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## THE 10/50 VEGETATION CLEARING FIASCO

In response to the severe bushfires experienced in the Blue Mountains in September last year, the State Government passed the Rural Fires Amendment (Vegetation Clearing) Act 2014 on 17 July. The purpose of the Act, as stated in the Explanatory Notes, is to reduce bush fire risk.

Under the Act the Rural Fire Service (RFS) is required to prepare a 10/50 Vegetation Clearing Code of Practice. Submissions were invited with a closing date of 21 July. 11 days later the new Law was gazetted and came into force on 1 August together with the Clearing Code.

Not only was there virtually no time for submissions to be considered, the maps defining the areas of application of the new Code were not available until after the closure of the period available for public submissions. This limited ability to assess the full implications of the Code. The Code appears to have not addressed a long list of issues raised by expert bodies such as Ku-ring-gai Council, the Nature Conservation Council and the EDO.

The Code appears to have been drafted primarily in the context of rural areas and large bushland areas like the Blue Mountains. In its current form the code could have detrimental impacts on urban bushland and urban amenity without causing a significant reduction in

bushfire risk when considered against the risk measures already in place.

## The Clearing Code

The Clearing Code provides that landowners in a designated "10/50 Vegetation Clearing Entitlement Area" **may** carry out vegetation clearing work on their own land. The code overrides existing council Tree Preservation Orders and many other vegetation clearing restrictions. Unlike Planning for Bushfire Protection legislation which requires an Asset Protection Zone between a building and the bushland, the Clearing Code apparently allows vegetation clearing 360 degrees around the building irrespective of the actual location of the bushland. Indeed the building could be greater than 50 metres from bushland in an urban area, it only has to be within a 10/50 vegetation clearing entitlement area mapped by the RFS.

The new code allows

- the removal, destruction (by means other than fire) or pruning of any vegetation (including trees measured to the trunk) within 10 metres; and
- the removal, destruction (by means other than fire) or pruning of any vegetation, (except for trees) within 50 metres

of an external wall of a residential building or a high-risk facility, as defined, for example school or hospital. External walls include fixed structures attached to a building such as a deck or garage. The allowable distances apply irrespective of whose land the residential building or high-risk facility occurs on, so a neighbour whose land is also in the clearing entitlement area may be asked to agree to the removal of vegetation on their land. If a neighbour does not agree and the vegetation is a genuine fire hazard a complaint can be made to the RFS.

Tree branches hanging within 10 metres of a residence may also be removed.

The National Parks and Wildlife Act has been amended so that it will not be an offence if clearing leads to "harm to any animal that is of, or is part of, a threatened species, an

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## STEP Inc

Community-based Environmental Conservation since 1978

endangered population or an endangered ecological community”, or “damage to any habitat of a threatened species, an endangered population or an endangered ecological community if the person knows that the habitat concerned is habitat of that kind”.

The Code does not apply to areas covered by a biobanking agreement or conservation agreement under various State acts such as the National Parks and Wildlife Act and the Native Vegetation Act.

The Clearing Code may be amended by the Rural Fires Commissioner at any time but it is intended that the first review will not occur for 2 years.

### **Problems with the Code**

The details of measures to protect threatened species and endangered ecological communities of public land are not clear. Unless covered by a listed agreement there is appears to be no protection for threatened species and endangered ecological communities under NSW legislation where the 10/50 Code applies. There may be protection if the Federal Environment and Biodiversity Conservation Act applies. The information on the RFS website states: “clearing of a defensible space around a home or rural asset in accordance with state/territory and local government requirements’ is unlikely to require approval by the federal government” and “whether a particular activity will have a significant impact must be considered on a case-by-case basis. You should contact the Commonwealth Department of Environment if you are seeking advice on the EPBC Act.”

There could be an absurd position where Browns Forest in St Ives, which has a conservation agreement, receives immunity from the 10/50 Code, while the larger more pristine adjoining Dalrymple Hay Nature Reserve may not. The absurdity is compounded by the fact that there is no physical boundary between these forests. Collectively these iconic forests are nationally significant and form the largest example of critically endangered Blue Gum High Forest in existence.

