
Sent: 19/03/2021 2:22:07 PM
Subject: Online Submission

19/03/2021

MS Sonya Ku
ST
NSW
sonya.ku@gmail.com

RE: REV2021/0006 - 181 Allambie Road ALLAMBIE HEIGHTS NSW 2100

GALAXIAS BREVIPINNIS: ENVIRONMENTAL ASPECTS, IMPACTS of
Development application No: 2020/0552
Address: 181 Allambie Road, Allambie Heights
(Extension of Allambie Heights Village / William Charlton Village)

Dear development managers and councillors,

The sole remaining population of *Galaxias brevipinnis* in the Sydney metropolitan area is under threat of local extinction if this development goes ahead due to its direct proximity (it lies adjacent to the habitat), and the water drainage lines run straight into the creek where this population survives.

Why? The development directly drains into the catchment of this population's habitat.

The proposed development would need to consider

- a) climate change, and its impacts on the development and its surrounds
- b) its impact on threatened and endangered species
- c) its impact on threatened ecological communities such as Duffy's Forest
- d) its likely impact on rare populations like that of the climbing galaxias, the *Galaxias brevipinnis*.

To date, there has been no mention of any of these and the accompanying ecological report is therefore inadequate in its scope.

The development should consider climate change, and its threats to the *Galaxias* sp., and guarantee protections.

This development threatens the species with local extinction

The reason why this development threatens the species with local extinction are the following:

- clearing of vegetation
- changes to run off volume and consistency
- increased siltation due to soil disturbance
- changes to stream flow caused by increase in hardstand and impervious surfaces
- lowered dissolved oxygen due to increased nitrogen etc..

1. Why locals love this species

The Galaxias Brevipinnis is a much loved local icon of the Manly Warringah War Memorial Reserve, "this Reserve". Able to climb waterfalls, this species has captured the imagination of locals and people within Sydney, and has recently been featured in multiple local and statewide newspaper articles. Locals are very proud of the Dam's conservation heritage status, who love the conservation values of the Dam, and feel that they are the caretakers of the Dam's future. Locals of Warringah and beyond continue to dedicate hundreds of hours and their own funds to protect the species within the Dam.

The fish species Galaxias Brevipinnis remains a local icon of Manly Warringah War Memorial Reserve. It has survived at this site for thousands of years. Once widespread, only this single breeding population remains in Sydney.

The existence of a landlocked population within the Reserve, unique within the Sydney Metropolitan area, reflects the overall conservation value of the reserve.

As an indicator for the pristine ecological health of some areas of this catchment, the species has been championed by the local community as an important population deserving protection. The species has been featured in numerous news articles relating to the health and conservation values of the Reserve.

2. Why this population is important

The species is considered rare elsewhere in Eastern Australia.

It's now facing local extinction within the Sydney Metropolitan area, the population at the Reserve is the only one left.

This species is a predator aquatic species, meaning that it's presence represents a healthy ecosystem that is supported by multiple prey species and cohabiting species. In the Reserve it is found where multiple endangered species also exist such as the Red Crowned Toadlet.

Loosing this fish species means loosing multiple others.

It represents the health of the Reserve catchment

3. Threats

Please refer to my prior submissions for the outline of ecological threats to this species

4. Manly Dam Reserve's creeks are dying and need your help

Between 2018 and 2021, the population of Galaxias brevipinnis has been reduced from occupying several creeks to one. The numbers have also significantly decreased, from several hundred adult individuals to less than a hundred.

We, the residents, broader Sydney community and ecologists concerned with the Manly Dam Catchment Area, now understand that it is up to you the key decision makers to protect this remaining population of less than a hundred individuals.

5. Results of ecological recent surveys

Surveys conducted established the continued presence of a Galaxias brevipinnis population within Manly Warringah War Memorial Park, being the sole remaining population recorded within the Sydney Metropolitan Area. There is evidence of a significant range contraction within the Reserve, with the number of creeks supporting populations reduced from three or more, to one.

Kind Regards,

Sonya Ku

Environmental scientist and ecological community biodiversity specialist