Attachment

Inquiry into urban vegetation and wildlife corridors and the integration of biodiversity conservation in land use planning in the ACT and its sub-regions.

Submission by the NSW Department of Environment and Conservation

Planning Framework

In 1995 a Joint Regional Biodiversity Working Group was created to establish a strategic approach to biodiversity conservation in the ACT and surrounding region and to provide greater certainty in planning for future development of Canberra and surrounding communities. Members of the working group included the Housing Industry Association (ACT and Southern NSW Region), the then NSW National Parks and Wildlife Service (now a part of the Department of Environment and Conservation (DEC)), Environment ACT, PlanningNSW, Queanbeyan City Council, Yass Shire Council, Upper Murrumbidgee Catchment Co-ordinating Committee and the Conservation Council of the South East Region and Canberra.

The culmination of the Working Group's effort was the following report

Fallding, M (2002) *Planning Framework for Natural Ecosystems of the ACT and NSW Southern Tablelands.* Natural Heritage Trust, NSW National Parks and Wildlife Service and Land and Environment Planning.

The DEC considers that this document is the key cross-border guide to the integration of biodiversity issues in land use and development planning processes. The framework provides a regional context and a common approach, while recognising different legal requirements in ACT and NSW. The framework outlines regional principles for planning, development and conservation. It identifies important species and ecological communities at the regional scale and accesses databases with cross-jurisdictional boundaries. The framework is not prescriptive or regulatory, but presents regional-scale information on natural ecosystems and biodiversity to provide a decision making context.

Using the framework involves a number of key steps. These include:

1 Consulting on the agreed regional planning principles (These are at attachment A).

2 Identification of regional ecological planning settings, which have been mapped across the region, and application of the generic planning principles for each individual planning setting. Attached are the planning maps relevant to the East Gunghalin suburbs of Kenny and Throsby and Goorooyarroo Nature Reserves, which your Inquiry wishes to use as a case-study for its broader biodiversity inquiry. Following is a table of the regional ecological settings and suggested planning and development principles.

3 Identification of which of the 18 landscape units a proposal is in. Information on natural ecosystems within each landscape unit is presented. This describes important features of the unit to be taken into account in land planning, such as landscape features, vegetation communities and threatened species.

Summary of regional ecological planning settings

Setting number	Description	Suggested planning and development principles
Planning setting A	Areas of known conservation importance	Areas important for conservation, which should be appropriately managed in cooperation with landowners/managers (includes some areas within national parks and nature reserves which are currently conserved). There should be minimal development, land use change and site disturbance if any. Further land subdivision or development should proceed with extreme care and requires detailed scientific assessment. Management plans and conservation incentives should be encouraged.
Planning setting B	Areas of predicted conservation importance	Areas important for conservation, which should be appropriately managed in cooperation with landowners/managers (includes some areas within national parks and nature reserves which are currently conserved). There should be minimal development, land use change and site disturbance. Further land subdivision or development should proceed with extreme care and requires detailed planning evaluation and scientific assessment. Management plans and conservation incentives should be encouraged. May be important for rehabilitation. Field checking is required to determine 1 whether site contains an endangered or regionally rare ecological community 2 if so, what state or condition this is in, and/or 3 presence of habitat for threatened or regionally rare species.
Planning setting C	Areas of uncertain importance for biodiversity conservation - more investigation required	Requires more adequate field survey prior to making development decisions. May have threatened species and contain important areas for rehabilitation to maintain connectivity of natural ecosystems. Development may be appropriate, subject to criteria outlined for landscape units. Limit further fragmentation of natural ecosystems, minimise impacts on adjacent areas of conservation importance, design development to maintain and enhance biodiversity values.
Planning setting D	Areas likely to have limited conservation values	Consideration of natural ecosystems will be a secondary consideration in decision-making. Development should take into account important threatened species habitat elements where applicable (as provided in landscape unit guidelines). Further investigations of natural habitat values will normally be required prior to land use decisions being made as some remnants may remain undetected.

