1 Introduction

1.1 A New Focus for Nature Conservation in the ACT

In 2002 the ACT Government introduced a *New Focus for Nature Conservation in the ACT,* which includes a program to establish strategies for priority species/ecological communities. This is to ensure that resources are directed to achieving maximum effect in conservation activities. To implement this program, Environment ACT initiated a three–year review of existing Action Plans for threatened species and ecological communities. This *Lowland Woodland Conservation Strategy* is the product of the first review covering endangered Yellow Box–Red Gum Grassy Woodland, other lowland woodlands and the species dependent upon these woodlands.

During 2003–05, Action Plans for Natural Temperate Grassland (and component species) and aquatic species (and the riparian zone) will be reviewed and new integrated strategies for these communities and their component species will be prepared.

Coincident with this Government program, a *Planning Framework for Natural Ecosystems of the ACT and NSW Southern Tablelands* has been completed (Fallding 2002). The document was prepared through close cooperation between ACT agencies, NSW local and state government agencies and the ACT Housing Industry Association. The framework provides the basis for a more coordinated approach to threatened species conservation in the region.

The *Planning Framework* compares the pre-1750 and current distributions of the broad native vegetation types found within the ACT and NSW Southern Tablelands region. About 45% of the region supported grassy ecosystems (including box–gum grassy woodlands) pre-1750, compared to about 13% in 2000. Of this vegetation complex, box–gum woodlands represent most of the remaining cover, approximately 9% in 2000. Continuing threats include inappropriate grazing; clearing for pastures, cropping, olive groves or vineyards; peri-urban, rural residential and urban infrastructure development; weed invasion, firewood collection, paddock tree removal and bush rock collection.

The *Planning Framework* concludes that remnants of many vegetation types in good structural and floristic condition are relatively rare. The grassy ecosystems, including the box–gum woodlands 'can be regarded as the most important from a conservation planning point of view because of their extremely restricted extent following development and rural management'. With the exception of reserves established in the ACT, sites with high biodiversity value are rare and fragmented, and poorly represented in the regional reserve network.

1.2 Scope of the *Lowland Woodland Conservation Strategy*

Reflecting Government policy, the *Lowland Woodland Conservation Strategy* takes an integrated, territory-wide approach within a regional context, to the protection of the remaining lowland grassy woodlands. The *Strategy* seeks to maintain and improve the natural integrity of the remaining lowland woodland ecosystems. Within the woodland remnants, this means maintaining and improving the viability of the grassy woodland ecosystem. Externally, it means maintaining and improving connectivity to other native vegetation including woodland, avoiding further fragmentation, and minimising harmful effects from adjacent land uses.

The *Strategy* recognises that in addition to the Yellow Box–Red Gum Grassy Woodland, which has been declared an endangered ecological community, there are other woodlands in the lower elevation parts of the

ACT that should be included in the *Strategy*. These lowland grassy woodlands now exist in a range of states of natural integrity, from partially modified to severely modified. The *Strategy* also encompasses the conservation of woodland flora and fauna, including those species declared as 'vulnerable' or 'endangered' under the ACT *Nature Conservation Act 1980*.

The *Lowland Woodland Conservation Strategy* supersedes nine separate Action Plans previously published for the Yellow Box–Red Gum Grassy Woodland ecological community, six threatened bird species associated with lowland woodland, and two plant species (Table 1.1). The statutory requirement for the ACT Conservator of Flora and Fauna to prepare Action Plans for declared threatened species and ecological communities remains and this Strategy incorporates in an integrated way this requirement. While the legal authority of this *Strategy* is confined to the Australian Capital Territory, management considerations are addressed in a regional context.

The focus of the *Strategy* is low elevation grassy woodland across the ACT, regardless of tenure and land use. In this way, it differs from a management plan applied to a particular area or areas. A central purpose of the *Strategy* is to inform decision-making with regard to land use planning, and the development and management of land in the ACT.

