

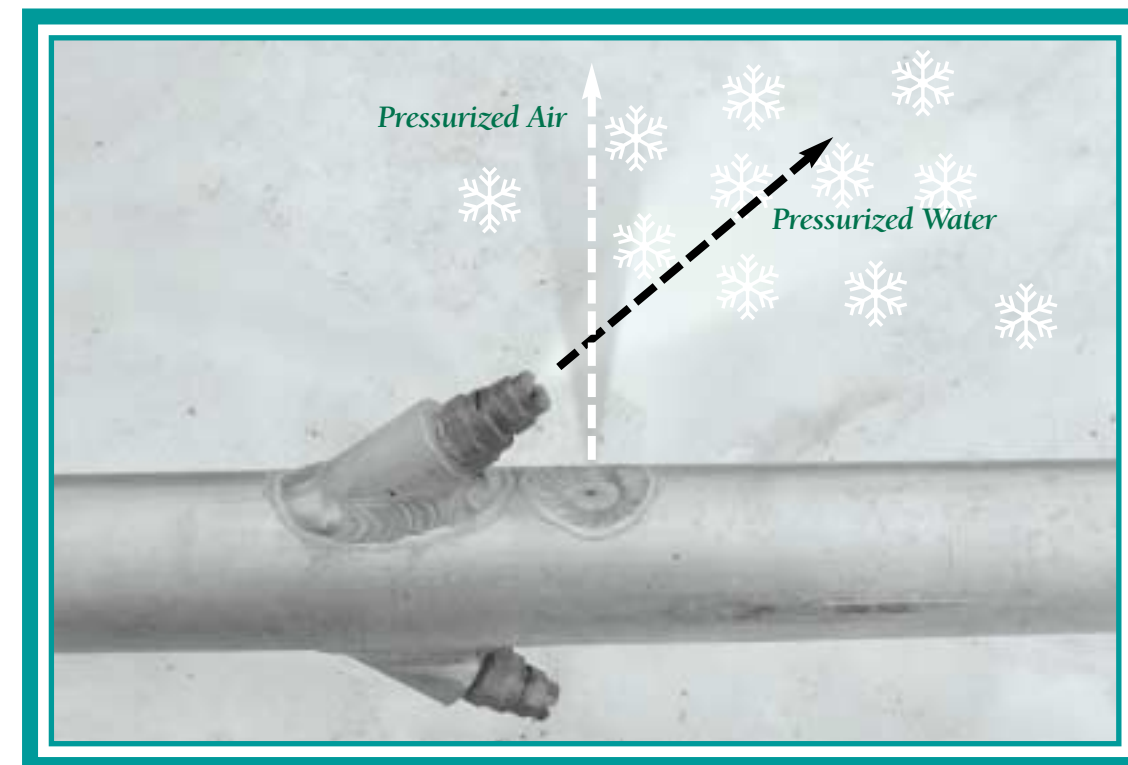


A C L O S E R V I E W O F W A C H U S E T T M O U N T A I N

Snowmaking at Wachusett Ski Area

Many of Wachusett's snowmaking guns are tower guns which can be seen along the sides of the trails. Located at the top of the tower are separate water nozzles and air holes. As soon as the temperature drops below freezing – we can start making snow!

HIGH PRESSURE WATER IS SPRAYED THROUGH THE NOZZLES WHERE IT COMBINES WITH HIGH PRESSURE AIR LEAVING THE SMALL AIR HOLES.



THE HEIGHT OF THE TOWER GUNS ALLOW AMPLE TIME FOR THE DROPLETS TO FREEZE, TURNING INTO SNOW CRYSTALS AS THEY FALL TO THE TRAILS.

The Snowmaking Pond

Located next to the base lodge, the snow making pond was created to intercept the runoff of the snow as it melts and flows down the mountain. The water caught by the pond is used to make snow. This process also helps catch sediment that may come off the mountain and divert it away from Wachusett Lake. The use of the latest in technology ensures the cleanest, quietest and most efficient snowmaking possible. The snowmaking process is a self-contained, miniature water cycle. When the temperature hits freezing, compressed air and water are “shot” from the snow guns mounted on the tall, silver towers – guaranteeing the best possible snow conditions all winter long.



SNOWMAKING AT WACHUSETT IS A SIMPLE PROCESS THAT CALLS FOR THE SAME BASIC INGREDIENTS AS NATURAL SNOW – WATER AND AIR.

Snowmaking on the Mountain

Snowmaking guns along the ski trails pump 100 million gallons of water in a typical ski season. About 40 million gallons of this total came out of Wachusett Lake in the first year of operation. And this amount barely taps the limits set by the water-use contract. This water is said to be actually “rented” by the ski area, since the majority of it ultimately returns to Wachusett Lake – slowly melting and percolating downhill through most of springtime. The entire ski trail network is engineered to detain water and allow it to soak into the surface as much as possible – to recharge the groundwater supply.

The Real Story About Snowmaking at Wachusett Mountain...

How Do We Make Snow?

Pumps located in the back of the base lodge pump over 4,500 gallons per minute of water at pressure over 700 pounds per square inch to the top of the Mountain. The compressor building located on the western side of the main parking lot contains three compressors that produce over 10,000 cubic feet per minute of air flow, at a pressure of 125 pounds per square inch. (The compressors

also produce waste heat used to heat the base lodge -- saving the equivalent of over 4,000 gallons of oil per year!) The air and water is pumped through over 14.5 miles of steel pipe to the snowmaking guns located along the sides of the trails. The high pressure water collides with high pressure air turning the water into tiny particles and launching them into the atmosphere where they freeze as they fall to the ground as snowflakes.

How Much Snow Can we Make?

The snowmaking system can convert over 4,500 gallons of water/minute to snow -- that's enough to cover an entire football field (including the end zones) with 16" of snow every 10 minutes!. The amount of water pumped could fill a standard 16'x32' in-ground swimming pool in under five minutes. That may seem like a lot of water to people who are used to

dealing with a gallon of milk or 10 gallons to fill up a gas tank, but in nature that is a very small percent of what a water shed will receive in a typical storm. The amount of water used by Wachusett Ski Area for snowmaking during the entire season is less than that which falls on the reservation in one two foot snowstorm, and the Wachusett reservation is only a very small part of the entire water shed.

Many free interpretive programs are offered at Wachusett Mountain State Reservation. For information about them or our about guided tours, please call us at Wachusett Mountain State Reservation (978) 464-2987.

