

**From:** Ross, Patrick Patrick.Ross@vermont.gov  
**Subject:** RE: Followup Re: Culverts in the Fairlee Forest  
**Date:** December 3, 2020 at 7:31 AM  
**To:** Lynne Fitzhugh ldfitzhugh@yahoo.com  
**Cc:** Matthew Tetreault matt@vtvast.org, Dyer, Rick Rick.Dyer@vermont.gov, Bill Weale bill.weale@builderman.com



Hi Lynne,

The bridges would replace the culverts.

Patrick Ross, P.E.  
Civil Engineer  
Rivers Program  
Cell: 802-279-1143

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**From:** Lynne Fitzhugh <ldfitzhugh@yahoo.com>  
**Sent:** Wednesday, December 2, 2020 9:14 AM  
**To:** Ross, Patrick <Patrick.Ross@vermont.gov>  
**Cc:** Matthew Tetreault <matt@vtvast.org>; Dyer, Rick <Rick.Dyer@vermont.gov>; Bill Weale <bill.weale@builderman.com>  
**Subject:** Re: Followup Re: Culverts in the Fairlee Forest

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Thank you Pat. We will follow up on your recommendations.

Just to clarify, if we install bridges would we also need culverts in those locations, or is it either bridge or culvert?

Also, a foot bridge on the Cross Mountain South stream crossing would solve many problems and essentially make the trail inaccessible to vehicles between Bald Top/Cross Mountain North and Coyote Way (see the trail map). However, that northern section has been used by and, as I recall, sometimes groomed for snowmobiles in the past, whether or not it is an official part of the VAST system. Would a foot bridge take snowmobile traffic or would this, too, be eliminated there?

Lynne

On Wednesday, December 2, 2020, 6:31:18 AM EST, Ross, Patrick <[patrick.ross@vermont.gov](mailto:patrick.ross@vermont.gov)> wrote:

Hi Bill and Lynne,

Based on my site visit measurements and desk work, the culverts (~48" CMP) are all significantly undersized based on current standards. The bankfull (highwater) channel width at all location is about 15'. Based on the channel width, the recommendation would be to work with VAST to see if they would be willing to provide bridge steel for the critical replacement structures. Given trail/logging bridges are usually constructed with shallow waste block foundations, the bridge steel would have to be about 30' in length at all the locations. The configuration of the bridges would also require heavy stone fill channel stabilization and decking that would accommodate truck traffic. Most of the local VAST clubs

channel stabilization and decking that would accommodate truck traffic. Most of the local VAST clubs have built these bridges in the past with help from local contractors. Matt Tetreault at VAST copied above has simple bridge engineered plans and he would be your best contact to start thinking about replacing the main trail structures. If possible you might consider installing a foot bridge at the Cross Mountain South trail location.

I had a conversation with Rick Dyer also copied here.

I think you have a good start for planning purposes and working with the local VAST club could prove to be a win win for everyone.

Regards,

Patrick Ross, P.E.

Civil Engineer

Rivers Program

Cell: 802-279-1143

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**From:** Bill Weale <[bill.weale@builderman.com](mailto:bill.weale@builderman.com)>  
**Sent:** Sunday, November 29, 2020 6:26 PM  
**To:** Ross, Patrick <[Patrick.Ross@vermont.gov](mailto:Patrick.Ross@vermont.gov)>  
**Cc:** Lynne Fitzhugh <[ldfitzhugh@yahoo.com](mailto:ldfitzhugh@yahoo.com)>  
**Subject:** Re: Followup Re: Culverts in the Fairlee Forest

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Hi Patrick—

I'm cc'ing Lynne Fitzhugh here because she is coordinating our grant application.

Do you need driving directions to them?

And just to confirm, there are 2 culverts at one parking area and 2 more upstream, within a quarter mile or so. From what we've heard from Rick Dyer, I think all may need your attention.

You or Lynne can let me know if I can help. I'm available during this week except for tomorrow.

Thanks,

Bill

On Nov 29, 2020, at 5:56 PM, Ross, Patrick <[Patrick.Ross@vermont.gov](mailto:Patrick.Ross@vermont.gov)> wrote:

Hi Bill,

I will be in the area early this week and try to locate them. If VAST uses these structures then they have access to steel beams to build small bridges. VAST has engineered bridge designs and the local club should be able to assist the town in replacing these structures. As a suggestion you could also reach out to Matt Tetreault at the Berlin VAST office. This assumes these trails are all necessary and required to support their network. Again Matt and the local club president would be the best contacts.

Thanks

Patrick Ross, P.E.

Civil Engineer

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