

Mayday for Urban Forests.

BIODIVERSITY LOSS, CRITICAL HABITAT and CUMULATIVE IMPACTS ARE URGENT CONSIDERATIONS for THE NSW PLANNING ACT.

Biodiversity is critical infrastructure – the basis of life. Urban Forests and natural habitat remnants are the last biodiversity hotspots in cities. They are increasingly critical flora and fauna corridors. The significance of biodiversity to humans is greater than is understood. As humans seek health, well being and survival in future cities, cumulative impacts on these critical habitats are un-reported tragedies.

We are in “the urban age”. The UN reports that more than half the world’s population lives in urban areas since 2007.ⁱ By 2050 it will be 70%. Australia’s urbanization is higher.

Scientists have long known human physical and mental health and well being depends on biodiversity.ⁱⁱ As biodiversity decreases, human choices for survival shrink.ⁱⁱⁱ

Scientists say its irreversibility makes biodiversity loss the most important issue faced by humanity (Dale and Hill 1996). Biodiversity loss is the most significant environmental problem facing Australia (Lindenmayer, “On Borrowed Time” 2007). In his book “Collapse” Diamond notes that removal of forests, and subsequent “landscape amnesia” and “creeping normalcy”, play major roles in collapse of societies.^{iv} He points to policy makers for failure to perceive the problem of forest removal.

What is Urban Forest? Urban Forest is existing biodiversity in *protected* reserves, as well as connected, *but unprotected*, native and non-native vegetation corridors in golf courses, public parks, ovals, residential streets and private gardens. Especially in environmentally sensitive areas, all linked natural habitat remnants, important seed-bank and sensitive soils, together, form part of precious Urban Forest. Rare, urban biodiversity still exists in listed critically endangered ecological communities, part of Urban Forest within thirty rail minutes of the Sydney GPO – but for how long?



Biodiversity-linkage within Urban Forest is provided by connecting gardens, street trees, golf courses, ovals and parks. All link together with surrounding protected reserves to form corridors and habitat for remaining urban wild-life.



Improper zoning allows biodiversity linkages to be lost when land area and soils are cumulatively removed. By this process the regenerative capacity of native and non-native Urban Forest vegetation is displaced forever.

Urban Forest in Sydney occurs most densely in the north, north west of Sydney and also in southern and western Sydney. Rapid urbanization means biodiversity in the un-protected part of Urban Forest is vulnerable to zoning for development. Due to the importance of biodiversity to human health in future cities, Urban Forest needs urgent protection, through legislation.

Today, lands most desirable to protect have become the lands most likely to be developed. The word “biodiversity” appears seldom, if at all, in land-use planning policy platforms and legislation governing the planning of city futures.^v The absence of specific protective zoning for Urban Forest potentially means the application of “inner-city zoning” in unique environmentally sensitive areas (ESAs). **Unless urgent steps are taken for intergenerational equity in planning legislation including giving protection to Urban Forest by specific zoning, and requiring consideration of the cumulative impacts in zoning for development, we will almost certainly not have Urban Forest in the future.**

How do we know Urban Forest is disappearing? Trees prevent development and their absence facilitates it. Cascading environmental damage commences at, or before, the point of zoning for development. Since each zoning and each development is assessed on its own, the un-assessed “cumulative impact” of zoning for development quickly turns an environmentally sensitive area (ESA) into a construction zone.

Zoning is the most profitable point in the development process. Zoning is also when the greatest damage is done to the environment. Tree preservation orders (TPOs) are of little value. Trees die mysteriously and are easily removed. Tree removal proliferates in dense, rare Urban Forest. Reliable tree record and protection of significant trees by local councils is lost.

The domino effect of acquisition of properties for development, during zoning, is an insidious process. Most locals do not know when and where houses are acquired for development, which rapidly tears neighbours and neighbourhoods apart.^{vi} As newer residents replace long-standing ones, “landscape amnesia” and “creeping normalcy” take over, and the once rich Urban Forest becomes an urban myth. Wildlife populations plummet and without habitat, urban biodiversity quickly disappears.

As the cumulative impacts of zoning increase and population pressures rise, tree removal gathers momentum. Golf courses, churches, schools and other institutions responding to these expansion pressures find the need to remove not one or two trees, but tens and hundreds of trees. This is in addition to tree removals by developers and individuals.

After development has occurred, the hundreds of saplings replanted in the remaining soils cannot replace habitat provided by foliage, branches and hollows of mature trees in an Urban Forest. In this way, environmentally uninformed decision-making and cumulative zoning quickly destroys efforts, by council staff in the field and volunteers, to protect and restore biodiversity.



As sites are cumulatively cleared, the very basis for fragile Urban Forest ie. rich soils and seed-bank, is excavated and removed forever by improper planning.



