

NSW Department of Planning and Environment

**This specific Submission is on M5 WestConnex EIS – Biodiversity – Green and Golden Bell Frogs of the Kogarah Golf Course.**

**I lodge a strong objection to the destruction of the Green and Golden Bell Frog and to the entire WestConnex.**

### **Introduction**

The WestConnex plan to widen Marsh St as part of its overall aim to expand the M5 roadway destroying a critical section of Frog habitat at the Kogarah Golf Course which it says can't be avoided. The WestConnex frog management plan is not adequate for their protection. That and the extensive period of destructive action/s by the WestConnex of more than four years (after including an unfiltered emissions stack) at this location will severely impact the Green and Golden Bell Frog potentially eradicating the sensitive species from this site and area.

For a project of this size, the biggest in the world, it lacks transparency and independent review. There are far too many contentious and damaging outcomes which do not value add to the project going ahead or to the city when it's finished. As such it should not proceed. However the NSW Government has rushed ahead without forethought or care to the consequences of a project that will destroy so much of what we value and will be a huge waste of public money.

### **Items of Significance – M5 impacts to critical environments**

The M5 WestConnex EIS at page 12 of the M5 - Biodiversity Assessment Report identified the Green and Golden Bell frog amongst the three items of high significance which had been assessed for potential impacts from the project as follows:

Endangered Ecological Communities are:

- Cooks River / Castlereagh Ironbark Forest of the Sydney Basin Bioregion.

Threatened Fauna

- *Litoria aurea* (Green and Golden Bell Frog)

- *Pteropus poliocephalus* (Grey-headed Flying-fox).

### **Discussion – Green and Golden Bell Frog**

The New M5 EIS Biodiversity Assessment (at 21.2.4) advised that the population of Green and Golden Bell frogs on the Kogarah Golf course are located within the construction and operational footprint of the WestConnex. The frogs have already been subject to relocation due to the construction of the M5 in 1988 where they were relocated to purpose built ponds (RTA ponds) with a frog underpass to Marsh St Wetlands. In their new environment they received regular human management to keep the population in a healthy environment. This is ongoing.

The Kogarah Golf Course is around 40 hectares of viable Green and Golden Bell Frog habitat including several ponds some of which are purpose built RTA ponds. The frogs although seemingly breeding in the RTA ponds are not limited to them as they move around the habitat through various corridors. In a recent 2014/2015 monitoring period, the population was estimated between 30 to 50 adults. This is down from 110 adults in 2012. The current population is unlikely to persist without constant management and considered to have poor long term viability. (p197 Biodiversity Assessment Report -17/104 PDF).

The two RTA ponds, identified by Dr White as the population centres and breeding habitat, are to be retained and buffered by an exclusion zone of about 32 metres. (p197. Biodiversity Assessment Report -17/104 PDF). The Biodiversity report also discusses other means of mitigating harm to the frogs during construction although no actions will directly impact the RTA ponds there are chances that indirect impacts such as increases in noise, light, dust and vibration (p199 Biodiversity Assessment Report -19/104 PDF).

A large portion of foraging, dispersal and sheltering habitat will be removed and replaced by constant construction dangers. The Green and Golden Bell Frog can live as long as 10 to 15 years. Overall population sizes (20 to 100) of the frogs are decreasing. Once formerly large frog populations have completely disappeared since 1960. (ANIMALS - <http://animals.mom.me/long-golden-bell-frogs-live-9889.html> )

The Australian Government Department of the Environment Biodiversity Species website at Profile and Threats, advised the Green and Golden Bell Frog is known to breed during late winter to early autumn, but generally during September–February with a peak around January–February after heavy rain or storms (Daly 1995; White 2001).

The EIS states that with the implementation of the Plan of Management, the longer-term viability of the population should not decrease. (p198 Biodiversity Assessment Report - 18/104 PDF). In my view to state the population should not decrease is a false statement based on a flawed ideal as there is no doubt a number of frogs will be killed over a four year period of construction.

The proposed action by WestConnex to construct roads, buildings, unfiltered emissions towers, car parks, would remove a maximum of 7.82 hectares (about 20% or the bulk) of the frog's foraging, sheltering and dispersal habitat. It is proposed to install temporary sound proof fencing adjacent the RTA ponds, transparent sound proof fence (minimise shadowing of ponds) directional lighting (24hr) to reduce light spill on ponds at night, use town water supply to decrease dust falling on RTA ponds, a non-acoustic shed (dumping/loading spoil) to aid noise reduction. The bulk of the impacts are said to be temporary (up to four years) with the proposal to rehabilitate the temporary works impact area following completion of the action.

