

# Fact sheet Hinze Dam



## About Hinze Dam

Hinze Dam provides a safe drinking water supply to the people of the Gold Coast. It also provides flood mitigation to homes downstream of the dam.

The water from Hinze Dam is treated to produce drinking water and follows the water journey of source, store and supply.

### Source

Hinze Dam is located about 15 kilometres south-west of central Nerang in the Gold Coast hinterland.

### Water supply

Hinze Dam is the main drinking water supply for the Gold Coast region.

The most recent upgrade, completed in 2011, saw the wall raised by 15 metres, doubling the dam's capacity and providing increased water security and flood mitigation.

### Dam infrastructure features

Hinze Dam consists of an earth and rock embankment with a concrete spillway section. It is an ungated dam - when the dam's full supply capacity is reached, water flows over the spillway and safely out of the dam.

Hinze Dam was constructed in 1976 and the dam wall raised thirteen years later. The dam's storage capacity increased from 42,400 million litres to 161,070 million litres with the completion of Stage 2 in 1989.

Analysis conducted by Gold Coast City Council revealed the need for further flood mitigation in the lower Nerang River catchment area to reduce potential flood damage downstream from a 1 in 100 year flood event.

## Key facts

Name	Hinze Dam (Advancetown Lake)
Watercourse	Nerang River
Location	15 kilometres south-west of Nerang
Catchment area	207.0 square kilometres
Length of dam wall	1850.0 metres
Year completed	Stage 1 1976, Stage 2 1989, Stage 3 2011
Type of construction	Zoned earth and rock fill embankment
Spillway gates	Ungated
Full supply capacity	310, 730 megalitres
Flood mitigation	N/A

Raising the dam wall was identified as a priority to increase the dam's water storage capacity and delay the release of floodwaters onto floodplains.

The initial design incorporated the potential for future upgrades, with the expectation there would be increased demand for drinking water supplies on the Gold Coast in the future.

The Stage 3 project was completed in 2011 and raised the Hinze Dam embankment wall by 15 metres, from 93.5 metres to 108.5 metres.

The total storage capacity of Hinze Dam is now 309,700 million litres, equivalent to approximately 820,000 Olympic sized swimming pools.

The project cost \$395 million and is the largest infrastructure project overseen by Seqwater.

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## Flood mitigation

As Hinze Dam is a drinking water supply dam only, its flood compartment is negligible.

The dam is ungated, and flood waters are discharged from the dam over the spillway once the dam has reached its full supply capacity.

## Did you know?

- Hinze Dam is the highest central clay core and rock dam in Queensland.
- Stage 3 of Hinze Dam used 1.8 million cubic metres of rock to raise the dam wall by 15 metres. This used as much rock as it took to build the Great Pyramid of Giza.
- The rock fill used for the main embankment and saddle dams during the 2011 upgrade could fill the Gold Coast's 77 storey Q1 building more than five times.
- More than 77% of the catchment is native bushland and state forest.

## For more information

To book a tour, or to speak to a member of our community education team, contact:

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## Key features of three major dams

	Wivenhoe Dam	North Pine Dam	Hinze Dam
Catchment area (km <sup>2</sup> )	5,554.0	348.0	207.0
Capacity – water supply (ML)	1,165,000	215,000	310,730
Capacity – flood storage (ML)	1,967,000	N/A	N/A
Type of structure and volume (m <sup>3</sup> )	Embankment 4 million, Concrete 140,000	Embankment 275,000 Concrete 175,000	Embankment central core earth and rockfill
Year of completion	1985	1976	1976
Length of wall (m)	2300	1375	1850
Spillway gates (m)	Gated (5, 12.0 x 16.6)	Gated (5, 12.2 x 8.3)	Ungated
Sluice gates (m)	N/A	Yes – 5 (12.2 x 8.3)	N/A
Regulator valves	Yes – 2 (1.5 metres diameter)	Yes – 2 (1.4 metres diameter)	N/A
Average rainfall (mm/year)	940	1175	1354
Hydroelectric station	Yes – 4.5 megawatts	No	No
Major water supply customers	Brisbane, Ipswich, Logan, Gold Coast, Beaudesert, Esk, Gatton, Laidley, Kilcoy and Nanango	Brisbane, Redcliffe, Pine Rivers, Caboolture and other parts of the Moreton Bay Regional Council	Gold Coast