

Private Native Forestry

Required fields are marked with an asterisk (*).

Name

Email address

Postcode

About you

- Individual
- Business
- Government Organisation
- Non-Government Organisation
- Landholder
- Private Native Forestry Industry

Name of your business or organisation

1. What improvements should the NSW Government consider making to the existing Private Native Forestry Codes of Practice (Northern NSW, Southern NSW, River Red Gum Forests, and Cypress and Western Hardwood Forests)? Please specify which Code you are referring to.

In relation to native forestry most landholders have limited expertise as it is not their full-time occupation. Landholders depend on their relevant Code of Practice to be an authoritative guide. From this perspective it is very important that the Codes are clear, concise and simple to understand.

The existing private native forestry Codes of Practice are not fit for purpose. They are unduly complex and unbalanced. All of the Codes need to be made clearer and easier to read and use. They also should be much more outcome-focused. The connection between the Codes and the supplementary information that supports them requires strengthening and better integration. Important concepts about good forest management practice are currently relegated to accompanying guidelines. Incorporation of active and adaptive management concepts would improve the Codes.

Many prescriptions in the Codes have limited application and have no bearing on the long-term ecological health and productivity of the forest. In contrast, many matters of significance which are fundamental to long term ecological sustainability have remained in discretionary (non-binding) guidelines. Silviculture, fire management, and the control of pest and weeds are all major issues that receive minimal attention in the Codes. However the way these issues are managed (or unmanaged as the case may be) has a major bearing on the economic, social and environmental values that private native forests generate.

The existing Codes contain too many 'environmental protection' prescriptions which are not outcome based. Many rules have been included in the absence of evidence and their justification is to address the unknown ('precautionary principle'). That is, they are proscribed 'just in case'

because they are easy to measure and police. As an example, around 60% of the current Codes are now dedicated to prescriptions for the protection of listed species and listed communities (i.e. TECs and EECs). This acts as disincentive to survey the forest to find out what is there.

PNF landholders should receive stewardship payments if they apply threatened species conservation prescriptions which impact on their harvesting plans. The payments would provide an incentive for PNF landholders to survey their forests for threatened species and take a direct interest in their conservation. Stewardship payments need to cover the cost of the identification and management of threatened species as well as any economic loss. An economic loss occurs when forests which would otherwise be available are protected in an exclusion zone and when additional recruitment trees (trees that would otherwise be harvested as sawlogs) are required to be retained.

The application of silvicultural best practice has always been a challenging issue due to the complexity of the topic¹. That should not be a reason for the issue to be ignored. 'High grading' is a major issue that has not been addressed in the Codes for far too long. Similarly, effective regeneration of moist forest types needs specific attention.

For those with high level experience, fire is a highly effective forest management tool that can assist the forest to regenerate following harvesting. The use (or non-use) of fire both before and after harvesting deserves detailed consideration in the Code.

When the bush is disturbed by harvesting it is more exposed to invasive pests and weeds. Invasive pests and weeds are known threatening processes which have a greater impact on threatened species than selective timber harvesting. If the Codes seek a holistic approach to the protection of threatened species, they should focus on the management and control of invasive pests and weeds and place less emphasis on untested species-specific management prescriptions. It is recommended that PNF landholders be offered stewardship payments to control pests and weeds that are regarded as a threat to a listed species.

The Codes should provide incentives to implement best practice and not focus on a punitive process and regime. A long term beneficial and lasting impact on forests should become the focus of the Codes. The Codes should take a more holistic approach and not try to assess and determine the fate of every tree². In improved Codes, it will still be necessary to define out of bounds areas, but these prescriptions shouldn't be a dominating feature and their complexity should be reduced.

Having different Codes of Practice in NSW is supported as it keeps their size and content manageable – this is particularly important for ease of interpretation. Most private landholders and contractors only own land/operate in one region so there is limited demand for a 'single set of rules' to apply across the State. Having Codes that are regionally/species specific allows them to be tailored to the environment to which they apply. There is need for silviculture to feature more prominently in future Codes.

