

**GRANT TITLE: PROMOTING STRATEGIC FISH HABITAT CONSERVATION THROUGH REGIONAL AND COLLABORATIVE SCIENCE AND PRIORITY SETTING**

**REPORT NUMBER: AUGUST 1, 2018 – DECEMBER 31, 2018 INTERIM REPORT**

The objective of this portion of the 2018 Multistate Conservation Grant to Fish Habitat Partnerships was to have the Atlantic Coastal Fish Habitat Partnership (ACFHP), Southeast Aquatic Resources Partnership (SARP), and Eastern Brook Trout Joint Venture (EBTJV) collectively identify and communicate priority areas for river conservation through increased connectivity and habitat improvement in our Whitewater to Bluewater region.

The specific milestones outlined to address this objective included:

- Narrow down a tiered listing of prioritized fish habitat connectivity focus areas based on need and restoration potential.
- Coordinate with partners to identify and prioritize catchments for conservation where fragmentation of, or barriers to, fish passage are a potentially critical threat to be addressed.
- Begin working with partners and stakeholders in our targeted areas to identify potential projects for fish habitat conservation.

#### Summary of the Eastern Brook Trout Joint Venture Accomplishments

From previous work, the Rivanna drainage (02080204) was selected as a priority fish habitat connectivity focus areas for the three Eastern Fish Habitat Partnerships (ACFHP, EBTJV, and SARP). There are four (4) [wild Brook Trout](#) patches identified within the Rivanna (Table 1). The EBTJV defines a “patch” as a group of contiguous catchments occupied by wild trout. Patches are not connected physically (i.e. they are separated by a dam, unoccupied warm water habitat, downstream invasive species, etc.) and are generally assumed to be genetically isolated. Three of the four patches contain wild Brook Trout only in all their respective catchments, while the fourth patch contains five catchments with wild Brook Trout only, two catchments contain wild Brook Trout and wild Rainbow Trout, and one catchment contains wild Brook Trout, wild Brown Trout, and wild Rainbow Trout. The EBTJV’s has a range-wide habitat goal that calls for increasing connectivity within and among wild Brook Trout catchments, so the partnership is interested in focusing on enhancing connectivity within these four patches by addressing road-stream crossings (culverts and bridges) that negatively impact aquatic organism passage.

According to the [North Atlantic Aquatic Connectivity Collaboration](#) (NAACC), these four wild Brook Trout patches collectively have eighty-two road-stream crossings (Table 2 and Appendix D), and none have been surveyed to determine if they currently impede aquatic organism passage. As such the EBTJV is keenly interested in supporting efforts to assess these road-stream crossings utilizing the NAACC [protocols](#), as well as using the survey results to identify high priority bridges and culverts for upgrade or replacement. Additionally, the NAACC developed a process for [prioritizing HUC12s for road-stream crossing surveys](#). Table 3 contains the results of this prioritization process for the four HUC12s containing wild Brook Trout patches in the Rivanna drainage. Based on the results of the NAACC approach the North Fork Moormans

River- Moormans River HUC12 has the highest priority for assessing road-stream crossings among the four HUC 12s and the Swift Run HUC12 has the lowest.

Table 1: Wild Brook Trout Patches Located within the Rivanna Drainage.

<b>HUC12 Name</b>	<b>HUC12 #</b>	<b>State</b>	<b>County</b>	<b># of Catchments in the Patch</b>	<b>Patch Size (ha)</b>	<b>Patch Classification*</b>
North Fork Moormans River- Moormans River	020802040103	VA	Albemarle	8	2,920	1.4
Doyles River	020802040104	VA	Albemarle	7	2,974	1.1
Lynch River-North Fork Rivanna River	020802040301	VA	Albemarle & Greene	4	3,124	1.1
Swift Run	020802040303	VA	Greene	6	3,672	1.1

\*Patch Classification Codes: 1.1 = Allopatric Brook Trout; 1.2 = Brook Trout Sympatric with Brown Trout; 1.3 = Brook Trout Sympatric with Rainbow Trout; and, 1.4 = Brook Trout Sympatric with Brown Trout and Rainbow Trout.

