Who is Responsible for Infrastructure in Flood Prone Land Downstream of Warragamba Dam?

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Summary

The floods earlier this year have resulted in many questioning who is responsible for infrastructure being built on flood prone land, and how it can be stopped, given the resulting devastation to homes and business. The *Environmental Planning and Assessment Act* establishes the framework for provision of Environmental Planning Instruments ('EPIs') which set out how land can be used for development purposes by dividing land into different land use types, called 'zones' . The EPI determines what type of developments can occur on different 'zones' within each of Councils Local Government Area's. This includes provision for what can and cannot be built on flood prone land. There are two different types of EPIs being Local Environmental Plans ('LEPs') and State Environment Planning Policies ('SEPPs'). These, in conjunction with developers building on flood prone land and the unique constraints associated with Warragamba Dam, have contributed flooding in areas within the Hawkesbury Nepean catchments.

Introduction

This article considers the authority and manner in which land is zoned and as to the framework that allows homes to be built in places of flood prone land. Floods affect the structure of the land, people, their belongings, flora, fauna and livestock, and often pollute waters. In 2015 it was estimated that two to three percent of homes are situated in frequent flood zones and fifteen percent are susceptible to flood. The amount of homes constructed on floodplains is continuing to increase as the population increases, this is despite the damage, inconvenience and environmental impact of flood water.

The series of 'one-in-a hundred' year floods that have occurred over the last three years have shifted the community's attitudes toward developments in flood plains and has left many individuals and businesses questioning the authority and manner in which approval is provided to build infrastructure in these locations?

How Zoning on land works

Environmental Planning Instruments ('EPI') specify what kind of developments are allowed in an area. The *Environmental Planning and Assessment Act* ('EP&A Act') allows two types of EPIs to be made, Local Environmental Plans ('LEP') and State Environment Planning Policies ('SEPP'). LEP's deal with the Local Government Area ('LGA') and SEPPs deal with specific types of places and/or locations like coastal wetlands.

The zoning of land is published in a Councils LEP and is subject to their controls. On 15 December 2021 the NSW government published the new LEP Making Guideline. In this

guideline, a matter required for consideration when making an LEP is the likely environmental effects of the planning proposal including natural hazards such as flooding and bushfire hazards.

Amendments to LEP's and zoning are completed through a planning proposal. Pursuant to division 3.4 of the EP&A Act a local plan-making authority, being Councils and Ministers, can make a planning proposal for gateway determination under Division 3.4, s 3.34. The Minister will then make a gateway determination and the planning proposal will be put up for public exhibition. The outcome of that public exhibition will be shared by the planning proposal authority. If authorised, the local plan-making authority will amend the LEP and DCP.

Difficulties for Buyers

There is a conflict between the expanding population and people wanting to remain close to the city which increases the demand for land in this areas and is resulting in the development of infrastructure in flood risk areas.

Buyers of flood prone land are notified of the likelihood of the property flooding when buying property, as part of the usual investigations that are undertaken by a prospective purchaser. However there appears to be a misunderstanding as to how the frequency of flooding is measured and its associated impact on lower purchase prices which encourage buyers to purchase in flood prone areas. The likelihood of land flooding is measured by the likelihood of a flood occurring in x amount of years, for example 'one in 100 years' or 'one in 50 years.' This leads people to apply a literal meaning and assume their property will flood once in 100 years.. However, this is not its intended scientific meaning.. Some experts have suggested that instead of naming it 'one in 100 years', it should be rephrased to be a one percent chance per year to be more accurate as that is the real likelihood.

The Impact of Warragamba dam on Flood Prone Areas

In addition to the determination as to zoning and the responsibility of buyers, Warragamba Dam itself has an impact on flooding. Warragamba Dam was built in 1960 and was intended to be used as water supply for Sydney. However, it also acts as a mitigation system for flooding. Water is released by the gates opening prior to an expected overflow, or once the dam has overtopped. Once the water is released, multitudes of water flow downstream into places like the Hawkesbury-Nepean river systems. The Environmental Impact Statement prepared in September 2021 stated that the Warragamba Dam catchment contributes up to 70% of flows during flooding in the Hawkesbury-Nepean.

Warragamba Dam is owned by Water NSW, an agency of the Government of NSW. Since its opening, the dam has spilled about 50 times, raising water levels downstream. Appeals for the dam to be raised have been on the cards for decades but fears of destruction of indigenous land and opposition have limited the implementation of raising the dam wall.

A proposal by the NSW Government has been made to increase the height of the wall due to the significant impact that the water from Warragamba dam has on land downstream once it

overflows. A significant response has been received through submissions and so the proposal to increase the height of the dam wall will be assessed as state significant infrastructure. Recently the NSW State Premier Dominic Perrottet declared the Warragamba dam raising as 'critical', stating that the priority is to protect the NSW communities. The classification of Critical State Significant Infrastructure means that it will be a project that is a high priority infrastructure project essential to the state for economic, social or environmental reasons. The development application is currently in the 'response to submissions stage'.

Warragamba Dam is within the Wollondilly Shire Local Government Area. It does not have authority over whether or not the dam wall is raised, but it will have an influence and their objections are considered.

Wollondilly Council and the nearby Blue Mountains City Council, have both formally opposed the NSW Governments recent proposal to raise the dam wall. The basis of their objection goes to the potential loss of aboriginal sites surrounding the area of Warragamba Dam if the water rises, as it would damage and change those sites. Similarly, there are concerns because if the water rises and affects the surrounding Blue Mountains Heritage Ares, the UNESCO World Heritage Listing may be destroyed, which is of international significance. There is also potential of extinction of some flora and fauna, including the honeyeater bird, and the destruction of the nearby wild rivers, which are protected under the *National Parks and Wildlife Act 1974*, which may be ruined with the impact of waters from Warragamba Dam. The quality of life for local residents and their concerns also have an impact on the Councils opposition. However, there are Councils who are in favour for the Dam wall being raised including the Hills Shire Council and Hawkesbury City Council. Both of these Councils are of the view that the wall needs to be raised to minimise the risk of flooding downstream, which are in their own local government areas. Their reasoning is to protect and minimise the risk of flooding which has significant negative impacts on the housing of the local population, pollution in the waters caused from the heavy flows of the floods, the impacts and changes to land that the floodwaters create and impacts on flora and fauna surrounding the rivers downstream from Warragamba Dam.

Conclusion

The layers of accountability for damage to land, houses, people and waters are multifaceted. The risk based approach outlined in the 2021 LEP making guideline aims for and should limit future developments in areas that have a high risk of flooding. In conjunction with this, developers and new buyers are expected to be more hesitant to buy in such locations due to the knowledge of the recent floods and this will hopefully reduce the impact in the future. The next steps of the approval process will indicate whether the application for the dam to be raised will be passed.

For more information on land zoning contact the Matthews Folbigg Local Government team on 02 9635 7966 to speak with one of our Local Government lawyers.