

Mill Brook Watershed Management Planning Committee
Minutes of 12/12/16 meeting

Present: Cindy Mitchell, Selena Roman, Tim Boland, Kristen Fauteux, Rez Williams and Prudy Burt.

Absent: Chuck Hodgkinson, Nancy Huntington

Also present; Bill Wilcox, Kent Healy

Following our 11/28/16 meeting, Bill Wilcox was going to have a conversation directly with Carl Nielsen of ESS Group about some of the data results. To facilitate this, Chuck would send an introductory email to both Carl and Bill, letting Carl know that it was fine to speak freely with Bill about the data. This has not yet happened but Cindy will follow up with Chuck about doing this before our next meeting on 1/9/17.

Bill Wilcox reviewed his preliminary assessment of Mill Brook streamflow based on ESS Group data. The first page is a summary of why we are studying this and the importance of understanding where the water originates, variability in flow over the years and how balancing the demands of human use/withdrawals with the natural stream system is crucial to the long term health of the stream. In particular, Bill noted his paragraph in bold on page 1 which attempts to acknowledge Kent's concerns about the number of stream discharge readings used to develop the rating curve in the ESS Group data. Kent voiced this concern once again. Selena asked that it be noted for the record that the committee has had this conversation with Kent on numerous occasions regarding data and methodology and have agreed that the the ESS Group stream flow measurement methodology is established and professionally accepted practice. Prudy reiterated this sentiment, adding that Kent told the committee this past summer that he had reviewed ESS Group data and had reassured the committee that ESS Group data appeared to correspond with data that he had gathered at Priester's Pond, Scotchman's Bridge Lane and Mill Pond. She wanted to clarify that it appeared that Kent's issue with the data had more to do with the low number of discharge readings used to develop the rating curve rather than the methodology itself, which is a universally approved method for measuring stream flow. In this case, Nick Wildman of Ma. Division of Ecological Restoration also noted the low number of discharge readings in his review of the ESS Group data and the committee is well aware that additional measurements of stream flow will be necessary going forward.

Prudy asked that Bill add the following observations to this initial assessment of water flow: the second bullet on p. 4 should be corrected- Wascosims Rock is about 2/3 mile downstream of the headwater of Mill Brook; water flow measurements below Crocker Pond include the additional flow from Witch Brook and its subwatershed; water flow measurements below Priester's Pond reflect the input of the unnamed tributary that crossed under North Road just above Priester's

Pond; the ESS Group logger at Scotchman's Bridge Lane is located below the Whiting diversion dam, so measurements here reflect both that diversion from Mill Brook as well as the Morning Glory Farm surface water withdrawals at the Hickie fields; and lastly, while the logger location below Mill Pond does not include the Factory Brook diversion from Mill Pond, it does include the diversions to the east side of Mill Brook below Scotchman's Bridge Lane. Further, she noted that in order to divert water to maintain Maley's Pond during periods of low flow, Kent Healy needs to block off water flow through the fish ladder on the main spillway at Mill Pond.

Rez initiated a discussion about how removal of the Whiting diversion dam might happen. Prudy suggested that further education of the impacts of these withdrawals and diversions may well be the very thing which prompts action on the part of pertinent landowners. Rez also suggested that we add an item to #4 on page 5 of Bill's preliminary assessment- having Morning Glory Farm install a flow meter on their pump at the Hickie fields in order to get some firm numbers on how much water is being taken from Mill Brook. Lowest flows in Mill Brook occur in July, August and September, the very time during which Morning Glory Farm is withdrawing surface water to irrigate these fields.

Bill suggested adding a #7, bathymetry of the remaining impoundments, to the list of recommendations on page 5.

Our next meeting is on January 9, 2107 and our agenda will begin with a discussion of where we are going with all of this.

Minutes of our 11/28/16 meeting were approved with corrections.

Submitted by Prudy Burt