The WestConnex recognise the severe direct impacts to Green and Golden Bell Frog (p71 Biodiversity Assessment Report - 89/197 PDF) which they state may include:

- Mortality to individuals during clearance of sheltering habitat
- Mortality and injury to individuals during decommissioning of dam/pond within the golf course
- Mortality or injury to individuals during construction of mitigation measures (e.g. frog exclusion fencing)
- Mortality or injury to individuals during operation of the permanent facilities at the Arncliffe surface works area
- Decrease the habitat values of the RTA ponds due to shading, dust, noise and light and potentially accidental water contamination.

During construction works at the Arncliffe surface works area, there is a possibility that Green and Golden Bell Frogs may be injured. Remember these are small creatures that may not survive an injury. A pre-clearing procedure would be established to ensure that the area is free of frogs prior to any habitat removal. An unexpected discovery procedure would also be implemented to ensure that even if frogs remain in areas to be cleared, that there is a clear and robust method to minimise the potential for frogs to be injured or killed (p77 Biodiversity Assessment Report - 95/197 PDF).

Appendix D Flora Species Record (Page 16 (82/104 PDF)) **Table 1: Construction mitigation and management measures within the construction zone** Site inductions should contain a relevant section on the Green and Golden Bell Frog. The induction should incorporate:

- What to do in the event of unexpected finds of frogs within the construction zone.
- Highlighting the enhanced frog habitat area and why this is a 'no-go' zone.

Given that there will be high frequency of new personnel rotating through the site over the four year period there is no mention of how frequent new workers will receive an

induction. There is no mention of highly visible warning signage/including pictures (particularly at night when frogs are more active). Strict speed limits within the footprint should be enforced (app. 8 kph). It is also imperative guidelines for the frogs are strictly adhered to. The only way to monitor the integrity of the frog procedures is to have independent observers present 24/7 x 4 + years.

The M5 EIS Biodiversity Assessment Report in Appendix S at Appendix A charts Anticipated Find Procedure. These measures although seemingly going some way to help save wayward frogs are not sufficiently clear. For example if a frog is observed stop work, immediately and notify supervisor and do not start work until cleared by an environmental representative. It must be made clear that no work can recommence and it means no vehicles or workers can move through the area at all even if it's a shift change over. I doubt these procedures will be followed every time a frog is sighted jumping in the dirt.

Following the frog sighting procedures set out by the EIS once the frog is gathered by an appropriate person there are a whole heap of technical procedures including microchipping (if not already tagged). What qualifications do the environmental representatives have? Will there be one on duty each shift 24/7 x 4 years?

Finally after some time at step seven the 'Project Ecologist and Environmental Representative declare works 'okay' to recommence.' It would be interesting to know what the anticipated average time period from stop work to step seven will be.

Frog procedures must be posted everywhere around the site and at site office/s doors so workers have no doubt that stopping work is the correct thing to do. Despite this I anticipate there will be times when frog procedures are ignored for the sake of getting ahead.

The frogs will endure at least four years of loss of habitat and breeding disruption. Then it will take a number of years for a replacement habitat to become sustainable for a species return (if at all). It would rely on a mix of taller trees and shrubs for shade and temperature control, continuance of grasses for moist corridors, introduction of their food sources to encourage them, more pond options and security of environment.

The interruption to the frog's movement corridors, habitat feeding areas the breeding cycle will be disrupted over the four year period further reducing their numbers to critical levels. I doubt the frog management procedures will be genuinely sustained over a four year period and then many more years after the Cooks Cove project is commenced and completed.

