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**Submission to the State of NSW and
Office of
Environment and Heritage NSW**

**Review of
Bio banking Scheme**

By David Holland

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Executive Summary

This paper recommends a change of approach for the bio banking legislation in NSW. It asks that additional regulation be formulated to tailor the needs of the coastal regions of NSW.

The paper suggests that a system of bio banking be designed for urban and rural lands east of the great divide, where smaller parcels of land are more common and where land use ownership does not generally revolve about maintaining a viable farming activity on the land.

An improved bio banking scheme should enable the preservation of high value and high connectivity land to be preserved in a landscape under the pressure of a range of development possibilities that will compromise natural ecological values.

The scheme should have at its backbone a planned network of conservation lands through the landscape with high levels of connectivity.

Although much of the conservation lands in a sub region may be under public ownership, private ownership should not be discouraged.

Often private ownership of natural bush lands is speculative. That is land owners invest in land for a future return. In these cases bio banking can generate a return on the investment.

This paper suggests that a bio-banking scheme should give an incentive for private landholders to manage and maintain the land as a working ecological system. By improving ecological integrity, the land becomes more valuable in real money terms through the scheme.

Based on a sub regional market for biodiversity offset credits, the scheme allows both opportunities for profit under private land ownership and higher conservation and ecological values to accrue on each conserved parcel of land.

As local government or the State government is the last purchaser of the land, eventually all the conservation land in the area reverts to public ownership.

Governments have a real incentive to purchase this land because they get complete access to the biodiversity offsets fund to maintain and manage the land, ensuring the integrity of the biota on the land.

Submission to Environment and Heritage NSW

Review of Bio banking Scheme

Introduction

It is interesting to note that biodiversity legislation at Australian State and Federal levels came from a desire by environmentalist and academia interested in preserving larger areas of natural bush land to promote the ecological health of the diminishing areas of undeveloped land in NSW.

It seems to have been born by:

- a. A need for farming businesses to utilize the totality of their land for profit in an increasingly competitive economic environment:
- b. a desire for these same farmers to preserve land appropriate for natural preservation of ecological systems.

Bio banking came as a responds to the above and desire by environmentalists to preserve natural landscapes in the rural setting.

The result was the bio banking legislation, which enabled undeveloped farmland to become of value to the farm business and while preserving the land to be protected and managed for its ecological values.

There was also a need for farming businesses to have as high a value on their land as possible, via either clearing for cattle or crops. This means that with a greater proportion of the farm capable of generating income and where the value on the land is high, loans for these farming businesses would be looked upon more favorably.

With biodiversity offset funds attached to the conservation land this value to the banks is assured.

When a farming business works through the figures and dedicates land to attract offset credits, it will tend to choose land that meets the highest conservation values on the property due to the points criteria weighted towards the higher value conservation land under the legislation's regulations.

This self-perpetuating system of land investment is probably good for country NSW and farming businesses, but it has large drawbacks for the urban fringe and the conservation of natural high value remnant vegetation through areas east of the divide. These areas are becoming in great demand and are high value

investments for developers. With housing values east of the divide in NSW hitting \$400,000 per house, it is a big money business in developing these areas.

As a consequence of this dual land value in the NSW landscape, one for rural land and a separate land value for land east of the divide, some opinions of the bio banking system have been critical.

Some opinions from the community suggest that bio banking gives the elution of more and better quality environmental lands without delivering on that perceived promise. That the perception given by the term bio banking means the preservation of ecological values by trading these values for the preservation of similar value in a more appropriate location is not delivered. Community opinion suggests that under the scheme there is no real incentive for the managers of the offset land to maintain it in a condition that is as good or better than when the credits were created.

And community perception is that credits are created on lands that would otherwise be unusable for development were any Environmental Impact Statement (EIS) in a subdivision development application would lead to the refusal of the application. It could be argued that any land where an EIS is the reason for the refusal of a DA is land too ecologically sensitive and would not have development rights anyway.

Some community opinions suggest that governments when attempting to be proactive through regulation and legislation have seemingly achieved little for the environment.

It is accepted that if an area of bush land is to be developed in an area that is suitable for buying credits, then the Species Impact Statement (SIS) will be of little value. But the question remains, how do we determine what is an acceptable criteria for the owner of the developable land to offset values for particular types of credits. In other words, what are the ecological values on the land to be developed and how can we assess these values without a study similar to an SIS.

Certainly there is a value to the delivery side of the equation. That is the formation of corridor-connected land in the rural landscape.

The bio banking system attempts to give some value to unutilized areas of privately owned land. Often parts of farms are not or cannot be put into productive farming uses. This scheme gives a productive value to this land by generating biodiversity credits for land.

However, the question is who can purchase these credits?

Can or should developments east of the divide be able to purchase these credits where land values are much higher and biodiversity attributes in the east have different values to the biodiversity values in the west.

A new bio banking planning system for coastal regions

It is important east of the divide to actively plan where conservation areas should be and by taking into account any existing government owned protected areas; appropriate linkages between these areas are also planned for.