Maintaining separate Codes will be important for this purpose. For example, the way that River Red Gum forests should be silviculturally managed is different to Cypress and western hardwood forests and vastly different to the way mixed species forests of the north and south coast should be managed. The manner in which fire, pests and weeds should be managed is also regionally specific. In relation to fire, some forests are far more fire sensitive than others and regional differences in the terrain and the amount and type of understory biomass, means that different approaches/guidelines are required. Each region has different types of pest and weeds which require different approaches to control. Protection of soil and water also varies in each region.

¹ Silvicultural information is currently contained in non-binding guidelines and described as 'an art'

² Individual tree prescriptions may be relevant in mature woodland where trees are isolated but not in regrowth forest where there are hundreds of trees to choose from.

For example, the River Red Gum, Cypress and Western hardwoods occur in deposition landscape while on the coast the landscapes are eroding.

Specific improvements that we believe should be made to each and every Private Native Forestry Code of Practice are detailed in Annexures A to E.

- Northern NSW Code of Practice
- Southern NSW Code of Practice
- River Red Gum Code of Practice
- Cypress and western hardwood forests Code of Practice
- All codes

2. Do you have any suggestions to ensure the Private Native Forestry regulatory settings are efficient, enforceable and effective?

To be efficient and effective, the regulatory settings should be kept simple and not overly prescriptive. This approach is consistent with the terms of reference given to the Independent Biodiversity legislation Review Panel, namely, better environmental outcomes, reduced compliance burden and greater potential productivity gains for regulated parties.

Compared to what occurs on State forest the harvesting on private land is small-scale and low-intensity. In many ways private native forestry is a form of large scale permaculture that is built around natural processes. Assisting landholders and harvesting contractors to understand those processes is vital to achieving good forest outcomes. Heavy regulatory settings that focus on enforcement are inappropriate as they focus all attention on being 'compliant'. Silvicultural best practice is typically the first casualty of over regulation. In effect, heavy regulatory settings act as a deterrent to landowners engaging in sustainable forestry.

The Coastal IFOA which applies to public land is not an appropriate template for PNF. The Coastal IFOA is a coercive and punitive document which is not outcome based. It has been designed by an environmental regulator for a single state-owned corporation that employs many forestry professionals. The Coastal IFOA operates as a license and as such is extremely costly and resource intensive to implement (even for forestry professionals)³. The principal purpose of the Coastal IFOA is to address political sensitivities and public perceptions which do not apply (to anywhere near the same extent) on private land.

On private land the operating and legislative environment is very different to public land with Local Land Services (LLS) officers working in a collaborative manner with literally thousands of individual landholders. If they are to be effective, Forest Practices Codes need to be instruments of extension which harness the cooperation and goodwill of landholders. Codes that are punitive and based principally on coercion (like the Coastal IFOA) will not work. The design of the new Codes should be consistent with the LLS' charter which encourages collaboration and shared responsibility for the proper management of natural resources. The Codes should also provide for the best use of local knowledge and expertise. This contrasts with the Coastal IFOA which is a 'no trust' model based on centralised knowledge and coercive powers.

For most who own private property, native forestry is not their primary business. The bush takes time to grow and can only be harvested for logs a few times over an individual's working life. At harvest time, money can be made from private native forestry (PNF), but it's not a lucrative

³ The Forestry Corporation employ 80 planning staff and spends over \$12 million annually on the implementation of IFOA conditions and the NSW EPA spend several million more on policing them.

business. Over the longer term the ongoing costs of managing the bush uses the money that is made from timber sales. The regulatory settings need to take account of the costs that they impose. Having many restrictive rules costs money and if landholders don't make money from selling timber y they have nothing to spend on caring for and regenerating the bush in the future.