The planning settings should primarily be used for making assessment and planning decisions regarding a specific location, whereas landscape units are used for determining assessment, design and management requirements in a broader sense.

Planning setting A identifies areas of known conservation importance for endangered grassland and woodland communities (ie. sites where conservation values have been clearly identified) and shows point data where threatened species or sites of high conservation value have been identified. Setting B identifies areas that have been modelled as being of importance (ie. likely to contain either NSW, ACT or Commonwealth listed endangered ecological communities and/or threatened species). Planning setting C includes areas with either lack of data or where modelling was not undertaken because of the presence of ecosystems other than grasslands or woodlands. Within this setting further investigation is required, since endangered ecological communities and threatened species may occur in these areas. Planning setting D identifies areas likely to have limited natural habitat values and thus should be preferentially selected for development.

As can be seen in the attached maps the majority of the region's extent of known areas of conservation significance occurs within the ACT. Thus the ACT is crucial to regional conservation of box-gum woodland and temperate grasslands, particularly for the conservation of relatively large vegetated blocks, where biodiversity and ecosystem functioning stand the best chance of sustainability.

East Gunghalin alone contains a large proportion of the total regional occurrence of Planning Setting A land. Areas of predicted conservation importance (Planning setting B) are more widespread across the region and in the East Gunghalin area these lands tend to connect identified Planning Setting A areas.

The Planning Framework suggest that "there should be minimal development, land use change and site disturbance.." of areas identified as Planning setting A and B, and that within Planning Area A, further land subdivision or development should proceed with extreme care and requires detailed scientific assessment.

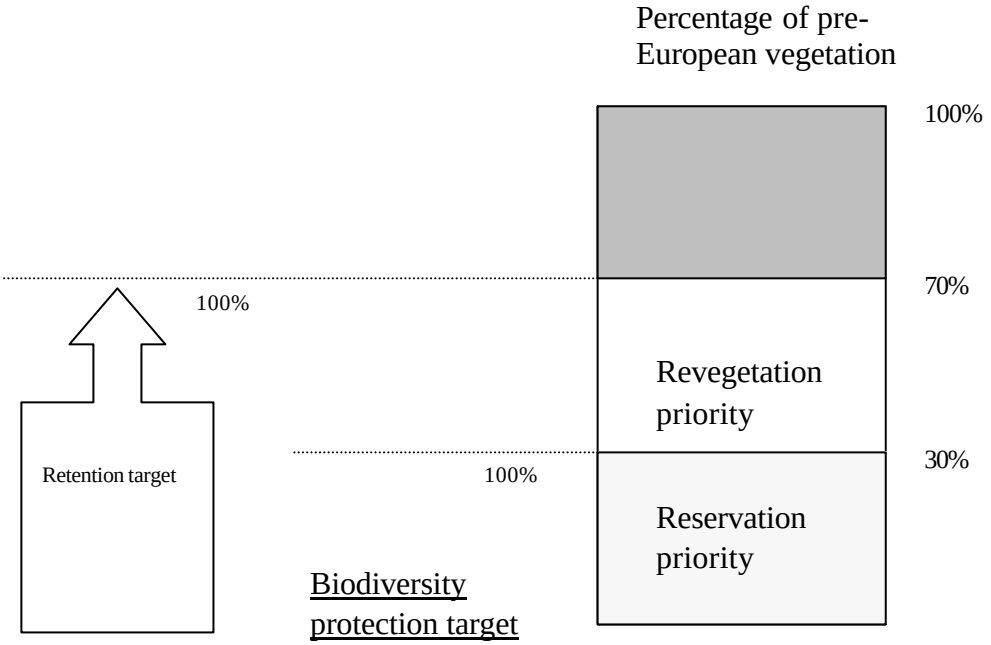
Urban development of East Gunghalin utilises virtually all the land in the area mapped as Planning Setting D, the preferred setting for urban development. The new reserve areas contains about 85% of Planning Setting A within East Gunghalin and about 30% of the Planning setting B areas. However, roughly 10% of the area proposed for urban expansion is on Planning Setting A identified land and roughly 40% is Planning Setting B. This appears to be at odds with the principles of the Planning Framework. It is acknowledged that further assessment has occurred in the ACT, though DEC has not been privy to any information to suggest that the mapping for this area within the planning framework is incorrect.

