



Abel Ecology News

Biobanking

Dr Danny Wotherspoon at Abel Ecology has two papers published relating to Biobanking.

One explains the role of the scientist in evaluating land for both development and as a biobank site. The second shows the result of ten years of habitat restoration on a golf course and the potential of such work in biobanking.

Abel Ecology has been using offsets for more than 15 years in development projects, well before the process was formalised as the present "Biobanking" scheme.

Our expertise will soon include capability to undertake accredited assessments under the Biobanking scheme. We also have a list of clients who have land suitable for use as Biobank offset sites.

The first set of Biobanking Assessors courses have recently finished. Graduates have said that it is a complicated process

with some components of the scheme still to be developed. How well the scheme will actually function will probably not be known for at least two years. In some areas, clearing of vegetation communities will be restricted and may be very expensive. For example, it appears that clearing of small areas of high quality Cumberland Plain Woodland (Hawkesbury Nepean CMA) can only be

offset by large areas of poor quality Cumberland Plain Woodland within the same CMA. Assessment under the Commonwealth EPBC Act may still be required for developments.

Dr Daniel McDonald of Abel Ecology has attended the Biobanking course, and will be accredited in due course, in the fullness of time ... Yes, Minister.

A Biobanking seminar held recently at Sydney University Law

School was well attended and most helpful. There was a presenter from the law firm Baker & McKenzie as well as one from the Environmental Defenders Office. It appears that "Red Flag" areas and species can be used for development at the discretion of either the Minister or the Director-General.

There is no need to have a site survey if an "expert report" can be obtained for a site. (That is reminiscent of an urban development on the Tweed that was found in an expert report not

to be Koala habitat but during a tour by councillors and community a resident Koala colony was seen in the trees on site.) The seminar generated lots of detailed and insightful questions that showed that the scheme has a long way to go before it is feasible and operational. It will be an interesting exercise to work out the cost to set up a biobanking site and fund its maintenance in perpetuity.

If the project management starts with opportunity and constraints analysis ecological services for a site can be identified and incorporated into project design



See Inside
Abel Ecology Plant ID Service

Aquatic weed survey on behalf of the RTA (...really, truly)

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Christmas Gift Idea

Give a gift voucher to the Sydney Seafood School at Sydney Fish Markets. I have been twice and it is wonderful!

Hint - take a few ziplock bags to bring home leftovers!

www.sydneyfishmarket.com.au/seafoodschoo/aboutsss/tabid/82/default.aspx

NSW Major Development Monitor

⇒ **47 projects rejected**

The NSW Major Development Monitor 2007–08 outlines the work of the NSW Department of Planning and Minister for Planning in assessing and determining development proposals. It has a particular focus on the operation of the major projects assessment system. This system comprises Part 3A of the Environmental Planning and Assessment Act (EP&A Act) and the Major Projects State Environmental Planning Policy (Major Projects SEPP).

The Department deemed environmental assessments for 47 projects as being inadequate and not able to proceed to public exhibition. Most of the proponents later lodged satisfactory environmental documentation after taking into

account the Department's advice. However, as of June 30, 2008, 12 of the 47 projects had yet to submit an adequate environmental assessment.

For instance, in early May, the Department informed a wind farm proponent that further information and justification be provided with regard to the proposal's potential noise, flora and fauna, visual and Aboriginal heritage impacts, before the proposal could proceed to exhibition.

In both large and small developments it is important to have rigorous and detailed site analysis done before design work is commenced. That saves expensive time and frustration in any project and enables appropriate site management to be specified.

http://www.planning.nsw.gov.au/corporate_publications/pdf/major_development_monitor_301008.pdf

State Planning and DAs

I have been involved in a number of developments that have used or considered the Part 3A assessment process, which appears to be presently under review by the State Government. I asked a senior officer in NSW Department of Environment and Climate Change (DECC) how it looks from that side of the fence. The answer was that a well prepared DA does not need the Part 3A process and the council process is generally relatively quicker. The key is "well prepared". That means that all the site analyses need to be highly detailed and honest, to prevent frivolous and/or vexatious objectors causing the process to be delayed. That includes flooding, hydrology, wastewater management, downstream and offsite impacts, threatened species and bushfire. Of course there may be other considerations that motivate the use of the Part 3A process.

The trial of pre-set housing codes earlier this year was found to be unpopular and will have to be rewritten, the Planning Minister, Kristina Keneally, said on 15th October 2008. (Sydney Morning Herald, 16th October 2008). My experience with DAs is that pre-lodgement negotiation with council often enables a speedy assessment of a

project. Unfortunately, some negotiated agreements are reneged upon by council higher management. Then it may be wise to appeal.

