

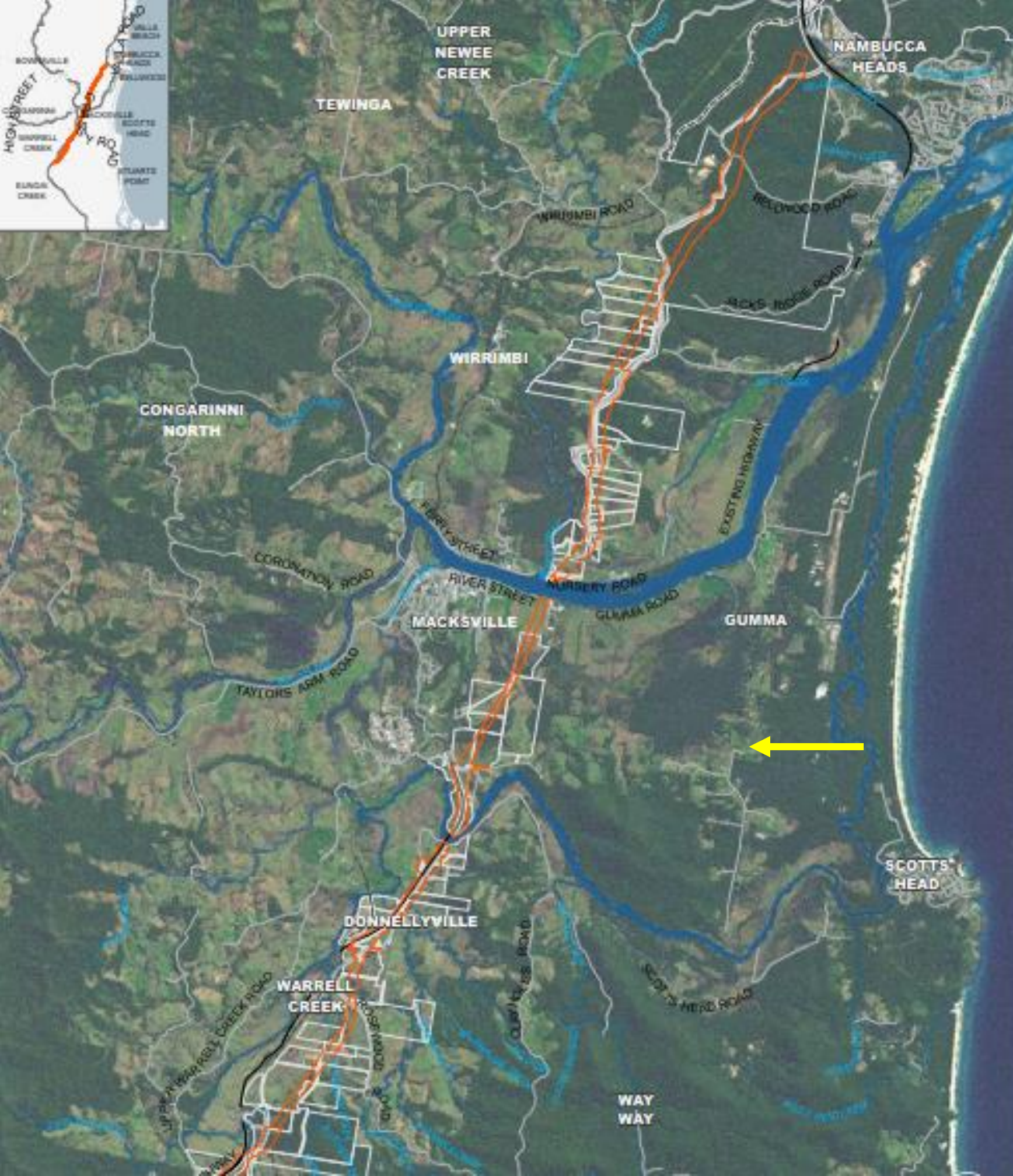
MANAGING GREY-HEADED FLYING-FOXES: LESSONS LEARNED DURING PLANNING AND CONSTRUCTION OF A MAJOR HIGHWAY UPGRADE IN NSW

JOSIE STOKES – PRINCIPAL ECOLOGIST, WSP- SYDNEY



Overview

- Pacific Highway Upgrade Project (WC2NH)
- Planning approvals and pathways
- Never trust a bat
- Population monitoring and FF Management Plan
- A fence is never 'just a fence' ...
- Have we learnt anything?



Warrell Creek to Urunga

Joint commitment by Australian and State Govts to improve safety b/w Hexham and the QLD border.

