

November 8, 2018

To: Boothbay Planning Board, Mark Eyerman
From: Sue Mello, Boothbay Region Water District

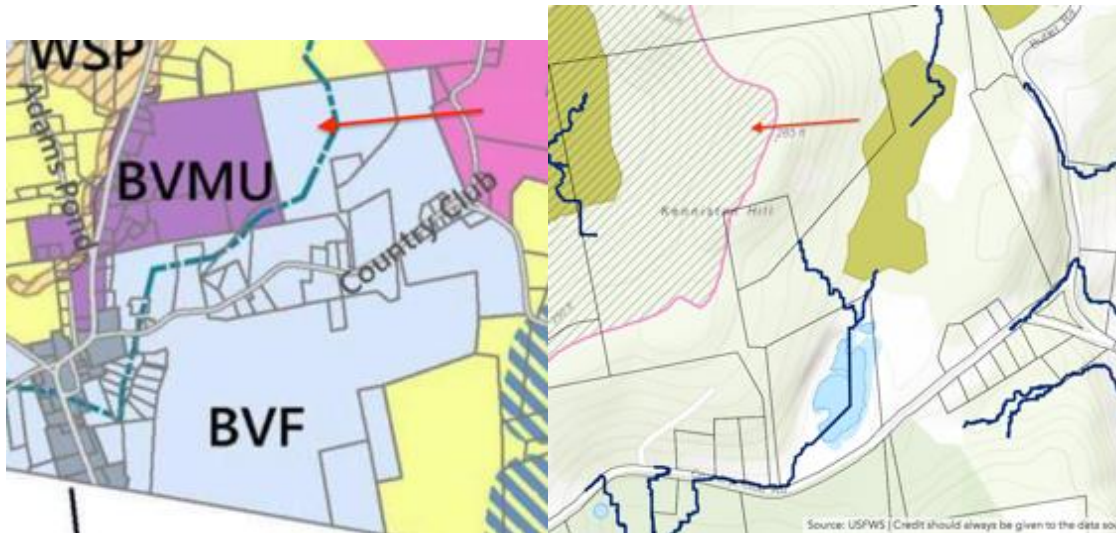
Recommended changes to BVF and BVMU boundaries to protect Adams Pond

Extending sewer up RT27 is a town priority that appears likely with the availability of TIF funds. With sewer extension, the BVF and BVMU district could become two of the most densely developed zones within the entire town. The water district is concerned about the ramifications to water quality of the small lots sizes that would be allowed after sewer connection in portions of the BVMU and BVF, where steep slopes, streams and wetlands make dense development a poor fit. Forrest Bell Environmental's modeling concluded that the increased development due to this change in zoning standards would increase phosphorus loading to Adams Pond, which is inconsistent with a goal of protecting Adams Pond water quality.

