

# Rockhouse Mountain Property Owners Association

September 10, 2010

Stephen Roy  
Department of Environmental Services  
Drinking Water and Groundwater Bureau  
29 Hazen Drive, P.O. Box 95  
Concord NH 03302-0095

Re: Letter of Deficiency # DWGB 10-135

1. By September 14, 2010 submit to DES an assessment of the present water demand at the system and an estimate of the future water demand at the system assuming full build-out of all possible connections:

The Rockhouse Mountain water system originated in the late 1960's early 1970's as part of a development called Edelweiss that encompassed land located in both Madison and Conway. In 1978 the developers, Great Northern Land Company, having sold most of the lots, announced that they were leaving and turning over the commonly held assets to the property owners association, which at that time was the Edelweiss Property Owners Association. At the time of the transfer there were numerous houses in Madison and 6 houses in the Conway section. The Edelweiss Property Owners Association went on to form the Village District of Edelweiss which provided services to the Madison section, but left the Conway section on its own. Because the water system was one system, the Village District was required to sell water to the Conway residents. By the mid 80's The Village District of Edelweiss was experiencing serious water problems and had placed a moratorium on new connections, and was particularly not interested in new connections in Conway, There were 12 houses in the Conway section at this time. In 1979 the owners in the Conway section formed the Rockhouse Mountain Property Owners Association to attempt to provide services to the Conway section of the development. In 1988 The Rockhouse Mountain Property Owners Association entered into an agreement with The Village District of Edelweiss to take over the Conway section of the water system, which at that time consisted of 2" pipes in the streets, A 30,000 gallon storage tank, a mid system pumping station, but no water sources. The agreement with the Village District called for the RMPOA to purchase water from the Village District until we could obtain our own water sources.

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In 1991 we drilled the 1171 ft. #1 bedrock well with a sustained yield of 13 GPM on land to which we had gained an easement. In 2001 we added the #2 1205 ft bedrock well with a sustained yield of 13.5 GPM in the same easement area and added a 12,000 gallon storage tank, that replaced the existing tank, making the system fully gravity fed. In 2004 we replaced a substantial section of 2" main with 6" main at a cost of \$88,000 dollars. In 2005 we replaced another section of 2" line with 6" line at a cost of \$70,000 dollars and in 2006 we completed another section of 2" line replacement at a cost of \$83,000.00. In 2008 we installed an additional 20,000 gallon storage tank at a cost of \$60,000 dollars. In 2009 we submitted an application to the State Water Revolving Fund for assistance in obtaining an additional water source. In the spring of 2010 we met with the water division hydrologist, to evaluate potential sites that were not in the existing easement area and were not bedrock wells. In July 2010 we again applied for assistance from the State Water Revolving Fund.

In late June 2010, for the second time in 6 months we experience a substantial drop-off in production of the # 2 well. That coupled with a heavy summer weekend demand that drained our 30,000 gallons of storage, forced us to request emergency approval to drill a third bedrock well in the existing easement area, # 3 well at 750' which is currently operating under interim approval.

There are currently 100 houses actively using the Rockhouse system. 55 are full time homes with 45 vacation homes. Average usage varies both by season and by day of the week. Heaviest demand occurs from May through September, and on weekends. There are substantial up-ticks in usage at Christmas, New Years, Martin Luther King Weekend, February school vacation and Columbus Day. Average week day usage varies for 10,000 to 14,000 gallons per day. Weekend and holiday usage can increase the demand by as much as 6,000 to 10,000 gallons. There is a potential for 60 additional homes at build-out.

Currently, since the addition interim well #3 we are able to pump 10 to 12.5 gallons per minute on well # 1, 10 to 11.5 gallons per minute on well # 2 and 28 to 30 gallons per minute on well # 3. Using a consumption rate for weekdays of 14,000 gallons, the pumps a currently running for 3 hours and then resting 8 or 9 hours before running again.

## **Anticipated Capacity at Build Out**

The Rockhouse Mountain development consists of 174 one half acre lots left mostly in a forested condition. There are few lawns, and no substantial lawns. A number of lots in the Rockhouse subdivision have been combined, and a few have their own wells, reducing the potential new hookups from 74 to 60.

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A large proportion of the existing homes were constructed in the last 10 years and coincide with the now infamous “housing bubble”. Giving the current building climate, both financial and psychological, build-out is most likely 20 to 30 years or more away. Since we have no way to predict the permanent to vacation home mix that far out, for the purpose of estimates we will assume all homes are full time. Using our high side average daily usage mid week for 55 homes, the per home usage is 255 gallons per day. Using this figure and assuming that all homes are full time, at build out, we would then expect a daily requirement of 40,800 gallons per day. This would require wells that could produce at least 30 gallons per minute on a sustained basis. The current Rockhouse wells are of uncertain sustainable yields, those yields will have to be re-established but it is clear that Rockhouse Mountain will need at least 1 additional well to meet future needs

#### Current Demand:

Weekdays 14,000 gallons per day  
Weekends 20,000 gallons per day

#### At Build Out

At least Daily 40,800 gallons per day

Submitted by: Edgar W. Bisson

President  
Rockhouse Mountain Property Owners Association