The Code does not allow clearing within 10m of the top of the highest bank or tidal limit of a Prescribed Stream as identified by the Office of Environment and Heritage. This is likely to be problematic in urban areas as examination of the Prescribed Stream list shows it only applies to major rivers and their tributaries and the vast majority of urban watercourses are excluded. Unlike their natural and rural counterparts, urban watercourses often have large impermeable areas in their catchments. As such they are subject to frequent flooding and

are highly prone to erosion. Protection from erosion usually comes from shrubs and ground covers along the banks and stream bed. Under the 10/50 Code as it now stands all this protective vegetation cover can be cleared within 50 metres of a dwelling, irrespective of whether it is on an upper or lower bank or a stream bed. Surely this was not the intent of the Code?

The definition of tree excludes those with a circumference of less than 0.3m at a height of 1.3m. This would have a significant detrimental effect on low flammability regenerating riparian rainforest species in urban watercourses. Many native rainforest species have evolved drought resistance and can play an important role in stabilising watercourses and lowering the fuel load and flammability of local bushland. Many such species have an initial straight spindly growth habit, growing tall before expanding in the trunk. If riparian areas are to be included then it would be desirable for the circumference to be amended to 10 cms for these areas.

### **Sydney Areas that are affected**

It appears that the Clearing Entitlement Areas maps are based on the current Bush Fire Prone Land maps, see <http://www.rfs.nsw.gov.au/plan-and-prepare/1050-vegetation-clearing/tool>. Examples of areas the new code applies to include:

- Some schools with areas of land with native tree cover such as Abbotsleigh, Pymble Ladies College, Barker College and of course, The Bush School, Wahroonga – with critically endangered Blue Gum High Forest.
- Houses near small pockets of bushland such as near Granny Springs Reserve behind Turramurra shops.
- Houses near the Sydney Harbour foreshore areas with bushland reserves such as Avenue Road near Mosman Bay.

The code may create the expectation that councils will clear understory within 50m of a dwelling beyond the property boundary. This will create a haven for weeds and lead to further weed encroachment into reserves if councils lack the funding to continually maintain these areas. Such weed areas may present a higher bushfire hazard than the existing native vegetation.

The new code has the potential to significantly reduce the canopy area in many parts of Sydney in addition to the areas already being lost to high density development. Trees and other vegetation enhance amenity and reduce the urban heat island effect. Residents choose

to live near bushland for these very reasons and manage the risks under current provisions.

### Conclusion

It is generally acknowledged that the safety of people living in bushfire prone areas is paramount and that the clearing rules should avoid unnecessary red tape but this Act has been implemented in haste without due consideration of its implications for urban areas. In some respects it will be counterproductive. As pointed out above in some urban areas it is likely to lead to environmental damage and areas prone to weed invasion which may be a greater bushfire hazard than the original uncleared vegetation. The code will be particularly damaging in urban areas where bushland is already under stress from development encroachment.

It is STEP's view the 10/50 Vegetation Clearing Code is a simple one glove fits all policy with all the problems that go with this approach. It takes very little account of actual bushfire risk. Low bushfire hazard areas that have not had a fire since being developed nearly a century ago, are treated the same way as very high risk areas that can regularly burn at high intensity each 5-10 years. Such treatment is analogous to taking the 40 kmh school speed zone and applying it to the full length of our highways. The planning measures taken to protect lives need to be commensurate with the risk involved. The 10/50 Code as it stands not only fails this test, but threatens the quality and amenity of many of our established suburban areas.

The clearing code should not be promoted as the main means of controlling bushfire risk. In catastrophic conditions where ember attack is a major risk other mitigation strategies, such as property management, are still needed.

Bushfire risk should not be left to landowners to assess. The current regulatory process of issuing bush fire hazard reduction certificates generally involves contact between landowners and fire experts. This contact is critical to ensure that homeowners are taking the best and most appropriate action to protect life and property.

A reporting process should be in place so that councils and/or the RFS can assess the impact of the new legislation.

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### ANNUAL GENERAL MEETING AND TALK – TUESDAY 30 SEPTEMBER

7.45 pm – St Andrews Church Hall, corner Chisholm and Vernon Sts, South Turramurra  
After the AGM **Corinne Fisher**, Project Manager at the Australian Research Institute for Environment and Sustainability, Macquarie University and Convenor of the Better Planning Network will provide an update on the Ku-ring-gai based Habitat Stepping Stones project and what is happening with planning in NSW. She will also describe the Good Planning Charter that BPN is developing in preparation for the upcoming state election.

#### Call for Nominations of Office Bearers

We encourage members to join the committee or help with our work. New ideas are always welcome.

