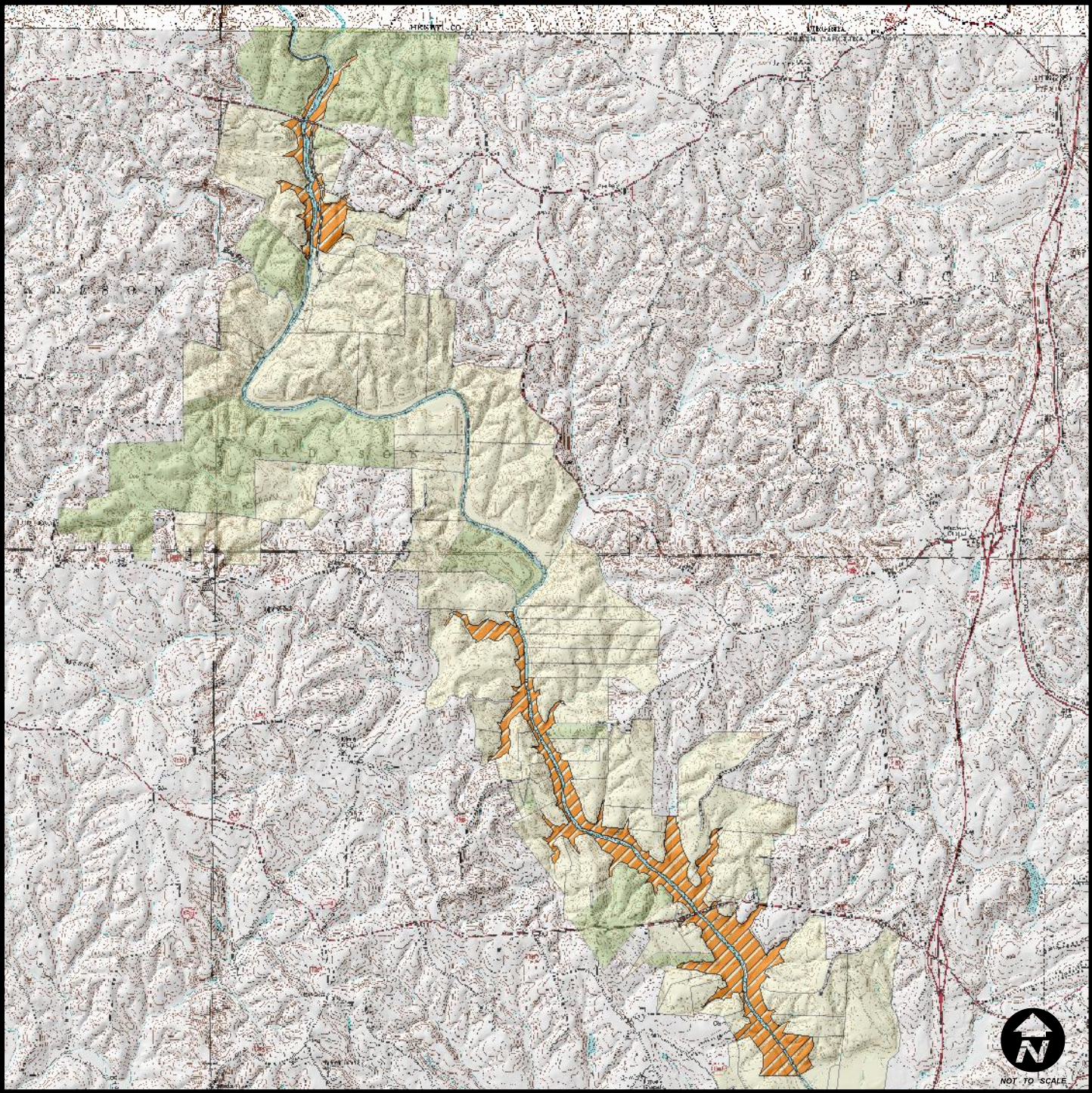
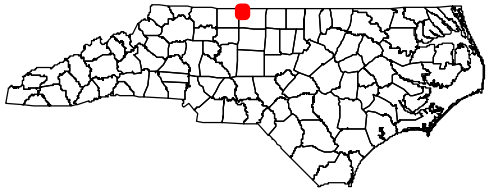
Michael M. Brandt
Mayodan Town Manager, Mayo River State Park Advisory Board Member

Mayo River State Park

DATE: JUNE 1, 2010

Legend

-  Subject
-  State Parks Unit
-  State Lake
-  Future Need



NOT TO SCALE

0 4,000 Feet



Ward, Sara <sara_ward@fws.gov>

mayo river state park

John Triplett <JTRIPPLE@co.guilford.nc.us>
To: "Sara_Ward@fws.gov" <Sara_Ward@fws.gov>

Wed, Nov 19, 2014 at 4:05 PM

I believe that one of the most important actions to mitigate the impacts of Duke Energy's coal ash spill is to expand the Mayo River State Park.

Protection of additional riverside acres would safeguard miles of significant river habitat with at least ten rare and/or endangered aquatic species, adding greater access for the public to river-based recreation.

I believe that expanding Mayo River State Park will provide significant ecological, economic and public benefit.

Thank you for your consideration,

Required Information:

Name: JOHN TRIPLETT, JR.

Address:

Telephone: