

Bristol Town Administrator

From: Kristen Underwood <southmountain@gmavt.net>
Sent: Friday, August 7, 2020 2:13 PM
To: Bristol Town Administrator
Cc: Carolyn Dash; Stever.Bartlett@uvm.edu
Subject: FW: research request for Saunders River Access

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Valerie,

I'm forwarding approvals of both Vermont River Conservancy and Vermont Housing and Conservation Board for Stever Bartlett's request to establish a two-year research plot on Saunders River Access.

Both VRC and VHCB requested temporary signage to educate the public, which Stever has agreed to do.

Does the Selectboard need to formally weigh in? I can attend a meeting if so.

Or will these approvals, and a pending recommendation from the Conservation Commission during our Aug 13 meeting, suffice?

Thanks,
Kristen

Kristen Underwood
South Mountain R&CS
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802.453.3076
southmountain@gmavt.net

From: Lydia Menendez Parker [mailto:lydia@vermontriverconservancy.org]
Sent: Friday, August 07, 2020 12:45 PM
To: Stever Bartlett; Kristen Underwood
Cc: thecarolyndash@gmail.com; steward@vermontriverconservancy.org
Subject: FW: research request for Saunders River Access

Hello Stever and Kristen,

VHCB and VRC approve of your research proposal on the Saunders River Access parcel, provided temporary signage to educate the public is installed and maintained.

Thanks for keeping us informed and engaged, and looking forward to hearing the results of this research.

Good luck, and please don't hesitate to be in touch with any further questions.
Lydia

From: Mark Martin <Markm@vhcb.org>
Sent: Friday, August 7, 2020 10:34 AM
To: Lydia Menendez Parker <lydia@vermontriverconservancy.org>
Cc: Pytlik, Shannon <Shannon.Pytlik@vermont.gov>; steward@vermontriverconservancy.org
Subject: RE: research request for Saunders River Access

Hello Lydia,

I've reviewed the email exchange regarding the reed canary grass project proposal. Most of my questions and concerns were answered, I definitely would like signage up for the area. **If that condition is met, VHCB approves the proposal under the Permitted Uses Section of the conservation easement, paragraph 6, which allows for research projects to be conducted on the property.**

I think we are all on the same page here, it would be good to have data showing non-pesticide control methods are as effective (or nearly as effective) as pesticide use.

Let me know if you need any additional documentation for this approval.

Best,
Mark

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From: Kristen Underwood <southmountain@gmavt.net>
Sent: Tuesday, August 4, 2020 5:15 PM
To: 'Steve Bartlett' <Steve.Bartlett@uvm.edu>; 'Lydia Menendez Parker' <lydia@vermontriverconservancy.org>
Cc: 'Carolyn Dash' <thecarolyndash@gmail.com>
Subject: RE: research request for Saunders River Access

Hi Lydia,

I can just chime in here, to say that I have not seen this location be overtopped by flooding in the last 25 years – not in the 1998 flood (a 500-yr event) or in 2011 (a 100 –year event).

It does stay pretty “high & dry”

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From: Lydia Menendez Parker <lydia@vermontriverconservancy.org>
Sent: Tuesday, August 4, 2020 5:03 PM
To: 'Steve Bartlett' <Steve.Bartlett@uvm.edu>; 'Kristen Underwood' <southmountain@gmavt.net>
Cc: 'Carolyn Dash' <thecarolyndash@gmail.com>
Subject: RE: research request for Saunders River Access

Hi Steve,

Thanks for the extra information. I think this addresses my questions, provided you will be installing signage educating visitors about the test plots.

I'll forward this request to VHCB, as their written approve is required as well, and once we hear back from them, you'll have our response!

Thanks so much,
Lydia

From: Stever Bartlett <Stever.Bartlett@uvm.edu>

Sent: Tuesday, August 4, 2020 3:54 PM

To: Lydia Menendez Parker <lydia@vermontriverconservancy.org>; Kristen Underwood <southmountain@gmavt.net>

Cc: Carolyn Dash <thecarolyndash@gmail.com>

Subject: Re: research request for Saunders River Access

Hi Lydia,

Thank you for your quick and thoughtful reply.

I do hear you and understand your concern for tilling and soil disruption and the potential for erosion and water quality degradation. The location of the plot is near the Kiosk and about 15 ft inland from the willows that are on the edge of the bank. I chose that location not only because of its Reed Canary Grass distribution, but also because it is between a zone 2 and 3 buffer vegetation which means it rarely is inundated. One of our criteria is to choose such locations to prevent erosion and also to prevent river flow that can be damaging to tree stems in floods and by ice sheering in winter flood events.