Within landscapes east of the divide, more and more land is being swallowed up by urbanization or larger lot housing developments of up to 5 ha.

As development proceeds, local government in consultation with State government should be ensuring that remnant vegetation areas are reconnected through private land corridors as well as connected through state and local government lands. In fact both the state and local governments should be proactive in the formation of these corridors through purchasing strategies and programs.

If this is not done, the result will be uninterrupted urban sprawl both north and south of Sydney for hundreds of kilometers.

Private land owners look for certainty through investments in land.

It is acknowledged that private owners invest in land for three main reasons:

- (a) Invest in the future utility of the land. In other words building on the land
or
- (b) Buy the land for an investment for the future where there is an expectation of land prices to rise,
or
- (c) For the speculation of the subdivision of the land.

At least two of the reasons for purchasing the land are not compatible with the formation of biodiversity corridors across it.

This means that there is negativity amongst landowners to embrace conservation and biodiversity protection in the political landscape. This is a frustrating force against proper strategies to protect biodiversity east of the divide.

All three reasons for purchasing land have a profit motive, just as the farmer wants to ensure the whole farm is productive and producing some income.

East of the divide, it may be possible to produce an artificial market for high value biodiversity lands. These lands have both connectivity to remnant bush lands and the ability to be managed so a variety of biota can be carried both within the protected lands and be able to migrate through the protected lands.

First principals for planning developable landscapes

The assessment of what land should be preserved must be done on a macro scale with consideration of the topography. It also must be done in a similar way that we plan for various types of development with consideration for both land capability and suitability.

Often planners assessing these terms consider linkages of the various types of potentially developable land and in doing so also consider the highest values on the return on the land as part of the assessing suitability and capable of a type of development.

Through the biodiversity offsets scheme we are now able to give a very high value to conservation land through the selling of credits to developers in a constrained market.

When designing these landscapes for conservation, planners need to consider the suitability and capability of land for the carriage biota. These considerations should be made as a higher priority in the landscape than considerations related to commercial uses of land. This means that when considering land suitability and capability for industrial uses, housing uses and commercial uses, conservation land frameworks should be considered as a higher priority.

In applying this principal on a green fields locations (now rare east of the divide) planners would be obliged to plan out connected conservation areas first and the links between developable zones around these areas.

That is to identify valued conservation land first, then planning around it. This is just what the Growth Centers commission in Northwest and Southwest Sydney did ensuring the preservation of more than 80% of the conservation land.

When considering growth centers, but not to move too far from the subject of conservation bio banking, other land asset banking should also be considered in similar schemes. Through the community consultation process for this report the subject of preserving alluvial plains used for food production was highlighted. These lands should also have some sort of protection mechanism outside the normal economic systems so that valuable food producing lands east of the divide are preserved for that purpose and not rezoned for more intense development.

The opportunity for preserving natural environmental lands in most landscapes east of the divide is rapidly passing. The best planners can do now is convert the remaining low use intensive lands such as rural lands or unzoned lands to a conservation reserve zone and attempt to connect these zones them via biodiversity corridors.

Public responsibility for the over all public good

It is not the sole moral responsibility of the landholders to ensure that biota is looked after on the landscape they own. The Australian biota is a collective Australian asset and it is morally incumbent upon all Australians to contribute to the proper management of these assets. This means that even though some of our intrinsic biota resides on privately owned land, all Australians benefit by ensuring local and Australian wide extinctions do not occur.

This is why the public purse should be used to help manage and conserve this irreplaceable asset.

Private land owners who own the land that is designated conservation, under their agreement to care for the land and manage the land through a biodiversity offset scheme should be eligible for sizable contributions from government to both bolster the biodiversity carrying capacity of the land and for various works associated with the proper and agreed management of the conservation land.

The economics of bio banking in a local landscape

Under a bio-banking scheme tailored to a constrained market east of the divide, many private owners of land would welcome a conservation zoning on their land. They would welcome it because the value of the land would increase.

The increase in value would be due to the potential for a biodiversity offset fund being set up for the land with an expectation of future sales of biodiversity offset credits contributing to the fund under a bio banking scheme. It is envisaged that the scheme would operate under the current bio banking legislation under regulations designed for the east of the divide lands.

During the process of all possible biodiversity offset credits being sold, income to the landholder would be in the form of interest from a biodiversity offsets fund or by government grants to assist in the maintenance of the land.

Land allocated to the scheme through the planning process

In many instances land allocated to the conservation lands and connecting corridors may not be in a pristine condition for the carriage of biota. Some land may have been cleared, while other land may form pockets of island vegetation. Under the scheme land should be able to be improved by private investment and through private land holders applying for government grant money.

By improving the land for biota purposes, landowners can increase their opportunity to produce bio-banking credits thus adding value to the land through the biodiversity-offset fund.

Degradation to conservation zoned biodiversity offset scheme land

Through lack of land management or wanton destruction, landowners should be held responsible with threat of penalty. If a third party does the damage, owners should have access to civil action against the third party for reparation of the damage and for any potential penalty Environment & Heritage NSW may apply.

