

2018 Spruce Creek Trail/Cumberland Trail Head Project

FINAL as of: August 14, 2018

Project Overview:

Spruce Creek Trail to Cumberland Valley Trail Head (approximately .7 miles)
This is a heavily traveled section from the sub division as well as from the campgrounds across 297, providing direct access to the BSFNRRRA horse trails at the Cumberland Trail Head. This section of trail suffered serious erosion and deterioration over the past few years. A number of unusually bad storms and non-stop rain this spring made some areas almost impassable. The trail is generally low lying. Previously placed railroad ties have been dislodged, deep muddy areas developed, previously placed culvert washed out, water run offs are clogged with debris. Many of the existing water bars (Rail Road Ties) are too short to hold the soil, and after 10+ years, many are no longer reusable. In several places the general drainage plan needs to be totally reworked for better water diversion.

Several Board members have walked the trail during the past 6 months with Craig Fletcher to assess the problems. Noted as "SC4" and the first item on the April 2018 Trail Log. It is rated as a major project to repair-Craig estimates 17 man days using heavy equipment. Because most of the trail retains water, several weeks of "no rain" are needed to allow the trail to dry out enough to even work on it-especially when using machines. Most of the work can be accomplished by utilizing track hoe/excavator equipment. Estimated that at least 10 volunteers needed on a major work day to help place geo-cloth, place rip rap to create drainage ponds, position culverts and water bars, rake/smooth water run offs, clear debris. Also need ATV's to shuttle workers and materials, tractor to place materials, hand tools, rakes, shovels, etc.

Objective: The repair plan looks to provide a longer term solution with more extensive grading for drainage, placement of additional culverts, and the addition of more substantial water bars.

Project Approvals:

\$3,000 in new expenditures approved via e-mail June 15, 2018 by a majority of the board. Voting for: Craig, Sue, Linder, Lindsay, Laurie, Karen, Bob (verbal). Did not vote: Brenda, Lorraine

\$300 in additional new expenditure approved for another load of crusher run rock in Board Meeting on July 10, 2018. Voting for: Bob, Craig, Lindsay, Lorraine, Linder, Sue, Brenda. No vote: Karen (absent)

\$3,300 TOTAL in new expenditures

\$1,040 in remaining balance of March 7, 2018 PRIOR approval for purchase of "in stock" materials - \$1,500 approval of which \$460 had been spent for stepping stones to cross Hatfield Creek on Wild Cat. Remainder to be used here for culverts, geo-cloth.

\$1,095 in use of 15 "in stock" Hemlock Timbers purchased 11/17/2017 & 1/15/2018

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\$5,000 ESTIMATED TOTAL PROJECT COST

Outcome: All major work accomplished-project complete June 22, 2018

Installed 4 culverts with retention/run off ponds

Installed 37 water bars (20 new hemlock, 10 new RR ties, 7 reused RR ties)

Created 20+ water run offs

Cleared trail debris/cut back over hanging limbs

Expenses Summary:

\$1,710 Equipment (actual)

\$513 Fuel (actual)

\$1,204 Rock (actual)

\$3,427 (estimate \$3,000 6-15-2018 approval)

\$525 Culverts (actual) (estimate \$1,040 03-7-2018 approval)

\$1,590 20 hemlock and 10 RR ties (estimate \$1,095 from stocked materials)

\$5,542 (against estimate: \$5,000 total project)

Man Hour Summary :

108 hrs equipment operation

57 hrs June 20 work day

17 hrs June 22 work day

18 hrs June 23-July 10 – tractor work Craig Fletcher

200 man hours total (actual)

Equipment: 6-15-2018 approval

\$1,710 (actual) \$1,830 (estimate) **-\$120**

Tri County Rentals Crossville

1 Back Hoe 110/41 hp

1 EZ38/24 hp Excavator

Picked up Saturday am June 16

Returned Friday pm June 23

Picked up by C. Fletcher and Lindsay Cobb/Grumpy

Returned by C. Fletcher and Monica Quarmby

We need to also thank Roger Williams for the use of his flat bed

Fuel: 6-15-2018 approval

\$513 (actual) \$550 (estimate) **-\$37**

Note: Beaty's allowed us to run a tab (\$448 + 65)

Used off road diesel for equipment and tractors

Used regular diesel for truck reimbursement fill ups for C. Fletcher, D. Johnson,

M. Quarmby

Note: Equipment Delivery by Tri-County rentals would have been at least \$400 @

\$4/mile

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Material: 6-15-2018 approval