Replacement building side set-backs leave no room for tall canopy trees which once formed bio-links. Zoning permits a footprint totally inappropriate for an ESA.

The problem lies in the overarching power of Planning Legislation. State (*TSC Act*)* and national (*EPBC Act*)* environmental legislation has failed to prevent biodiversity loss in NSW. The dominance of an ecologically un-informed NSW planning system, corrupted by failures, faults and flaws in that system, forces unreasonable concessions from environmental departments and regulatory bodies, resulting in irreparable biodiversity loss.^{vii}

The NSW planning system can implement zoning with negative impact where “critical habitat” provisions are not applied. Further, cumulative removal of vegetation and regenerative capacities (land area and soils) of Urban Forest is not assessed in land-use planning. A scientific study of cumulative impacts says, “*while each single land use change results in a negligible impact, the accumulation of these individual changes over time and within a landscape or region may constitute a major impact.*”^{viii} Neither state nor federal legislation considers the destructive effect of many zonings overlaying each other.

The NSW Government’s Standard Local Environment Plan (LEP) is full of unknown perils for an area of high biodiversity. Standard Zoning certainly will allow smaller blocks of land within the range of Urban Forest. It will allow more development in the very soils needing more protection, to maintain current biodiversity levels in irreplaceable Urban Forests.^{ix} Urban Forest has far greater long term economic value than construction, which excavates and trucks away the very basis of fragile flora and fauna habitats – environmentally sensitive soils. That the resulting real estate is now being sold overseas and to investors - makes zoning for development, in areas of rare Urban Forest, a highly questionable process.

The NSW planning system appears un-aware of the intrinsic value of, and the method and need for, protecting land for its delicate biodiversity. Clearly, a lack of understanding of the value of biodiversity is demonstrated by the nature and number of zonings allowed in environmentally sensitive areas (ESAs).



Blue Gum High Forest site is moonscaped by damage un-assessed under one LEP, while damage from an adjacent development is cumulatively allowed under another LEP.



Building too close to established trees is the result of urban densification in Urban Forest. The cumulative impact of inappropriate zoning is *further* tree removal.

Zoning for development is an un-recognized key threatening process for threatened species. The Planning legislation (*EP & A Act*)* genuinely fails to protect biodiversity. BioBanking (*TSC Act*) treats biodiversity protection as a financial transaction. The policy platform of the Planning Institute of Australia (PIA) fails to mention biodiversity.^x With little protection in legislation and policy, zonings for development have become key threats to rare, urban biodiversity.

In present land-use planning “sustainability” simply means catch-up, non-diverse sapling planting in remaining soils, after massive concrete footprints are made. Tellingly, a biodiversity strategy is not a gazetted instrument. It is not officially part of the land-use planning process, nor is it signed off by ministers, to *precede* the threatening process of zoning.

Media debate and public discourse of development in biodiversity rich areas. In the push to increase human population in Sydney’s North and North West, no media debate has been conducted regarding Urban Forest’s contribution to the Australian biodiversity pool in terms of the critically endangered ecological communities found in these areas. Yet Local Government Areas (LGAs) like Hornsby, Ku-ring-gai and Lane Cove are strategic wildlife corridors between national Parks.^{xi}

Examined in the media mainly in terms of dwelling numbers allocated and proposed, the unexamined attributes of Urban Forest are matters of national significance. A wealth of fauna and flora is being allowed to vanish now, from the creeping cumulative effects, of multiple zonings for development, on corridors of non-human habitat.

It is urgent to change land-use planning to protect precious urban biodiversity. Rather than displace our last Urban Forests, we should “*bring forests into the cities*”.^{xii} City public lands, open-air carparks, railway corridors and vacant urban areas should be biodiversity refuges, community gardens and green spaces, to expand rare Urban Forest for human health.

Local Council development planning directors *are equipped* to assess and report negative cumulative impact on Urban Forest. However, ecological qualification and direct responsibility, for biodiversity conservation and environment protection, are needed at director level. Policy makers and planners know that existing Urban Forest is easier to protect, than to re-forest.^{xiii}

Urban Forests are crucial. In growing cities, once Urban Forests are removed and soils excavated, making amends is virtually impossible. Bio-links and rare urban biodiversity are of national importance and future job sources. The permanent loss of biodiversity (***critical biological infrastructure***) in Urban Forest, is therefore a matter of national interest and security.

Storms, bushfires, droughts and flooding rains are removing flora and fauna habitats.^{xiv} Human development, inextricably tied to biodiversity, soils and Urban Forests, is also cumulatively removing the shared life support.^{xv}

Janet Harwood

Our Future is the Natural World

**TSC Act*- The NSW Threatened Species Conservation Act 1995.

**EPBC Act* -The Environment Protection and Biodiversity Conservation Act 1999, the Australian Government's central environmental legislation.

