

**From:** [Matt Brown](#)  
**To:** [Karen Edwards](#); [Rick Taintor](#)  
**Cc:** [rroseen@waterstone-eng.com](mailto:rroseen@waterstone-eng.com); [melodyofharpists@gmail.com](mailto:melodyofharpists@gmail.com)  
**Subject:** Mill Plaza buffer assessment  
**Date:** Wednesday, May 26, 2021 10:14:55 AM

---

Dear Members of the Planning Board-

After reading various letters and presentations on the proposed Buffer at Mill Plaza, especially as it relates to water quality improvement, I want to add my perspective for your consideration. Feel free to reach out at this email address if I can help in any way.

My training and experience as a professional engineer, working with nutrient management for NRCS for 23 years, has brought me to the conclusion that nutrient reduction is very closely associated with residence time of polluted water in bacteria rich soils. In the case of Mill Plaza, neither the site runoff nor upstream watershed runoff will have significant residence time in the buffer soils. I see two main reasons for this.

1. Almost all of the 10 acre site drainage will go through a separate 3-stage treatment system, as shown on the revised 3-10-21 plans. No matter the buffer width, it makes no difference to the site drainage. The two do not mix and mingle. Contrast this to present conditions, where all polluted water goes directly to the Brook, causing soil erosion at each outfall.

2. Offsite water, coming from the culvert under Mill Road, is not readily connected to a treatment floodplain. As others (Ballestero, etc) have noted, the Brook is entrenched and incised by pipe flow through UNH and channelization through the entire watershed. For all except large rainfall events, the Brook functions as a ditch, moving water swiftly through the reach. If it were connected, we'd already be seeing those nutrient reductions. There are no changes to the stream plan or profile indicated on the revised plans. As we know, stream restoration is a whole different ball of wax, especially in an urban corridor. Offsite water will continue to flow as it does now, except that if the plans are implemented, there won't be a huge peak flow contribution from Mill Plaza. The planned storage features will essentially transform the site's flood wave to a trickle. Downstream lot owners could see several benefits in both flood frequency and water quality.

Clearly the proposed plan could be improved, at considerable cost, but even now it represents significant progress in the watershed, albeit for only 10 acres of runoff. I think it does the Town a disservice to think the proposed buffer is a meaningful nutrient management practice. Reducing pavement and adding riparian forest elements are great goals in their own right, but claiming pollutant removal is stretching things a bit far for those who look closely at buffer design and site characteristics.

Thank you for your time and consideration,

Matthew Brown, P.E.

23 Sumac Lane