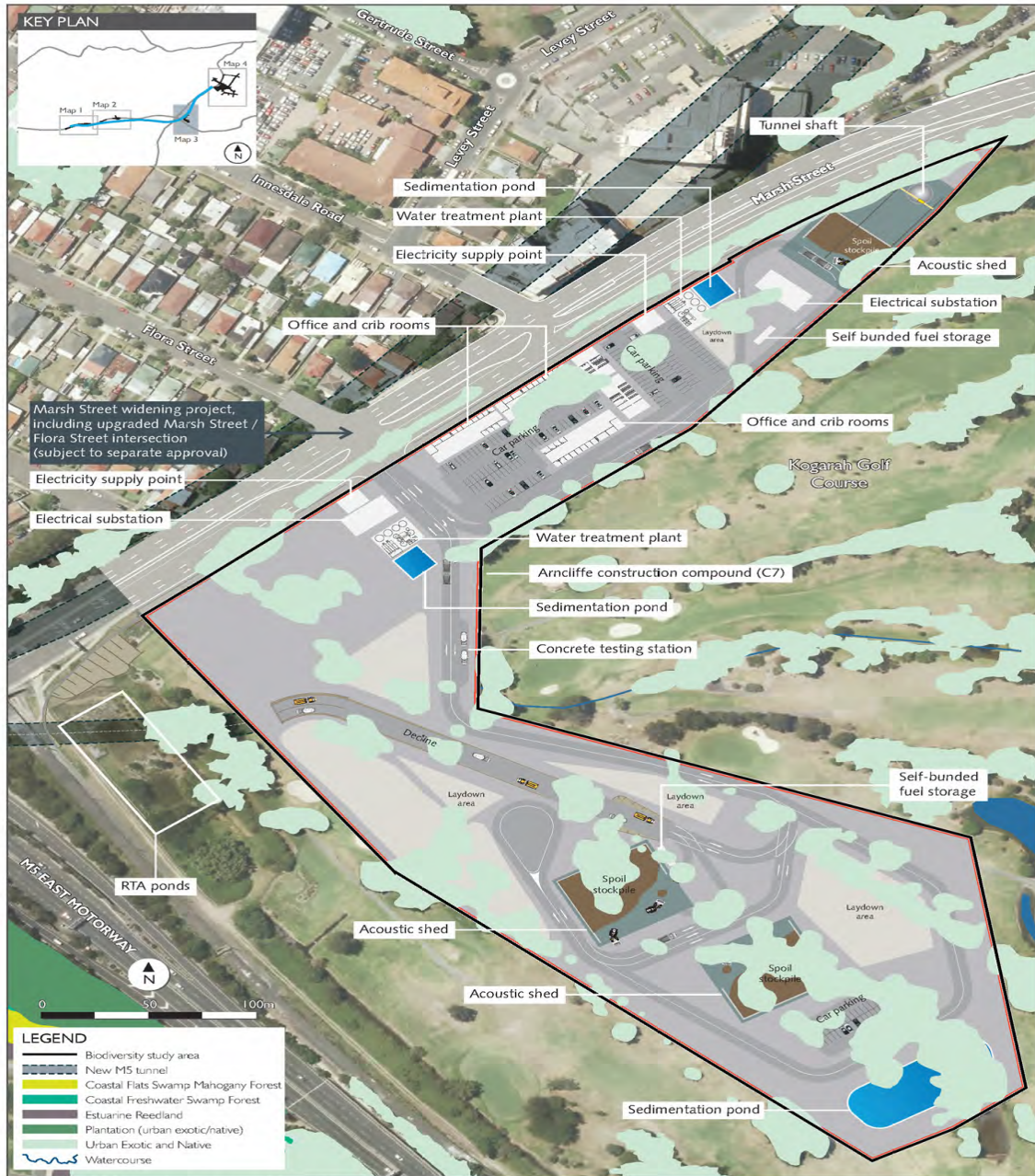
Similar management plans (M4 EIS Ibis Management) have completely failed the Sacred Ibis breeding in a habitat at Auburn. For the sake of widening without waiting for breeding season to finish the M4 construction went ahead destroying the majority of their habitat. The Ibis were supposed to be protected by a 40 metre buffer zone and a management plan but nothing happened or was enforced (no signage was sighted) as their environment was bulldozed leaving chicks dead and birds wandering around in their ruined habitat. At least 11 Ibis lost their lives on the M4 after being forced out (In October - November 2015)

In the end the WestConnex failed the Ibis. There was no independent review before the contracts were awarded and the M4 widening rushed forward. The WestConnex seriously downplayed the importance of the Ibis in their habitat. As such I believe the WestConnex have failed and will continue to fail the Green and Golden Bell Frogs (due to no independent review and no independent observers.)

It is very clear at 21-8 (21- Biodiversity) that there is a significant loss of water habitat and environs. Also with the Cooks Cove development the extra people and pollutants introduced into this area will see the demise of the frog (*The Biodiversity Assessment Report at page 15 (33/197 PDF) is a reference to Green and Golden Bell Frog Management Plan for Cooks Cove – Cumberland Ecology 2006.*)

At 21-8 (below) the construction footprint removes two very large ponds and limits frog movements throughout habitat as the EIS recommended the much smaller RTA ponds

(again because it was favourably noted they have been breeding there.) The frogs although breeding in the RTA (monitored ponds) have also used other ponds to breed.