Possibly Kristen can weigh in on how many recent flood events have risen over bankfull at the location of the Kiosk in the last few years. My sense is that the river has moved more to the east and the old channel is not the main branch and would result in less likely overflow of the bank. Moving more inland is not possible because the field is in hay production.

I also appreciate the concern for the use of herbicide. It is a small area that will be sprayed only in September 2020. 1/16th of an acre. Which is a square that is approximately 52' x 52'.

The goal is to learn if organic methods can produce the same or better results than herbicide use. In general I don't support the use of herbicides and pesticides (and certainly near waterways) either. However the common practice that is in current use by project managers that are planting trees in floodplains dominated by Reed Canary Grass, is the use of Glyphosate (Rodeo herbicide). The intent of this study is to evaluate the organic management methods of tilling and mowing compared to use of herbicide on the survival of tree plantings. The desired outcome is that landowners and project managers can see data that shows the effectiveness of both management techniques and then decide on organic management or herbicide use in their planting plan. Currently there is little data that shows a comparison between the two. It would be a win for the environment if the tilling and mowing data was the same or close to similar to the herbicide use. That could incentivize the organic techniques and change the common practice of using herbicides.

I would be happy to talk on the phone more if you have more questions. 802 282 2880 m
I also will respect the decision should it not be approved. Thank you for the consideration.

Thanks Lydia.
Stever

Stever Bartlett
University of Vermont
MS Graduate Student

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From: Lydia Menendez Parker <lydia@vermontriverconservancy.org>
Sent: Tuesday, August 4, 2020 12:31:42 PM
To: Kristen Underwood
Cc: Carolyn Dash; Stever Bartlett
Subject: RE: research request for Saunders River Access

Hello Kristen (and Carolyn and Stever!),

Thanks for sending me this proposal and including me in the discussion.

A few initial thoughts, and if these can be discussed via email, I don't see a need to join the call, but will certainly join if further discussion is warranted.

- My biggest question/concern is how tilled soil so close to the river may deleteriously affect water quality. For example – there are many patches of reed canary grass in agricultural fields that are NOT in a river buffer. Have any other locations been considered? They could offer the same research quality findings: re tree survivorship, without increasing tilled soil (or Rodeo applications) along the river's edge. Or, would the tree plantings (how many, etc?) offset these impacts?
- Will there or can there be signage educating property visitors about the research plot? Informing visitors of the activity may educate people and simultaneously decrease questions or suspicions that we not are managing the property in accordance with the intended goals or easement terms in mind. Can we see a draft of the signage? Will it be replaced if washed away by flooding or otherwise removed?

I am fully supportive of this research project, and look forward to the discussion these questions raise to help guide my decision.

Thanks so much,
Lydia

From: Kristen Underwood <southmountain@gmavt.net>
Sent: Friday, July 31, 2020 12:40 PM
To: Lydia Menendez <lydia@vermontriverconservancy.org>
Cc: Carolyn Dash <thecarolyndash@gmail.com>; Stever.Bartlett@uvm.edu
Subject: research request for Saunders River Access

Hi Lydia,

We have a request from a UVM researcher to establish one small research plot at Saunders River Access beginning this Fall for up to a 2 year period.

I have attached the request which provides more details and a map.

And I have cc'd Stever, along with Carolyn Dash who is the Chair of our Conservation Commission.

We have scheduled this as an agenda item on the August 13 Bristol Conservation Commission meeting (6 PM via Zoom), and I have also asked Valerie Capels our Town Administrator to weigh in on whether the Selectboard should be looped in.

If you would like to join our CC meeting on Aug 13 to discuss, I can provide a Zoom link to you.

Let me know your thoughts.

Best,
Kristen

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Steвер Bartlett request for research at Saunders River Access
7/31/2020

Steвер Bartlett is a current Masters student in the UVM Rubenstein School of Environment and Natural Resources. He is also the Middlebury College alpine ski coach and longtime member of the New Haven River Anglers Association and has led volunteer projects with the Bristol Conservation Commission at Saunders, including past tree plantings and management of invasive plants.

As part of a Lake Champlain Basin Program funded project (2020 – 2022), Steвер will be investigating the effectiveness of different organic, mechanical methods including tilling and mowing to suppress the invasive Reed Canary Grass so that newly planted tree and shrub stems in floodplain and riparian buffers have greater survivorship.