Table 2: Number of Road-Stream Crossings in Four Wild Brook Trout Patches

<b>Stream</b>	<b># of Road-Stream Crossings in the Wild Brook Trout Patch</b>
North Fork Moormans River	13
Doyles River	37
Lynch River	14
Swift Run	18

Table 3: NAACC Prioritization Results for Road-Stream Crossing Surveys in Four HUC12s

<b>HUC12 Name</b>	<b>Result Priority*</b>	<b>Brook Trout: EBTJV - Categorical Area Weighted Avg.**</b>
North Fork Moormans River- Moormans River	Tier 5	2.19
Doyles River	Tier 6	2.24
Lynch River-North Fork Rivanna River	Tier 6	1.62
Swift Run	Tier 19	1.00

\*Tier 1 = Highest Priority, Tier 20 = Lowest Priority

\*\*4 = highest priority, 0 = lowest priority

Appendix I: Listing of Road-Stream Crossings within Four Wild Brook Trout Patches (starting at the headwaters and moving downstream)

**North Fork Moormans River**

<b>Road</b>	<b># of Crossings</b>	<b>NAACC Crossing Code</b>
Sky Line Drive	1	xy3820960078746924
Black Rock Gap Road	11	xy3820519878749243
		xy3819478678733424
		xy3818770978737062
		xy3818627178738046
		xy3818374878738762
		xy3817873578741106
		xy3816563978745144
		xy3815681878748647
		xy3814970478748681
		xy3814800778748602
		xy3813898178749830
Sugar Hollow Road	1	xy3812927978723996

**Doyles River and Tributaries**

<b>Road</b>	<b># of Crossings</b>	<b>NAACC Crossing Code</b>
Headquarters Lane	1	xy3821240278679125
Browns Gap Turnpike	7	xy3820781078674145
		xy3819818078670755
		xy3817188878675105
		xy3816144078673538
		xy3815491378670012

		xy3814728278668474
		xy3813843078663925
Blackwells Hollow Road	2	xy3820295778671384
		xy3820302478668914
Unnamed Road #1	1	xy3819910478671499
Unnamed Road #2	2	xy3819759778666608
		xy3819667478669796
Unnamed Road #3	1	xy3819187978667708
Doyles River Crossing	1	xy3819157178667559
Doyles Side Lane	1	xy3819034378667213
Unnamed Road #5	1	xy3818154878670155
Steppe Howard Lane	1	xy3818019778670645
Unnamed Road #6	1	xy3817599578672248
Batten Road	2	xy3819069578689381
		xy3818678978685616
Fox Mountain Road	1	xy3816976278674357
CCC Road	1	xy3817651178683459
Slam Gate Road	4	xy3816492178675795
		xy3816038478681142
		xy3815882978687679
		xy3815690578685683
Old Ice Pond Road	1	xy3816152978682717
Bluften Road	1	xy3815102378666985
Mt Air Farm	1	xy3814869878667845
Unnamed Road #7	1	xy3814672178659124

Via Lane	1	xy3816610278701125
Unnamed Road #8	1	xy3816308878698578
Unnamed Road #9	1	xy3816136778693934
Break Heart Road	2	xy3813884978680305
		xy3813835478665031
Clark Road	1	xy3813571778661725

### **Ivy Creek, Lynch River, and Tributaries**

<b>Road</b>	<b># of Crossings</b>	<b>NAACC Crossing Code</b>
Simmons Gap Fire Road	1	No code
Unnamed Road #1	1	No code
Route 601	1	No code
Unnamed Road #2	1	No code
Unnamed Road #3	1	No code
Simmons Gap Road	3	No codes
Route 614	1	No code
Unnamed Road #4	1	xy3824872878583398
Boonesville Road	1	xy3824318078575185
Dyke Road	1	xy3823690878542623
Plunkett Road	1	xy3822485478520871
Whilhoit Farm Road	1	xy3821564878497024

### **Swift Run and Tributaries**

<b>Road</b>	<b># of Crossings</b>	<b>NAACC Crossing Code</b>
Golden Horseshoe Road	1	No code
Route 636	1	No code
Mutton Hollow Road	6	No codes

Unnamed Road #1	1	No code
Unnamed Road #2	1	No code
Unnamed Road #3	1	No code
Unnamed Road #4	1	No code
Dyke Road	1	No code
Garth Road	1	No code
Celt Road	1	No code
Keith Road	1	No code
Amicus Road	1	No code
Durrett Ridge Road	1	No code