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Abbey -  
Tridhan Tom Edie  
Rob + I

# Winooski Natural Resources Conservation District

617 Comstock Rd., Suite 1 ~ Berlin, Vermont 05602 ~ (802) 828-4493 X 110

March 2, 2005

Manager  
PO Box 157  
E. Montpelier, VT 05651

TOWN CLERKS OFFICE  
EAST MONTPELIER, VT  
RECEIVED

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Dear Marlene Betit,

We would like to inform you about our efforts to conduct a stream geomorphic assessment (SGA) on the Upper Winooski River from Molly's Falls in Marshfield to Gateway Park in Montpelier as well as the lower Stevens Branch from Barre City to the confluence with the Winooski River. Central Vermont Regional Planning Commission (CVRPC), Friends of the Winooski River (FWR) and The Winooski Natural Resources Conservation District (NRCD), are embarking on a collaborative effort to learn more about these watersheds, share our findings with the local community, and use the assessment results to help guide our future management decisions.

The assessment protocols were developed and the grant funding associated with this project was made available through the Agency of Natural Resources River Management Division of the Department of Environmental Conservation. Their focus is to provide a foundation for watershed protection, management and restoration through community-based education. Looking to the near future, the fluvial geomorphology data collected during our project will be shared with the community to provide a basic understanding of our local waters and to gain public support around the valuable information which can eventually have an effect on public policy.

Your town is located within the area of study that we will be evaluating over the next 2 years. Our goal is to have local select boards, conservation commissions, planning & zoning boards and community members made aware of our project, to keep them abreast of our progress and findings as well as to encourage their involvement in the effort along the way. To this end, we would like to build a list of interested parties and ask any of you to send an email to Winooski NRCD at [abbey\\_willard@yahoo.com](mailto:abbey_willard@yahoo.com) expressing your interest in being informed and/or involved during our assessment work.

If you have additional questions, please consider contacting any of the project partners listed below. Any of us would also be willing to attend your next committee meetings to make presentations further explaining our project.

### *Friends of the Winooski River*

*Ben Strand*  
223-8080

### *Central VT RPC*

*Bill Toussaint*  
*Dan Currier*  
229-0389

### *Winooski NRCD*

*Abbey Willard*  
828-4493

## **Times Argus**

Article published Feb 11, 2005

# **Channeling river information**

MONTPELIER – A steady stream of information is starting to flow out of the Central Vermont Regional Planning Commission's Montpelier offices.

The organization, which works with 23 municipalities in the area, has recently completed an assessment of the Stevens Branch River, which runs between Williamstown and Barre. It's setting its sights on the now-frozen Winooski, starting in spring of 2005.

In their Main Street office, surrounded by huge topographic maps and massive aerial photos of the region, Dan Currier and Bill Toussaint are spending a lot of time gathering information about the "onion river." Their job is to complete phase one of a "geomorphic" stream assessment for the state's Agency of Natural Resources.

By summertime, Currier and Toussaint's data will be used to assess the current condition of the Winooski and its tributaries, giving towns along the river a valuable resource for planning and zoning purposes.

"Geomorphology" is a relatively new science that seeks to explain the interrelationship between flowing water and land and is being used to provide data for "community based watershed protection, management, restoration and education," according to the Agency of Natural Resources.

Streams and rivers are constantly undergoing change, adjusting to channel, flood plain, or watershed changes imposed in years past by human activity. Understanding those changes is what the CVRPC effort is all about. According to Toussaint, a geographic information systems manager at Central Vermont Regional Planning Commission, each assessment takes approximately one year from start to finish. The Stevens Branch assessment, which was conducted at river segments in Williamstown, Barre Town and Barre City, began in the fall of 2003 and was completed in December 2004.

Toussaint said that after completing the Stevens Branch assessment, CVRPC began looking at the Winooski as the next project.

The assessment process starts by using geological survey data, maps, aerial photos and floodplain information, which are used to create a computer model of the river. From this graphical representation, Currier said, it's possible to "break" the river into "reach segments" that best represent the overall geological make-up of the waterway. Once these sections are found and the office work is done, it's time to get muddy.