42km of dual carriageway to be upgraded b/w Port Macquarie and Coffs Harbour

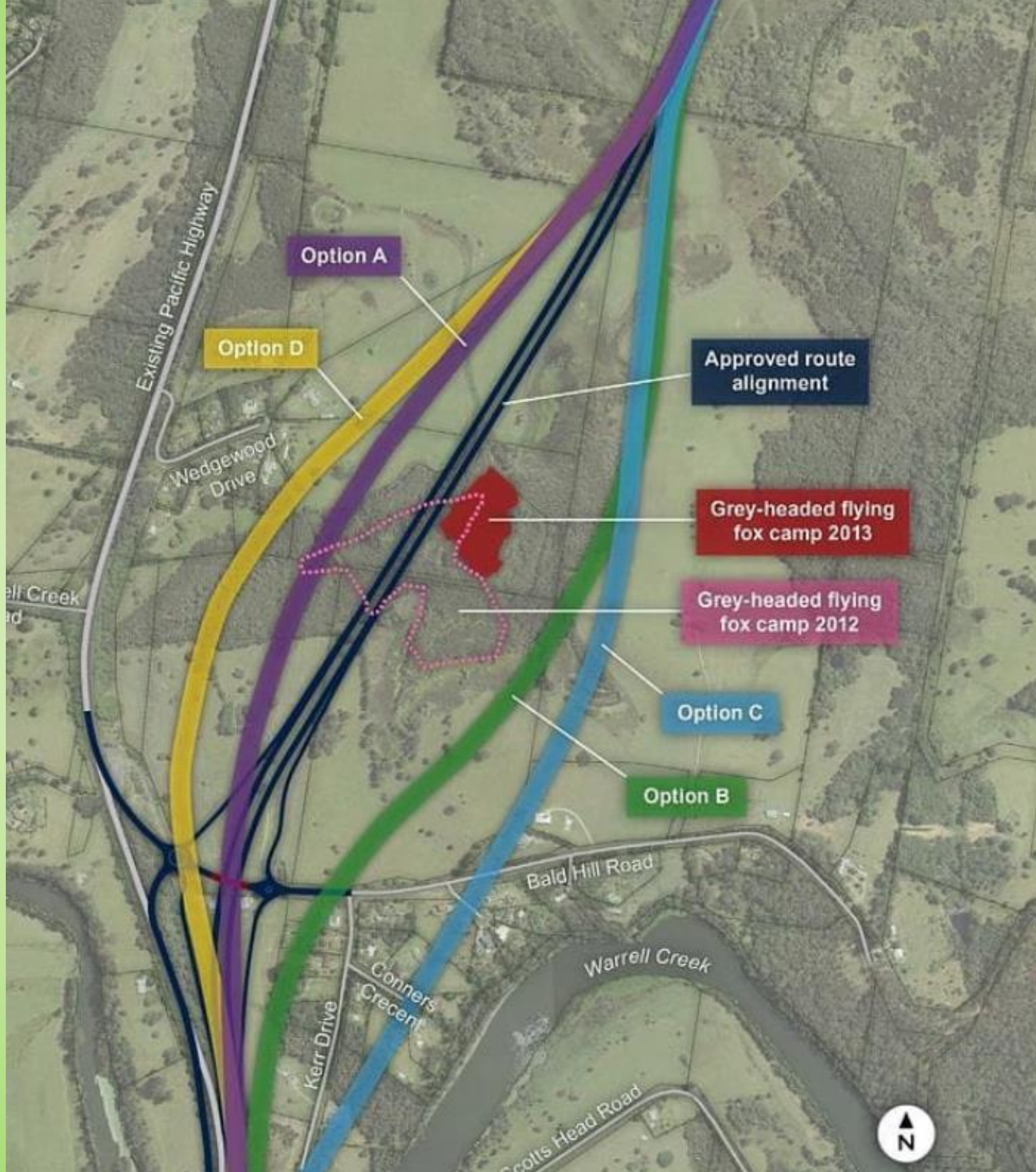
Project approved by Planning Minister July 2011.

No requirement for an EPBC Act Referral as 'no MNES affected'

And then.....