Owners in these circumstances should still have access to government grant money through an acceptable application; however, before the application is finalized any option for legal action leading to compensation by the courts should be exhausted.

After reparation works have been completed, a new assessment of the biota carrying capacity of the land should be done. This would ensure the existing credits sold on the land are valid. Also, the assessment would show whether by doing reparation, an increase of capacity has been achieved, allowing more credits to be produced.

Privately owned conservation land conversion to public ownership

The scheme should not discourage private ownership of conservation lands and connecting corridor lands, however, land zoned conservation under the biodiversity offsets scheme, should be able to be converted to public ownership.

This means that both state government and local government entities can purchase the land under certain conditions.

Much of the value of the land is tied up will be tied up in the bio banking offsets fund associated with the land parcel. This value is the actual biological assets forgone in another location in return for commercial development rights. These dollar values reflect the ecological value of the preserved land. These ecological values have been concentrated and enhanced by the location of the land, the connectivity of the land to other conservation land parcels and maintenance and improvements of the land to carry biota. There is an incentive for private landholders to make improvements to the land, because the offset scheme allows more credits to be produced and sold through a new assessment of the land.

Because the economic value of the land is a combination of ability for the land to attract bio banking credits and the sold credits in dollar terms accumulated in the fund, potential purchasers and owners will be speculating on the final sale price of the land.

This is only possible if the next purchaser is able to see value in the land parcel for resale. Since the final purchaser is government, and government purchasers can access the fund, there is some incentive for government purchasers to buy the land, particularly if the fund value exceeds the purchase price of the land.

Speculation on the land will continue until the final purchase to the state or local government. This is because this final sale to the public through a government

purchase allows the purchasing arm of government to access the fund for general revenue after the sale.

This provision gives governments an incentive to purchase the land. So in an artificial way, the dollar value of the land reflects the degree of ecological value invested in the land by previous owners.

Governments should only be allowed to purchase land under the scheme that has credits allocated to the land that are fully proscribed. This is not to exclude a private owner investing in additional ecological values on the land and creating additional credits to be sold. But all credits should be sold before it is sold to public ownership.

By ensuring that incentives to private owners to increase ecological values to the land before the final purchase of the land is made to public ownership:

- (a) The private owners maintain the land appropriately and
- (b) Local and state governments do not have to spend as much money to improve or repair ecological attributes of the land after purchase.

The real value of the fund should be maintained. Inflation costs on scheme funds should be accounted for.

In addition the fund should be maintained to its real value through government compensation to the fund equal to the amount of inflation each year. This is where the argument about the public interest in maintaining the land comes in as explained above. It is in the interests of all citizens of Australia to maintain the biota of the whole continent for future generations. This is why the real value of the fund should be maintained by the public purse.

Landowners can use the interest on the fund for personal income or to reinvest in the ecological assets on the land. In this way landowners can be sure of a fair return on their investment when investing in conservation land.

Another option in the use of land owners accessing the funds in the biodiversity offsets fund is that owners can use money generated as interest by the fund over and above the inflation rate for that year. This would mean that there would be no need for the public purse to contribute to the fund.

Planning for bio banking within urban environments

During the planning process high value biodiversity land with the potential for connections should be prioritized and considered a backbone to development in both in green fields sites and partially developed areas with low intensity zoned land.

These planned conservation areas when in private ownership, must be able to access a constrained bio banking market, where the value of the conservation land is allowed to increase through a series of measures.

These measures include:

- (a) The setup of a bio-banking fund from the sale of biodiversity-offset credits on the land.

- (b) Under the scheme contract, provision for the fund to be bolstered with State government funds to compensate for inflationary effects on the fund. This is in the public interest and the interest of the Australian biota as a whole.

This would enable landowners to draw on the entire interest of the biodiversity fund as a means of income as compensation for holding the land in trust for the community and for management and improvement costs on the land.

The constrained market for the biodiversity offsets

Developers may only buy biodiversity credits for development in the locality as described by a local council, ensuring a constrained market whereby the land value of the conservation land rises proportionately with the developable land in the area.

This would mean that under no circumstances would any west of the divide credits be used as a biodiversity offset for an east of the divide development. It is envisaged that credits would be produced sub regionally for developments in the same sub region. This means that offsets are provided in the immediate vicinity of the land to be developed.

Assessing the biota and ecological values on the land

The assessment of the biodiversity assets on the land would be made under similar arrangements as is under the current bio banking legislation.

Similarly, the assets being destroyed by the development process will need to be properly assessed. This may mean the re-introduction of some sort of assessment mechanism similar to a SIS under bio banking. (Currently bio banking is exempt from the need to do an SIS) This would allow the proper and fair transfer of assets to occur through the credit system.

Regulations to ensure fair and proper credit market

It is probable that even though the market for credits is constrained to the locality of the potential developments, some regulatory framework would need to exist to ensure that the value of each credit is appropriate for the location. This would mean that the credits would have to have a relationship to the median land value in the area.

