

The alternatives to raising Warragamba Dam wall

While flood-risk is an important issue facing western Sydney, **raising Warragamba Dam will not prevent flooding in the Hawkesbury-Nepean Valley** and is an inadequate solution to managing flood risk. Half of all historic flood waters have come from catchments outside of Warragamba Dam¹. This means that even if Warragamba Dam wall is raised, other catchments would still cause significant flooding in western Sydney.

In addition, the NSW Government have said they want to place an additional 134,000 people on western Sydney floodplains after the Warragamba Dam wall is raised². Housing more people on the floodplain will put thousands more lives at risk when floods occur and will only add to the serious congestion problems facing western Sydney.

However, flood risk needs to be addressed in the Hawkesbury-Nepean Valley so existing communities are safe from floods. Australian National University has identified four alternatives:

1. Stop putting people in harm's way

- Ensuring people don't live on flood-prone lands will save lives and property damage when floods occur. As no dam can stop all floods, placing people in flood-prone areas is dangerous. NSW planning regulations still allow people to be housed in extremely flood prone areas below the 1:500 year flood limit. This is far from international best-practice, with the Netherlands adopting a 1:1250 year flood planning limit, and the USA a 1:500 year limit.

2. Improve Evacuation Routes and Flood Forecasting

- Effective evacuation is the only measure which guarantees reduced risk to life in the Hawkesbury-Nepean Valley during flood events. Flood evacuation roads would also solve congestion problems in western Sydney during dry times.

3. Relocate the most flood prone residents

- Engaging in a buyback program of the 5000 houses which lie under the 1:100 year flood level is important option. The government's \$3.3 billion price-tag for relocation is a misleading figure, as it does not properly consider the potential figure saved in flood events, as well as economic benefits that 'freeing up' the floodplain can bring.

4. Alternative flood storage in Warragamba dam

- Lowering the full storage level by 12m would free 795 billion litres of airspace for flood control. Combined with flood forecasting to manage the level of the dam, this would have no upstream environmental impacts, and would increase Sydney's water security when consolidated with operating desalination plants and water recycling. UTS research shows this would likely be a cheaper option than raising the dam wall³.

For more information, head to www.giveadam.org.au

¹ NSW SES, Hazard and Risk in the Hawkesbury-Nepean Valley. Average of major flood sources, pg. 105, Available online: <https://bit.ly/2NVybK9>

² Infrastructure NSW (2017) Resilient Valley, Resilient Communities: Hawkesbury-Nepean Valley Flood Risk Management, p.19

³ Jamie Pittock (2018) Managing Flood Risk in the Hawkesbury-Nepean Valley, Australia National University