**>10 000 Grey-headed Flying-foxes
arrived in the approved alignment
November 2011**



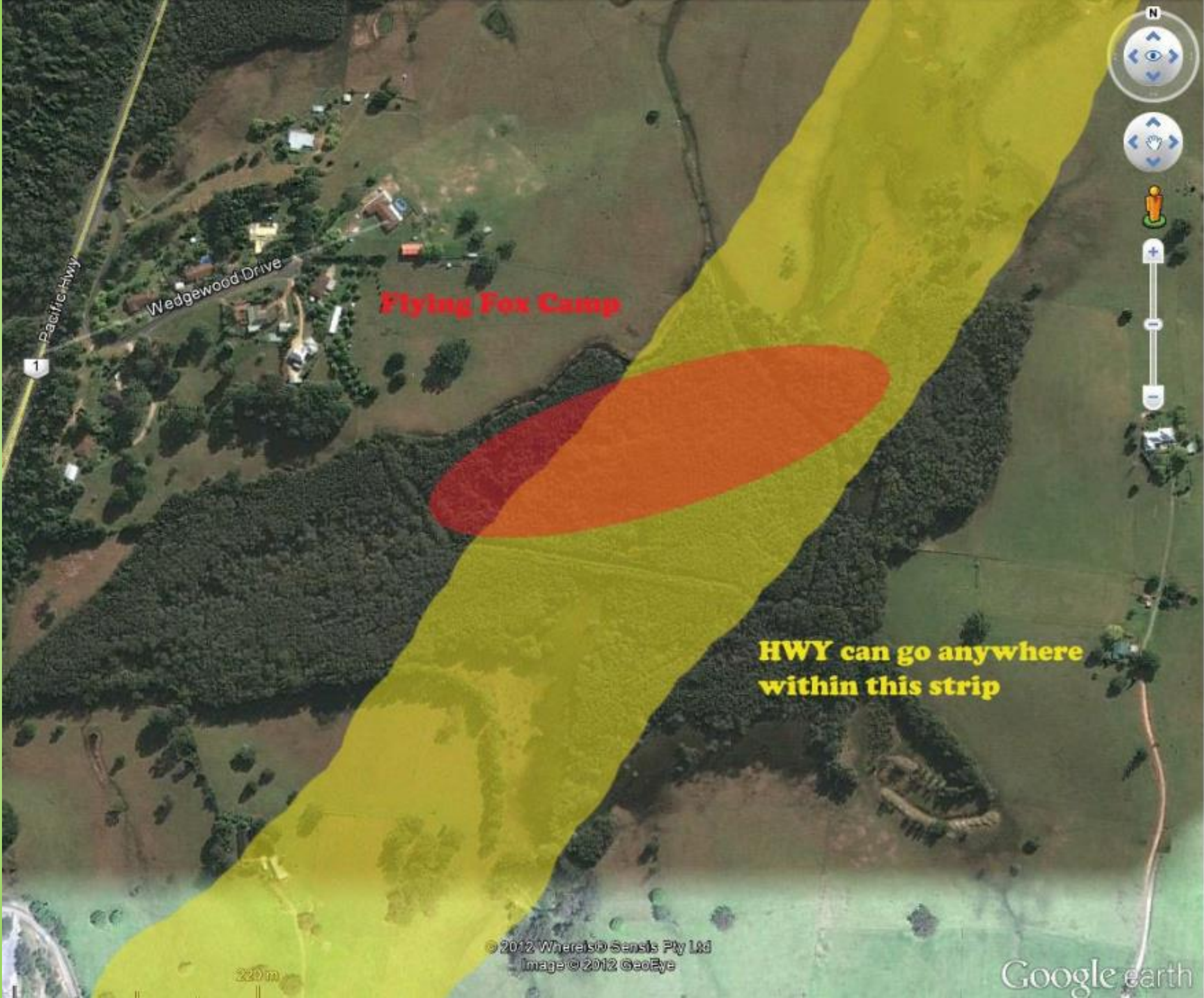


NSW

Barry O'Farrell and Tony Abbott cut 'green tape' to progress Pacific Highway upgrade after bat holdup

Tony Abbott goes into bat against greenies over delays to Pacific Highway upgrade

Plain batty! Section of Pacific Highway may have to be redesigned because flying foxes who once lived there may return



