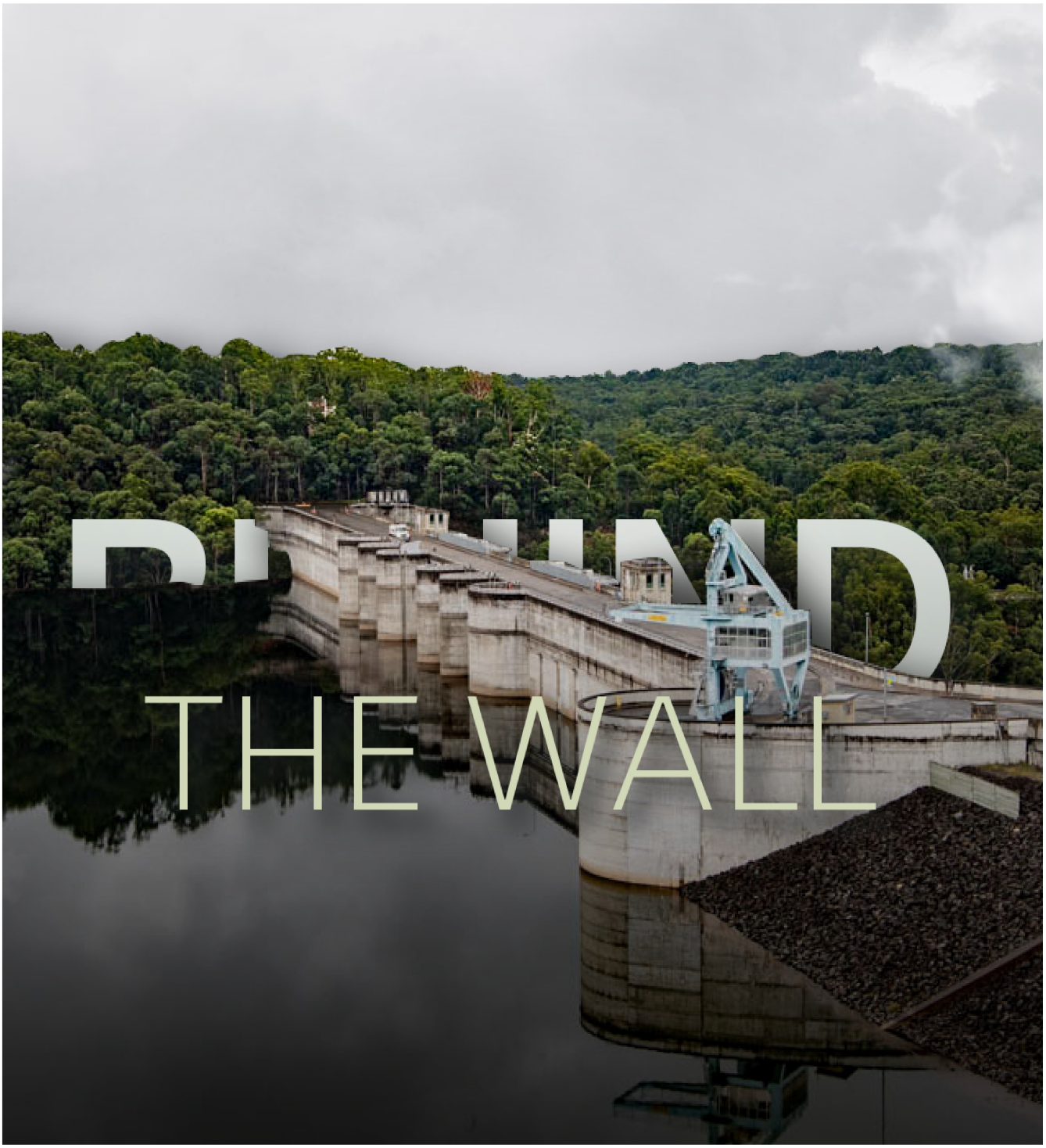

When the levee breaks

Some say the Warragamba Dam wall needs to be raised to help prevent the devastating floods seen in Sydney this week — but there is a cost upstream too.

By Michael Slezak and Penny Timms

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Almost 150 years ago, a torrent of water poured out of the Blue Mountains and filled western Sydney like a bathtub.

Floodwaters rose to nearly 20 metres in some areas, with the high-water line still marked at some parts.

Over the years serious — albeit smaller — floods have hit Sydney several times.

This week was one of the worst ever seen.

But as bad as the latest flood is, 1867, by comparison, went even higher.

Almost 100 years later the Warragamba Dam was built.

It was never intended to be a flood mitigation dam. Its purpose to provide 80 per cent of Sydney's drinking supply.

