Three ways exist to replace Mt. Greylock high school's two current wells; hydrofracturing could increase flows

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Two bedrock wells have produced water for Mt. Greylock Regional High School for the past 40 years and many other wells have been drilled near the school, including six Sweetbrook/Sweetwood wells, three deep wells drilled for Clark Art Institute in 2003 and wells serving individual homes.

Well relocation could be accomplished in 3 ways: (1) drill a new well or wells at a site away from the school and parking lots; (2) develop one of the wells drilled by the Clark Art Institute in 2003; or (3) use one of the wells already developed by Sweetwood/Sweetbrook. Each of the approaches could solve the current supply problems, or could be used to augment and "dilute" the slightly contaminated water from the North well.

Pipeline connections to any of these wells would be relatively simple and relatively inexpensive, since bedrock is not known to be within 10 feet of the surface in the area. Present water quality in the wells is mainly unknown, but perchlorate is not likely to be a problem and water quality from the other wells in the area is good. Water quantity is unknown.

The best-producing well drilled during 2003 might yield 10 to 15 gpm, possibly more if hydrofracturing was used to enhance flow. New wells might produce similar or higher flows, but two of the wells drilled in 2003 produced only a few gpm. Drilling, testing, "permitting" and connecting a new well could cost between $20,000 and $100,000, but would likely be closer to the low end of this range unless new roads needed to be built.

All of these wells are finished in bedrock and are cased through 12 to 40 feet of clay or glacial till. Well yields are low to moderate, mainly in the range of 5 to 20 gallons per minute (gpm) and water quality is quite hard, reflecting the underlying dolomitic bedrock.

Yields and pumping rates for the two Greylock wells are not known, but the south (boilerroom) well produced more than the north (gym) well when they were first drilled. Testing in the spring of 2004 showed that both wells were contaminated with perchlorate, in the range of 5 to 9 parts per billion (ppb) for the south well and 1.5 to 3 ppb for the north well. Mt. Greylock officials report they have not used the south well since last spring and that the north well is supplying non-drinking water at present.

There are no reliable reports of perchlorate in other nearby wells. The source of the perchlorate is not known and has not been investigated by the school, nor have techniques for removing the perchlorate from the water or subsurface.

By modern standards both connected wells are too close to the school, to parking lots and to underground storage tanks. The 2003 Source Water and Assessment Report from Mass. DEP priority recommendation was to "Consider relocating the wells to areas remote from petroleum storage and intense activity at the school".

Any new source would need an extensive pump test that would have to be certified by DEP. The Sweetwood/Sweetbrook option has not been investigated, but the 300+ residents and staff use <39 gpm, so the facility's wells have considerable excess capacity at present.