Nominations for office bearers and committee members should be made in writing and received by the secretary at least 7 days prior to the meeting on 30 September. Nomination forms are available from [secretary@step.org.au](mailto:secretary@step.org.au)



## STEP EVENTS

### REMINDER - STEP Lecture – Thursday 16 October, Sydney Harbour – Biodiversity and Threats

8 pm – St Andrews Church Hall, corner Chisholm and Vernon Sts, South Turramurra

Professor Emma Johnston will present the 2014 STEP Lecture. See issue 176 of STEP Matters for details.

### STEP Walk – Sunday 24 August – Centre Trail, Ku-ring-gai National Park

Time: 1.45 pm for 2 pm start

Length: Approx 3 hours, distance 6 kms

Grade: Easy to moderate.

Where: Meet near the kiosk at the first turnoff (to Cottage Point and Akuna Bay) after Terry Hills on McCarrs Creek Rd.

Contact: John Martyn 9449 7962, call or text 0425 830 260, or [johnmartyn@optusnet.com.au](mailto:johnmartyn@optusnet.com.au)

A pleasant afternoon walk along the Centre Trail in Ku-ring-gai Chase National Park which provides some of the best wildflower displays in the area. Bring cameras and binoculars (on past visits wedge tails, peregrines and whistling kites as well as many smaller birds have been observed). Plant i.d. books might be useful. There is a beautiful scenic resting spot at the turnaround: bring a drink or snack.

### STEP Walk – Sunday 21 Sept – Hornsby Blue Gum Track

Time: 9.15am for 9.30 start

Length: Approx 3 hours, distance 5 kms

Grade: Medium to difficult, some rock scrambles..

Where: Meet at the Mountain Bike Trail sign, Quarry Road Hornsby [about 400 meters from the intersection Dural Street and the Pacific Highway, Hornsby)

Bring: Water and sturdy walking shoes. Coffee afterwards at Brewhaha in Hornsby, corner Coronation St and Pacific Highway.

Contact: Frank Freeman, [frankfreeman@optusnet.com.au](mailto:frankfreeman@optusnet.com.au), 9983 1586 (after 7pm)

This walk goes along the valley floor of Hornsby's majestic Blue Gum Forest growing on rich volcanic soils. We will walk via Fishponds waterhole – a deep pool on a large bend of Berowra Creek flanked by tall sandstone cliffs.

### Ku-ring-gai Garden and Wildflower Festival – Sunday 31 August, 9 am to 3 pm.

In its 38th year, the annual Wildflower and Garden Festival at the St Ives Wildflower Garden is a fun day out for the whole family.

With over 25 stallholders including native plant sales, kids entertainment, music and food stalls this year's Festival will be bigger than ever.

Entry to the Festival is free and all are welcome. STEP will be manning a stall so come and say hello.

### THE GREAT BARRIER REEF NEEDS YOUR HELP

The approvals of development that could cause further serious damage to the Great Barrier Reef keep on piling up. The developments include:

- Creation of the mega port at Abbot Point, the largest coal port in the world.
- Major expansion of several other ports along or near the Reef.
- Possible transfer of coal to ships via barge in Reef waters rather than at a port
- Shipping movements increasing to 7,000 each year

The Great Barrier Reef Marine Park Authority and government released two reports this month on the outlook for the Reef and a strategic assessment. These reports reveal:

- Five years on from the last Outlook Report, almost all the risks to the Reef remain the same or have increased despite claims of 'good management' by governments during the time.
- Uncertainty about the additional effects of sea dumping of dredge spoil are highlighted as a growing concern, with the Outlook Report noting that monitoring of impacts has been inadequate.
- Dumping of dredge spoil is considered a high risk to the Reef's values.
- There is the familiar story of no comprehensive plan for managing or monitoring cumulative impacts of processes with environmental impacts across the region.

Governments think if we don't measure a problem it will go away!

**You can find how to do something** about it by logging on to this website: <http://fightforthereef.org.au/>

## LOCAL BUSHCARE STORIES

September heralds spring and renewed human and native activity in the bush. The following stories cover some of the local events.

Firstly, the Booth family provide a description of the instrumental role that Alan Catford, who died in June, played in development of STEP and of bushcare in Ku-ring-gai.

### ALAN CATFORD'S LEGACY

Alan was an essential participant in the foundation of STEP in 1978. The battle for the Canoon Rd ridge, the habitat for many flowers including Christmas Bells, was lost but the legacy following that loss was STEP Inc.

