Further, its long-term viability and impact on fish populations needs additional study.

The following observations support this overall conclusion:

Liming can only treat certain aquatic situations, mostly lakes, and must be repeated periodically. It is not practical to locate and treat small temporary meltwater pools because of their large number and widespread occurrences. These pools, however, are an important habitat for amphibians and dependent wildlife. The technology for reliably treating high discharge rivers (such as the salmon rivers of the eastern North American coast) is not available.

Swedish experimental liming programs report some success in being able to promote the growth and reproduction of fish populations. However, all results to date are from experiments which have been run for five years or less. The long-term effectiveness of liming to protect aquatic ecosystems is not known. As a result of liming acidic waters, aluminum poisoning of salmon and rainbow trout has been encountered.

No experimental data on liming are available for surface waters containing some of the important sport fish species in North America, such as muskellunge, walleye and bass.

Anthropogenic acidic deposition will alter the original uniqueness of "wilderness" aquatic environments. The additions of neutralizing agents will further modify the character of these ecosystems and will not preserve the "wilderness" nature of these waters.

1.8.2 Terrestrial Liming

The liming of forest lands to neutralize potential acidic deposition effects on terrestrial ecosystems has serious limitations. These include evidence that liming would not prevent direct foliar injury; that under certain conditions lime additions can disrupt important soil biological relationships and adversely affect forests; and that the area coverage required would tend to be so large as to be economically prohibitive.

1.8.3 Drinking Water Supply

Liming techniques have been effectively applied to the treatment of low pH municipal supplies. The per capita costs range from $0.18 to $0.57.