This would ensure that the final sale price of the conservation land has a similar value to surrounding land values. This regulatory framework would also discourage any collusion to buy credits at discounted prices by developers buying both the conservation land and the developable land and selling to themselves at a cut price thus devaluing the bio-banking fund.

This would devalue the conservation land for future purchases, compromise the ability for the fund to provide adequate interest for future landowners and provide adequate incentive for government to purchase the land. (The government being the final purchaser has access to the biodiversity offset fund.)

Conclusion

Bio banking schemes should enable the preservation of high value and high connectivity land to be preserved in a landscape under the pressure of a range of development possibilities that will compromise natural ecological values.

The scheme should have at its backbone a planned network of conservation lands through the landscape with high levels of connectivity. Although much of the conservation lands in a sub region may be under public ownership, private ownership should not be discouraged. Often private ownership of natural bush lands is speculative. That is land owners invest in land for a future return. In these cases bio banking can generate a return on the investment.

This bio-banking scheme as described above gives an incentive for private landholders to manage and maintain the land as a working ecological system. By improving ecological integrity, the land becomes more valuable in real money terms through the scheme.

The scheme is based on a market mechanism, which means that both opportunity for profit and risk of some losses still exist. However, generally as the sub region develops, higher values accrue to the biodiversity offsets fund of each conservation parcel of land.

As local government or the State government is the last purchaser of the land, eventually all the conservation land in the area reverts to public ownership.

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Governments have a real incentive to purchase this land because they get complete access to the biodiversity offsets fund to maintain and manage the land, ensuring the integrity of the biota on the land.

The system of bio banking as described above is designed for urban and rural lands east of the great divide, where smaller parcels of land are more common and where land use ownership does not generally revolve about maintaining a viable farming activity on the land.

The above recommendation for a change of approach for the bio banking legislation asks that additional regulation be formulated to tailor the legislation to better serve the needs of the coastal regions of NSW.

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Case Study: Wadalba Wildlife corridor

By David Holland

Introduction

During the mid 1990s the NSW government passed the Catchment Management Act. As a consequence Catchment Management Committees (CMCs) were formed all over the State drawing members from the community as well as state government agencies and local government.

These committees were the for-runners to the Catchment Management Authorities (CMA) but presided over a much smaller area, generally one catchment area defined as the side of a ridge which forms an area rain falls and flows toward drainage channels, streams and rivers and finally going to the sea.

Similar to the Catchment Authorities of today the CMC's were to approve projects and prioritize money to be spent on enhancing environmental values relating to the particular catchment presided over.

As part of the role of the committee it was to gain information about the catchment and to attempt to promote good practice in the management of the catchment.

At one of the meetings in 1998 a man by the name of Marvin Campbell came into one of our monthly meetings to present his concerns for the catchment.

He explained how in the future, similar to areas of the United States, around New York where he comes from, our urbanization has the potential around both Sydney and Newcastle to join together through the Central Coast's region and form one large urban area.

He suggested that we needed to consider planning a series of bush land corridors across our region and our catchment to preserve some of our environmental biodiversity.

Although the committee largely thought that this was a noble idea, no resolution for action was taken.

Out of the efforts of the two local CMCs, the organization of the CEN was born calling itself the Central Coast Community Environment Network (CCEN) and was to become a coalition of many smaller Central Coast Environmental interest groups.

As part of the early work of the CEN, an enthusiastic Working group formed lead by Marvin.

After the idea of forming corridors through the landscape had been discussed by the group for some months, it was time to demonstrate some specific ideas. Using the experience in the group and using borrowed aerial photographs, the group produced a

series of maps of connected remnant bush land to be considered as a backbone for a series of connections between remnant bush lands.

A corridor was proposed in Wyong Shire through the Delta Electricity lands between Lake Munmorah and Lake Macquarie. This proposed bush land corridor was wide and extended from the ocean near Birdie Beach to the mountains to the west.

The most southern corridor proposed in the Wyong Shire connected to the Ridgeway Road and the Gosford City Council Coastal Open Space system of biodiversity corridors from Wamberal that extended to the Mountains.

The third proposed corridor was the most crucial and also the hardest to ensure. The idea was to connect the ocean to the mountains via a natural bush land corridor, a corridor with a lake as part of the natural area. Part of this corridor was later to be called the Wadalba Wildlife corridor.

This corridor was to connect the ocean via Wyrabalong National Park on the eastern side of Tuggerah Lake to forest areas on the western side of the lake traversing across Wadalba Hill.

From there it was to traverse the Pacific Highway and connect to flood prone land through Warnervale and continue to Porters Creek Wetland. From there it would connect to the Watagan Mountains.

The concept was presented to the local council and the concept accepted in 1998. During this time the council had embarked on a conservation plan and to get some legitimacy, the council had accepted the community group's proposal and asked members of the group to engage in further planning of the Conservation Plan for the Shire.

The Conservation Plan shelved

In early 2004 council resolved to shelve the conservation Strategy and curtail all major projects pertaining to it. The strategy had been in the planning for some five (5) years since 1999. It had as one of the main features to it many of the wildlife corridors planned throughout the landscape of Wyong Shire, some quite small often connecting to larger ones like the Wadalba bush land corridor.