Long before Council Bushcare, he was tending the Lane Cove Valley bushland at Kingsford Avenue, South Turramurra, at the same time as the Bradley sisters were developing bush regeneration. Even in the last week of his life, he was out there in his shorts with his "weed box". He never resorted to herbicide but kept up relentless spot weeding.

Alan designed the STEP Track to highlight the various ecosystems that made the Upper Lane Cove Valley a treasure that needed to be preserved. The original track was twice as long as it is now but on the collapse of the log bridge near Bowen Avenue, it was shortened to its present form. The track played a vital part in the education of politicians and the public in the opposition to the freeway link that was subsequently abandoned.

South Turramurra requires bushfire management that looks after both residents and bushland. Alan and a team from STEP organised, with community help, the hand clearing of a hazard reduction zone around the whole peninsula, preferable to the burning and bulldozing of the time. Clumps of genetic material were left in the cleared areas. Council still uses this method where suitable.

### Bushcare Major Day Out – 7 September

In 2014 Bushcare's Major Day Out will be held on Sunday September 7th in Landcare Week, and will be part of Landcare Australia's 25th anniversary celebrations, at city and country locations across Australia. However, the day for Bushcare's Major Day Out is flexible, so individual sites may choose slightly different dates.

Bushcare's Major Day Out is a day specifically designed to give us the opportunity to find out what is being done and what can be done in our own neighbourhood. It's a fun day where anyone, young and old can work alongside and learn from experts and experienced volunteers. There are a range of activities depending on the location; walks,

planting, weed removal, photography workshops as well as native plant identification and well celebrated morning teas.

For information about a site near you go to [www.bushcaresmajordayout.org.au](http://www.bushcaresmajordayout.org.au)

### STEP Track Bushcare – HELP NEEDED

The organisers of the bushcare site at the STEP Track will be participating in the Major Day Out but on Saturday 6 September, from 9 am to 12 noon. The location is the end of Kingsford Ave, South Turramurra.

The number of bushcarers at this site has dwindled. If you would like to join in on 6 September or find out more contact Margaret Booth at [margatsoutht@yahoo.com](mailto:margatsoutht@yahoo.com)

Come and find out about Sydney Sandstone Ridgetop Woodland. This area is earmarked for an ecological burn, find out why and what results are expected. The STEP track ventures down into the valley where you can explore a variety of bushland. Go out to the scenic lookout and take your time around the waterfall.

### Mosman – Bradley Sisters' anniversary 30 October 2014

The 50th anniversary of the formation of the Mosman Parks & Bushland Association is on 30th October at Rawson Park, Mosman overlooking the Bradley Bushland Reserve. Starting time is 5 or 5.30 (to be confirmed) and will be preceded by walks around the Bradley Bushland Reserve for those interested. It is hoped that Rob Stokes, Minister for the Environment, will be attending and addressing the gathering.

The Bradley Bushland Reserve is a locally unique patch of sandstone heathland which honours the Bradley sisters, Eileen and Joan, who developed bush regeneration in the area in the 1960s.

These days Mosman is better known for its zoo, breathtaking views and some exorbitant property prices than as the home for thirty years of two women who helped to bring grassroots environmental activism into being. It was in their local bushland that these unlikely and ladylike eco-pioneers, working with other members of their local resident action group, got down on their middle-aged hands and knees and carefully, systematically, began to weed out the plants they believed to be out-of-place among the native flora.

After Joan Bradley's death in 1982 The Mosman Parks and Bushland Association lobbied to have the hectare of bushland dedicated as a memorial to the Bradley sisters. (Source:[www.bushcaresmajordayout.org](http://www.bushcaresmajordayout.org))

## GARIGAL MOUNTAIN BIKE TRACK

The western side of the Garigal Mountain Bike Track is nearing completion. The track runs along the Currie Road and the Cook St firetrails then returns as a single one-way track to Currie Road. The photo shows part of the single track. We will be monitoring the track to see how much damage is done to bush either side.

The single track has been carved through pristine bushland with a section near to an endangered ecological communities. Protest from environmental groups have been ignored.



## LOSS OF BLUE GUMS IN PENNANT HILLS

A brave band of residents assembled at 6 am on a cold and wet Saturday morning, 26 July to protest at the removal by Hornsby Council of 2 mature blue gums in Hillcrest Ave, Pennant Hills.

