From: Lewis Creek Association
To: Hinesburg Development Review Board
RE Hinesburg Center 2 12/20/22 DRB meeting

On behalf of LCA I am submitting these comments regarding the western portion of the property. To date there has been little discussion of the uses for this portion of the total project.

We believe uses of this portion of the property 36.5 acres should be more thoroughly considered and could be of vital importance to the town and regionally. There will continue to be development upstream of this area in both the village district and the other residential zones within the Patrick Brook watershed and this parcel can play an important role in protecting water quality, improving habitat, flood resiliency and protecting town infrastructure.

LCA has been working with VTDEC, VT F&W, watershed towns and engineers for many years and would like to share the following information from the **The Laplatte River Management Alternative Report** (2010) prepared by Milone and McBroom now known as SLR. It identifies approaches to improve water resources in Hinesburg Village and downstream including stabilizing channels, improving water quality, rehabilitation of stream habitat and reducing risks to infrastructure.

The Hinesburg Sewage Treatment Plant (STP) is located on the south side of the LaPlatte in the floodplain across the river from and at further western edge of the 36.5 acre portion the project. The report has several suggestions for the protection of this town infrastructure that identified the importance of this parcel that would allow for the "**Increase buffer on right between Patrick Brook and Canal. Ideally the half of the field adjacent to the river would be naturalized to increase floodplain functioning and encourage natural sinuosity of the river to return. Establishment of a wooded floodplain would ultimately protect the development along Fredric Way and any other planned near Route 116.** It also suggests that there could be **"Active Channel and Corridor Improvements that would lower and naturalize the floodplain area across the river from the STP. Additional over-bank flow capacity opposite the STP will dissipate flood pressure that would otherwise be trapped in the channel and the left floodplain adjacent to the STP. The proposed floodplain elevation in the right over-bank would be lowered to or below the existing floodplain elevation around the STP.**

These types of projects are now recognized by the state as critical and cost effective practices of reducing the phosphorus loading in Lake Champlain. The state has assured EPA that phosphorus reduction requirements will be primarily achieved through the implementation of these and other practices by working with landowners, towns and watershed groups. There is now ample funding through the VT Clean Water Act to compensate landowners and for the implementation of these practices that can benefit us locally with flood resiliency and improved habitat and regionally in improving the water quality downstream and in the Lake.

LCA is suggesting that the Applicant and the DRB be proactive and take this opportunity through the approval process to recognize the importance of identifying the use of this western 36.5 acres as green/ natural infrastructure in Hinesburg to improve water quality through the restoration of the floodplains and allowing both Patrick Brook and the LaPlatte the room to return to a more natural condition as the channel adjusts to its desired sinuosity. We believe it is imperative that these uses be considered for the western 36.5 acres as the project moves forward.

LCA would also like to support the many recommendations made in the 11/2020 memo to Alex Weinhagen and hopefully shared with the DRB from Mike Kline of Fluvial Matters, River Scientist retired from the DEC River Management Program, and especially the recent memo

From: Lewis Creek Association
To: Hinesburg Development Review Board
RE Hinesburg Center 2 12/20/22 DRB meeting

11/2022 from Kyle Medash Floodplain Manager from DEC River Program. Both reports emphasizing the necessity of ***an updated hydraulic model for the project that demonstrates no more than 0.1' rise in base flood elevations and assurances that the existing development will not be adversely impacted. …… We recommend that in order for the project to meet the No Undue Adverse Impact criteria and other criteria (Sections 6.2, 6.5.1) for the municipal review, the Town request that the applicant provide a hydraulic model that includes the site at full build out accounting for anticipated site conditions that demonstrates no more than 0.1' increase throughout the regulated floodplain under base flood conditions. The model should encompass any proposed new infrastructure, culverts, abutments, pedestrian bridge, stormwater treatment, fill areas, etc. to ensure that at full build out under the anticipated site conditions, new or existing development will not be adversely impacted by base flood flows.***

The Hinesburg Center II – Additional Hydraulic Information dated October 4, 2022 submitted as supporting information for the 10/4 hearing states that at least one of the cross sections (1875) demonstrates a maximum of 0.22' rise in the base flood water surface elevation, and smaller increases are present in several cross sections upstream and downstream as a result of the fill associated with the proposed HCII development and crossing structure(s). These demonstrated increases are above the threshold that the Rivers Program would consider "no undue adverse impact" under the Town's regulations and/or state jurisdiction, and also above the threshold typically applied in No Adverse Impact (NAI) Standards in other NFIP participating communities. NAI is generally defined as increases under 0.1' are considered de minimis because that is the scale at which BFEs are reported by FEMA.

It is also important to note that any additional structures constructed in the river corridor will require monitoring and maintenance and diminish the ability of Patrick Brook to regain its full stream equilibrium conditions and floodplain functions. Limiting the structures to only one crossing for both pedestrians and vehicles would create the least impact to the stream. It is also noted that the current crossing for the canal at RT 116 and no longer carries the majority of Patrick Brook is a 16- foot bridge. Sizing of this new structure will be critical to protecting any new development and existing infrastructure for both residents of these areas and all the taxpayers of Hinesburg.

Sincerely
Andrea Morgante LCA President
andreahinesburg@gmail.com

From: Lewis Creek Association
To: Hinesburg Development Review Board
RE Hinesburg Center 2 12/20/22 DRB meeting