



The Friends of Berowra Valley is a community organisation dedicated to the protection and advocacy of the natural bushland and urban remnant vegetation in North-West Sydney. We are a group of volunteers with a diverse range of backgrounds, brought together by our love of native flora and fauna. Our committee has delegated me to make a submission in response to the draft Cumberland Plain Conservation Plan.

Since Cumberland Plain Woodland was listed as Critically Endangered in 2010, there has been continued destruction of a number of ecological communities on the fringes of the Hills and Hornsby Shires. Shale-Gravel Transition Forest and Turpentine-Ironbark are found here with significant remnants in Baulkham Hills and Pennant Hills. We are concerned that there has been little, if any, successful intervention to halt the decline and that rates of clearing have increased.

These ecological communities were formerly widespread but are now reduced to mostly small fragments of less than 5 ha. (Less than 10 % now remains). It continues to be threatened by clearing, impacts from urban development, weeds and inappropriate management. For this reason, we welcome many of the intended outcomes of the Plan.

Any protection, even to those smallest patches, will provide vital support for native biodiversity and ecosystems in the region. Managing water tables/flows, soil nutrient cycling, erosion and salinity prevention, carbon storage and regulating invasive species is critical.

We concur that the plan should align with Aboriginal understanding of and respect for the land and fully support the need for genuine consultation at a local level to apply best practice precautionary principles. Primarily, we agree with the need to improve ecological knowledge about the area's threatened ecosystems and enhance scientists' ability to monitor plant, animal and community responses to our efforts. It is critical that a final say in local planning is returned to communities, as the past two decades have seen democratic planning control taken away.

These ecosystems support a range of threatened plants and animals, many endemic to the region. This includes over 14 species of flora, such as the spiked rice flower and many in the 'pea' flower group, 11 bird species, a dozen mammals (including the only wild population of chlamydia-free koalas), the Cumberland Land Snail and the Green and Golden Bell Frog. We are losing Shale Woodland and Ironbark Forest at an alarming rate, vital to the Regent Honeyeater, Powerful Owl and migratory Swift Parrot, with almost no meaningful offsets.

It's essential to apply the correct land use and management practices to maintain and restore these communities. A total of just over 5,000 hectares of the region is protected in reserves or biodiversity offset sites, of which less than 2,000 hectares is Cumberland Plain Woodland. The total area protected in the region is just 4.4% (2% for Cumberland Plain Woodland). The last accurate estimate of the extent of native vegetation remaining on the Cumberland Plain was undertaken a decade ago in 2008 by the NSW National Parks & Wildlife Service. National Parks and Nature Reserves remain the cornerstones of conservation and the expansion of reserves and creation of new reserves (with appropriate management funding) remains an urgent priority.

Connectivity among remaining native vegetation areas is essential for the animals that live or migrate through the region. Patches that are connected, or close to each other, help ensure the future viability of an ecological community and by providing pollination and dispersal of plant propagules. Corridor identification and conservation remains one of the highest conservation needs of the region. Corridors must be continuous (not bisected by roads or rail), like-to-like, and sufficient (>500 m wide). Existing and new road & rail infrastructure must incorporate effective wildlife crossings such as underpasses or vegetated land bridges.

The Cumberland Plain has been the testing ground of Biodiversity Offsetting policy since this was first formalised in NSW by the Threatened Species Conservation (Biodiversity Banking) Regulation 2008 and continued under the new Biodiversity Conservation Act 2016. We consider the use of Biodiversity Offsetting to be contentious. It remains opposed almost unanimously by the scientific community and by OEH's own elected NSW Scientific Committee .

Among the NSW Scientific 22 Committee many objections is the 'substantial evidence that the best biodiversity conservation outcomes are achieved by the reservation and protection of intact communities and that rehabilitated sites rarely approach the biodiversity values of intact, or even degraded nature communities. An independent international meta-analysis of global offset programs (including NSW) found "inherently large time lags, uncertainty, and risk of restoration failure, requiring offset ratios far in excess of what is currently applied in practice". Restoration offset policy therefore leads to a net loss of biodiversity and represents an inappropriate use of otherwise valuable ecosystem tools (Curran & Hellweg, 2014). Compliance in offset schemes requires urgent improvement. The misuse of offset sites including Fernhill & Emerald Hills have undermined the delivery of actual biodiversity improvements at these and other sites.

Evidence suggests that large old trees play an extraordinary range of critical ecological roles in hydrological regimes, nutrient cycles and numerous ecosystem processes. They strongly influence the spatial and temporal distribution and abundance of individuals of the same species and populations of numerous other plant and animal species. "Fine scale tree-level conservation such as buffering individual stems will be required ... in agricultural areas and urban environments" (Lindenmayer & Laurance, 2017). Protecting places where large old trees are most likely to occur will be needed. "For the best possible conservation of large trees and their ongoing existence into the future, it is urgent that the value of large trees for biodiversity is recognized in urban management and planning policies. With evidence-based tree preservation policies and the specific recognition that large trees are critical for biodiversity, the protection

and perpetuation of these important keystone structures could be achieved” (K. Stagoll et al. 2012). Of course, this brings challenges associated with likely changes in tree distributions associated with climate change but trees should be protected from construction and works activities in accordance with Australian Standard AS 4970- Protection of trees on development sites.

Planning measures which ensure consistency is supported, including:

- ◆ Applying environmental conservation (E2) zoning to protect land with high-value biodiversity, riparian corridors and steep slopes.
- ◆ Provide the necessary staff and funding to undertake core bush regeneration and pest control operations on National Parks.
- ◆ Restore the use of compulsory acquisition of non-residential land to expand the region’s National Parks & Nature Reserves. New lands should be secured as Nature Reserves and National Parks - not Regional Parks.

The fire management strategy is supported, aligned with those of the NSW National Parks and Wildlife Service and the NSW Rural Fire Service to protect biodiversity values, property and people. This strategy aims to manage fire regimes in existing and new conservation lands, such as national parks and reserves, to maintain and enhance biodiversity over time.

Funding must be urgently restored to basic programs including:

- ◆ Council managed Bushland Reserves
- ◆ Landcare & Bushcare
- ◆ Greater Sydney Local Land Service grants plus restoration of National Resource Management assistance to the many landowners who support conservation not offsetting.

Compulsory acquisition of non-residential land must be available to ensure sensible planning for future reserves. Until recently the RMS M7 offset program operated a highly successful compulsory acquisition program which created Colebee Nature Reserve and expanded public reserves at Bents Basin, Kemps Creek and Rouse Hill.

References

Curran M & Hellweg S (2014) Is there any empirical support for biodiversity offset policy? *Ecological Applications*, 24(4), pp. 617–632

[Greatersydneylandcare.org/wp-content/uploads/2018/10/GSLN-CCN-State-of-the-Cumberland-2018-GSLN.pdf](http://greatersydneylandcare.org/wp-content/uploads/2018/10/GSLN-CCN-State-of-the-Cumberland-2018-GSLN.pdf)

David B. Lindenmayer William F. Laurance. The ecology, distribution, conservation and management of large old trees. *Biological reviews*, Vol. 92, Issue 3, August 2017 p1434-1458

<http://mytreedoctor.com.au/wp-content/uploads/2017/02/AS-4970-2007-Protection-of-Trees-Dev-sites.pdf>

Karen Stagoll et al. Large trees are keystone structures in urban parks. *Conservation Letters*, Volume 5, p 115-122, April 2012.