Wedgewood Drive

Pacific Hwy

Flying Fox Camp

HWY can go anywhere within this strip

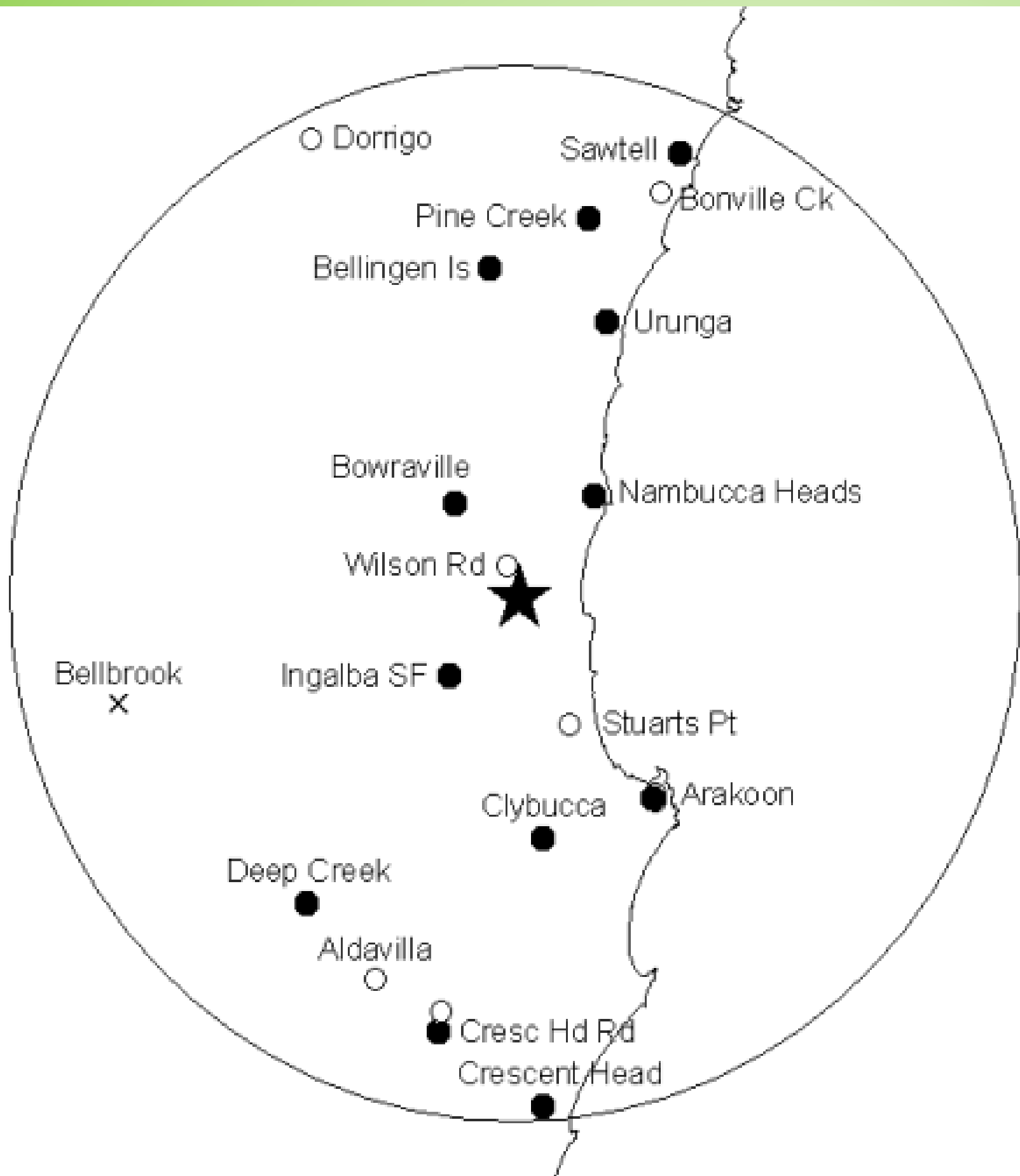
220m

© 2012 Whereis® Sensis Pty Ltd
Image © 2012 GeoEye

Google earth

Population monitoring





20 GHFF camps w/in 50km

13 meet the criteria for habitat critical to the survival of GHFF

Mainly foraging on:

- Blackbutt Open Forest.
- Mixed Floodplain Forest.
- White Mahogany/Grey Gum/Ironbark Moist Open Forest.
- Flooded Gum Moist Open Forest.
- Lowland Rainforest.
- **Swamp Mahogany/Paperbark Swamp Forest**

EARLY MONITORING

- *Monthly* population counts of camp
- November 2011- May 2013: 2,000 – 20, 000
(incl. collared male and female GHFF from RBG Syd)
- July/August 2013: 0 bats
- September 2013: 25, 000

Was this enough to determine impacts? No.....

Would RMS do anything? No...



Increased monitoring program

Fortnightly, instead of monthly

Counting of regional camps

- Nambucca, Bowraville, Bellingen

Documenting flowering resources

WHAT HAPPENED WITH THIS DATA?

REFERRAL TO THE COMMONWEALTH MINISTER LODGED
20 DECEMBER 2013.

REMOVAL OF 106.6HA OF FORAGING HABITAT
REMOVAL OF 25.5HA OF ROOSTING HABITAT **=SIGNIFICANT IMPACT**

APPROVED BY THE COMMONWEALTH **23 JANUARY 2014**

(WITH CONDITIONS INCLUDING GHFFMP AND OFFSETS)

BUT THEN.... NO BATS FROM APRIL 2014.....SO.....