When not full, it can mitigate floods by catching some of the rainwater that would otherwise flow into parts of western Sydney.

But when the dam is full and overflowing — like it was this week — it offers no protection.

Pouring trillions of litres into the basin below.

Leaving devastation in its wake.

And it's almost inevitable that one day a flood as bad as 1867 — and worse than this week — will come again.

Every year, there's thought to be a 0.2 per cent chance that will happen.

Development in the floodplain has since exploded: 134,000 people live and work in the area, and that's expected to double in the next 30 years, according to Infrastructure NSW.

So the NSW government is charging ahead with a radical plan — an idea which, in some form or another, dates back at least to the 1990s — to raise the wall of the dam by between 14 and 17 metres.

It says the move will protect lives and property and would have slowed the peak of the floods this week, likely saving some homes and businesses. Some experts disagree.

But to protect those living on the floodplain there is a cost upstream.

Upstream, pristine wilderness is at risk. *ABC News: Brendan Esposito*

With a higher dam wall, thousands of hectares of unique World Heritage bushland will be flooded, and according to government documents obtained by the ABC much of that will be severely damaged.

Thousands of sites of Aboriginal importance are also in the development's path.

The United Nations World Heritage Committee has warned the project would threaten the World Heritage status of the Blue Mountains, risking what's known as its "Outstanding Universal Values".

And traditional owners have compared it to a potential Juukan Gorge catastrophe.

But for the minister driving the project, Stuart Ayres, it's a matter of lives versus heritage.

"We've got to trade off some environmental impact to be able to protect properties downstream," Mr Ayres says.

He thinks recent flooding carries important lessons that can't be ignored.

"This is nature's warning that you have to be prepared, you have to get ready and you have to take flood mitigation in the Hawkesbury-Nepean seriously."

But others believe there's another way.

To show you what's at stake, we have to travel a long way into the wilderness.

Into an area of enormous global significance.

Far beyond the dam wall.

‘The things that will be lost’

This is Gandangara country, in the NSW Southern Highlands.

The Indigenous people of this land have been displaced before.

To make way for the original dam to be built in the 1950s, Kazan Brown’s grandmother was forcibly removed from her land.

Her home is now at the bottom of Lake Burragorang — the artificial lake created by Warragamba Dam. An area with thousands of culturally significant sites and artefacts.

Now, Ms Brown fears history is on the verge of repeating itself.

“If the wall’s raised, once we have the first flood, there’ll be burial sites, there’ll be art sites, scar trees, campsites, shelters, all sorts of things that will be lost,” she says.

Kazan Brown would instead like the government to consider alternative options.

“People think [the raising of the wall] is for extra water supply for Sydney, but it’s not. It’s for development and flood mitigation.”

“There’s got to be a better way.”

Ms Brown's daughter, Taylor Clarke, 23, is studying law, and determined to protect her culture.

She worries deeply about the loss of even more of her family's heritage, and its impact on connecting with culture on-country.

"If that's gone, it'll never be real to my kids and it'll never be real to my grandkids," she says.

"That's where the connection is built."

One of the last wild rivers

Tracking further west, the bush becomes dense.

Deep in the Australian wilderness, but right on Sydney's doorstep, it is an area of enormous global significance, protected by the United Nations as World Heritage.

It's also home to the Kowmung — one of the last official "wild rivers" in NSW.

Avid bushwalker and prominent ecologist Roger Lembit has been coming here for more than 40 years.

When he was in his 30s he was diagnosed with leukaemia.

He would meditate, imagining he was here, on its banks.

"In some ways, it was better than a painkiller because it just took my mind off the other things that were happening to me, it is part of the reason why I'm still alive."

of the reason why I'm still alive.

When the NSW government wanted to raise the dam in the 1990s, he was hired to assess the environmental impacts — impacts he documented that saw the project ultimately shelved.

If the dam is raised, he says, water will back up along these banks during floods.

Mr Lembit says inundation could last up to two weeks, a timeframe which would likely have a permanent ecological effect.

"Last time, [in the 1990s] these sorts of issues were brought to the attention of the [Carr] government," he says.

"It decided not to proceed partly on the basis of the significant environmental impacts that were going to be caused."

The proposal

The government has not yet released the environmental impact statement (EIS) for the dam-raising project, despite promising it more than two years ago.

Leaked drafts of the EIS, obtained by the ABC, reveal widespread and severe impacts are predicted along the unique upstream environment in the Blue Mountains World Heritage Area.

Take the critically endangered regent honeyeater. It's thought there could be as few as 200 of the small birds remaining.

Many forage and breed in habitat that the draft EIS found would likely be destroyed by the dam-raising project.

It found up to half the remaining population could be impacted.