The Council adopted the most conservative risk and cost minimizing viewpoint and took the opportunity to remove them as soon as they had an arborist's report expressing any risk



Local residents left notes and flowers where the trees once stood to mourn their loss.

## SPANISH MOSS – ENVIRONMENTAL MENACE

The strange 'air plant' ( *Tillandsia usneoides*) occurs naturally from Argentina to the southern United States, including the Louisiana bayous. It is not a moss at all, but a member of the pineapple family (Bromeliaceae). As the photo of a tree in Godfrey Ave, Turramurra shows it can overwhelm other vegetation.

This perennial, mosslike epiphyte. has no roots, and hangs in long grey strands from the trunks and branches of host trees. The slender stems are covered in silvery white scales which absorb moisture and nutrients from the air. Inconspicuous pale green or blue flowers appear in summer and are fragrant at night.

The nursery trade suggests that Spanish moss can be grown on tree branches, or hung on fences to form an unusual privacy screen. It does not need watering or fertilizing.

But birds use Spanish moss as nesting material. The tiny seeds and fragments of Spanish moss are easily spread by wind and birds. In Australia there are several instances where it has escaped from gardens and invaded native rainforest. As the photo shows it can be invasive. Once it is at the top of a tree it is impossible to reach and remove. Although Spanish moss is not a parasite, it can shade and weaken the host tree. When wet and heavy after rain it may also break branches.



Attempts are being made to get this plant declared a noxious weed and there should be an education campaign explaining the inherent dangers associated with this plant. In the meantime, if you see it for sale or in a neighbour's garden, please explain the damage it can do.

## SHOOTING OF GLEN TURNER

*Andrew Burke is a criminal lawyer and a PhD candidate at Macquarie University researching environmental crime.*

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Media commentary following the shooting death of Environment and Heritage officer Glen Turner has exposed ongoing double standards when it comes to environmental crimes.

The NSW Parliament established the Native Vegetation Act 2003. It makes some landclearing a crime. A crime just like any other; it goes on your criminal record, it makes you a criminal. It is not radical or draconian legislation. Most landclearing is permitted under the Act and it has been subject to sustained criticism by environmental groups for being too weak.

Mr Turner, like all those in a compliance role with Environment and Heritage and the EPA, worked in a form of law enforcement. They are, if you like, the police of environmental laws. Their duty is to uphold and enforce the law as enacted by Parliament.

On Wednesday, as news of the shooting broke, Moree Plains Mayor Katrina Humphries was a prominent voice. She was quoted in this paper saying that frustration over environmental issues had been so great that she feared it would erupt in violence. Agriculture Minister Barnaby Joyce weighed in, stating that farmers hate native vegetation laws which had created incredible animosity towards the government. Both Ms Humphries and Mr Joyce seemed keen to blame everyone but the man who allegedly pulled the trigger.

Imagine if Mr Turner had been a police officer killed in the line of duty. He might have been shot by a drug dealer, or attending to an armed robbery. Would anyone blame frustration with drug or larceny laws? Of course not. The alleged offender would be universally condemned and the victim lauded as hero who paid the ultimate sacrifice in the public interest.

The Daily Telegraph, in its front page splash on Thursday, ran with the sub-headline "Environment officer shot dead in alleged clearing feud with farmer". A public official enforcing the law is not engaged in a 'feud' with an offender. A feud is a private dispute. The law is in the public interest. Would we describe a police officer who investigated a string of armed robberies before being killed by the suspect as "Cop shot dead in alleged larceny feud"?

In this paper on Thursday, Christopher Harris drew an exceptionally long bow by comparing this alleged murder to the case of activist Jonathan Moylan. Whether or not Mr Turner was an environmentalist (I have no idea) is

immaterial. He was enforcing the law, not asserting his own opinion. He was no more an activist than a police officer is a vigilante.

The Daily Telegraph on Friday continued its coverage with a story highly sympathetic to the alleged killer, Ian Turnbull. Turnbull recently entered a guilty plea to a landclearing charge in the Land and Environment Court. Although still awaiting sentence, his guilty plea is an admission of criminality. The Telegraph described him as "pushed beyond despair" and a "hardworking man of the land". The notoriously pro law-and-order newspaper published a list of Turnbull's excuses, including financial and health problems and – remarkably – the pressure of being prosecuted for a criminal act. Why? Because it was an environmental offence. It is difficult, if not impossible, to imagine such soft treatment for a man who had offended against any other type of law.