In 2018 the penalties for breaches were massively increased, up to \$5 million for a company and \$1 million for an individual. These penalties are excessive and completely at odds with the risks posed by PNF activities. The NSW Government stated that it would stop treating PNF as a clearing activity however the penalties that apply continue to do this. The magnitude of the penalties is neither fair nor appropriate. With hundreds of rules and large penalties for breaking them, there is little incentive to be involved with PNF. Landholders who undertake PNF are often ignorant of the risk of those massive fines.

When government over-regulates and over-polices, it sends a message of lack of trust. This approach entrenches a negative attitude from the landholder and is ultimately counterproductive. Good will is far more valuable when coupled with vital extension service and longer term, will be far more effective way of achieving compliance and good outcomes. Most landholders want to do the right thing; they just need the right advice and good guidance. The Codes should be an effective guide and set minimum standards and best practice. The Codes and their enforcement should be designed for law abiding landholders (who need guidance), not with the presumption that landholders are intent on flouting the law..

The agency responsible for policing desire rules that are easy to measure and enforce. However, the Codes should not be designed to satisfy enforcement. The Codes main objective should be achieving good outcomes. There are currently many rules that are simply arbitrary measurements and pose no major risk or lasting harm .Prescriptive policing. is counterproductive but where enforceable rules are required, they should be clear and unambiguous.

Interpretation and enforcement of the rules is an important issue. Currently we are aware that NSW EPA auditors have moved toward a zero-tolerance approach which landholders and contractors find antagonistic and counter-productive. Under the current Codes the landholder is supposed to have some discretion on the application of prescriptions for individual tree retention (i.e. in terms of scale and location). This discretion facilitates good silviculture (e.g. gaps and clusters) while still retaining important habitat features. NSW EPA officers appear to be enforcing habitat tree retention rules at a scale that is unworkable (i.e. 0.2 hectares). The EPA's interpretation of the rules takes no account of silviculture, removes operator discretion and in many cases is not practical.

In the new Codes the scale at which enforceable rules apply must be more explicit. Within the area available for harvesting, it is critical that landholders and contractors retain the right to remove or retain individual trees (unless there is a compelling reason why they shouldn't⁴) to achieve the outcomes specified in their operational plan. Enforcement under the new Codes should aim for protecting the health and vigour of the forest and less about the protection of individual trees.

Careful consideration should be given under the new Codes to the introduction of an impartial independent appeal process Under this proposal the person accused of an alleged breach would be entitled to have their matter independently reviewed (i.e. similar to the appeal process which is available under Local Government determinations) and overturned if found unreasonable.

Government resources should be directed to extension services - education, training and guidance. Regulatory oversight should be proportional to the scale and intensity of the operation, the level of training and expertise of the harvesting crew and their past performance.

⁴ Exemptions should only include trees that have special conservation significance e.g. outstanding size, many large hollows, contains nests in use etc.

A better regulatory model than the current one would be to give responsibility for day to day Code compliance to LLS. Under this model the LLS can monitor compliance in a non-threatening way and make landholders aware if their operations are less than best practice. The NSW EPA could retain its role as the 'environmental enforcement agency' but only be involved if requested by LLS. This should only occur where the contravention of Code conditions poses a major risk to the environment.

3. How can the NSW Government improve the authorisation and approval system for Private Native Forestry?

At present the government's authorisation and approval system is not unified. Rather than having one legislative approval process applicants are required to comply with two, namely, the *Local Land Services Act 2013* and the *Environmental Planning and Assessment Act 1979*. Having to obtain two approvals (dual consents) is inefficient and a disincentive for involvement in forestry. The government should have a single 'one stop shop' approval system.

Having two separate approval processes has significant weaknesses. In relation to obtaining an approval under the *Environmental Planning and Assessment Act 1979* there is no information or guideline about how to submit a complying application. As local Councils administer this Act there is no consistency or certainty in how an application will be treated. If a Local council doesn't support forestry as an activity (sometimes just on ideological grounds) it currently has sole discretion and authority to impose conditions that are unworkable or sufficiently financially onerous to render the operation uneconomic. Complications with Council approvals are mainly associated with their inconsistent approach to and treatment of Environmental zoning and SEPP zoning. An improved approval system would ensure environmental planning requirements are wholly integrated into the Codes - removing the need to obtain a separate Council approval.

