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Subject: Alna Draft Mining Ordinance
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Dear Jim and Cathy,

I have 2 major concerns with mining in Alna that might occur below the current water table.

1. In order to blast and remove ledge below the current water table the mine operator must draw down the water table for the entire duration of the blasting and extraction. That will require constant pumping for weeks because the ground water will continuously try to return to its natural level in the excavation. Blasting will open fissures in the bedrock ledge that will facilitate the ability of the ground water to seek its natural level. So what will this continuous pumping do to the groundwater level in the surrounding area and to those who have potable water wells dependent on a stable water table? The test pumping done by Crooker in January didn't sound to me [as a layperson in this field] as being anywhere of sufficient duration to replicate the "real world" situation.
2. What happens to the groundwater that is pumped from the ground? If it is not to return to the excavation or enter the Sheepsfoot River, it would need to be force pumped back into the ground at such a distance from the present quarry it could be outside the miner's ownership.

My conclusion from these questions is that Alna's Mining Ordinance should have an absolute prohibition on quarrying and blasting within 5' of the water table.

I have read the sections of the Zoning Ordinances in two towns that have extensive histories with extraction, Quincy MA and Barre VT and have some recommendations for the mining ordinance you are drafting;

1. Any mining activity must not lower the water table on adjacent property
2. Restore/reclaim the site progressively as the extraction proceeds
3. A before and after plan of the site be prepared by a civil engineer showing contours and vegetated cover
4. Each year of activity requires a performance bond and a permit that; indicates method of removal, hours of operation, operation of removal trucks including path of transit and limitation on size and weights, area, depth, and contours of excavation, distance to lot lines, finished grades, areas receiving gravel fill, loam and plant materials, permanent disposal of boulders and tree stumps

I note that open extraction pits are considered, in lawyers' language, "attractive nuisances". Over the years, the water-filled quarries in Quincy have experienced several drownings reported in the Boston newspapers.

Thank you for your work on this.

Brett

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