Specifically, the *Strategy*:

- identifies the remaining areas of lowland woodland in the ACT including the endangered Yellow Box–Red Gum Grassy Woodland;
- outlines their values focusing on the conservation value of the ecological communities and component flora and fauna (recognising that areas may also have social and cultural values e.g. recreational, aesthetic, Aboriginal and European heritage);
- outlines conservation goals, objectives and actions for lowland woodland and woodland dependent species, including those declared as threatened under the *ACT Nature Conservation Act 1980;*

Table 1.1: Ecological Community/Species Included in this *Lowland Woodland Conservation Strategy* and Existing Action Plans

Species/Ecological Community	Status	Action Plan No. Date	Declaration (in accordance with section 21 of the ACT *Nature Conservation Act 1980*)
Yellow Box–Red Gum Grassy Woodland	Endangered	No. 10, 1999	19 May 1997 (formerly Instrument No. 89 of 1997 and currently Instrument No.192 of 1998)
A Leek Orchid (*Prasophyllum petilum*)	Endangered	No. 4, 1997	15 April 1996 (formerly Determination No. 29 of 1996 and currently Determination No. 89 of 1997)
Small Purple Pea (*Swainsona recta*)	Endangered	No. 9, 1998	15 April 1996 (formerly Determination No. 29 of 1996 and currently Determination No. 7 of 1998)
Hooded Robin (*Melanodryas cucullata*)	Vulnerable	No. 15, 1999	19 May 1997 (formerly Instrument No. 89 of 1997 and currently Instrument No.192 of 1998)
Swift Parrot (*Lathamus discolor*)	Vulnerable	No. 16, 1999	19 May 1997 (formerly Instrument No. 89 of 1997 and currently Instrument No.192 of 1998)
Superb Parrot (*Polytelis swainsonii*)	Vulnerable	No. 17, 1999	19 May 1997 (formerly Instrument No. 89 of 1997 and currently Instrument No.192 of 1998)
Brown Tree creeper (*Climacteris picumnus*)	Vulnerable	No. 18, 1999	19 May 1997 (formerly Instrument No. 89 of 1997 and currently Instrument No.192 of 1998)
Painted Honeyeater (*Grantiella picta*)	Vulnerable	No. 19, 1999	19 May 1997 (formerly Instrument No. 89 of 1997 and currently Instrument No.192 of 1998)
Regent Honeyeater (*Xanthomyza phrygia*)	Endangered	No. 20, 1999	19 May 1997 (formerly Instrument No. 89 of 1997 and currently Instrument No.192 of 1998)
Varied Sittella (*Daphoenositta chrysoptera*)	Vulnerable	Not applicable*	25 November 2003 Instrument No. 319 of 2003
White-winged Triller (*Lalage sueurii*)	Vulnerable	Not applicable*	25 November 2003 Instrument No. 319 of 2003

* Recently declared species—Action Plan incorporated into the Lowland Woodland Conservation Strategy.

- outlines principles on which to base conservation actions;
- identifies areas or types of woodland remnants where regeneration and/or restoration effort would be best directed so as to improve the viability of lowland woodlands and their component species;
- incorporates the Action Plans for listed species and communities which are required by the *ACT Nature Conservation Act 1980;*
- provides a basis for planning and land management decisions with regard to areas containing lowland woodland;
- encourages community participation in the conservation of lowland woodland and component species; and
- satisfies the requirement under section 23(2) of the *Nature Conservation Act 1980*, that an Action Plan includes proposals for the identification, protection and survival of a threatened species or ecological community, or, in the case of a threatening process, proposals to minimise its effect.

1.3 Woodland Definition

This *Strategy* covers areas that are defined as both 'woodland' and 'open woodland'. The term 'woodland' is used to describe a tree cover of medium height (10–30 m) in which the tree crowns are clearly separated and project a foliage cover on the ground of 10–30% (gaps in the crown are excluded, see Glossary) (Specht 1970; AUSLIG 1990). As defined in the National Forest Inventory, this equates to a crown cover density of 20–50% (the whole crown is treated as opaque, see Glossary) (Commonwealth of Australia 2001). 'Open woodland' has less than 10% projective foliage cover (2–20% crown cover density). Compared with forest trees, the crowns of woodland trees are typically more rounded and of much greater depth, branching low from the main trunk. In 'grassy woodland', the next tallest vegetation stratum with a projective foliage cover of more than 10% is dominated by grasses (AUSLIG 1990).

Particular woodland communities are defined by their structure and floristics (dominant and characteristic species) and typical landscape location (see s. 2.2). The characteristic structure of woodland may be modified spatially and temporally by site conditions, disturbance and regeneration at the local level resulting in structural types ranging from forest, to open woodland and grassland. For example, dense regeneration of Yellow Box and Blakely's Red Gum following fire would still be considered woodland though the structure for some time following the disturbance may resemble forest. Similarly, disturbance of forest communities may result in a woodland structure, however these altered communities are not generally referred to as woodland, but are described in terms of their original structure and floristics (e.g. thinned Brittle Gum Dry Forest).