The above figure 21-6 shows the degree of works and roads that are extensive within the frog's habitat and corridors. There is even a road going under the RTA ponds. It is clear from the items within the footprint that it is an over grab of land for the sake of fuel storage, spoil stockpile, laydown areas, a large car-park and sedimentation pond (at the lower right) and roads connecting them. This area is capable of being much smaller at least half of what is

shown.



Figure 5-40 Arncliffe motorway operations complex (MOC 3)

(figure 5-40 pdf page 40/40 - M5 Motorway Operations Complex at Kogarah Golf Course: - including unfiltered ventilation stacks near RTA ponds -EIS local road ‘upgrades’)

After work is completed the structure above, a Motorway Operations Complex, ventilation and other buildings will be present. It is not stated when the frog habitat remediation will be completed, likely sometime after the buildings above are completed. However if the picture above is anything to go by, the remediation will look remarkably like the golf course as it currently is.

At page 196/197 (16/104 of PDF) the New 5: Biodiversity Assessment Report, *the EIS advised*

The current population is unlikely to persist without constant management and is considered to have poor long-term viability (Dr Arthur White pers. comm 2015). The population is now small (less than 50 adult frogs; Dr Arthur White pers. comm 2015) and is limited by the presence of Plague Minnow and chytrid fungus in ponds other than the RTA ponds. Since 2003, breeding has occurred in the RTA ponds in every year except 2014.

This is the reasoning towards another frog pond location introduced in Other Measures - at page 88 - 4.4.3 *Habitat creation at Marsh St and the establishment of a captive breeding population*

*New Green and Golden Bell Frog habitat comprising at least three new ponds will be created and managed in perpetuity for the species on Roads and Maritime land at Marsh Street. See Figure 2. (below)*



### ***Habitat Creation***

Not only does the EIS anticipate a number of frogs will be killed during construction, it's likely they could be relocated to an area adjacent to Eve St (within yellow lines above). This location is right next to a busy multi lane road which at some point in the future could also be widened at the whim of the government. The frogs will never survive with this continuous adverse interference.

The proposed pond locations marked in yellow lines is a predominantly grassed dry sloping ground currently not suitable for the wetland frog habit. It would take years to construct and test before it was deemed suitable for the frogs and there is no guarantee the area will be viable or safe from human interference (i.e. vandals). It is just ridiculous that the frogs will be removed from a perfectly suited constant wetland habitat (naturally water fed) to a dry higher location without cover of trees which provide not only protection from predators but tall trees provide temperature control and on a hot day in a young landscape these frogs will suffer. There is no doubt this will adversely impact the survival of the population and I fear will cause their demise.



(Photo V. Elton 12/12/2015 – Off Eve St looking towards Marsh St)

In the above photo the land is gently sloped downwards from left to right. In the background a stand of medium sized trees and thick low bush which would provide suitable cool air and cover for the frogs if in fact they adopted it as part of their habitat range. The benefit is that these trees are mature. But the rest is in unsuitable open ground. Being next to a road (albeit a high fence is present) the frogs will be proximate to pollution runoff and toxic pollution created by an unfiltered (M5) exhaust stack nearby on the golf course. There is no frog security at Eve St, feral animals, trespassers, vandals. The golf course was a reasonably secure habitat because its membership limited human access.

#### **Conclusion**

Our governments cannot continue to pave the way for the destruction of Australia's unique environment (flora and fauna) degrading human health, destroying Sydney's heritage.

If the WestConnex project business case ever became transparent (to be independently assessed) it would show a devastating waste of our taxes for a road that will destroy so much when there are more effective ways to move people than always building roads.

The history of the WestConnex management of protected and threatened species is abysmal as shown by the destruction of Ibis on the M4. The New M5 proposes destruction of the critically endangered Cooks River Forest (or CRCIF) and other significantly important entities (Green and Golden Bell Frog) which will be lost forever in their locations.

In a critical time where all efforts should be made to protect what we have for perpetuity, the NSW Liberal Government has acted bullishly to push through unprecedented irresponsible actions that will devastate Australia's natural and heritage environment and human health.

In light of the serious flaws, lack of transparency and damaging outcome I ask the Secretary of NSW Planning and Environment not to approve the destruction of this precious frog habitat and to not permit the WestConnex to go ahead as there has been no thorough independent, transparent and public review/audit.

Regards  
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