



FACT SHEET 2:

Don't raise the Dam

The Impact of Floods

FLOOD CONTROL measures to protect the Hawkesbury-Nepean Valley can be established far more effectively and more cheaply than by raising the height of Warragamba Dam (see also Fact Sheet 1 - The better alternative).

Less likely than the next ice age

The proposed flood mitigation dam is intended to control floods up to the level of the 'Probable Maximum Flood' (PMF). Forecasters believe a flood of this magnitude may occur, on average, once in 100,000 years. The last ice age was 10,000 years ago so the risk is about a tenth as great as that posed by a recurring ice age. As life of the dam is only 200 years, this supposed solution is an example of engineering overkill on a grand scale.

Almost everything we do in life poses a greater risk than flooding — swimming at the beach, working, driving a car, eating out. The Government does not spend hundreds of millions of dollars protecting us from the consequences of these activities. Yet any one of them poses a greater risk than a one in 100,000 years flood in the Hawkesbury-Nepean valley.

Nothing but a half measure

The increase in height by raising the dam wall can stop only half the floods entering the Hawkesbury-Nepean River. The other half come from the seven tributaries **downstream** of the Warragamba Dam. These are the Nepean, Grose, Colo and Macdonald Rivers, and the South, Eastern and Cattai Creeks.

The total catchment of these rivers is 8,340 square kilometres, compared with 9,050 for the Warragamba catchment. Although the Macdonald and Colo Rivers enter the Hawkesbury downstream of the floodplain, they increase the magnitude of upstream flooding by preventing the escape of floodwaters.

Seeing benefits through rose tinted glasses

Infrastructure NSW has created the impression that 50,000 people will be protected from flooding if the dam is raised. Yet, almost as many people would be inundated if a flood of maximum magnitude occurred after the proposed raising of the dam wall.

Putting the dam before the plan

Poor flood plain management is one of the on-going major reasons for the current flood problems in the Hawkesbury Nepean Valley. Local councils have even permitted development in areas below the one in 100 years flood planning level. Yet previous State Governments have known for at least 35 years that the current flood planning level actually floods, on average, once every 70 years.

Comprehensive floodplain management, coupled with safeguards such as a comprehensive evacuation plan and using the existing dam for mitigation, would provide adequate protection far more cheaply. Such a plan could be implemented with the money saved with the Don't Raise the Dam alternative proposal. These measures would still be required even if the dam was raised.

Raising the dam will increase flood damage

One serious result of raising the dam will be the overwhelming temptation by various authorities to release significant areas of low lying rural land for urban development. At present, construction on land below the one in 100 year flood level is prohibited.

Sydney Water has estimated that if the dam were raised, floodwater management would reduce the height of a one in 100 year flood level by 3.4 metres at North Richmond, and 4.9 metres at Penrith.

There is the very strong political possibility that future State Governments could make land between the current one in 100 year flood line and the new one in 100 year flood line available for urban expansion.

Such a change would permit up to 100,000 new homes to be built around suburbs such as Londonderry, Castlereagh, the ADI site, Penrith Lakes, Riverstone, Berkshire Park and Windsor Downs on the floodplain. Such development would still be vulnerable to any flood higher than the revised one in 100 year flood level, increasing the cost of flood damage by several billion dollars.

Many properties will remain unprotected

Despite the increase in the height of Warragamba Dam, many properties will still be flooded **every time** there is a major flood. This is one estimate:

- 1 in 5 year flood - 117;
- 1 in 100 year flood - 437;
- 1 in 200 year flood - 1,333;
- 1 in 1500 year flood - 7,100.

(Source: Mitchell McCotter, 1994).

Even with the proposed flood mitigation the average cost of flood damage still would be \$9 million a year (1994 figures). The cost of damage from a flood as big as the one in 1867 would be \$2 billion. Even if the dam were raised, the cost of a flood of this size would be more than \$1 billion.

The Don't Raise the Dam alternative of re-location of properties from flood prone areas would reduce the cost of flood damage. The Don't Raise the Dam campaign maintains that voluntary purchase and relocation of properties to higher land using some of the savings of \$500 million is a better and cheaper option.

Don't let Infrastructure NSW sell you a lemon. Better and cheaper alternatives will provide dam safety and flood mitigation.

For more Information, phone Don't Raise the Dam on (02) 9261 2400 or write to the Colong Foundation, Level 2, 322 Pitt St, Sydney, NSW, 2000