Macksville Country Club

Mackers

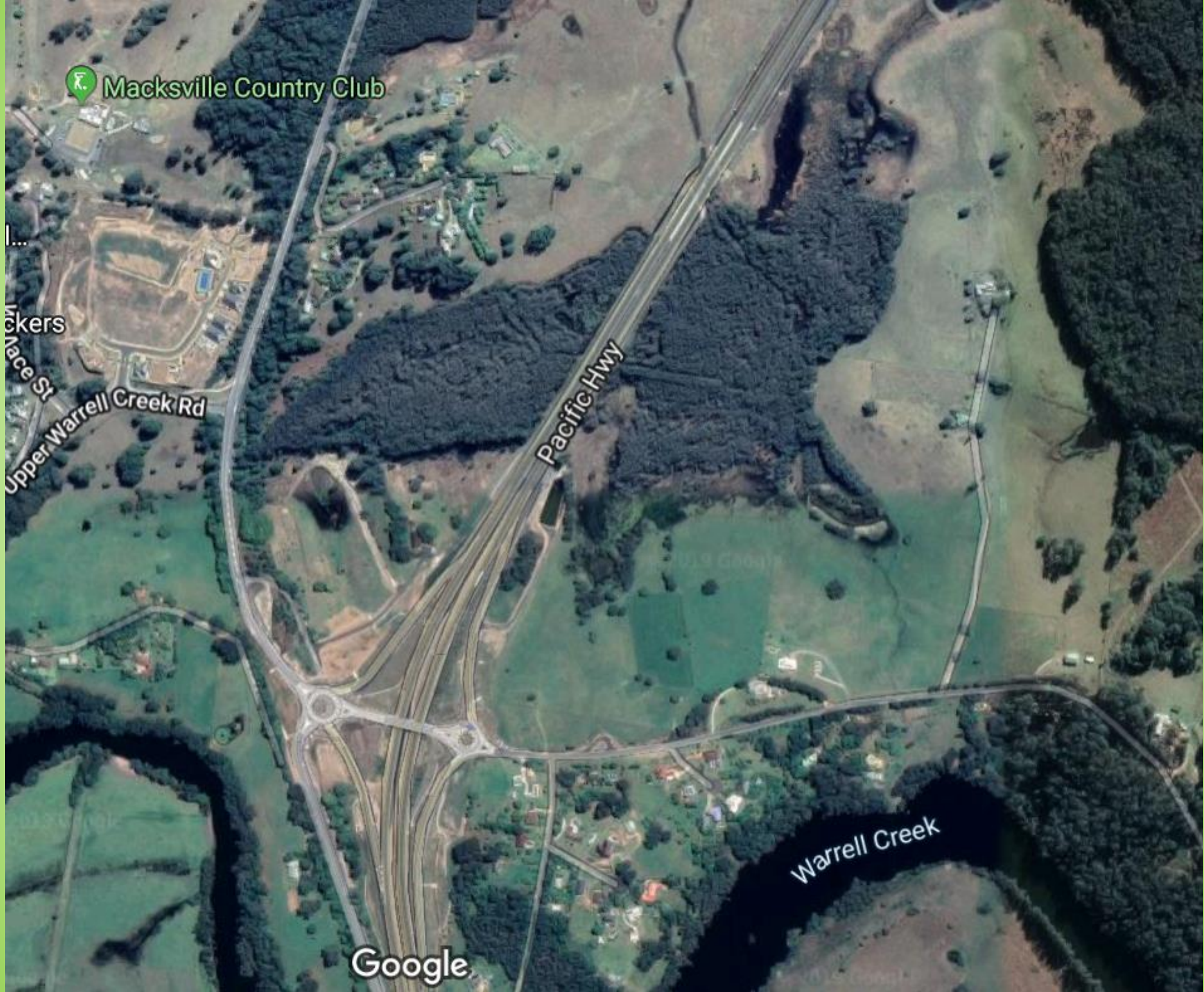
Mace St

Upper Warrell Creek Rd

Pacific Hwy

Warrell Creek

Google



A FENCE IS NEVER JUST A FENCE...





Don't clap your hands just yet....



Take home messages..

- Never trust a bat!
- Stand your ground, but be seen to be 'flexible'
- What happens on paper doesn't translate in the field
- Post-construction compliance is key!

Acknowledgements

Dr Peggy Eby

GeoLINK

Vanessa Gorecki

Chris Thomson (SKM)

NSW Roads and Maritime Services



Email: josie.stokes@wsp.com