The *Lowland Woodland Conservation Strategy* covers grassy woodlands and open woodlands and component flora and fauna species found in the ACT in the approximate altitudinal range of 600–1000 metres (Figure 2.4). In the *Strategy* this is referred to as 'lowland woodland'. Included within this is the Yellow Box–Red Gum Grassy Woodland (endangered ecological community) normally found in the altitudinal range of about 600 to 900 metres. Lowland woodland is found above the level of cold air drainage in valley floors that are subject to severe frost. The term 'lowland' relates to local relief rather than landforms on a continental scale.

Broadly, the distribution of lowland woodland in the ACT is in a north–south pattern along the hills and ridges that flank the urban and rural areas of the Territory. The largest assemblages are in the northeast (Ainslie–Majura, Kinlyside–Mulligans Flat–Gooroo, Majura Valley–Newline), central and south (Red Hill–Callum Brae–Mugga Lane), the southwest (Rob Roy Range, Gigerline, Naas Valley, Tharwa, Castle Hill, Lambrigg and parts of the Bullen Range), west Belconnen and west of the Murrumbidgee River.

There are other woodlands as well as open forests found in the ACT that are not part of this *Strategy*. These include subalpine woodlands, mountain foothill woodlands at higher altitudes, and open forests of the dry hillslopes. There are also river-fringing woodlands at lower elevations. Subalpine woodlands and mountain foothill woodlands are largely protected in Namadgi National Park. A significant proportion of the open forests of the dry hillslopes is included in the nature reserves that comprise Canberra Nature Park. There is also a large area of open forest in the Greenwood Hill area that is part of Majura Field Firing Range (National Land). River-fringing woodlands are mainly protected in the Molonglo and Murrumbidge River Corridor Nature Reserves.

1.4

Role of the ACT Flora and Fauna Committee

The ACT Flora and Fauna Committee is established under amendments to the *Nature Conservation Act 1980* that were enacted in 1994. It is comprised of seven members with expertise in biodiversity or ecology. It advises the ACT Minister for the Environment in relation to nature conservation.

Since its establishment in 1995 the Flora and Fauna Committee has received and assessed nominations of species or ecological communities that may be threatened with extinction. The Committee is required to make assessments on nature conservation grounds only and is guided by specific criteria set out in its publication *Threatened Species and Communities in the ACT: Criteria for Assessment* (July 1995) (ACT Flora and Fauna Committee 1995). In making its assessment of Yellow Box–Red Gum Grassy Woodland and the listed plant and animal species included in this Strategy, the Committee concluded that each nomination satisfied these criteria.

As a group of experts in biodiversity, the Committee is asked to draw on its knowledge and experience of the region's flora and fauna during preparation by Environment ACT of draft and final Action Plans and to advise the Conservator of Flora and Fauna on progress in implementing them. These reviews are published in the Committee's Annual Reports. The Committee is also asked for its views on topical nature conservation issues as they apply to the ACT and it regularly provides such advice to Environment ACT. Thus the Committee is a valuable source of technical expertise, independent of Environment ACT and the Conservator of Flora and Fauna.

Action Plan Reviews

The Flora and Fauna Committee conducts annual reviews of progress in implementing Action Plans for threatened species and communities. In 2002 the Committee's review included assessment of Action Plans for Yellow Box–Red Gum Grassy Woodland and six threatened woodland bird species that are associated with this community across the ACT (Action Plans 10, 15–20; ACT Government 1999a–g).

The Committee's assessment used the following performance indicators:

- completion of commitments that can reasonably be expected to be finalised within the review timeframe (e.g. introduction of a statutory protection measure for a species; development of a management plan);
- completion of a stage in a process with a time line that exceeds the review period (e.g. design or commencement of a research program);
- commencement of a particular commitment that is of a continuing nature (e.g. design or commencement of a monitoring program for population abundance); and
- expert assessment of achievement of conservation objectives of the Action Plan.

The Flora and Fauna Committee reported in October 2002 to the Conservator of Flora and Fauna that, overall, good progress had been made in the implementation of Action Plan 10 (Yellow Box–Red Gum Grassy Woodland). In particular, the Committee referred to the substantial investigative effort that has refined the information available on the ecological community. This has also highlighted the need to consider the other woodlands of conservation value that do not meet the definition of the listed ecological community. The Committee noted significant progress in the establishment of Land Management Agreements and commended the close cooperation between Canberra Ornithologists Group and Environment ACT. A more strategic, coordinated approach was recommended for community group involvement in woodland conservation activities. In the *Strategy*, this recommendation has been included in the objectives and actions in Table 6.1 (No. 6. Community/landholder involvement), in particular, actions related to best practice management and the formation of a Conservation Management Network.