The Wadalba Wildlife corridor being one of the three main corridors planned, was probably the most difficult to establish, but however the one that was most important to the ecological landscape because it was right at the heart of future urbanization plans in the Shire and would preserve a non-replaceable ecological cross-section at that latitude across the landscape east to west.

One of the arguments for shelving the studies and the implementation of the strategy was that it would deprive landowners of their expectations on their land.

Negotiations were happening between council and land owners in the year 2000 over an area later to be established as the Wadalba Urban Release Area (Ref. Appendix II Wadalba Wildlife Corridor Management Plan Sept 2006)

The agreement amongst many of the landowner enabled the corridor to be established in land previously not zoned Conservation. This land was zoned at the time Rural and Urban Release Investigation Precinct. In any case an agreement was made establishing a town center, residential zones and an environmental corridor conservation zone.

The shelving of the conservation strategy in 2004 did not seem to create difficulties within the Wadalba Urban release area for the establishment of the environmental corridor because it was now under an agreement. However all the other corridor plans for the shire were on hold.

The Wadalba Urban Release Area (WURA) considered as a Whole.

In February 2004 the Department of Environment, Climate Change and Water (DECCW) indicated that instead of considering individual DAs of the developers in the Wadalba release area it would be prudent to consider the area as a whole instead of, as the normal practice, have each land owner when applying for a development application show environmental impacts of the development on their land.

The DECCW felt this would streamline the process and provide better environmental outcomes and greater certainty for the developers.

Council also, through the agreement with the landowner recognized that the land within the urban release area should be considered, with respect to environmental impact as a whole, thus ensuring the integrity of the corridor and the wildlife using it remains intact. This decision lead to the application to the DECCW for concurrence, which in turn lead to an agreement by the DECCW to have the land in the WURA be considered as one piece of land owned by many stakeholders in agreement.

The result was that the DECCW agreed to concur with the council as the determining authority and the developers on their plan to develop the urban release areas and the environmental corridor areas under certain conditions. This lead to what we recognize as the deemed concurrence of the DECCW for the development.

This deemed concurrence in effect means that the DECCW accepts the Wadalba Release Area plan, and the immediate commencement of the plan, provided the conditions of the concurrence are met. This would result in the full development of the Urban Release Area with the undertaking that both Council and the Developers meet all of the DECCW conditions along the way to the completion of the development of the release area.

On this basis Council then was seemingly free to issue an approval to any DA applied for by any of the developers within the WURA.

The DECCW deemed Concurrence was established on the 24th December 2004.

The Deemed Concurrence conditions

In the final negotiation between council and the DECCW, Council and landholders agreed to the conditions made by the DECCW.

Corridor land transferred to Council Ownership

These agreements included the transfer of the corridor land to council ownership, to have the land rezoned Conservation and that it be managed as community land by Council.

The DECCW has stated that “Appropriate arrangements must be put in place to ensure that this occurs so that concurrence of the Department of Environment and Conservation (DEC) can be assumed”. (DEC later became DECCW, now Environment & Heritage NSW)

This statement hangs on some fairly nebulous words such as, ”appropriate arrangements” and “put in place”.

The questions are concerning this:-

1. What could be considered to be appropriate arrangements? Does the extent of these arrangements consist of identifying the land that will at some future time be handed to community ownership? Perhaps appropriate arrangements mean that a proper financial transaction should be made before the land be handed to Council? If this is the case then council would not be able to pay the landholders for the land. But unless these arrangements are put in place deemed concurrence from the DECCW cannot be assumed.
2. What is meant by “put in place”. This phrase denotes no time frame. If we assume that the appropriate arrangements are financial then how long before DECCW recognizes that they can no longer let council and the developers assume their concurrence.

A Management Plan be prepared for the wildlife corridor

This condition has been met by the commissioning of a Management Plan dated September 2006 by Council.

The Management plan is to be implemented over a ten year period from the sign-off of the plan by the DECCW. The plan states that developers must manage the corridor land once handed over to council for no less than two years.

Firstly, let us consider whether the DECCW has signed off the plan.

A letter dated the 31st August 2005 sets out the deficiencies of the plan and must be addressed however, the language of the letter suggests that the DECCW endorses the Management Plan and signs it off by authority of that letter while expecting some “minor amendments incorporated into the plan”.

Remember, any landholder under the Wadalba Wildlife Corridor Management Plan cannot manage the land appropriately until the DECCW sign off the plan. So the 10 years of the life of the Plan start ticking from the 31st of August 2005.

However, Council will not be required to manage the land in the corridor for two years after the land has been handed to them. This could mean that the land may not be managed by Council for up to 12 years after the sign off by the DECCW and 10 years by the current land holders as a holistic piece of land called the Wadalba Wildlife Corridor.

Have all the sign off requirements been achieved prior to the release of the Management plan in September 2006?

