SUBMISSION - FAR NORTH COAST WATER STRATEGY

OBJECTION TO THE DUNOON DAM

I object to the Dunoon Dam due to the irreversible ecological impacts and that the use of offsets to mitigate damage will fail as they have in other development projects. Their failure is indicated in the fact Australia is a leader in extinction, as the use of offsets has made no positive impact on threatened species numbers, and the conservation status of the koala and platypus are testament to that.

The proposed dam will have a large cultural heritage impact. The 2011 Cultural Heritage Impact Assessment (CHIA) document provides overwhelming proof that this particular valley is of major significance for the Widjabal-Wiyabal people. The cultural meaning of this place is apparent not just in the artefacts and burial sites but in the ongoing living connection that the local people have with this landscape.

In 2013, when the dam was shelved, the Technical Report of that year noted that the dam was constrained by significant environmental and social impacts, high capital cost, and the fact that it was ‘highly climate influenced” (p52).

By the time the 2020 Future Water Coarse Options Assessment was completed in March 2020, these concerns were being downplayed significantly.

Nevertheless, the assessment did manage to establish that there would be impacts on plant species that cannot be mitigated:

- Loss of Lowland Rainforest Endangered Ecological Community
- Loss of threatened fauna habitats
- Loss of threatened flora species
- Severance of local wildlife corridors

According to the TEIA, there are 62 ha of Lowland Rainforest Endangered Ecological Community (EEC) on the site. This represents 6.6% of the remaining 940 ha of the original Big Scrub. Only 1% of the Big Scrub now remains, much of it in small, dispersed patches. There are calls from all around the world and Australia, from ecologists and scientists that we need to protect our biodiversity and natural places.

Even Antonio Guterres, the Secretary General of the United Nations, is calling on the world to reverse the biodiversity crisis.

The proposed dam would destroy 34 ha of the lowland rainforest on site, or 3.6% of the remaining Big Scrub. This is a very significant amount to destroy from such an important regional forest.

Subtropical rainforest is the most developed and most diverse of the NSW rainforest types. It is found on the most nutrient-rich soils with plenty of moisture and good drainage. This is the best soil for agricultural use which is why this type has been so extensively cleared in the past. The last 3 years has seen a 60% increase in land clearing across NSW.

The subtropical rainforest at the site occurs in two main belts, totalling 55 hectares. The estimate of 28 ha of this rainforest to be lost is likely to be an underestimate since none of the roading or construction footprint that will be required with the dam wall has been taken into account here.

The remaining rainforest would be fragmented and would have greatly increased edge-to-core ratios, destroying its effectiveness as habitat and making it more vulnerable to weed invasion.

In addition, the adjoining sclerophyll (eucalypt) vegetation would be reduced, fragmented and damaged, further degrading the available habitat and connectivity.

The 7 hectares of warm-temperate rainforest is even more precarious because the majority of it, 6 hectares would be bulldozed. This type is a simpler rainforest, usually with fewer species than subtropical rainforest. It occurs on poorer soils, generally on acid volcanic rocks such as rhyolite in the upper valleys of the Mt Warning caldera, e.g. in Terania Creek. In The Channon Gorge this type is on sandstone, an occurrence that is almost unknown in the region.

This forest can never be recreated. Or offset. Endangered Ecological Communities are regionally and state significant, not just local, and have a special legal status precisely because they are critically important. The elimination of this EEC would not just be a local loss – it would be an irreplaceable loss to Australia.

LOSS OF THREATENED SPECIES

FAUNA

The Mt Warning caldera, on the flanks of which the dam site is located, is recognised nationally and internationally as having highly significant biodiversity. Many of the species in this area occur nowhere else on this planet.

According to the TEIA, nine threatened flora species would be affected:

This list does **not** include the Big Scrub Acalypha (*Acalypha* sp. 'Big Scrub'), found within the inundation area but not noted by the TEIA. *Acalypha eremorum* is listed as Endangered in NSW but is in fact *Acalypha* sp. 'Big Scrub'. (*Rainforest Plants of Australia – Rockhampton to Victoria*, an interactive key, Harden, GJ, Nicholson, HRW, McDonald, WJF, Nicholson, NJ & Tame, T, 2014)

Rhodomyrtus psidioides (Native Guava), which is now Critically Endangered due to Myrtle Rust infestations, has been recorded within the inundation zone but was not mentioned in the TEIA.