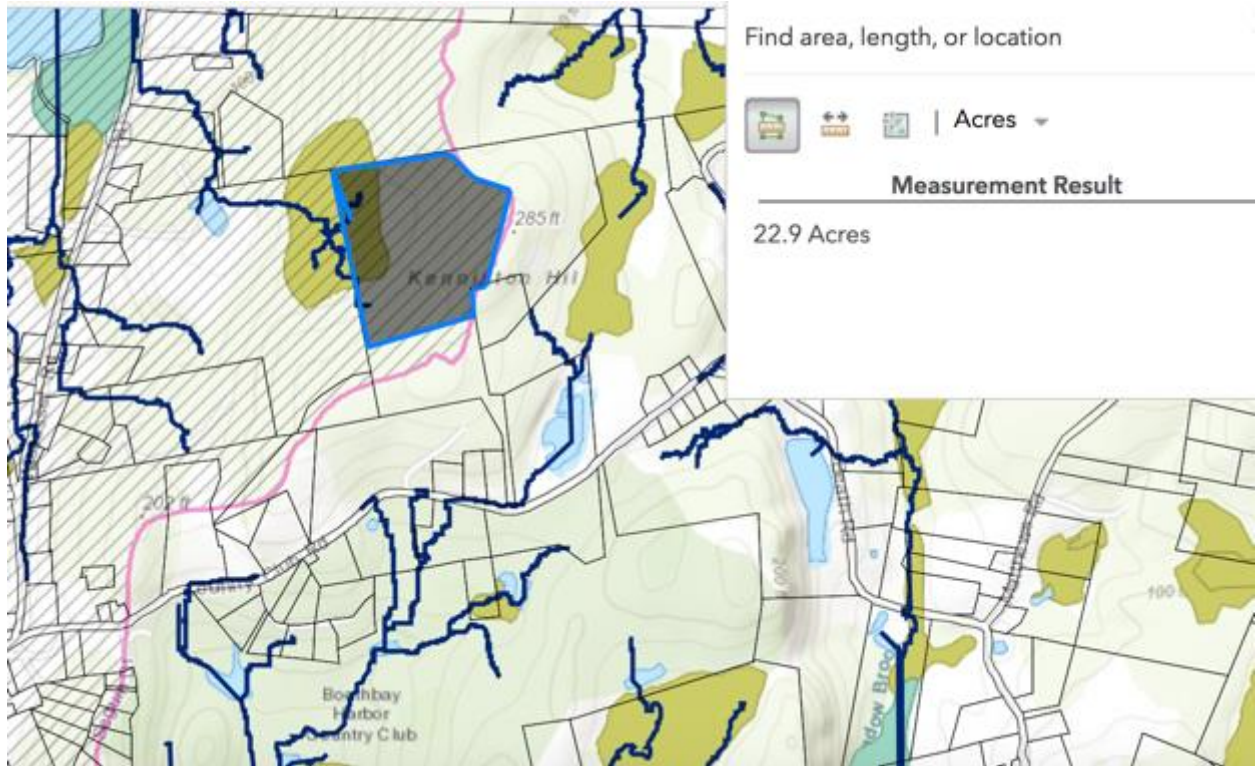
The District recommends that the BVF and BVMU zones be modified to remove portions of the Adams Pond watershed from these zones and place them instead in the residential district.

BVF

The Boothbay Village Fringe area covers about 450 acres, about 50 of which is in the Adams Pond watershed. At least part of the watershed area downslope of Kenniston Hill (noted by the red arrow) is characterized by steep slopes and includes part of a large wetland complex. The BVF district allows a minimum lot size of 4,000 SF with sewer and a maximum impervious cover of 50% -- that scale of development is too dense for this area. The image to the left shows most of the BVF zone; the dashed line is the watershed line and arrow points to area of interest. Image to right shows same area with topography and wetlands.



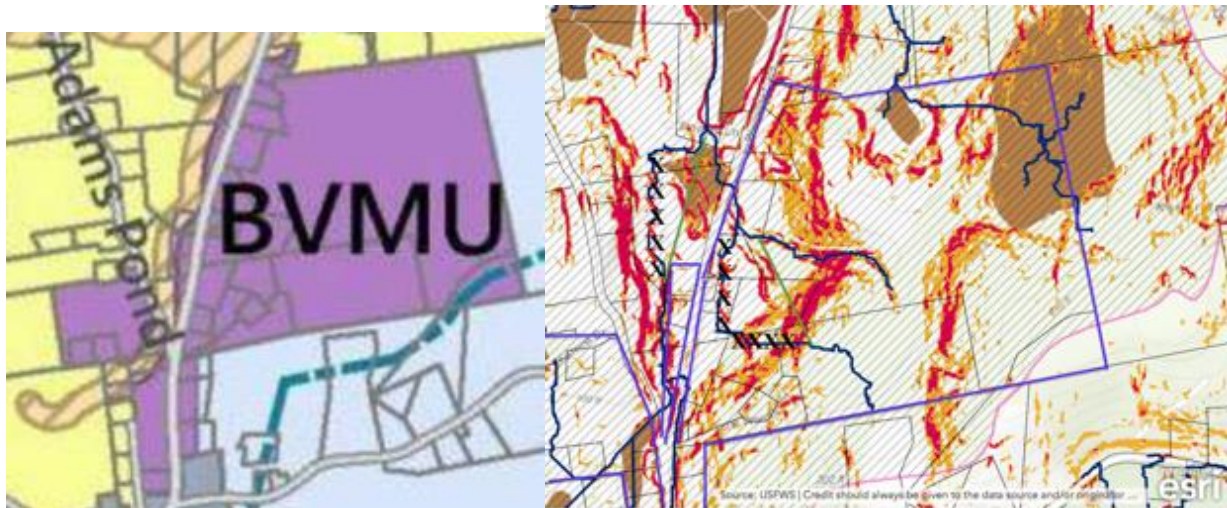
The District recommends that this roughly 23 acres of steep slope and wetland be removed from the BVF and placed in the residential district (dark area highlighted in blue shown below.) This is a small change to the BVF district that would protect water quality.