East Gunghalin falls within the Canberra – Queanbeyan Landscape Unit. This unit is known habitat to a large number of threatened species and communities. The planning and management issues identified include: the conflicts between urban expansion needs and nature conservation priorities; degradation of natural values adjoining urban areas and environmental weed invasion.

Key Habitats and Conservation Status of Vegetation in the Southern Tablelands, NSW and ACT.

In 2003 the above report was completed to provide information as one of the planning framework steps. As this report has been less widely distributed than the planning framework report I have included a copy for your information. The report provides detailed information on regional conservation priorities. For each landscape zone the report identifies:

- the extent of vegetation clearance;
- the degree of vegetation fragmentation (ie does the remaining vegetation occur in patch sizes <1ha, <10ha, 10- 50ha or >50ha); and
- Comprehensiveness, or how well a 30% conservation and 70% retention targets have been meet for each vegetation type. This is represented diagrammatically below.



Graphical representation of vegetation targets.

Forest ecosystems that have less than 30% of their pre-European extent in reserves are a priority for biodiversity protection. When 30% of pre-European coverage of a forest ecosystem is reserved, 100% of the revegetation target is met. Forest ecosystems that have less than 70% of their pre-European coverage remaining in the landscape are a priority for revegetation. When 70% of the pre-European coverage of a forest ecosystem remains in the landscape, 100% of the retention target has been met.

The Canberra – Queanbeyan Landscape Unit is one of the more heavily cleared landscape units in the region, with less than 30% of the original extent remaining. About 35% of this vegetation exits in patch sizes of 10 hectares or less. This is a much smaller percentage than in similarly cleared areas in NSW, thus the ACT contains relatively large and less fragmented blocks of vegetation. The Canberra – Queanbeyan Landscape unit is well below the biodiversity protection target (requiring greater reservation) and well below the landscape retention target (requiring a large amount of restoration).

The report also identified core fauna habitat for six different assemblages, including grassland and woodland dependent assemblages. Core habitat for grassland dependent species is almost entirely restricted to the Canberra-Queanbeyan and Gundaroo Landscape units, while the Canberra-Queanbeyan unit is important for the retention of core woodland habitat. A large majority of the core habitat within the East Gunghalin area has been included in the conservation reserve network, though about 10% of the proposed urban expansion area is identified as core fauna habitat.

Native Vegetation Act

The *NSW Native Vegetation Act (2003*), which is proposed to come into force on 1 August 2005, will prevent clearance of native vegetation unless it "improves or maintains environmental outcomes." In addition public funds (initially $120 million) have been provided as incentive money for landowners to manage and restore native vegetation. Property Vegetation Plans (PVPs) are the main mechanism for assessing applications for incentives and clearing. A series of certified tools will be used in the development of PVPs to assess threatened species, terrestrial biodiversity, soils, salinity, water quality and invasive scrub.

In rural areas surrounding the ACT, no further clearing of native vegetation will be permitted in vegetation types or landscapes that have been cleared to an extent of 70% or more, or are listed as threatened at the National or State level, unless the vegetation is in low condition (ie scattered paddock trees). Clearing will be allowed in common, less cleared vegetation and of paddock trees, but only if it can be demonstrated that a proposed offset meets the "maintain and improve" test. Overcleared landscapes adjacent to the ACT will be a priority for biodiversity protection and vegetation restoration works. Although urban areas will be excluded from consideration under the *NSW Native Vegetation Act (2003),* the NSW government is intending to obtain similar outcomes through the planning reform process currently underway.

There would be biodiversity and administrative advantages in the ACT adopting a similar approach to the assessment of native vegetation clearance and restoration. I would gladly make available to the ACT the assessment tools and methodology.