Environmental crimes are often seen to be less 'real' than other forms of crime. Whist this attitude persists environmental laws will be less effective than they could be. When politicians rush to blame the law for the death of an enforcement officer they send a dangerous message that frustration with the law justifies violence.



Turnbull has been described in the media coverage as a well-liked community member, even-tempered, decent, even cheerful. Ms Humphries described him as respected. A man who allegedly fired repeatedly upon unarmed men on a public road. If Turnbull is found guilty of murder, I have a more accurate term: cop-killer.

## STATE OF AUSTRALIA'S ENVIRONMENT

*The latest demographic statistics confirm that Australia is still on track to reach a population of 40 million by 2050, a huge increase on our current level of 23 million. Despite the efforts of a few politicians like Kelvin Thomson, the issue of the long term consequences of continuing on the current path are being ignored as those with a vested interest in population growth (business and media) hold sway.*

*This article written by Prof Ian Lowe and published in The Conversation on 7 May 2014 provides a grim summary of our situation.*

In the lead-up to the budget, the story of crisis has been hammered home, but there's more to a country than its structural deficit. So how is Australia doing overall? In this special series, ten writers take a broader look at the State of Australia; our health, wealth, education, culture, environment and international standing.

The state of Australia's environment is a real worry – and we have the report cards to prove it.

For the past two decades, successive federal governments have received a series of independent, five-yearly State of the Environment reports. I was appointed to chair the first national assessment, which delivered its findings in May 1996. And what we concluded then – a lifetime ago for an 18-year-old reading this today – is even truer now:

Some aspects of Australia's environment are in good condition by international standards ... Unfortunately, [this] report also shows that Australia has some serious environmental problems.

### How we're doing now

Whether you read the latest 2011 State of the Environment report, or the first from 1996, many of Australia's biggest environmental problems have remained the same. But what has changed is the scale and speed of action now needed to fix them.

Some of those persistent problems include:

- worsening traffic snarls in poorly connected, sprawling cities;
- population pressures along our much-loved coastline;
- degradation of productive rural land;
- major declines in native wildlife;
- the growing global challenge of rising greenhouse gas emissions; and
- major gaps in our knowledge and monitoring across many areas. As any management expert will tell you, you can't properly manage what you don't measure.

While most advanced nations have recognised the need to protect productive land, we continue to lose it to urban expansion, a direct consequence of the high rate of population

growth, compounded by urban development policies encouraging further sprawl.

That sprawl in turn contributes to one of key factors causing Australians to have the highest rate of greenhouse gas production per person of any affluent country. The very low population density of our urban areas gives us extremely inefficient urban transport systems, with inadequate public transport and a high dependence on private cars.

Pressures on coastal areas also continue to be driven by our unusually high rate of population growth, augmented by social and economic changes that are driving people from inland regions.

Despite the recent expansion of renewable energy systems, we still get most of our electricity from burning high-emissions fossil fuels, as shown below. Overall, our dependence on coal has fallen, but gas use has risen rapidly.

And there has been no observable slowing in the rate of loss of our biodiversity, largely because the main causes have not been addressed: loss of habitat and introduced species. Our inland rivers remain a concern, especially the Murray-Darling system, largely because of the past enthusiasm for allowing extraction of river water for irrigation.

So if we've known for decades that all of these areas need to improve, why haven't we done more about it?

### How we got here

During the last decade, national governments have given some attention to the symptoms of our environmental decline. The state of the Murray-Darling system is one example. Although the previous government backed away from the original plan, which would have given the river system at least a fighting chance of recovering its health, the revised document at least stopped further deterioration.

In the case of our greenhouse gas emissions, the mix of policies adopted by the Rudd and Gillard governments produced a measurable reduction and we did actually meet our Kyoto target, although that is mainly because the Howard government had demanded a goal that was uniquely generous and clearly out of line with our global responsibilities.

But the underlying problem is a failure to recognise and address the driving forces of environmental decline.

The 1996 State of the Environment report found that the problems we faced stemmed from a growing population, increasing consumption, lifestyle, and technology choices.

Yet we continue to have a rate of population growth higher than that of much poorer countries. Consumption per person is still increasing. And we continue to use outdated technologies like coal-fired electricity and large, inefficient cars.

The Rudd and Gillard governments did little to address these underlying drivers of environmental problems. That was bad enough.