Following is the first item of the omissions of the Draft Management Plan 2005 in the Aug. 31 letter: (This document does not deal with other omissions of the Draft Management Plan 2005)

Even though the Management Plan has been signed off, the DECCW suggests that the granting of assumed concurrence still hangs off the following important requirements.

- (a) A species Impact statement (SIS) for all endangers and vulnerable species plus any other species populations found within the WURA.
- (b) Other environmental impact assessment reports prepared for the Area

When DECCW imposed these conditions, we would assume that they intended to consider the area of the WURA as a whole, not just the corridor. We must understand that in reality the area of habitat for the various species is being reduced to the corridor confines. This means that this impacts the species and some assessment should be done to ensure that adequate habitat for the species is still available for the particular species.

Other consideration when producing an SIS as stated in the Threatened Species Act 1995 must include:-

- *A full description of the action proposed, including its nature, extent, location, timing and layout.*
- *Description of threatened species, or populations, known or expected to be present and any areas likely to be affected by the action. This includes all species present not just threatened species.*
- *An assessment of which threatened species or populations known or likely to be present in the area.*
- *For each species or population likely to be affected, details of its conservation status, key threatening processes and habitat requirements and any recovery plans or abatement plans applying to it.*
- *Any species subject to action (ie. conservation intervention) likely to be affected by the action.*

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- *Description of habitat (including critical habitat) of species and populations and details of distribution and condition habitat of the species in the region.*
- *A full assessment of the likely effect of the action on those species and populations, including if possible the quantitative effects of local populations and the cumulative effects on the region.*
- *A description of any feasible alternatives to the action that are likely to be of lesser effect and the reasons justifying the carrying out of the action in the manner proposed having regard to the biological, economic and social considerations and the principles of ecologically sustainable development.*
- *A full description and justification of the measures proposed to mitigate any adverse effects of the action on the species and populations, including a compilation (in a single section of the statement) of those measures.*
- *A list of any other approvals that must be obtained under any other Act.*

Plus similar considerations for Ecological Communities if any are found in the locality.

The Species Impact Statements are to be amendments incorporated into the Management plan according to the DECCW letter on the 31st of August 2005.

On searching the Management Plan dated September 2006 I cannot find any reference to an SIS or any text that remotely covers the requirements of an SIS as stated above for any species expected to be found in the WURA. The DECCW assumed concurrence does not seem to be satisfied.

Although the DEC in the letter endorses the plan, it provides assumed concurrence on the basis that all minor amendments are completed.

The first amendment needs to be in the Management plan so concurrence may be assumed. This is the case unless another reason for not providing a Species Impact Statement can be presented to the DECCW.

The DECCW is required to have any population that may be adversely affected be assessed by a SIS under the Threatened Species Act.

Under what circumstances is an SIS not required?

Section 5 A of the EP& A Act requires consideration of threatened species, populations and ecological communities and their Habitats.

Section 5A(2)(d) (iii) states that *“the following factors must be taken into account in making a determination in relation to the habitat of a threatened species, population or ecological community which includes the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality and*

whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly)”

Obviously, in removing large swathes of forest and reducing the overall habitat area, this will have an effect on the populations of species and requires that Section 94 of the TSA be implemented.

However, if no SIS is included in the application, in this case for a subdivision of land for development and to hive off some land to be acquired by Wyong Council, then the Director-General must determine whether the populations of species and the ecological communities will be affected. (Ref. S94(1) TSA)

Under S.94 (2) (a) and (3) the director-General must consider, risk of extinction and any change in the composition of the local community. Again it is obvious considering the pressure to be brought to bare on the forest, this will be assessed as risky.

Then under Section 95 it states,

“(1) If the Director-General determines that an action proposed by an applicant for a license is likely to significantly affect threatened species, populations or ecological communities, or their habitats, the Director-General must notify the applicant that, if the application is to proceed, a species impact statement prepared in accordance with Division 2 must be provided.

(2) If the Director-General determines that an action proposed is not likely to significantly affect threatened species, populations or ecological communities, or their habitats, a license under this Act is not required and the Director-General must, as soon as practicable after making the determination, issue to the applicant a certificate to that effect.”

So we are back where we started, either there is not significant disruption to the ecological values of the proposed actions or an SIS must be presented to satisfy the Act.

The question: Is it the opinion of the DECCW and the Minister that no significant change will occur to the environment due to the completion of the subdivision and the ensuing residential developments? The letter from the DECCW on the 31st of August suggests yes there will be.