In reviewing Action Plan 10, the Committee recommended that a strategic approach within a regional context was needed. The review should cover woodland communities and component species including those listed as threatened. The Committee also stressed the need for standardised techniques for monitoring and survey, and research into specific habitat requirements of listed threatened species.

1.5 Relevant Legislation

1.5.1 ACT Planning and Land Management

The *Australian Capital Territory (Planning and Land Management) Act 1988* provides for two categories of land in the ACT:

National Land—used by or on behalf of the Commonwealth, and managed by the Commonwealth; and Territory Land – all the remaining land of the ACT. The ACT Government manages this land on behalf of the Commonwealth.

Important areas of lowland woodland on National Land occur in the Majura Valley (managed by the Department of Defence) and at Stirling Ridge, on the southern shore of Lake Burley Griffin (managed by the National Capital Authority).

The *National Capital Plan* (NCA 2003) sets out general land use policies for the Territory as a whole and may specify areas of land that have the special characteristics of the National Capital as Designated Areas. The Plan may set out detailed conditions of planning, design and development in Designated Areas. The National Capital Authority has planning responsibility for these areas, which may be either National Land or Territory Land. This *Lowland Woodland Conservation Strategy* accords with relevant objectives of the *National Capital Plan* (p. 5), and principles and policies for the National Capital Open Space System (Ch. 8), Rural Areas (Ch. 9) and Environment (Ch. 11). The 'Inner Hills' Designated Area contains important areas of lowland woodland.

Planning for areas that are not Designated Area is the responsibility of the ACT Planning and Land Authority and planning policies are set out in the *Territory Plan* (ACTPLA 2003).

1.5.2 Legislation Applying to the Conservation of Flora and Fauna in the ACT and Region

The following legislation applies to the conservation of flora and fauna in the ACT and region:

Nature Conservation Act 1980 (ACT)

The *Nature Conservation Act 1980* provides authority for the Conservator of Flora and Fauna to manage Public Land reserved for conservation of the natural environment. Activities that are inconsistent with management objectives for nature conservation are controlled. Special measures for conservation of a species or community of concern can be introduced in a reserved area, including restriction of access to important habitat. Provisions of the *Nature Conservation Act 1980* are applicable to National Land (which is land used by, or intended to be used by the Commonwealth).

Part 1 of the Act establishes the ACT Flora and Fauna Committee with responsibilities for assessing the conservation status of ACT flora and fauna and the ecological significance of potentially threatening processes. Where the Committee believes that a species or ecological community is threatened with extinction or a process is an ecological threat, it is required to advise the responsible minister, and recommend that a declaration be made accordingly.

Parts 4 and 5 of the Act provide for protection of native plants and animals. Section 21 of the Act authorises the declaration of (a) a vulnerable or endangered species, (b) an endangered ecological community, and (c) a threatening process, based upon the advice and recommendation to the responsible Minister by the ACT Flora and Fauna Committee.

Native plants and animals may also be declared as 'protected' (s. 17) or as having 'special protection status'(s. 16) in recognition of a particular conservation concern that warrants additional protection. Increased controls apply to declared species and licensing constraints are specified. Species declared as endangered under the Act, or threatened with extinction, must also be declared as having special protection status. This is the highest level of statutory protection that can be conferred on a species in the ACT. Further information on these matters can be obtained from Environment ACT (Ph: 6207 9777).

Under s. 47 of the Act, the Conservator of Flora and Fauna may give the occupier of land directions for protection or conservation of native plants and animals. This provision is relevant to the management of threats to a species or ecological community of concern that occurs on leased land.

Part 9 of the Act allows the Conservator to enter into a Management Agreement with an agency where its activities have potential to conflict with nature conservation objectives. This provision is relevant to management of conservation threats on unleased land and applies to utilities (e.g. gas, electricity), navigation and communication facilities, and land development.

Section 43 of the Act provides for the protection of 'native timber'. Except in accordance with a licence, damage to and felling of trees is not permitted on unleased land in the urban area and on both leased and unleased land outside the urban area. Small wood is not included in these provisions. On rural leases, a licence is not required to fell timber for farm purposes or if it is potentially hazardous. Timber can be felled and sold if it is from a farm plantation.