Attachments following

Attachment A - Regional Principles

Attachment B - Biodiversity Indicators: Key Habitats and Conservation Status of Vegetation in the Southern Tablelands, NSW and ACT. A report to the NSW NPWS (2003)
Map 1 - Regional Ecological Planning Settings

Map 2 - Regional Ecological Planning Settings in East Gunghalin Vicinity

Map 3 - Ecological Settings at Kenny and Throsby

Attachment A: Regional Principles

Principle	Application of principle to region
Resolve compatibility of biodiversity objectives with other social, cultural and economic objectives	Use regional ecological planning settings to prioritise land use, and to identify potential development opportunities
Encourage land uses and development types that can retain or support the conservation of biodiversity	Appropriate development and a cooperative planning process can contribute to identifying and enhancing biodiversity
Protect all natural areas, not only those identified of highest value	This principle is recognised in regional ecological planning settings. Individual landscape management units need to define specific natural areas and habitat elements of importance, and link to land use planning controls
Protect whole communities and ecosystems, and the natural processes that support them	Ecosystem/ vegetation community/threatened species mapping and modelling was used to define planning settings.
Maintain and enhance existing biodiversity	Further consideration needs to be given to whether this is appropriate at the regional level, or should be defined for landscape management units, because of the serious state of depletion of endangered ecological communities in the region. For some communities a principle of net gain may be appropriate to apply.
Identify the ecological setting when making site-based decisions	This is a planning approach reflecting an understanding of landscape-scale ecological function. Should be applied in all planning decisions.
Minimise landscape fragmentation	Needs to be reflected in planning guidelines for landscape management units and at the site level.
Recognise the different habitat requirements of individual species	Need to know characteristics and profiles for important species, and eventually for all species that need to be considered in plans. Landscape management units enable important species and their characteristics to be identified.
Conserve biodiversity *in-situ* in its natural environment	Important principle to be applied in decision-making.
Promote planting of locally indigenous native species and avoid introducing non-native species or making areas attractive for non-native species	Activity guidelines should be developed to inform vegetation management and landscaping practice at LGA and site scale.

Protect rare and ecologically important species	Important species are identified in the framework, enabling key habitat requirements to be compiled and made available in future for design and planning controls (eg. what area of habitat is needed to support a breeding pair or a local population, what are barriers to their movement and maximum distances between patches of habitat).
Protect unique or sensitive environments	These have been identified by recognising distribution of endangered ecological communities and threatened species and including them within areas of conservation importance. Distribution of other important species could be included to improve accuracy and scope.
Monitor biodiversity impacts over time	Monitoring is needed to inform ongoing management. The framework provides a basis for adding future information and for reporting it and making it available.
Give clarity and certainty to landowners and developers in plan provisions	Regional ecological planning settings summarise level of certainty of information relating to identified important natural ecosystems. This identifies levels of uncertainty and provides direction.
Link plan provisions to other biodiversity conservation initiatives such as incentives or state of the environment reporting	Information can be provided to link to reporting programs.
Apply a precautionary approach where there is a significant chance that a proposal might lead to irreversible consequences	Mapping recognises uncertainties of data.

Principle	Application of principle to region
Link plan making to ongoing land management	Proposed framework provides a basis for linking planning and ongoing land management activities.
Secure landscape-scale biodiversity conservation through a comprehensive, adequate and representative reserve system	Data enables an assessment of what proportion of species, and ecosystems are represented in reserves, and adequately reserved or subject to off-reserve conservation measures.
Manage threatening processes by identifying, preventing and mitigating the causes of habitat loss	This needs to be considered in implementing the framework.
Give priority to restoration of important ecosystem types	The planning framework can identify ecosystem types needed to be targeted for revegetation and rehabilitation, and opportunities for spatial location of programs.
Development shall minimise impact	Landscape management unit guidelines (to be developed within 6 months) will identify appropriate steps to avoid significant impact on threatened species or communities.
Small, fragmented areas of revegetation are largely ineffectual from an ecological perspective unless they ensure adequate regional integration	Research needed to support planning criteria for habitat connectivity, using planning framework data and maps as a base.