

Leslie Harrison Dam

Spillway gates and water level



Seqwater has owned and managed South East Queensland's large dams since 2008. In 2012-13 we commissioned an independent review of all 26 of our dams which found several, needed improvements to meet the current *Queensland Dam Safety Management Guidelines*. This included Leslie Harrison Dam.

In 2014, the water level in the dam was lowered and the spillway gates were removed to improve dam safety and reduce risk while upgrade works were planned. Following an assessment of all the upgrade options, Seqwater decided to maintain the current full supply level and not reinstate the spillway gates as part of the upgrade. This fact sheet explains the reasons for that decision.



A better understanding of risk

The decision to maintain the current full supply level of Leslie Harrison Dam and not return the spillway gates is based on three important factors:

- A better understanding of extreme flood risks.
- An increased population living and working downstream of the dam.
- Improved water supply security in South East Queensland.

Extreme flood risk

When the dam was designed in the 1960s, and again when the gates were added to the spillway in the 1980s, dam engineers determined the 'probable maximum flood' height using historic flood data. The height of the dam wall must be higher than the probable maximum flood height to prevent overtopping of the dam wall.

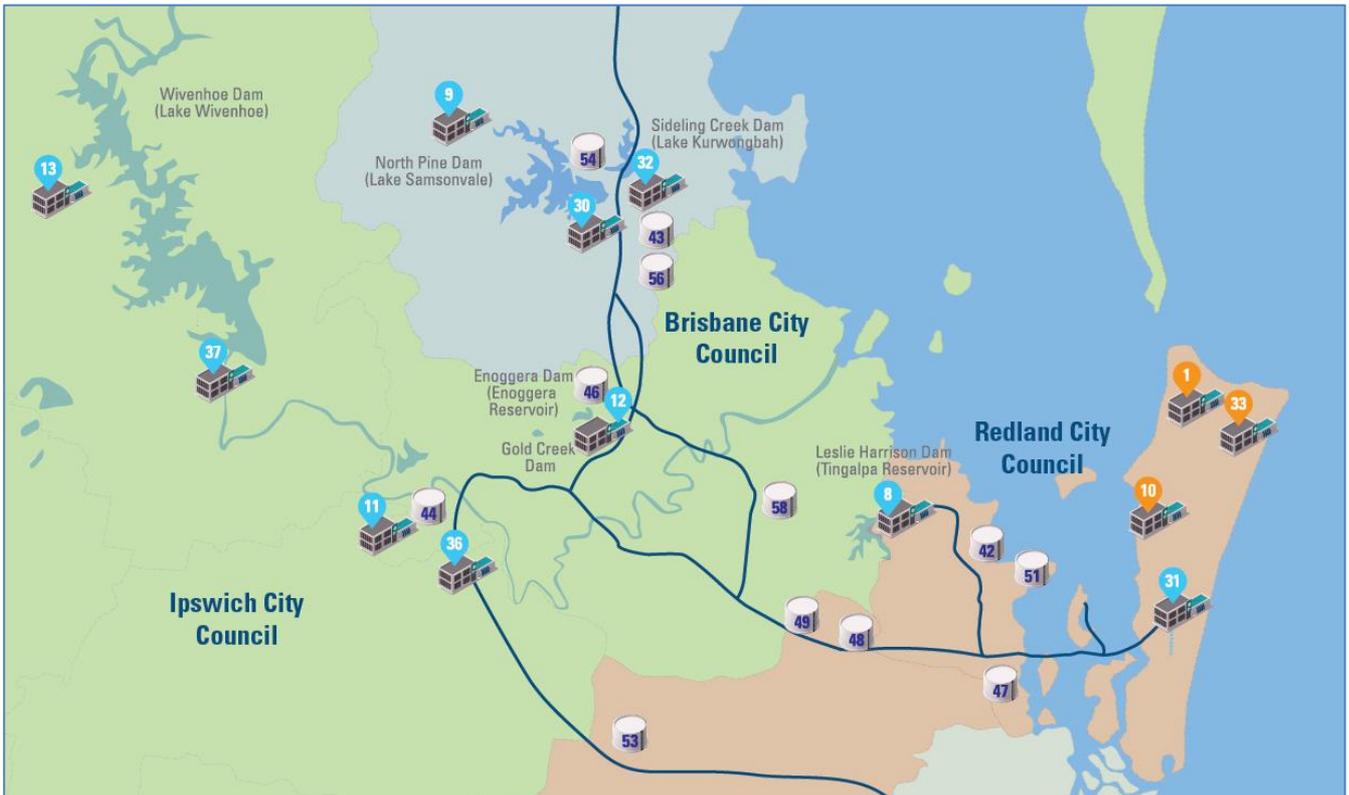
Methods for determining the probable maximum flood height have improved over time. The Bureau of Meteorology now provides statistical data, weather forecasts and climate models not available to dam engineers in the past. As a result, our forecast of probable maximum flood height is now higher, which increases extreme flood risk.

Population growth

When Leslie Harrison Dam was built in 1968 the population of the Redlands was only 12,500 people. Today it is close to 150,000. While the likelihood of something going wrong at the dam is exceptionally low, the large population living and working downstream has significantly increased associated risks. This means we need to be extra vigilant as dam owners and operators. Maintaining the safety of the community must always be our highest priority.



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To see the full SEQ Water Grid map visit www.seqwater.com.au

Water supply

The spillway gates were added in 1984 to increase water supply to a rapidly growing Redlands region. Since then, the Redlands has been connected to two new water supplies; the North Stradbroke Island aquifers and the SEQ Water Grid. With three water source connections, Redland City has a high level of water security outside of severe drought conditions, now and into the future.

Leslie Harrison Dam provides 2.5% of the SEQ water supply, 20% of the Redland City water supply and up to 100% of supply for northern parts of the city. It will remain an important part of the SEQ Water Grid and the Redland City supply into the future.

Returning Leslie Harrison Dam to the previous full supply level would have very little impact on future water supply security for either the Redlands or South East Queensland, but the additional cost would likely impact residential water bills.

To return the previous water level we would need to raise the height of the dam wall by 3m and acquire neighbouring properties at a cost of over \$18 million.

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