"We'll go out into the field and take general measurements," Currier said. "We'll look at bank height, stream width, vegetation, and we'll look at the geology in the particular locations, whether it's bedrock or gravel, really whatever is in the stream bed."

With the field measurements in hand, the two will then head back to the office where they'll compare the findings with the computer model of the river. According to Currier, it's possible to come up with "impact ratings" based on the field data and the computer model that was created in phase one of the assessment. These ratings, Currier said, can then be used as a measure to resolve and prevent problems associated with human development along waterways.

For its next assessment, CVRPC is looking at the Winooski from its beginning in Cabot, clear down to Gateway Park in Montpelier. According to Currier, six major tributaries and roughly 10 percent of the overall watershed area will be examined.

Field work for the Winooski River assessment is expected to begin around mid-summer. Slogging through the mud alongside Currier and Toussaint will be a host of volunteers from the Friends of the Winooski River.

Towns along the Stevens Branch and the Winooski benefit greatly from the geomorphic stream assessments, Currier said. Once a report is produced, town planners and zoning officials can use the data to decide just how much development can take place along the stream or river without negatively affecting the waterway.

"A town can use this data to say, 'don't build here,' or to buffer a stream area with zoning," Currier said. Currently, many towns base their zoning on outdated floodplain information, Currier said, and the new assessments will provide towns with more recent information to go by.

Also, Currier said that culverts are inspected during the assessment process and the final reports provide towns with up-to-date information on the condition of these flood control systems. In the event of a flood, improperly sized culverts can contribute to road washouts. Therefore, the assessments can alert towns to potential trouble spots that need to be addressed, Currier said.

Existing homes and businesses along the rivers are not affected by the assessments, Currier said. Ultimately, CVRPC makes suggestions and recommendations based on the findings, but it's up to the individual towns to make changes to their laws, Currier said.

Informational newsletters will be mailed out to residents and town offices in the areas that CVRPC will be working in this summer. For 2006, Toussaint and Currier said they are preparing to assess the state of the North Branch of the Winooski, but for now, they are just looking forward to getting out into the field this summer.

## Town of East Montpelier

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**From:** Bill Toussaint [toussaint@cvregion.com]  
**Sent:** Thursday, April 28, 2005 10:23 AM  
**To:** 'Town of East Montpelier'  
**Cc:** 'Laurie Emery'; sinclair@cvregion.com; Dan Currier; abbey.willard@vacd.org  
**Subject:** RE: Fluvial geomorphology and Pine Ridge Road

Marlene,

CVRPC is currently working on Phase 1 of the geomorphic assessment. Phase 1 of the study deals with the GIS and remote sensing analysis of the river and it's watershed. The Pine Ridge Road area will be included in our Phase 1 assessment.

In the near future we will be drafting an RFP and selecting a consultant for the Phase 2 portion of the study. This is a more detailed analysis and involves a large amount of field work. We will make sure that the Pine Ridge Road area is included in the RFP for the consultant to study.

If you have any questions please call me.

Thanks,  
Bill

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**From:** Town of East Montpelier [mailto:eastmontpe@adelphia.net]  
**Sent:** Tuesday, April 26, 2005 3:00 PM  
**To:** Bill Toussaint  
**Cc:** Laurie Emery  
**Subject:** RE: Fluvial geomorphology and Pine Ridge Road

Hello:

I was wondering what the status of the analysis is and if Pine Ridge Road area was included in the analysis.

I look forward to hearing from you. Thank you.

Sincerely,  
Marlene

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

**From:** Town of East Montpelier [mailto:eastmontpe@adelphia.net]  
**Sent:** Tuesday, November 02, 2004 10:12 AM  
**To:** Laurie Emery  
**Cc:** Bill Toussaint  
**Subject:** RE: Fluvial geomorphology and Pine Ridge Road

Laurie & Bill:

Thank you for your response and information. The project area has encroached upon the cul-de-sac of a Town Road and has been a continuing problem for 10 years. We have a consortium of individuals and agencies willing working towards a solution and the last piece is a grant in the amount of \$43,721.20.