Recent amendments (Environmental Planning and Assessment Amendment Bill 2008) to the Environmental Planning and Assessment Act 1979 ("Act") now includes the establishment of another planning body:

Planning Arbitrators (PA). Their features are as follows:

- ⇒ *Consists of person on a register kept by the Director General and approved by the Minister.*
- ⇒ *The register may designate PAs for particular local government areas or particular kinds of development or both.*
- ⇒ *PAs to have expertise in one or more of planning, architecture, heritage, urban design, law or engineering.*
- ⇒ *The regulations may make provisions that parties are not to be legally represented or are only to be legally represented in specified circumstances.*
- ⇒ *The regulations may make provisions for parties to be represented by a person other than an Australian Legal Practitioner in specified circumstances.*

Ecological Services

The concept of ecological services is not new but is now the focus of a growing research effort under that title. The concept is that the natural environment is our life support system that has, up to recent times, been taken for granted. Now that environmental degradation by land clearing and pollution of water and air has reduced the ability of the natural environment to provide those ecological services we are beginning to take notice. Examples are forests that supply natural pollinators of crops, and

the ability of aquatic ecosystems to maintain clean water supplies to cities.

New York City allowed urban development in the catchment of its water supply and then discovered that water quality had been compromised. The cost of water treatment was estimated at something like \$US8 billion. That enabled a dollar value to be calculated for ecological services.

Tomato growers are asking the Australian Government for permission to import exotic bumble bees to pollinate greenhouse tomatoes. There are native bees that do the same

job, at no cost, if the natural habitat is managed appropriately. Imported bumble bees are not only very expensive but may turn out to be another Cane Toad.

Urban development on the NSW coast can create a public health problem if mosquitoes are not taken into account. The increase in mosquito-borne disease, such as Ross River Fever, has brought into focus the problem of insect management. There is a balance to be achieved in providing habitat for wildlife such as frogs and microbats that eat mosquitoes, with urban design.

Product News

Abel Ecology Plant Identification Service

There are approximately 10,000 - 20,000 native, weed, naturalised and cultivated plant species growing in NSW. While some plant species are well known and easy to identify, many species, often threatened plant species, are difficult to identify and require expert identification.

Abel Ecology botanists have extensive experience with plants and have backgrounds in field botany, bush regeneration, horticulture and agriculture. Our expertise allows us to assist you with the correct identification of plants. Our resources include: over 30 years of combined experience in identifying plants, an extensive herbarium collection (approx 10,000 specimens), magnification equipment (microscope, hand

lens), and an extensive reference library.

For a very reasonable fee Abel Ecology can identify your unknown or troublesome plants, even if you don't have ideal specimens. We serve local councils, botanical consultancies, gardeners, bushwalkers and

homeowners. We also offer a fast response service.

Pick up the phone or email to check our present response time if you need an urgent answer, then send your samples. Guidelines for packaging and posting and the current price list are available on the Abel Ecology website:

www.abelecolgy.com.au



Project Examples

How to kill a frog (and maybe yourself)

One pesticide alone is bad enough. But put a bunch of them together - even at very low concentrations - and it's a baby-frog death sentence. So affirms a study released last week, which shows that 10 of the world's most popular pesticides kill tadpoles when mixed together, even if the concentration of each individual pesticide is within an officially "safe" limit. The study is pivotal because the USA's Environmental Protection Agency in fact only tests pesticides in isolation, while in nature they always appear in the presence of other chemicals - and that's probably where the

danger comes in. Scientists for decades have criticized the agency's chemical-testing methods for exactly this reason, but last week's study is the first to document the environmental harm done by mixtures of chemicals at concentrations deemed harmless.

The study also documents the lethality of endosulfan, a neurotoxin banned in many countries but still used extensively in Australia, particularly on cotton crops. Such chemicals are biologically active at levels well below detectability in water supplies and the issue should be

of concern to towns that draw water from a river for domestic supply. For example, Richmond and Windsor draw water from the Hawkesbury River. Most of its flow is a mix of runoff from western Sydney agriculture and urban areas, plus treated effluent from sewerage treatment plants such as St Marys and Winmalee.

Journal reference: Rick A. Relyea. A cocktail of contaminants: how mixtures of pesticides at low concentrations affect aquatic communities. *Oecologia*, November 11, 2008.

Recipe for a Christmas Cake

This is adapted from an insert into the Australian Woman's Weekly of November 14, 1973; Best Ever Christmas Cakes.

The ingredients are:

1 can crushed pineapple, (equivalent to 15oz);
500g mixed dried fruit;
2 packets glacé cherries;
120g butter;
1 cup sugar;

1 teaspoon mixed spice;
1 teaspoon bicarbonate of soda;
2 eggs;
1 cup plain flour;
1 cup self-raising flour;
quarter teaspoon salt. (Danny loves to add a packet of glacé ginger).

The method is: Line a deep 20cm (the equivalent of an 8-inch) cake tin with two thicknesses of baking paper. Wrap walls of the tin with 3-4 layers of paper, tied in place with

string (not synthetic). Combine undrained pineapple, butter, mixed fruit, cherries, (ginger) sugar, spice and soda in a saucepan. Stir over heat until sugar is dissolved, bring to the boil. Boil gently, uncovered for 3 minutes. Allow to cool, then add beaten eggs and sifted dry ingredients. Mix well. Spread evenly into prepared tin and bake in moderate oven 1.5 hours. Cover, wrap with towels to cool slowly, then remove from baking tin when completely cold.



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