The expert ecologists writing the draft EIS also warned temporary inundation would cause permanent damage to the environment.

So extensive are the projected impacts to endangered plants, animals and ecosystems, that the compensation bill for the government — the amount it could be required to pay to "offset" the damage — amounts to $2.88 billion in a draft assessment from 2019.

NSW Minister for Western Sydney Stuart Ayres argues the government doesn't need to pay that bill because the inundation is temporary and only occurs during big floods, despite the ecologists saying the impacts would be permanent.

According to Roger Lembit, that assessment "makes no sense whatsoever".

"It sounds to me like a scientific fraud," he says.

The choice

Mr Ayres says the recent floods serve as a warning from nature that things need to change quickly.

And he's clear about the trade-off involved in raising the dam.

"There's no doubt there'll be an impact on ecosystems and environment," he concedes. "We also know the bush is resilient and it will regenerate.

"Ultimately, this is a going to be a choice about where you store floodwater; either behind a flood mitigation dam wall or whether it's in people's living rooms."

Flood damage in a lounge room in western Sydney this week. *ABC News: Brendan Esposito*

Mr Ayres says the government has considered other flood mitigation options, including blasting open Sackville Gorge, in the nearby Hawkesbury River, which acts as a chokepoint for escaping water.

"[But] the best performing option was increasing the height of the dam wall," he says.

Hawkesbury City councillor Nathan Zamprogno also supports the raising of the wall and believes it is a necessity to keep his community safe.

This week he watched as the newly built Windsor Bridge — built several metres higher than the old bridge — was covered by water for days.

Homes and businesses were destroyed. And in other parts of the state, lives were lost.

“What’s missing from this debate is the voice of people most at risk,” he says.

Michael Micallef is one.

Michael Micallef had to kayak around his property after this week's floods. *ABC News: Brendan Esposito*

His house in Pittown flooded and "basically became a houseboat".

"It was surrounded by water — it came through the walls," he says.

"We were stuck inside because we couldn't get in the back or front. So we put the kayak in to get out."

He lost carpets and furniture, and his neighbour's house was flooded by more than a metre of water.

But the community quickly pulled together to support him.

Mr Micallef says it has been hard, but with the waters receded — and people coming together — the mood is improving.

According to Nathan Zamprogno, this week is an example of how the economic and environmental costs of raising the dam wall are a small price to pay for the safety of his community.

> “You’ve got to balance these things wisely, and I don’t believe the people who are opposed to this project have done that in a way that’s fair.”

Yet many opponents of the project fear it would lure people into a false sense of security that the valley is safeguarded against floods.

There are also fears the project would be used to justify further development of the floodplain, something the government denies

Is there another way?

As the debate rages on, other alternatives are quickly being brought into focus.

Shortly after the Juukan Gorge catastrophe, the Insurance Council of Australia withdrew its support for the Warragamba project, calling "for the exploration of alternative mitigation options to reduce flood risks".

Kazan Brown thinks they were spooked by the blowback Rio Tinto received after destroying the Juukan Gorge caves, and worried they would invite something similar.

Similarly, since the floods this week, NSW Emergency Services Minister David Elliot, Deputy Premier John Barilaro and Premier Gladys Berejiklian have all emphasised the need to consider other options.

In 2019, the government released an "options assessment" that concluded raising the dam had the highest "net benefit". In other words, it was the most cost-effective option.

That assumed the project would cost $690 million. But documents released under FOI laws suggest the construction could cost as much as $1.6 billion.

And the leaked draft EIS documents show compensation for environmental damage could add nearly another $3 billion.

Dam wall compensation bill revealed

Leaked documents show the NSW government tried to avoid paying nearly $3 billion for environmental damage expected to occur as part of its plan to raise the dam wall

Chief among the alternative options raised by several government ministers this week is to use the existing dam as flood mitigation by leaving the top 12m empty.

It means plans for desalination plants would need to be accelerated to make up for the shortfall.

Jamie Pittock, a water management expert at ANU, says the most important thing to do is to stop development in the floodplain.

“I would really rather see that money invested in a permanent safety solution of moving people out of harm’s way,” Professor Pittock says.

Back along the Southern Highlands, Taylor Clarke worries raising Warragamba Dam will result in the loss of even more of her traditional lands and the continuation of traditions that have survived for tens of thousands of years.

Taylor Clarke is fearful of losing her connection to her country. *ABC News: Brendan Esposito*

"As I stand here and have that whole picture and have that wash over me, I think what I feel is sadness and disappointment," she says.

"I will continue to fight this until we win, but I'm disappointed this is what it's come to and that the importance of this doesn't mean anything to the people who are making the decisions."

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