



Abel Ecology

NEWSLETTER

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The past six months has been extremely busy for us so you have not heard from us by newsletter. We have been working on various components of the Commonwealth stimulus package. Alongside that we are acting for private and government clients in the NSW Land and Environment Court, as well as our usual clients.

Commonwealth Economic Stimulus package

NSW Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009

Under the Building the Education Revolution scheme we are coordinating bushfire and vegetation management with flora and fauna impact assessments. It has been an exciting challenge to meet short time frames and also to introduce engineers and builders to the concepts and

processes in bushfire, vegetation management and ecological impact assessments. Now we are moving on to the next phase of that process, with less urgent time frames.

Abel Ecology Product News

Abel EarthScape



New members of the Abel team bring new expertise that fits with our existing capabilities.

David Rogers is an experienced green-keeper with an interest in lawn and turf. This service will comprise soft landscaping installation and renovation, particularly lawns. In order to differentiate this new service we are calling it **Abel EarthScape**. This compliments our existing successful bush regeneration work under the name **Abel Earthcare**.

We commonly deal with whole property redevelopments, so a range of issues is present that needs to be managed consistently. These issues include bushfire protection clearances, effluent disposal, lawn areas for nutrient and water disposal, recreational areas and native vegetation management. Between our four botanists we have a great deal of overlap in expertise in ecology, bush regeneration, vegetation management, new lawns and horticulture. Our team of experts is able to provide advice for a development application on all these matters.

Native turfs

We have tested a native lawn turf here at Faulconbridge (Blue Mountains, 400 m altitude) and find that it is drought and shade tolerant, grows low and dense and retains its colour through cooler winter months. What more could you ask? Well, it also thrives in heavy soils! Paradoxically it appears not to be as aggressive as common couch for invasion of gardens. The only limitation may be higher altitude cool climate and frosts. Cutting high in winter may overcome that problem as frost burn will only affect the tips and not get to the rhizomes underneath. It is a very tough species used for closely mown golf course fairways on the NSW north coast. It is common behind north coast beaches on grassed areas that are subject to heavy summer wear by holiday crowds. While this species is not local to the Sydney area it is not far from its natural occurrence.

We have also found a supplier of a different native turf suitable for riparian restoration. This species thrives in very wet situations so is suitable for immediate cover for disturbed and exposed soil in stream beds. This significantly reduces the risk of erosion from stormwater surges in new works and we have specified it for installation in a creekline rehabilitation project for a major metropolitan council.

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Bar Unsolicited Telemarketing calls

Currently listed private mobile, landline and VOIP phone numbers on the "don't call" register will expire by 1st May. Re-register now!

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Biobanking accreditation

Dr Daniel McDonald is our newly accredited BioBanking assessor. We mostly use the Biobanking calculator for determining offset requirements for development proposals. Some of our clients have land available for use as offsets. That includes more than ten hectares of Cumberland Plain Woodland. Biobanking as a scheme has yet to get off the

ground because of scepticism by developers and risk for land-owners considering offering their land as an offset site. An article in the environmental law journal *Impact* (Hammond-Deakin, 2009) details the factors that present stumbling blocks for the scheme. Staff of DECCW are still talking up the concept but no progress has been made.

A review is due in June this year but so far there does not appear to be any Biobanking activity to actually review.

Dr McDonald has prepared calculations for some clients to determine a robust offset calculation for impact of development. Those offsets have been available on the clients' own land so the Biobanking scheme has not been required.

Construction and Infrastructure News

Solid log homes survive Victorian bush fires

Spectacular pictures have emerged from the NSW Blue Mountains and Victoria showing solid log timber homes that survived the inferno that destroyed neighbouring homes. In the case of the Victorian homes there is not even any evidence of charring. The surviving homes were constructed of Radiata Pine, a low density softwood.

A story in the Sun-Herald newspaper, Sunday 19th of July 2009, revealed that solid log walls are expected to survive a bushfire. Professor Yaping He of the University of Western Sydney has been conducting research into heat resistance characteristics of solid log walls and has a number of papers published detailing the survival of such buildings. Dr Tracy Wakefield of Appalation Log Homes subjected a log wall made of Australian white cypress to the most severe building fire exposure test, AS 1530.8.2, and the wall passed the test, meeting the requirement of Planning for Bushfire Protection 2006 for flame zone exposure.