Now, the Abbott government appears actively hostile to environmental protection. It has abandoned its responsibility for approving major projects by passing the job to the states, is trying to roll back the policies that cut greenhouse gas emissions, has reduced funding for bodies that actively protect the environment and is proposing an absurd "direct action" scheme that is not seen even by its supporters as an adequate response to climate change.

The government also continues to promote ridiculously high rates of population growth, distracting attention from its policy by demonising the relatively small number of people who seek asylum here.

Just as the Rudd and Gillard governments did, the current government is ignoring the consequences of rapid population growth. That growth is a factor in high unemployment levels. It's also causing chaos as state governments struggle with the spiralling costs of urban infrastructure: roads, public transport, water, power and waste treatment.

Our domestic greenhouse gas production is now swamped by our exports of fossil fuels, but the government continues to promote further expansion. The underlying issue is the ideology of the government, an obsession with economic growth and a studied refusal to recognise what science has been telling us for at least 40 years: it is not possible even in principle to have unlimited growth in a closed system. The continuing attempt to pursue growth at all costs will inevitably have very serious consequences.

### **The next ten years**

The next State of the Environment report is due in 2016. What will it conclude? I wish it weren't the case, but I suspect it will keep repeating what has been said before in 2011, 2006, 2001 and back to 1996.

Australia is still blessed with many beautiful, unique places, plants and animals, including

natural wonders from the Kimberley to Kakadu, and the Great Barrier Reef to Tasmania's wilderness. Yet as a nation, we're still not acting to conserve the natural fortune we've inherited for generations well beyond the next decade.

For at least the next few years, the prospects for environmental leadership from the current federal government look bleak.

Nearly a generation ago, I signed off the first State of the Environment by stressing that while we had found Australia faced serious environmental challenges, most of those problems did have solutions. Today, that's still true.

But environmental organisations are increasingly seeing it as futile to attempt to persuade closed minds in Canberra. Instead, they are putting more effort into engaging with community groups and concerned citizens to change the political framework in which governments operate.

Solar isn't just for the rich. The five areas of Australia with the largest number of solar systems – Bundaberg and Hervey Bay in Queensland, Mandurah in WA, and Werribee and Hopper's Crossing in Victoria – all have below state average income levels. REC Agents Association/Renew Economy, CC BY. Ordinary people are voting with their wallets to install solar panels and save more energy at home.

Movements like Lock the Gate are the mood of



the future, uniting rural producers, scientists and environmentalists to protect productive land. In the absence of national leadership, people across Australia will have to lead instead.

## LED - LIGHTING REVOLUTION

Source:

<http://www.thefifthestate.com.au/archives/65524/>  
and

*The Climate Group:*

<http://thecleanrevolution.org/publications/lighting-the-clean-revolution-the-rise-of-leds-and-what-it-means-for-cities>

Lighting is responsible for 19% of global electricity use and around 6% of greenhouse gas emissions. Australia has taken some small steps towards improving lighting efficiency and cost effective by banning the sale of incandescent globes but significant change will come about with the implementation of light-emitting diodes or LEDs.

LEDs are evolving much faster than other lighting technologies and in the near future are expected to become much more efficient than any other technology as shown in the graphs over the page.

LED technology offers important benefits in the following respects;

**High Energy efficiency** – current efficiencies of LEDs are 100 lumens per watt compared with about 67 lumens per watt for a compact fluorescent and 16 lumens for a 60W incandescent globe. Overall LEDs are estimated to be 50% to 70% more efficient.

**Long lifetimes** – LEDs are rated to last 30 times as long as the equivalent incandescent globe.

**Light intensity control** – unlike compact fluorescent globes LEDs can be dimmed so it is possible to match light output closely to need.

**Colour choice** – newer white LEDs have the potential to illuminate with light that mimics daylight.

**Directionality** – street lighting can reduce light pollution from intruding into residential windows or the night sky.

Currently LEDs are being most readily introduced into street lighting. Councils are paying upwards of \$400 million a year for street lighting, but the system is mostly owned by

electricity distribution utilities and of course these same utilities receive payment for electricity use. The Institute of Public Works Engineering Australasia (IPWEA) is concerned that these utilities are stalling the move to more efficient, cleaner and safer LEDs.

According to a IPWEA practice note released this month, switching to LED street lights could halve electricity consumption, save local councils across Australia up to \$87 million and prevent 720,000 tonnes of CO2 emissions a year. Several councils in NSW have been installing LED lighting on a trial basis and Sydney city has decided to changeover completely over the three years from 2013 to 2016.