Land (Planning and Environment) Act 1991 (ACT)

The *Land (Planning and Environment) Act 1991* is the primary authority in the ACT for land planning and administration and establishes the Territory Plan. One of the goals of the plan is 'to promote ecologically sustainable development, protect biodiversity, and provide for high standards of environmental amenity, urban design and landscape' (ACT Government 1998a). The Plan identifies nature reserves, national parks, wilderness areas and special purpose reserves within the Public Land estate. The Act requires that management plans be prepared for areas identified as Public Land under the Territory Plan.

The Act provides for the Territory Plan to incorporate a Heritage Places Register. Places of natural heritage significance may be included in the Register and conservation requirements specified. The Act also provides for environmental assessments and inquiries to be initiated in relation to land use and development proposals. This is included in Territory Plan environmental planning policies.

Tree Protection (Interim Scheme) Act 2001 (ACT)

In March 2001, following community concern about the loss of trees in urban Canberra, the ACT Legislative Assembly passed the *Tree Protection (Interim Scheme) Act 2001* to provide interim protection until a suitable form of tree protection was determined. In September 2001, the Government released a *Tree Protection and Management Policy* and subsequently implemented most of the measures in the policy. The legislation applies to urban leased land (public institutions, residential and commercial). It does not apply to trees on rural leases or unleased land (public parks, reserves, street trees and other unleased land e.g. forestry plantations and land designated for urban development) that are covered under the provisions of the *Nature Conservation Act 1980* and the *Trespass on Territory Land Act 1932*. In relation to this *Strategy*, the tree protection initiatives mainly affect individual Yellow Box or Red Gum trees scattered throughout the urban area on leased land (see Chapter 2.5.6).

Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the primary Commonwealth legislation for environment protection. Under the EPBC Act, an action will require approval from the (Commonwealth) Environment Minister if the action has, will have, or is likely to have a significant impact on a matter of national environmental significance and it is not subject to certain specified exceptions. Exceptions include actions taken in accordance with Commonwealth accredited management plans. The Act also promotes ecologically sustainable development through the conservation and ecologically sustainable use of natural resources, the conservation of biodiversity, and a cooperative approach to the protection and management of the environment involving governments, the community, landholders and indigenous peoples.

Matters of national environmental significance trigger the Commonwealth's environmental assessment and approval responsibilities. The matters are: World Heritage properties, Ramsar wetlands of international importance, nationally listed threatened species and ecological communities, migratory species protected under international agreements, Commonwealth marine environment and nuclear actions.

With regard to lowland woodland conservation, there is potential application of the EPBC Act in the ACT to nationally listed threatened species (Tables 3.2 and 4.1), National Land, and in relation to Commonwealth actions. Yellow Box–Red Gum grassy woodland is not currently listed under the EPBC Act. Two associated communities; 'Grassy White Box Woodlands' and 'Natural Temperate Grassland of the Southern Tablelands of New South Wales and the ACT' and some plants and animals that may use woodland habitat are listed, see <http://www.ea.gov.au/epbc/index.html>.

The Commonwealth prepares Recovery Plans for species and ecological communities listed under this Act. In situations where such Recovery Plans coincide with ACT Action Plans or ACT management responsibilities, every effort is made to ensure coordination, consistency and cooperation between the Commonwealth and ACT governments.

Threatened Species Conservation Act 1995 (NSW)

The *Threatened Species Conservation Act 1995* (TSC Act) provides for the protection of all threatened plants and animals native to New South Wales (with the exception of fish and marine plants which are covered by other laws). Under the Act, threatened species are classified as endangered or vulnerable. A recovery plan must be prepared for endangered species (other than those presumed extinct), endangered populations, endangered ecological communities and vulnerable species. For each key threatening process that is listed, the NSW National Parks and Wildlife Service is required to prepare a threat abatement plan.

One of the important features of the TSC Act is the integration of the conservation of threatened species into development control processes under the NSW *Environmental Planning and Assessment Act 1979*. The effect of a development or activity on threatened species must be considered by a consent and/or determining authority. Where there is likely to be a significant effect on threatened species, the preparation of a species impact statement is required.

The requirements of this legislation, including the preparation of recovery plans by the NSW Department of Environment and Conservation, apply to six species covered by ACT action plans and included in this *Lowland Woodland Conservation Strategy*. These are the Swift Parrot, Regent Honeyeater, Tarengo Leek Orchid and Small Purple Pea (endangered; TSC Act), Superb Parrot and Painted Honeyeater (vulnerable; TSC Act), and the White Box Yellow Box Blakely's Red Gum Woodland (endangered ecological community; TSC Act).

Flora and Fauna Guarantee Act 1988 (Vic.)