Section 5 Objectives of the EP & A Act

The objects of this Act are:

(a) to encourage:

(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,

- (ii) the promotion and co-ordination of the orderly and economic use and development of land,*
- (iii) the protection, provision and co-ordination of communication and utility services,*
- (iv) the provision of land for public purposes,*
- (v) the provision and co-ordination of community services and facilities, and*
- (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
- (vii) ecologically sustainable development, and*

That said, under Section 5A the following pertain to the administration of section 78A, 79B, 79C, 111 and 112 and the following must be taken into account by **Council** in deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats:

Section 5A

- (a) each of the factors listed in subsection (2),*
- (b) any assessment guidelines. (these assessment Guideline are issues by the Director –General of the TS Act. And are gazette)*

I can only assume that the Guidelines issued by the DECCW in the Deemed concurrence and the letter of the 31st August were not gazetted. (Ref. S94A TSA)

The assessment is required under Section 5A(2) and are as following:

- (a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,*
- (b) in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,*
- (c) in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:*
 - (i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or*
 - (ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,*
- (d) in relation to the habitat of a threatened species, population or ecological community:*
 - (i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and*
 - (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and*
 - (iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality,*

- (e) whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),
- (f) whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,
- (g) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

Above is an exhaustive assessment, but one I cannot see in the management plan and suspect is not in the application for the subdivisions either individually or collectively by the owners of the land to be developed in the WURA.

So where does this leave us. Still without an answer on how the WURA owners are able to not conduct a detailed ecological assessment of the area for development.

Section 79B of the EP & A Act Consultation and concurrence

This Section states that if concurrence is required then the development cannot proceed without concurrence. This section explicitly states that if threatened species, endangered species or population are impacted or critical habitats affected then concurrence with the Director-General of the Department of Environment, Climate Change and Water is mandatory.

However under section 79B, the bio banking provisions amendments to the EP&A Act, an SIS is not required if a bio banking statement has been issued under part 7A of the Threatened Species Act.

"If a bio banking statement has been issued in respect of the development under Part 7A of the Threatened Species Conservation Act 1995, the development is taken not to significantly affect threatened species, populations or ecological communities, or their habitats."

This means that with this statement and commitment to conserve other land in some other location owned by the owner or by credits purchased from another land owner promising to manage the land appropriately in keeping with natural bush land environments, no significant degradation to the bush land left after the subdivision is assumed, and the Director-General has no option but to concur with Council on the application.

Part 7A of the Threatened Species Act (TSA)

Part 7A Biodiversity banking

Introductory note. This Part provides for the establishment of a biodiversity banking and offsets scheme (referred to as *the biobanking scheme*).

The biobanking scheme has the following key elements:

- (a) the establishment of biobank sites on land by means of biobanking agreements entered into between the Minister and the owners of the lands concerned,

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- (b) the creation of biodiversity credits in respect of management actions carried out or proposed to be carried out on or in respect of biobank sites that improve biodiversity values,
- (c) a system that enables those biodiversity credits, once created and registered, to be traded (including by being purchased by developers) and used as an offset against the impact of proposed development on biodiversity values,
- (d) the establishment of a biobanking assessment methodology, by order of the Minister published in the Gazette, for the purpose of determining both the number of biodiversity credits that may be created in respect of management actions or proposed management actions and the number of biodiversity credits that must be retired in connection with a development in order to ensure that it improves or maintains biodiversity values.

This Part provides for a procedure under which a person may apply to the Director-General for a biobanking statement in respect of a development proposal.

If a biobanking statement is issued, it will not be necessary for the development to be assessed in accordance with the threatened species protection measures provided for by Parts 4 and 5 of the *Environmental Planning and Assessment Act 1979*. However, the developer may be required to purchase and retire sufficient biodiversity credits to ensure that the impact of the development on biodiversity values is offset and to take other onsite measures to minimise any negative impact on biodiversity values.

Biobanking statements may also be issued in respect of projects proposed to be approved under Part 3A of the *Environmental Planning and Assessment Act 1979*

Conclusion

Any action by the owners of the WURA to avoid an SIS may predate the bio banking legislation. There is no record of bio banking offsets made in any of the management plan documents associated with the Development application. However, if the legislation was in place it is highly probable that this course of action would have been taken to satisfy the need to have detailed and exhaustive studies relating to species survival within the WURA.

An argument could be mounted that having an exhaustive SIS process in the WURA may be meaningless considering the habitat will be reduced to only the corridor area.

That said; one must consider that whilst it would be better not to have any development in the WURA area from the standpoint of the fauna in the area, the community at large, the developers and council have decided to incorporate a corridor for the passage of biota and the preservation of a small amount of natural environment. This means that the corridor is now a planned feature of the landscape.

Questions about its adequacy as a functioning corridor should be considered by council, however as a corridor it must provide the functions of a corridor. That means that passage must be maintained for the native occupants and some habitat must remain to support larger fauna to feed in a relatively undisturbed environment. Edge effects must be considered. That is effects of wind and weeds on flora in the corridor. If the flora is affected too much, then fauna will not use the corridor.

The main idea associated with a corridor is ease of passage of biota between two larger parcels of native bush land. These larger areas need to be supported by smaller significant areas of bush.

If we consider this Wadalba corridor from the Mountains to the sea, Wadalba Hill should be considered as a supporting area of land. The Wadalba Association, a local community group feel that any steep land associated with the hill that is marginal land for the development of residential allotments should be considered as part of the corridor.

Although fire protection is an important part of the protection of urban subdivisions and in this case has been achieved by using roads to separate the bush land from the houses thus reducing risks associated with fire, any vegetation along the interface with these roads are subject to edge effects up to 50 meters into the corridor.