**EP & A Act*- The NSW Environmental Planning & Assessment Act 1979.

Endnotes.

- ⁱ UN-Habitat bi-annual State of World Cities report 2010.
- ⁱⁱ “Biodiversity Conservation: A Decision Making Context” (1996) Dr. Ann Dale and Prof Stuart Hill
- ⁱⁱⁱ “Sustaining Life How Life depends on Biodiversity” (2008) Chivian E. and Bernstein A. eds Oxford University Press.
- ^{iv} “Collapse How Societies Choose to Fail or Survive” (2005) Jared Diamond. Penguin Books.
- ^v See Policy platform of Planning Institute of Australia (PIA) and other urban projects and national urban policy.
- ^{vi} See documentary film “State of Siege” in which activist film makers Dennis and Diane Grosvenor explore the destructive phenomenon of development and the politics behind it.
- ^{vii} <http://www.legislation.nsw.gov.au/maintop/view/inforce/epi+155+2006+cd+0+N> It is noted that NSW Environmental Zone protections available have failed to protect biodiversity and pressures from human development apply forcefully: when legislative provisions to declare “critical habitat” are not applied, where protective legislation is overridden; where cumulative impacts are not assessed; where systemic flaws and gaps continue to operate, biodiversity strategies are not given the status of gazetted instruments – and Departments of Environment are subsumed and/or not afforded the authorities they require, to genuinely protect biodiversity.
- ^{viii} “Estimating the cumulative effects of development on wildlife habitat” (1998) authors DavidMTheobald, JamesRMiller and NThompsonHughes
- ^{ix} See *Environmental Baseline Study (2000)*
<http://www.kmc.nsw.gov.au/www/html/212-research-studies-papers-and-reports.asp>
- ^x See PIA website <http://www.planning.org.au/policy/policy-platform>
- ^{xi} See especially Ku-ring-gai Council’s Biodiversity Strategy Appendix 6 Biodiversity Data, page 29
[http://www.kmc.nsw.gov.au/resources/documents/Biodiversity_Strategy_May_2006_final_for_adoption1\[1\].pdf](http://www.kmc.nsw.gov.au/resources/documents/Biodiversity_Strategy_May_2006_final_for_adoption1[1].pdf)
- ^{xii} Submission to National Policy Unit *Our Cities: Building a Productive, Sustainable and Livable Future* by Our Future is the Natural World. J.Harwood.
- ^{xiii} See <http://www.fao.org/docrep/005/t1680e/T1680E01.htm> “*Planning is important because trees are very often considered as an afterthought once development has taken place, rather than being incorporated at the original design phase. An integrated approach implies the participation of many different organizations - local councils, municipal and national planning bodies, departments, etc. Systematic management entails regulated tree management; operations such as planting, pruning, and felling must all be conducted in an organized manner, at the appropriate time. This is certainly more theoretical than actual in most urban settlements (in developed as well as developing countries); it also implies a greater degree of control over, or at least information about, all trees on all land types than usually exists.*”
- The FAO experience in “Urban Forestry” clearly indicates that more action is needed to protect existing Urban Forests (as defined). Zoning for protection of Biodiversity in Urban Forests (as defined), urgently needs to be specifically instituted through Planning legislation (EP&A Act). Local biodiversity strategies (TSC Act) need to be properly signed off by ministers and gazetted. Only the powerful land-use planning legislation can ensure that “critical habitat” in Urban Forests is not lost. Protective zoning for Urban Forest(as defined) and the complicating and devastating effects of un-assessed cumulative environmental impacts need to be immediately considered in Planning Legislation (EP&A Act).**
- ^{xiv} “*The Future of the Wild Radical Conservation for a Crowded World*” . (2006) J.Adams. Beacon Press Boston.
- ^{xv} The basis for natural terrestrial habitats - *Fertile soils: “An estimated four million bacterial species occur in a ton of fertile soil, comprising ten billion or so organisms to each gram of weight. Although invisible, the collectivity of these organisms in soils and elsewhere is vital to our continued existence. Similarly, while a few thousands of the millions of insect species in the world afflict us as pests and disease carriers, we depend on the rest for our very lives. If beneficial insects did not flourish, most of the land ecosystems of the world would collapse and a good part of humanity would perish with them..... For many reasons, not least our own well being, we need to take care of the rest of life.”*
E. O. Wilson Foreword in “*Sustaining Life How Life depends on Biodiversity*” Chivian E. and Bernstein A. eds. (2008) for The United Nations Programme.

IMPORTANT QUESTIONS

- Why are Urban Forests being allowed to disappear?**
Why are protective legislative provisions over-ridden?
Why is “critical habitat” not declared more rigorously?
Is biodiversity conservation a source of future employment?
Should Urban Forest areas be given a new category of protective rezoning?
When will cumulative impacts be made to matter to protect biodiversity through planning legislation?

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