The *Flora and Fauna Guarantee Act 1988* is the primary legislation for the protection of Victoria's biodiversity, native plants and animals and ecological communities on land and in water. Species and ecological communities can be listed as threatened under the Act, based on assessments by an independent Scientific Advisory Committee. Threatening processes may also be listed. The Victorian Department of Sustainability and Environment maintains lists of rare or threatened species in Victoria. Conservation status categories used in these lists (presumed extinct, endangered, vulnerable, rare, poorly known) are also applied to species or communities listed as threatened under the Act.

1.6 Consultation and Community Participation

Three community forums were held between August 2002 and February 2003, to enable community groups and interested individuals to provide input to the development of the *Lowland Woodland Conservation Strategy*. A wide range of groups with an interest in woodland conservation was represented at the forums. Participants included representatives from the ACT rural community, ACT Park Care and Landcare groups, several member groups of the Conservation Council of the South-east Region and Canberra, environmental consultants, members of the ACT Flora and Fauna Committee and interested individuals.

The first forum was focussed on identifying issues and priority issues related to lowland woodland conservation. The second forum considered a draft goal for the strategy, the application of the comprehensive, adequate and representative reserve system concept to woodlands in the ACT, woodland conservation off-reserve, and the recovery and rehabilitation of degraded woodlands. The third forum considered a draft of the vision, goals, objectives and actions for the strategy. Key issues identified in the first forum were: (i) concern that the ACT planning process does not give sufficient weight to woodland conservation; (ii) a woodland strategy is needed that covers all woodlands from individual trees to the complete grassy woodland ecological community; and (iii) that the strategy ensures full protection of high conservation value areas as a minimum. The outcomes of the second and third forums were used in the preparation of relevant sections of the *Strategy*, especially Chapter 6. Environment ACT prepared summary reports of the matters raised at each community forum in consultation with the forum facilitator. These reports were circulated to forum participants, other individuals and groups and placed on the Environment ACT Website.

There is keen community interest in the ACT in the conservation of lowland woodland. This interest is, in part, generated by the close proximity of many woodland areas to urban Canberra, which brings particular challenges to their management. An objective of the *Strategy* (Table 6.1) is that 'landholders, community groups and others are actively involved in lowland woodland conservation'. Existing community involvement is demonstrated by activities such as the work of Park Care and urban

and rural Landcare groups, projects by Greening Australia and the extensive bird surveys conducted by the Canberra Ornithologists Group. As a means to further build community involvement, the *Strategy* proposes the formation of a Conservation Management Network as pioneered in other jurisdictions.

Pursuant to s. 23 of the *Nature Conservation Act 1980*, the *Draft ACT Lowland Woodland Conservation Strategy* was released for public comment on 2 May 2003 for the period to 31 July 2003. Twenty-eight submissions were received and a detailed analysis of these was presented to the Flora and Fauna Committee on 11 September 2003. The *Strategy* has been finalised, taking into account both the submissions and the advice of the Committee.

1.7 Implementation

Management of lowland woodland in the ACT is complicated by the nature of land tenures. The *Strategy* is not a management plan prepared under the *Land (Planning and Environment) Act 1991*, nor does it propose that management plans be prepared for each woodland complex or unit independent from existing management plans and management arrangements. The *Strategy* is a *thematic* document i.e. it deals with lowland woodland conservation across all land tenures in the ACT. The goals of the *Strategy* will be achieved through a variety of means, relevant to the different tenures. The *Strategy* provides the strategic, ACT-wide and regional context for the consideration of lowland woodland conservation in planning studies for specific areas of the ACT. It is at this stage that matters such as the buffer between woodland and urban development will be determined.

Environment ACT has responsibility for coordinating implementation of this *Lowland Woodland Conservation Strategy* in partnership with relevant public and private land managers and the wider community. The remaining lowland woodland in the ACT is spread across leased and unleased Territory Land, reserved Public Land (Territory Land) under *The Territory Plan*, and National Land. Achievement of the objectives of the *Strategy* will require the participation of the managers of these lands, in particular in