The review of the PNF authorisation process also provides an opportunity for applicants to have their forest certified under PEFC or FSC. Automatic certification for anyone who applies and obtains a PNF plan approval would be ideal however if this is not possible then there should be provision for any additional requirements (to obtain the Certification) to be incorporated into the LLS approval process.

The PNF plan application and approval process should be undertaken online and manually (i.e. as presently occurs). Applicants should be able to choose between the two options as not all landholders are computer users

The term of a PNF Plan approval should be greater than 15 years to encourage landholders to manage their forests for long-term sustainably.. The current 15 year maximum approval term facilitates some exploitation of forests for short term benefits (i.e. beyond year 15 there is no certainty) which can compromise the long term health and productivity of the forest. Fifteen years is a short period in the life of a tree - it typically takes a native forest tree 60 to 80 years to grow to commercial maturity (for sawlog). The ability of LLS to terminate a PNF Plan if any requirement of an approval or PNF code of practice is contravened creates an unacceptable level of sovereign risk. The uncertainty created by this power acts as a disincentive to manage forests for the long term.

To incentivise landholders to take a long term view, a rolling approval term of at least 20 years that is reviewed and extended every five years should be implemented (i.e. similar to the way the new Regional Forest Agreements operate). The option to extend should be at the sole discretion of the landholder. We also propose that LLS' authority to terminate a PNF Plan approval be much more tightly defined (i.e. only applied in exceptional circumstances and be subject to an appeals process that is fair and equitable).

At present all native vegetation on a property is typically subject to a PNF authorisation. Going forward, it should be made clear that the area of a property to which a PNF Plan approval applies is flexible and subject to the discretion of the landholder. Landholders should have the discretion to select the native forests that they seek to be subject to approved timber harvesting and forests not proposed for commercial timber harvesting are not unduly regulated.

Whole of property approved plans should have more flexibility than those which apply to discrete areas of native forest. Whole of property approved plans should be flexible to allow customisation to cater for agricultural, forestry and conservation management interests.

Within the existing Codes there is scope to make 'minor variations' to a PNF Plan. Under these variations accredited officers may modify in a specified manner the environmental prescriptions of the Code. This approval to modify prescriptions should be retained in the new Codes with some additional detail around where it is likely to be applicable. For example, the authority to modify a Code prescription should be encouraged where it will assist landholders to achieve their holistic property management objectives.

4. What training and advice services would assist landholders, industry and the community?

It is hard to know where to start in native forestry unless you have contacts or have participated in private forestry in the past. There is little information available and it is difficult to find trusted contracting and timber valuation/sales sources. There is scant qualified expertise available on forest improvement and increased productivity.

It is vital that extension services are provided and resourced to explain the detailed process of forest/stand improvement, harvesting and preparation of the property. Professional advice on which trees to keep and which ones to sell would also be helpful.

Having an agency or designated professionals who are independent and trustworthy to provide detailed extension services is vital. Industry is developing a program for contractor accreditation, similar to a builder's gold licence, and Government support through LLS for the training and upskilling of private forestry contractors is essential.

Being facilitated to visit a working forest to learn about native forestry would greatly assist those who are unsure or undecided. Having some private native forestry demonstration sites would be beneficial, particularly if they show-cased the many ways that a forest can be harvested. Demonstration sites would also be sites for holding courses and formal training. In Queensland there are 20 properties that are set up as PNF demonstration sites. A similar model is needed in NSW.

The community has a rudimentary understanding of the scientific principles and practices in forestry. When it makes the news it is usually negative. It would be beneficial if LLS was resourced to support and promote forestry similarly to the way it does other agricultural activities.

