

Grahamstown Dam

Fact Sheet

The Hunter's largest drinking water storage, a critical supply system for Hunter Water customers.

Grahamstown Dam is the Hunter's largest drinking water storage, holding up to 182,000 million litres of water! It provides around half of the drinking water used by Hunter Water's customers, but this can be much more in times of drought and when demand is high in summer.

Grahamstown Dam is an off-river storage that was formed by building an embankment across the outlet of what used to be the Grahamstown Moors between Raymond Terrace and Medowie. Construction began in 1955 and was completed in 1965.

The storage capacity of the dam was increased by 50% in 2005. The works involved construction of a larger spillway at Irrawang and discharge channel under the Pacific Highway.

Grahamstown Dam's Drinking Water Catchment

Safe, high quality drinking water begins with healthy drinking water catchments. With a surface area of 28 square kilometres, the dam receives 35% of its water from rainfall on its surface. It also receives on average 28% from runoff from its own direct catchment. This catchment is made up of forested lands, some small farms and minor developments to the north of the dam, and parts of Medowie.

Williams River Catchment

The rest of the water in Grahamstown Dam, on average 37%, comes from the Williams River. The Williams River catchment is made up of forested and pastoral land with pockets of urban developments and more intensive agriculture including poultry and dairy farms.

Water is transferred from the Williams River at Seaham Weir via the Balickera Canal. The weir is used to separate the downstream tidal

estuarine salt water from the upstream fresh water and to control the upstream water level. At the Balikera Pump Station the water is raised 15m and then continues to travel along the canal and tunnel to Grahamstown Dam.

Hunter Water monitors water quality in the Williams River for nutrients before transferring water to Grahamstown Dam. Like most Australian rivers, the Williams River is highly variable in flow and water quality. These are assessed against pumping rules to minimise the nutrient load transferred to the dam.

Grahamstown Water Treatment Plant

Water stored in Grahamstown Dam is pumped to Grahamstown Water Treatment Plant at Tomago. All water from Grahamstown Dam is fully treated before distribution to customers.

“On a 40°C day Grahamstown Dam loses as much water to evaporation as what it does to consumption.”