5/2/2005

Mike Kline indicated that if this project area was included in the Phase II assessment it will allow us a better opportunity for grant funds next year under the implementation portion of the River Restoration Grant. I am sending the grant application as submitted this year. The rip rap costs were determined by looking at our Coburn Road/Cate Farm Road/Bridge project which was done by Dubois and was very similar. Access to the site causes some difficulty as to approach. If you wish to view the site you would need to turn onto Paul's Square off Route 14 (Sandy Pines area) and then turn onto Pine Ridge Road. You can't miss it because there are barricades but the riverbank along that section is also involved.

If you have any other questions please contact me. I look forward to working with you.

Sincerely,

Marlene Betit

Marlene Betit  
Town Administrator  
Town of East Montpelier  
P O Box 157  
40 Kelton Road  
East Montpelier, VT 05651

802-223-3313 fax 802-223-4467

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

**From:** Laurie Emery [mailto:emery@cvregion.com]  
**Sent:** Tuesday, November 02, 2004 9:02 AM  
**To:** eastmontpe@adelphia.net  
**Cc:** Bill Toussaint  
**Subject:** Fluvial geomorphology and Pine Ridge Road

Good Morning, Marlene. I checked with Bill Toussaint, our GIS Manager and the person who is working on the fluvial work on the Upper Winooski River with Abbey Willard of the Winooski Conservation District, and it appears that the reach near the Pine Ridge Road could be included in our fluvial work of the Upper Winooski. However, the final details have not yet been set and the scope of work has to be finalized. Bill will be sure to discuss with Abbey the need to include this reach, but it would be helpful if he could have more specifics from you regarding the exact location and what the Town needs done in order to be eligible for the Recreation Grant. I'd appreciate it if you would e-mail Bill ([toussaint@cvregion.com](mailto:toussaint@cvregion.com)) or call him at 229-0389 to provide him with more details. Thanks. Laurie

Laurie Emery, Administrative Assistant  
Central VT Regional Planning Commission  
29 Main Street, Suite 4  
Montpelier, VT 05602  
[emery@cvregion.com](mailto:emery@cvregion.com)  
802/229-0389  
fax 802/223-1977

5/2/2005

## Lisa Rice

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**From:** Laurie Emery [Emery@CVRegion.com]  
**Sent:** Thursday, June 15, 2006 11:36 AM  
**To:** 'Lisa Rice'  
**Subject:** RE: Pine Ridge Road

Lisa: Dan Currier is doing the fluvial work and I've forwarded your e-mail to him. He will be in touch with in a day or two once he gets out from under his meeting schedule! If you don't hear from him, his e-mail is [currier@cvregion.com](mailto:currier@cvregion.com), but let me know, too, if you don't get a response. Thanks. Laurie

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**From:** Lisa Rice [mailto:eastmontpe@adelphia.net]  
**Sent:** Thursday, June 15, 2006 10:20 AM  
**To:** 'Laurie Emery'  
**Cc:** [sinclair@CVRegion.com](mailto:sinclair@CVRegion.com)  
**Subject:** Pine Ridge Road

Hello,

I was wondering the status of any activity in the Pine Ridge Road area?

I had a homeowner come into the office to ask if anything is being done about the washout there.

I have not had any updates since February in which I was told a study was being done on the basin of the Winooski River, which did include that area.

Any information you could provide me with would be appreciated.

Thank you,

Lisa

Lisa Rice  
Town Administrator  
Town of East Montpelier  
P.O. Box 157  
East Montpelier, Vt 05651

Phone: 802-223-3313  
Fax: 802-223-4467  
[eastmontpe@adelphia.net](mailto:eastmontpe@adelphia.net)

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Lisa

Lisa Rice

Town Administrator

Town of East Montpelier

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eastmontpe@adelphia.net

PACKARD

June 16 2003 Min.

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Burg Cahoon

Mike Klein

River Study