5. Do you have any other comments or feedback relevant to Private Native Forestry that you would like to share with us?

No further comment.

Mark my response as confidential **All submissions will be published unless marked confidential.*

- Yes
- No

Specific improvements sought to all Private Native Forestry Codes of Practice

Section / Subsection	Issue to be addressed
Introduction	<ul style="list-style-type: none"> • This section is out of date and needs rewording • Include definition of forest to ensure consistent application of the Code • Differences between private land and State forest should be acknowledged.
Assessment of broadscale clearing for private native forestry	<ul style="list-style-type: none"> • As above • Exemptions for low-intensity harvest operations could be mentioned here. • All mention of 'logging' should be changed to 'harvesting' to more accurately reflect forest management practices.
Minor variation of Code	<ul style="list-style-type: none"> • This section is important to retain. The conditions of modification need updating with more detail. • Minor variations should be manageable through an online portal.
Property Vegetation Plans	<ul style="list-style-type: none"> • LLS should provide operational scale maps of information that will assist in harvest planning which is not otherwise readily available to the applicant. If LLS is unable to provide all of the information required for harvest planning as a mapped product it should make available what relevant data the NSW government has in a user friendly data portal. The data portal should include LLS map templates with standardised legends (map keys). • LLS should provide a register of qualified service providers that can generate mapping products. • General information that assists in harvest planning that should be provided by LLS as a map, or as publicly available data, includes; <ul style="list-style-type: none"> ○ broad forest typing, ○ known drainage and landscape features ○ growth status and tree canopy height data, ○ burning history, ○ location of degraded forest areas, ○ location of exotic weeds (e.g. Lantana) ○ location of pest records ○ internal roading, ○ adjoining forest areas that are subject to conservation agreements, ○ a locality map showing public haulage routes and details of any (current) restrictions to log haulage (e.g.

Section / Subsection	Issue to be addressed
	<p style="text-align: center;">Council imposed weight limits on bridges)</p> <ul style="list-style-type: none"> • A field guide to the Code for silviculture methods, landscape and drainage features and species identification would be a valuable tool to support extension services.
Forest operation planning and management	
	Forest Operation Plan
	<ul style="list-style-type: none"> • Maps showing operational intent should be included in the forest operation plan. Operational activities to be mapped include: <ul style="list-style-type: none"> ○ Silvicultural intent (harvesting intensity) ○ Roding (construction, upgrades and maintenance incl. drainage crossings) ○ Pre and post operational burning ○ Priority areas for weed control ○ Priority areas for pest control • LLS should provide standardised map templates for the operational activities listed above.
Reporting	<ul style="list-style-type: none"> • This section should be retitled and expanded to cover all aspects of PNF Plan administration and information recording. • All administration and information recording requirements should be able to be registered online. This should include requests to vary a Plan or a Code condition including the review of Old Growth and Rainforest boundaries. • Applicants and holders of PVP Plan should have their own password protected site where they can access all of the information relating to their approval/application and comply with any government record keeping requirements. • If records are required to be kept the NSW government should make it easy to do so by providing user-friendly templates and platforms where information can be readily captured, stored, analysed and retrieved. Similarly, processes to vary a PNF Plan or seek a modification to a Code condition should be intuitive and seamless for the applicant. • PNF Plan administration and information recording services should be incorporated into a Service NSW style online platform and be accessible using a smartphone/tablet App. LLS should engage the NSW Department of Finance, Services and Innovation to assist with the digital transformation. • Frequency of mandatory reporting should be reviewed. Notification of the commencement and final completion of the operation is reasonable with a map showing the actual area harvested. For operations (particularly on large

Section / Subsection	Issue to be addressed
	properties) that are intermittent over many years it would be reasonable to require the applicant to produce an updated map every three years.