Because of the narrowness of this corridor planned by both council and the developers, clearing on the edge of the corridor causes damage to the bush land environments. Therefore an intensive weed eradication programs must be in operation and a native plant barrier must be implemented before any clearing commences for any development abutting any part of the corridor.

This corridor is a high maintenance corridor due to its narrowness, exacerbating any potential impacts of edge effects, waste dumping, feral animal, domestic animal intrusions, weed intrusions, destructive human activity, and noise of vehicles etcetera.

Unless aggressive management of the corridor is implemented immediately to reduce the impacts of doing nothing in such an environment, and mitigate many potential local negative processes close to bush lands, its integrity will be lost.

Currently, the management of the corridor is under the control of the various landholders. Council has issued an order under the conditions of an approved Development Applications that the owner remove weeds from the corridor land. But more must be done and soon.

Ultimately Council must be sure that environmental factors relating to Section 5A of the EP & A Act are satisfied as Section 112 of the Act is implemented by Council.

112 Decision of determining authority in relation to certain activities

- (1) A determining authority shall not carry out an activity, or grant an approval in relation to an activity, being an activity that is a prescribed activity, an activity of a prescribed kind or an activity that is likely to significantly affect the environment (including critical habitat) or threatened species, populations or ecological communities, or their habitats, unless:*
- (a) the determining authority has obtained or been furnished with and has examined and considered an environmental impact statement in respect of the activity:*
 - (i) prepared in the prescribed form and manner by or on behalf of the proponent, and*
 - (ii) except where the proponent is the determining authority, submitted to the determining authority in the prescribed manner,*
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- (1C) An environmental impact statement is not required (despite subsection (1) (a)) in respect of an activity that:*

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- (a) *is on land that is, or is part of, critical habitat, or is likely to significantly affect threatened species, populations or ecological communities, or their habitats, and*
(b) *is not likely to significantly affect the environment except as described in paragraph (a),*

if the determining authority has obtained or been furnished with a species impact statement in respect of the activity, prepared in accordance with Division 2 of Part 6 of the Threatened Species Conservation Act 1995. However, the provisions of this Part relating to environmental impact statements (other than subsection (1) (a) (i)) apply to the species impact statement as if references to an environmental impact statement included a reference to the species impact statement.

Note. *If a biobanking statement has been issued in respect of the activity under Part 7A of the Threatened Species Conservation Act 1995, the activity is taken not to significantly affect threatened species, populations or ecological communities, or their habitats.*

Even if a statement was issued under the TSA to use bio banking, Council must be satisfied that the activity will not adversely affect the environment and be in keeping with the principals of ecological sustainable development. (EP&A Act Section 5(a)(vii))

Case Study manuscript from the document:

The History of Wadalba Wildlife Corridor, Jan. 2010
by David Holland

Presented by the Wadalba/Kanwal Association Inc.

References

Prof. David Goldney and Dr. Anne Kerle, Threatening Processes Status of Vertebrate Fauna and their Habitats reports in the Central West Catchments, Western Research Institute, Sept 2007

David Holland, The History of Wadalba Wildlife Corridor, Gallery2020 Publishing, limited Ed., Jan. 2010.

Jack Harvey, Urban Land Economics, The Economics of Real Property, MacMillan Education London, 2nd Ed. 1987.

Michael Begon and Martin Mortimer, Population Ecology, A unified Study of Animals and Plants, Blackwell Scientific Publications, Oxford England, 2nd Ed., 1986.

Edward J. Blakely, Planning Local Economic Development, Theory and Practice, Sage Publications, Newbury Park CA. USA, London, 1989.

Doug Cocks, Use with care, Managing Australia's natural resources in the twenty first century, NSW University Press, 1992.

Colin Harbury, Economic Behaviour: An Introduction, Economics and Society Series, George Allen & Unwin, London, 1980.

Robert Leo Smith, Ecology and Field Biology, Harper and Row, New York, 4th Ed., 1990.

Department Environment and Conservation, Wildlife Corridors North East NSW, [Natural Resource Management Advisory Series 15](#), Coffs Harbour, Aug 2004.

Department of Infrastructure, Planning and Natural Resources, Georges River Catchment, Guidelines for better practice in foreshore works, Guideline 8: Wildlife Corridors, July 2004.

State of NSW and Office of Environment and Heritage NSW, [Biobanking Assessment Methodology](#), Sydney South, May 2012

State of NSW and Office of Environment and Heritage NSW, [Biobanking Review; a summary of themes and issues](#), Sydney South, May 2012

[Threatened Species Conservation Act 1995](#) (TSC Act) No. 101

Department of Environment and Climate Change NSW, [Biodiversity banking and offset scheme – Scheme overview](#), , South Sydney, Nov. 2007.

Department of Environment Climate Change and Water, [Biodiversity banking and offset Scheme – The Science Behind Biobanking](#), Sydney South, Aug 2009.

[Environmental Planning and Assessment Act 1979](#) No. 203