\$348 (actual) 1 load rip rap \$300 (estimate) + \$48
\$571 (actual) 2 loads crusher run \$300 (estimate) +\$271
\$285 (actual) 1 load crusher run \$0 (estimate) **+\$285** additional approved 7/10/18
\$1,204 (actual) Rock **+604**

Material: 3-7-2018 approval

\$525 (actual) 3 plastic culvers @175 each \$525 (estimate) + - 0
From the Coop - used all 3 pieces to build 4 culverts
Note: did NOT need to buy additional Geo Cloth @ \$350 **-\$350**

Material: March 2017, Nov 2017, Jan. 2018 general material purchases

\$1,460 (actual) 20 hemlock logs @ \$73 each \$1,073 (estimate) +\$314
Note: used all from previous purchase. None remain at the pavilion
\$130 (actual) 10 Rail Road Ties @ \$13 each \$0 (estimate) **+\$130**

Note: not in original plan

\$1,590 TOTAL - General stocked materials **+444**

\$5,542 GRAND TOTAL PROJECT COSTS **+542**

Man Power:

108 big equipment/machine man hours (actual)

C. Fletcher and D. Johnson

Sat - 3 hrs each pick up equipment in Crossville

Sat/Sun - 4 hrs each placing materials

Mon. - 11 hrs each grading, digging culverts

Tues. - 11 hrs each grading, placing water bars, run offs

Wed. - 10 hrs each delivering rip rap, placing water bars, grading

Thurs - 9 hrs each completing grading, crusher run, run offs

Friday - 6 hrs each - final finish, washing equip. and return to Crossville

54 hrs each X 2 = 108 man hrs = 13.5 man days

60.5 man hours WED work day (actual)

Wed., June 20th 18 volunteers 9:00am to 12:30pm

(estimate: minimum of 10 volunteers + Craig and Daniel)

Placed Geo Cloth, culverts and Rip Rap in drainage pools, raked water bars, cleared trail debris and cut back branches

Note: Charlie, Monica, Laurie stayed until 1:30

We had 1 track hoe, 1 excavator, 1 tractor, 5 ATV's)

Note: Craig requested only 1 tractor to minimize equipment on the trail)

Workers:

*Craig Fletcher (ran Track Hoe)

*Daniel Johnson (ran Excavator)

Charlie Elder (tractor-delivered rock to work areas)

Laurie LeRoy (ATV-helped position volunteers, delivered water, drinks, snacks)

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Lindsay Cobb (ATV-general work)
Bob Hawkins (ATV-cut water bars, general work)
Monica Quarmby (ATV-general work)
Shawn Martin (ATV-general work)
Gary McDowell (directed vehicle parking/workers between Trail Hd Lane and
Cumberland Trl Hd.....and Gen. work)
Joe Coriaggio (cut water bars, general work)
Grumby Jefferson Grant (general work)
Bill Goulding (general work)
Ann Hall (general work)
David Hall (general work)
Teresa Elam (general work)
Judy Fletcher (general work)
Marcus Forseth (general work)
Alice Coble (general work)

17 man hours June 22nd work day (actual)

Friday, June 22nd

7 Volunteers 1:00am - 1:30pm to pressure wash, grease and load equipment and return materials to pavilion)

Workers:

Lindsay Cobb

Grumpy Jefferson Grant

Sue Bertch

Also drove to Crossville (1:30 - 4:00pm)

Monica Quarmby (Drove her truck/trailer to return equipment to Crossville)

*Craig Fletcher (Drove his truck/trailer to return equipment to Crossville)

*Daniel Johnson (Rode Shot Gun to Crossville)

Laurie LeRoy (provided pressure washer, rode shot gun to Crossville)

*Craig and Daniel's man hours counted under equipment

BACK GROUND: EXPENSE APPROVAL AND COST BASIS

On 6-15-2018: 7 board members approved the expenditure of \$3,000 for additional materials/equipment to repair this section of Spruce Creek Trail.(Craig, Sue, Linder, Lindsay, Laurie, Karen, Bob) This was in addition to the \$1,500 approved for materials in the March 7, 2018 board meeting, of which \$460 had been spent to date.

General Materials-Cost Basis

03-28-2017 purchase 32 RR ties from Potters @ \$12.99 each (total \$416)

11-17-2017 purchased 15 hemlock timbers from Potters @ \$72.33 each (total \$1,085)

01-15-2018 purchased 15 hemlock timbers from Potters @ \$73.33 each (total \$1,100)

Used: \$13 cost per Rail Road Tie

Used: &73 cost per hemlock timber