Specific improvements sought to the Code of Practice for Northern NSW

Section / Subsection	Issue to be addressed
Silvicultural operations	<ul style="list-style-type: none"> • Under the current Code applicants are required to nominate the type of silviculture they intend to apply. This simplistic approach does not fit well with the natural diversity of the forest which typically has quite complex silvicultural needs. For example, most PNF Plans cover a variety of different forest types and within each of these forest types the growth status and condition of the forest will vary. • Greater flexibility is needed, than is currently afforded under the existing Code, to ensure the forest receives the most appropriate silvicultural treatment. Guidance on how to match silviculture to forests is needed.
Single tree selection and thinning	<ul style="list-style-type: none"> • For the reasons detailed above, nominating a single silvicultural technique to the native forest on a property is seldom appropriate. • The current definitions of Thinning, Single tree selection and Australian Group Selection have considerable overlap to the extent that it is often difficult to distinguish between them. In most native forest harvesting operations all three silvicultural techniques are required. As currently defined, we question whether there is any value in the new Codes distinguishing between Single tree selection, Thinning and Australian Group Selection.
Australian Group Selection	<ul style="list-style-type: none"> • If the reference to Australian Group Selection silviculture is retained the maximum gap size needs to increase to at least three (3) whole tree lengths to better facilitate the regeneration and growth of new stands. • The minimum stand basal area for single tree selection and thinning operations specified in Table A does not currently provide sufficient flexibility to address the silvicultural requirements of the forest types to which it refers, particularly where those types have been 'high graded'. • The current ambiguity around the method for calculating stand basal area must be addressed. We recommend that the way basal area is calculated be made consistent with the new Coastal IFOA. To account for this change the BAs in the current Codes will need to be reduced to be equivalent to what they currently are. • We recommend that the minimum basal areas for selective harvesting be reduced to 8m²/ha in dry and semi-moist types and 10m²/ha in moist types. Spread amongst the stands of trees which contribute to the minimum basal area it

Section / Subsection	Issue to be addressed
	<p>is important that there are trees which are healthy and with good growth potential, regardless of their intended purpose (i.e. timber, seed and or habitat).</p> <ul style="list-style-type: none"> • Intensive harvesting should be allowed (in forests that have become degraded) subject to special LLS approval and conditions including a cap on the percentage of the net harvest area to which it can apply. • Much greater flexibility is needed in relation to how habitat recruitment tree prescriptions are defined and applied. Under the current Codes the way habitat recruitment tree prescriptions interact with good silvicultural practice is ambiguous and the guidelines provide conflicting advice. The current definition of a 'recruitment tree' is a definition that is common with trees that have reached their commercial maturity. Landholders that manage their native forests for timber may have retained these trees from a young age (potentially thinning around them) with a view to producing a large high-quality log when they reach commercial maturity. In the new Codes there needs to be recognition of the right to harvest these trees, particularly where they have been managed from a young age. In the absence of any such guarantees landholders will be disinclined to invest in their forest's long-term health and productivity. • The NSW EPA guideline titled 'Identifying hollow-bearing and recruitment trees' should be abolished as it takes no account of silviculture or economic considerations. The guide contains three illustrated examples which recommend selecting only large diameter mature trees for habitat recruitment' and for the selection to be applied on a scale of 0.2 hectare (25 metre radius). By following this guide virtually all trees containing high quality large logs are retained for habitat which renders operations uneconomic.
Thinning	<ul style="list-style-type: none"> • Guidance is needed on the types of trees that should be retained in thinning operations. The requirements detailed in the Code of Practice for Cypress and Western Hardwood Forests already address this issue, noting that additional flexibility will be needed on the coast (i.e. to accommodate pole and other thinning product markets).
Regeneration and stocking	<ul style="list-style-type: none"> • Forest regeneration is a fundamental component of forestry. Poor regeneration is usually a product of poor forest management practices, namely: <ul style="list-style-type: none"> ○ Inappropriate silviculture; ○ A failure to use fire as a management tool; ○ Uncontrolled spread of exotic weeds.

