

m e d i a r e l e a s e

Date: 1 December 2003

Subject: **Cloud Seeding – ‘Robbing Peter to pay Paul’ is a common misconception**

Cloud Seeding is a technology that has been used to augment water supply systems worldwide since the 1950’s. In Australia, it has been successfully used in Tasmania for the past 40 years.

Over the last 20 years the technology involved in cloud seeding has advanced significantly and Snowy Hydro is proposing to take advantage of the knowledge and experience of many overseas countries to increase snowfall in the Snowy Mountains during winter storms. No seeding will be conducted if there is the risk of additional rain in the mountains.

A common misconception regarding cloud seeding is to consider the clouds and the atmosphere as a fixed pool of water. This misconception focuses on the view that if we were to remove some of the water in one location, then there would be less water for a downwind location. Fortunately, the atmosphere is a dynamic system and does not behave in this simplistic manner.

Winter cloud systems approaching the Snowy Mountains contain sufficient supercooled (below freezing) water droplets that either fall as snow naturally, or, pass over the Snowy Mountains where they evaporate or pass out to sea because the natural precipitation processes are inefficient.

Cloud Seeding involves lending ‘mother nature’ a hand by making up for the natural deficit of ice nuclei in these inefficient clouds. The identification of clouds that would normally evaporate or move out to sea is done using advanced microwave radiometry techniques, and is a key feature of modern cloud seeding projects and the Snowy Hydro proposal.

Scientific evidence from projects around the world indicates that there is no decrease in precipitation downwind of any cloud seeding projects and in fact, many of the studies show a slight increase. This is because the ice crystals formed by the seeding process survive longer and have a better chance of falling to the surface downwind, than natural cloud droplets, which evaporate sooner or may never grow to precipitable sizes.

Cloud seeding in the few suitable locations in Australia offers the potential to augment water supplies without large capital investments in additional water storage facilities. The outcomes directly and favourably impact our farmers and irrigators, the ski industry and the environment with no practical downsides.