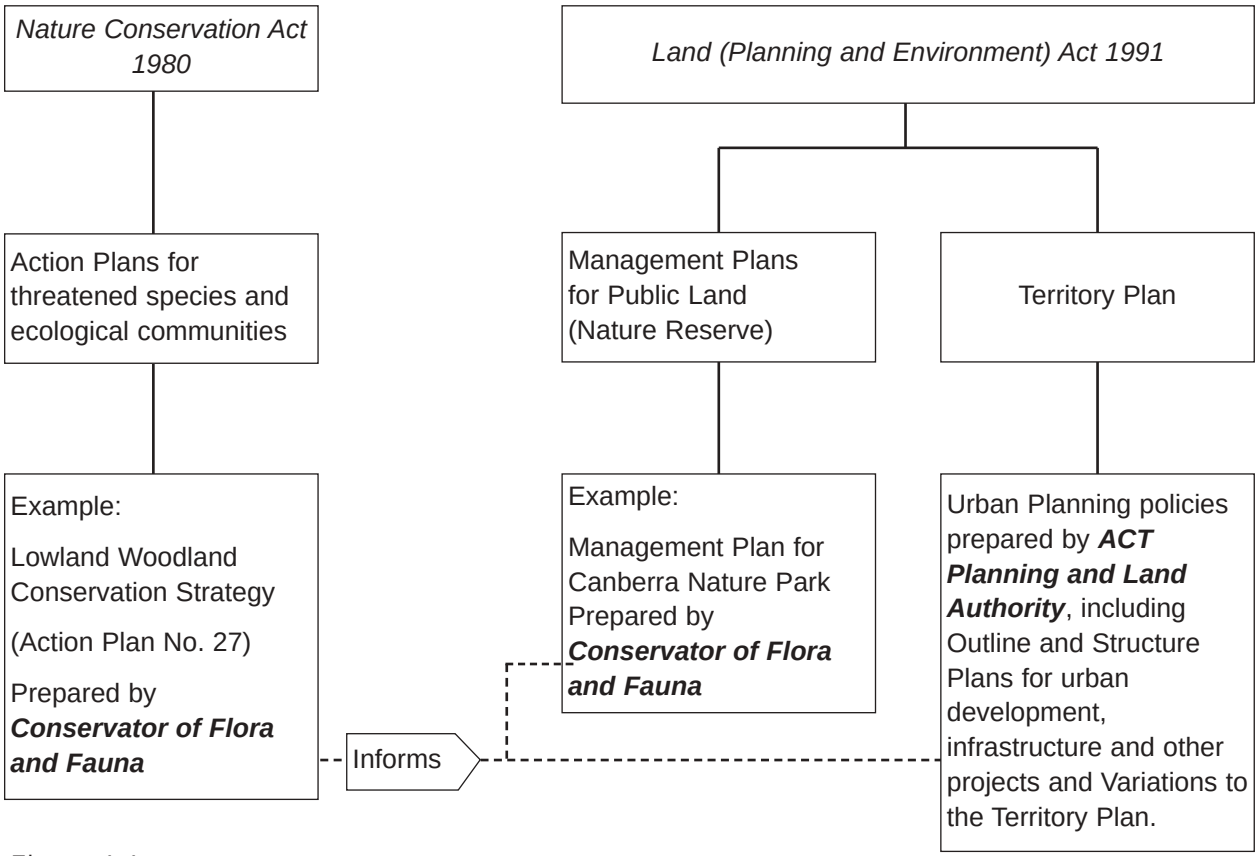

Figure 1.1:

The Place of the *Lowland Woodland Conservation Strategy* in Land Use Planning and Land Management in the ACT.

undertaking the actions set out in Chapter 6. The cooperation of all stakeholders is necessary if further decline in woodland biodiversity is to be halted.

Primary responsibility for conservation of lowland woodland and component species on reserved Public Land will rest with the ACT Parks and Conservation Service, with the directions of the *Strategy* expressed through management plans. For example, the *Canberra Nature Park Management Plan* (ACT Parks and Conservation Service 1999, p. 18) includes an action 'to provide assistance in the development and implementation of conservation strategies for threatened native plant species and communities and provide for long term monitoring'. Memoranda of Understanding (especially with Commonwealth landholders), Land Management Agreements (with rural leases), and directions by the Conservator of Flora and Fauna under s. 47 of the *Nature Conservation Act 1980* in relation to activities on unreserved Public Land in the urban area are also means by which the *Strategy* may be implemented. Cooperation with NSW agencies, especially the Department of Environment and Conservation is an important element in implementing the *Strategy*, as part of a growing regional effort to conserve the biodiversity of the ACT and NSW Southern Tablelands.

The place of the *Strategy* in land use planning and land management in the ACT is shown in Figure 1.1.