Section / Subsection	Issue to be addressed
	<ul style="list-style-type: none"> • If best forest management practices are employed, a forest will rarely fail to regenerate. Situations where regeneration is likely to be problematic is mostly predictable and as such should be planned for. For example, tall forests on moist sheltered sites where there has been a long absence of fire and a dense understory of viney scrub. In likely problem areas, attention should be given to the amount of seed that is on the trees at the time of harvest. • Likely problem areas should remain the subject of minimum stocking/regeneration requirements. • LLS should have responsibility for making requirements for regenerating or re-establishing the forest.
Protection of the environment	
Protection of landscape features of environmental and cultural significance	<ul style="list-style-type: none"> • Old growth mapping for Northern NSW should be revised, as it has been found to be inaccurate over state forest. Some areas are mapped as old growth but do not contain old growth on the ground. • Listed Vulnerable ecological communities <ul style="list-style-type: none"> ○ The blanket ban on harvesting in these areas should be removed. Selective harvesting should be allowed subject to maintenance of the canopy species mix. • Rainforest <ul style="list-style-type: none"> ○ The Code's definition of rainforest has ambiguity around how to treat forest that has been mapped as rainforest but is not rainforest (or vice versa). This ambiguity should be removed. What actually exists should always take precedence. • Heathland <ul style="list-style-type: none"> ○ The existing 20m buffer is considered excessive and not based on any research. The buffer should be reduced to a maximum of 5m. • Rocky outcrops <ul style="list-style-type: none"> ○ The definition of a rocky outcrop is ambiguous and needs to be more clearly defined. The 20m buffer is excessive and not based on any research. The buffer should be reduced to a maximum of 5m.
Protection of habitat and biodiversity	<ul style="list-style-type: none"> • The definition of what qualifies as a 'habitat tree' is unduly restrictive and needs to be broadened. For example, specifying a preference for trees with <i>'well developed spreading crowns and minimal butt damage'</i> is not supported by published research data. Similarly, specifying <i>that habitat tree should represent the range of species in mature and late mature growth stages</i> may be ecologically desirable but is not consistent with what actually exists.

Section / Subsection	Issue to be addressed
	<ul style="list-style-type: none"> • Dead trees with hollows should count towards retained hollow trees, given their known use by fauna. • The current definition for 'recruitment trees' is also unduly restrictive and needs to be broadened. Specifying that all 'recruitment trees' be large and vigorous is questionable and not underpinned by any published research data. It is accepted that large and vigorous trees will eventually develop good hollow-bearing limbs however many trees that develop good hollows do not meet the current definition. Smaller trees that are dominated by others are typically weaker and as such more prone to insect attack (termites), die-back and limb damage which are all processes that facilitate rapid hollow formation. • Greater discretion is needed around where habitat trees can be located. The requirement in the existing Code that says <i>habitat trees, where possible, should be evenly distributed throughout the area of harvesting operations and within the net logging area</i> should be removed. Habitat trees include four categories of trees - <i>hollow bearing trees, recruitment trees, food resource trees, roost trees and nest trees</i>. There is no evidence that these trees naturally occur <i>evenly throughout the forest</i>. On the contrary, research shows that the best habitat trees mostly occur within areas that are already protected as landscape and drainage features. These trees should be recognised in any rules which prescribe minimum habitat tree retention (the current Code only permits up to 50% of recruitment trees to be located in a riparian buffer zone). Within the area available for harvesting there is naturally less discretion around the retention location of <i>hollow-bearing trees</i> than there is around <i>recruitment trees</i> and <i>food resource trees</i>, which are more common. The rules should allow <i>recruitment trees</i> and <i>food resource trees</i> to be clustered around hollow-bearing trees. • The way habitat tree retention is measured needs to be clarified. The current rules and how they are interpreted by the EPA are too restrictive and have an adverse impact on silviculture/forest health. The requirement to use '2 hectares' as the audit measure for <i>hollow-bearing</i> and <i>recruitment trees</i> is not supported. Measuring levels of habitat tree retention should begin within the non-harvest areas. Any tree that meets the definition of habitat tree within the non-harvest areas should be eligible to be counted. Auditing of habitat trees within the net harvest area should only occur when minimum retention levels have not been achieved within non-harvest areas. • The NSW EPA's guideline 'Identifying hollow-bearing and recruitment trees' has created conflict by being even more restrictive than the Code. The guide which instructs people to select recruitment trees from within a 25-metre radius and to pick those with the largest diameter is completely impracticable and should be updated by LLS.