Loss of flora species is cumulative, relentless and ultimately, terminal. When we destroy threatened species of plants, the likelihood for those plants to re-establish elsewhere is almost non-existent.

Agreeing to knowingly destroy these plants and to an increase threats for the construction of a dam is a very serious matter with international scientific consequences.

LOSS OF FAUNA HABITAT

These forests and aquatic habitats are home to mammals, birds, reptiles, fish and invertebrates which have nowhere else to go. They cannot move elsewhere because all adjacent niches are already full. They just die. At some point our species must take responsibility for the degradation of our planet and the extinction crisis we are causing.

Local koala habitat will be destroyed by the proposed dam

A new report commissioned by the World Wide Fund for Nature-Australia found the 2019-20 bushfires resulted in the loss of about 71% of koala populations in fire affected areas at six locations on the north coast of New South Wales.

At a time when koalas are predicted to become extinct before 2050 (NSW Parliamentary Inquiry evidence provided before Black Summer) if the current threats from habitat loss continue, no additional threats are acceptable.

This requires that the way we have treated koalas in the past has to stop. All destruction of koala habitat must cease if we are ensure that they do not

disappear on our watch. We have a responsibility to future generations and to this iconic species that they survive in the wild. Every koala population is important.

PLATYPUS - The proposed Dunoon Dam states "Mobilisation of sediments via major earthworks would increase the sediment load transported downstream and result in habitat loss through smothering " (p.61).

The TEIA states, under the heading of Key Threatening Processes: "The dam will alter the natural flow of Rocky Creek both upstream and downstream of the proposed dam wall. The resultant impact is considered (to) be long-term and irreversible" (p.117). For aquatic species irreversible change rarely means a benefit.

LOSS OF CONNECTIVITY

The severance of local wildlife corridors is a serious issue for animal species that require large territorial habitat. The proposed dam site has a great diversity of habitat types on different soils, slopes and drainages, with markedly different vegetation types.

Many animals do not stay in one type of forest but move between types. Destroying much of this varied forest, fragmenting the rest and installing a deep lake which blocks all terrestrial animals and most of the aquatic ones from essential movement will have an large adverse effect on local animal populations.

The territories of larger animals like koalas, will be broken up and their movement corridors disrupted or cut completely. Koalas are a landscape species. The young disperse to new areas and they also need a large landscape to breed and feed. This will affect their survival even if they are not killed outright.

Smaller animals which are fortunate to survive and not drown, will also be threatened by the loss of connectivity. Small isolated populations forced into 'inbreeding' then experience genetic decline and ultimately extinction.

The loss of connectivity, like the loss of species, is cumulative and ultimately a disaster from which there is no recovery. It should be considered as a major impediment to any destructive proposal such as the dam.

MITIGATION

These mitigations proposed in the TEIA are make-shift measures which do little to match the

magnitude of the proposed destruction. The mitigations are full of vague, meaningless, qualifying phrases like “where possible”, “where appropriate”, “should be adopted” “investigate” and “avoid significant areas” (while clearing the most significant areas).

Offsets are proposed, to substitute the unique rainforest on sandstone in the Gorge with regrowing new rainforest on the slopes above the dam – a different and largely degraded forest on different soil types.

Offsets fail because there is nothing like-for-like available. It is time offsets are recognised as an excuse for allowing development which can never replace what is being destroyed. We are at such an advanced state in the downward spiral to extinction of so many species that if an area is identified as similar it should be preserved at all costs in addition to the one proposed for destruction.

One of the more laughable mitigations is that a “qualified fauna ecologist should be within the study area during all clearing work for fauna salvage”! The language betrays the attitude to living animals that will be injured or dead by the time they are “salvaged”.

There is no mitigation for something that is priceless. This dam proposal destroys what is irreplaceable. In the words of the UN Secretary-

General Antonio Guterres, “Humanity is waging a war on nature”.

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