IPWEA has suggested that state governments “urgently change” the regulations covering street lighting or help to transfer ownership to councils on fair terms, as has happened in New Zealand and parts of Canada.

### **LEDs save lives, reduces crime**

In addition to the huge cost and emission savings, the practice note also highlights the improved safety outcomes for drivers and pedestrians where LED lighting is in use.

“The whiter LED light is cleaner and tests in the US have shown it enables drivers to respond more quickly in emergencies,” IPWEA sustainability director Dr Stephen Lees said.

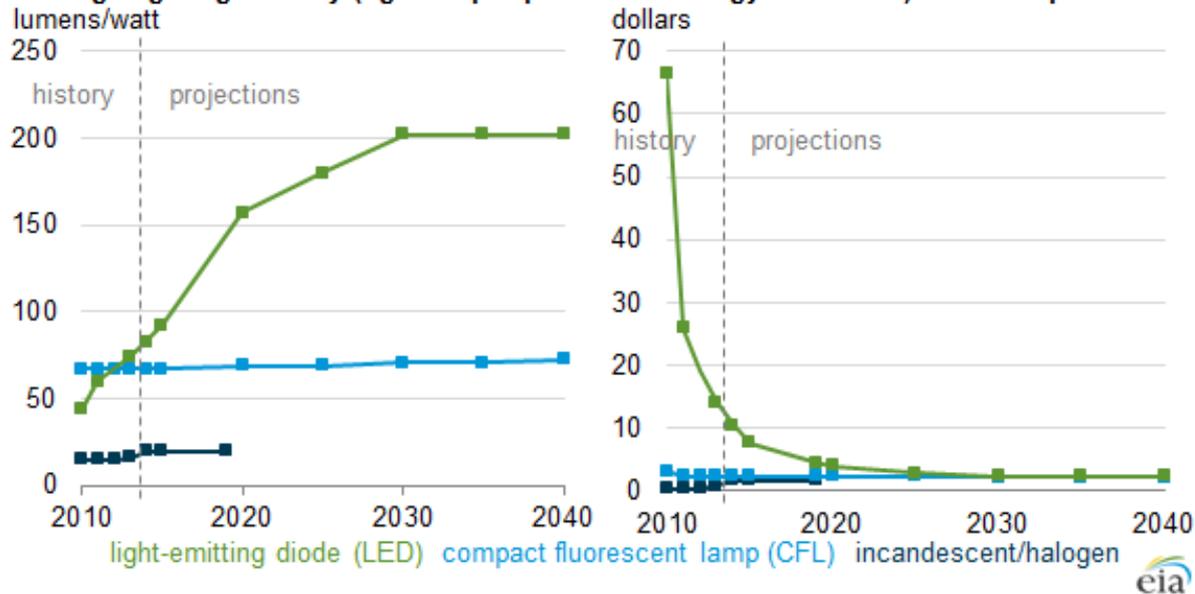
“As well, results from Los Angeles show a measurable reduction in street crime and vandalism after LED street lighting was introduced.”

LEDs could also save utilities costs associated with maintenance, estimated at a reduction of more than 50 per cent compared with the costs of maintaining traditional lighting.

“It’s a win-win for energy savings, maintenance savings, emission savings and added safety, but it requires some political leadership at state government level to realise these gains,” Dr Lees said

Source: U.S. Energy Information Administration, Annual Energy Outlook 2014 Early Release

**Average lighting efficacy (light output per unit of energy consumed) and cost per bulb**



**STEP INFORMATION**

**STEP Matters**

The editor of *STEP Matters* for this edition is Jill Green, who is responsible for all information and articles unless otherwise specifically credited. The STEP committee may not necessarily agree with all opinions carried in this newsletter, but we do welcome feedback and comments from our readers, be they STEP members or not.

All issues (from when we began in 1978) can be viewed online, usually in full-colour.

**Feedback**

Send complaints, praise, comments or letters to [secretary@step.org.au](mailto:secretary@step.org.au). Please feel free to share your copy of the newsletter with friends, neighbours and business colleagues.

**New Members**

New members are always welcome to join STEP and to make themselves available for the committee should they wish to do so. The effectiveness of STEP is a factor of the numbers of members we have, so please encourage your like-minded friends and neighbours to join.

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