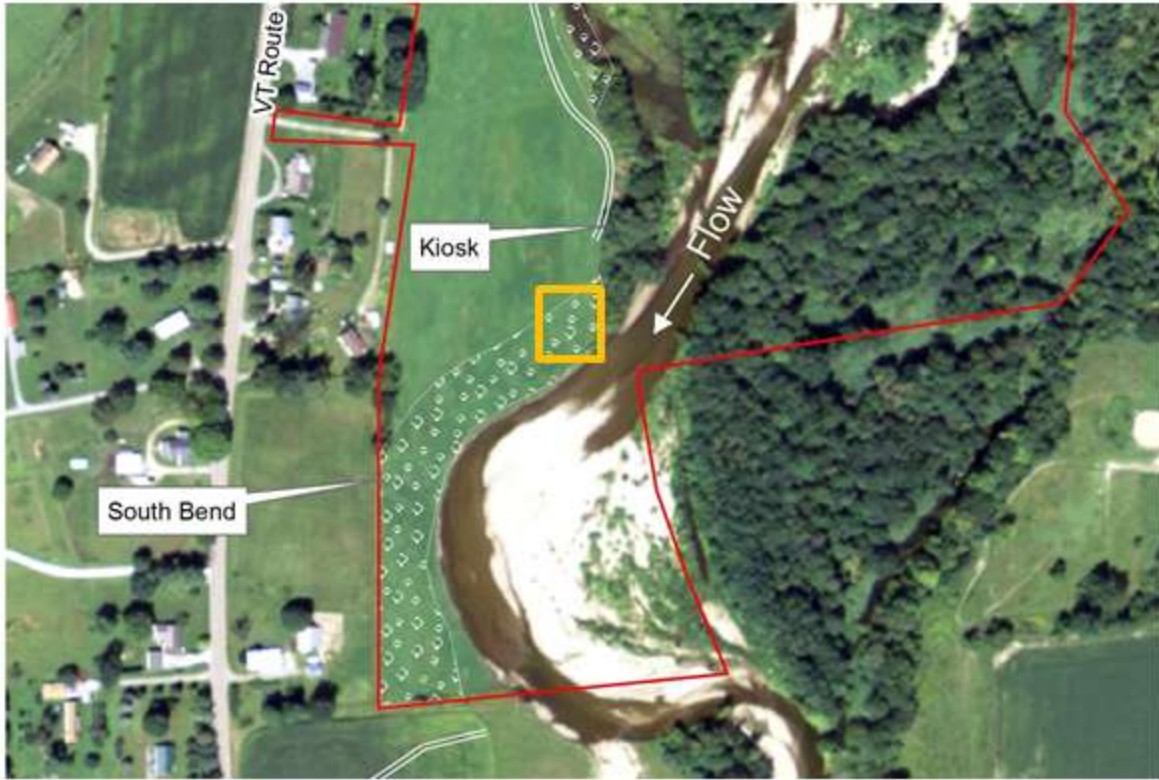
Steвер would like to use Saunders River Access as one of several research sites in the Champlain Valley. He would be establishing one 1/8th acre (50' x 100') plot at Saunders in the approximate location shown on the map below (where there is currently some reed canary grass). The study design requires mechanical tilling of the entire 1/8th of an acre plot this fall to prepare the soils for research treatments. Rodeo (water-safe glyphosate herbicide) is the current management practice being used in plantings dominated by Reed Canary Grass. Therefore, Rodeo will be applied to one half of the plot (50' x 50' area) in two applications this September as a control, and tilling and mowing will be the treatment applied on the remainder of the plot. Steвер has completed safety training for use of herbicides and is a licensed operator. He has also completed COVID-19 training and has a health and safety plan for site operations.

A successful outcome of this research project will help the town of Bristol and Vermont River Conservancy by:

- 1) Developing planting methods that are more effective in these property locations challenged by invasive reed canary grass (e.g., 2013 plantings in this location at Saunders River Access did not survive well).
- 2) Providing labor and resources to establish new tree plantings in this plot.
- 3) Identifying invasive control methods that do not involve synthetic herbicides.

Results of this research will be widely distributed and help to inform local and regional stakeholders involved in riparian buffer management.

A research use of the Saunders River Access is consistent with the educational goals expressed in the management plan for the site. For example, UVM maintains several plots further to the south under a separate LCBP project led by Drs. Beverley Wemple and Rebecca Diehl that is measuring sediment and nutrients stored on the floodplain during bank-overtopping flood events.



Approximate location of research plot. Not to scale.