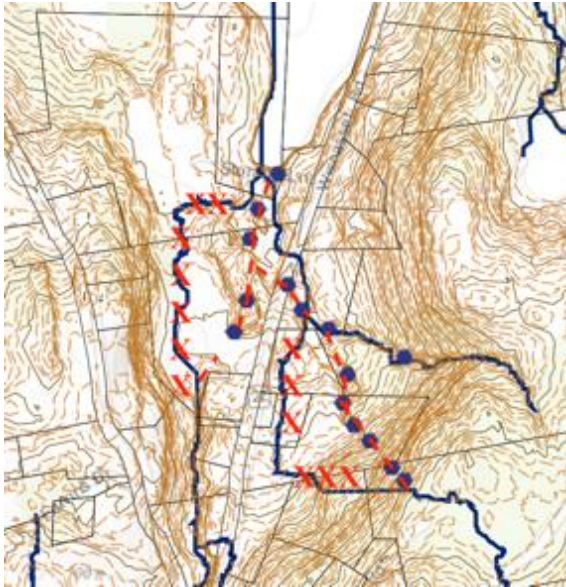
BVMU

The BVMU is roughly 95 acres, all within the Adams Pond watershed. The area to the east of Route 27 is steep and has two streams running through it that empty directly into the main stem stream into Adams Pond. With sewer, 7500 SF residential lots are possible with maximum cover of 50% impervious. This is too dense development for this area from a watershed conservation perspective. The two private roads that currently access this area have severe erosion problems and were not constructed with storm water management in mind. These existing roads are the likely starting points for future development in this area, which would compound erosion/runoff problems.

The District recommends the BVMU east of RT 27 be cut back to about 250' of RT 27 and the rest of this part of the BVMU be moved to the residential zone (everything to the east of the red line in the last map). The zone could be extended a couple of lots to the north and to the south to make up for some of the loss. I realize that this is a big chunk of the BVMU but this is simply not a good area for dense development if protecting the water supply is the goal. The image on left shows BVMU from comp plan, dashed teal line is watershed boundary. Image on right shows same area (outlined in purple), with wetlands (brown), steep slopes (red and orange). Streams are shown by blue lines, but the map needs a couple of corrections. These are shown by green lines that show actual stream course and x's show inaccurate flow lines that will be removed from map.



This map shows a closeup of the more accurate depiction of streams within the BVMU. The major Adams Pond inlet stream runs under the FD parking lot/entrance on the west of 27 (not behind the FS) and is depicted by the large blue dots and red dashed lines. The stream complex that runs through the BVMU enters this stream between the FS and Storage Lane. The red x's indicate where blue flow lines are not accurate and the actual stream flowlines are shown by blue dots and dashed lines



Proposed change in BVMU boundary: This map shows BVMU boundary (purple) from comp plan east of RT 27. To avoid dense development in steep slope, streams and wetlands, recommend BVMU eastern boundary be moved closer to RT 27 (red line). The boundary could extend a couple lots to the north and encompass entire lots to south to gain a little acreage.