1.8 Bushfires of January 2003

In January 2003 bushfires burnt 70 per cent (164 914 ha) of the ACT, including most of the area west and south of the Canberra urban area. Lowland woodland was burnt in the Uriarra, Bulgar Creek, Mt Taylor and Murrumbidgee River areas (North Murrumbidgee–Lower Molonglo complex, section 5.8 and Figure 5.5a); Naas, Paddy's River and Rob Roy areas (Tuggeranong–Naas complex, section 5.7 and Figure 5.4a); and Farrer Ridge and Wanniassa Hills (Callum Brae–Jerrabomberra Valley complex, section 5.6 and Figure 5.3a). The only extensive woodland to remain largely unburnt in the first two of these complexes was Castle Hill (Tuggeranong–Naas complex). Fire severity in lowland woodland was high in a significant proportion of the Naas area (Figure 5.4a) and mainly moderate to high throughout the remaining burnt areas. Large areas of Yellow Box–Red Gum woodland in the Gungahlin, Majura Valley and Jerrabomberra areas were not burnt, indicating the importance of protection of replicated areas of sufficient size and variety (see 'Adequacy' as part of a Comprehensive, Adequate and Representative (CAR) reserve system in s. 6.3.3).

In the one area surveyed as part of a wider survey of initial response of plant and animal species and ecological communities to the fires, response by Yellow Box and Blakely's Red Gum at Uriarra varied from no response, to regeneration from lignotubers and epicormic shoots (Carey *et al.* 2003). However, extensive regeneration of the woodland is expected to occur. Longer-term impacts on woodland fauna are uncertain and will partly relate to changes in the composition of regenerating vegetation. For example, habitat for the Wallaroo (*Macropus robustus*) may be reduced by post-fire shrub growth.

1.9 Structure of the *Lowland Woodland Conservation Strategy*

The *Strategy* is structured as follows:

Chapter 1: The **Introduction** outlines the scope of the strategy, the basis for declaring species threatened in the ACT and the role of the ACT Flora and Fauna Committee. It also includes a brief summary of the structure of ACT planning and land management, an outline of legislation applying to the conservation of flora and fauna in the ACT and region, and sections on community consultation, implementation of the *Strategy*, and the bushfires of January 2003.

Chapter 2: The Lowland Grassy Woodland Mosaic places ACT lowland woodland in the context of the larger temperate woodland zone, describes ACT woodland types and indicates which of these are included in the *Strategy*. Changes to the woodlands since pre-1750 are considered, as well as ongoing threats. This chapter includes an explanation of the categories of lowland woodland in the ACT used in the *Strategy*, based on the degree of modification from their pre-1750 state (Table 2.3). These categories have been adapted from McIntyre and Hobbs (1999) and McIvor and McIntyre (2002). This part of the Chapter, and Table 2.3 in particular, is the foundation to the rest of the *Strategy*.

Chapter 3: Lowland Woodland Flora briefly describes lowland woodland flora of the ACT region and the surveys undertaken to compile the vegetation data for the *Strategy*. It includes a section on how disturbance tolerant and disturbance sensitive species

have been used as indicators of levels of woodland modification. The chapter sets out specific conservation actions for ACT threatened woodland communities and species, and uncommon plant species found in the ACT, some of which are listed as threatened in other jurisdictions.

Chapter 4: Lowland Woodland Fauna discusses the interdependence of fauna and woodland ecosystems, outlines threats to fauna and briefly describes woodland fauna of the ACT region. The chapter discusses the conservation of lowland woodland fauna in the ACT, critical habitat features for threatened ACT bird species, and threats to those species. It concludes with specific actions for the conservation of woodland fauna.

Chapter 5: **Woodland Complexes: Planning and Conservation Management** considers principles underlying conservation planning for lowland woodland and criteria for identifying areas of highest conservation significance. The chapter includes maps showing the location of the remaining ACT lowland woodland, classified according to the categories in Table 2.3. Five woodland complexes are identified which are recognisable assemblages in particular geographic areas. The complexes and units within them are listed in Table 5.1 and discussed in detail in sections 5.4 to 5.8. Section 5.9 discusses aspects of conservation management of lowland woodlands in the ACT.

Chapter 6: The Lowland Woodland Conservation Strategy brings the elements of the *Strategy* together, placing it into the ACT planning and land management context and considering policy guidelines for woodland conservation, in particular, the comprehensive, adequate and representative (CAR) reserve principles for the conservation of biological diversity. The chapter evaluates the state of protection for Yellow Box–Red Gum grassy woodland in the ACT, outlines recent actions taken to improve lowland woodland conservation, and future actions necessary. In particular, in support of the *Strategy's* goals, the chapter (section 6.5) sets out objectives, the actions necessary to achieve those objectives, and relevant performance criteria.