The NSW Planning for Bushfire Protection 2006 precludes "the use of exposed timber without specific

testing in accordance with suitable protocols" (page 60). That test result offers an opportunity to build with timber in some bushfire prone situations.

A home at Warrimoo, built of white cypress logs, survived the 2002 Blue Mountains bush fires, as shown in these photos. The log wall was scorched from piloted ignition on a timber deck but did not continue burning once the flame was removed. Note that the plain glass windows are intact even with direct sustained flame contact.



NSW Land and Environment Court

Expert Witness

We continue to have success in the Land and Environment Court. In the past year we have had excellent outcomes for metropolitan councils as well as our developer clients. Our capability is across flora and fauna ecology, bush regeneration, bushfire and vegetation management, so we are a one-stop-shop for fully integrated ecological advice. That enables us to understand the interaction of a range of issues in complex

development proposals. It has been a great pleasure to work with experienced planners, major law firms and senior barristers in the LEC. At present we are actively working in a number of cases both in the Sydney area and elsewhere in the State.

Detective Botanist

Investigators for a case that was reported in the media asked us for assistance recently. Soil found on a suspect's garden

tools was suspected to come from an area where evidence was buried. A pollen expert compiled a list of plant species from pollen found in the soil residues on the tools. One of our botanists went with the investigator team to direct the search for evidence by finding the most likely vegetation community in which the evidence could have been buried. Sorry, we can't reveal more than that!

"Eco-vandal" fined \$ 210,000

Lismore's Northern Star newspaper (3-4 April 2010) reported that a 60 year old man who cleared 255 trees on his property will have to pay \$210,000 in legal fees and fines. The man carried out a road development on his property without consent and was found guilty in Byron Bay Local Court. The fine was \$150,000 and the balance was Council's legal costs. The activity included destruction of

koala habitat, seven species of threatened and rare trees and destruction of lowland rainforest.

The bulldozer driver, when questioned by a council officer on the site, said that he had received ecological advice that there were no threatened species or other ecological issues that needed to be addressed. Council issued a stop

work order but the operator continued to clear the trees. The owner of the earthmoving business that operated the bulldozer was also fined \$17,000 after pleading guilty to his role in the works.

Any activity requires a reliable ecological assessment and consent from Council or another determining authority.

Fun in the field

These two photos were recently taken on one of our north coast projects. A crow was annoying a young Osprey that was eating a fish. Our botanist, Graeme Dowden, used his Olympus Superzoom 550 to get a series of action shots.



Cane Toads

You may have heard stories of cane toads invading Sydney and north coast towns, as well as cane toad round-ups. We have been studying the effectiveness of cane toad culls on a golf course near Lismore since 2004.



The lessons we have learned so far are as follows:

- ~ Cane toads emerge at dusk to sit in the dew formed on mown lawns.
- ~ Most toads will emerge in the first hour after dark.
- ~ It takes about ten nights to completely remove toads from a site.
- ~ The site will be recolonised from adjacent properties

within two months.

- ~ It is dangerous to hit toads because the highly toxic skin venom can spray into your eyes.
- ~ However, it is quite safe to gently pick up a toad while you are wearing rubber gloves, because they only exude venom if they are frightened.
- ~ If you collect all toads for two nights in a row say every month or two, the population will be kept under control. Make sure that you get toads near water bodies, under sheets of tin or boards.
- ~ You can place shelter in the form of boards or corrugated iron near dams so that you can collect toads any time of day.
- ~ The most appropriate way to kill them is by freezing.

New research by Georgia Ward-Fear (Sydney University) on toad control has found that native meat ants will kill baby cane toads. Over 50% of attacks by ants in the field were immediately fatal to the metamorph toads, and most 'escapee' toads (88%) died of their injuries within 24 hrs after the attack. If you place cat food in the right place the ants and juvenile cane toads will be in the same place, and the ants will do the job for you. The paper is in the Journal of Applied Ecology 2010, Issue 47, pages 273–280. A web search will bring you the abstract of the paper.



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