Section / Subsection	Issue to be addressed
	<ul style="list-style-type: none"> The existing requirement to retain additional 'recruitment trees' where the total number of hollow bearing trees is less than 10 trees per 2 hectares⁵ is not supported. In effect this condition makes the landholder responsible for improving wildlife habitat value at their expense which is not consistent with the Code's legislative charter. If the government thinks that it is important to increase the number of habitat trees within a private native forest (to improve its wildlife value), then the Government should be prepared to pay the private landholder to do so (not impose the obligation on them). In effect the requirement to retain additional 'recruitment trees' that meet the definition in the Code can render an operation uneconomic. This is because the bulk of the trees containing large valuable large logs currently meet the definition of a 'recruitment tree'.
Minimising damage to retained trees and native vegetation	<ul style="list-style-type: none"> The Code should include the words as 'far as practicable' or 'reasonable endeavours' in recognition of practical complexity of PNF operations and the need to put safety first.
Drainage feature protection	<ul style="list-style-type: none"> Stream order should continue to be determined according to the Strahler System however its low accuracy needs to be recognised. Where a mapped stream does not occur where it is shown on a map there should be no requirement to apply a mapped drainage feature prescription (i.e. the rules which apply to unmapped drainage lines and depressions should apply). If LiDAR terrain data is available it should be used instead of the Strahler System as it is much more accurate. LLS should encourage the NSW Government to invest in LiDAR over all private native forest. Consideration should be given to the removal of buffer zones (i.e. only have exclusion zones) as they compromise good forest practice. The current restrictions on harvesting disturbance which apply to buffer zones impact on the forest's ability to regenerate post-harvest. By impeding regeneration the current rules are facilitating forest degradation in areas that would normally be highly productive. Changes to the rules are needed to ensure that forest that is harvested within a buffer zone is given the best chance of regeneration - this means allowing the ground to be disturbed. If trees are accidentally felled into riparian exclusion zones they should be able to be removed in their entirety provided that the removal results in minimal soil disturbance. Where disturbance to the bed and banks of the drainage feature occurs there should be a responsibility to rehabilitate.
Construction and maintenance	

⁵ to bring the total number of retained hollow bearing and recruitment trees up to 20 trees per 2 hectares

Section / Subsection	Issue to be addressed
of forest infrastructure	
Construction and maintenance of roads	<ul style="list-style-type: none"> • Clearing widths should be consistent with allowable agricultural activities. A special allowance for increased clearing on the northern side of log haulage roads is needed to enable roads to dry out following periods of wet weather. • Crossing to enable the passage of fish and other aquatic fauna should be limited to 3rd order streams or above where there is water most of the time. • The requirement to stabilise a fill batter should only apply if greater than a prescribed height (e.g. 1m). • A clear definition and guidance material on what 1-in-5-year storm event and withstand a 1-in-10 year storm means. Providing information on minimum culvert sizes would assist.
Log landings, portable mill sites and snig tracks	<ul style="list-style-type: none"> • There should be a provision for using an existing log landing within an exclusion zone provided the environmental impact is minimal/less than the creation of new log landing. • Consider including limit on piles of bark (e.g. 3m3) and mineral track around accumulated material to reduce fire hazard. Also worth considering IFOA prescriptions. • Preferred wording is 'Blading off of snig tracks and extraction track must occur to the minimum extent necessary and should minimise soil disturbance'. • Wet weather limitations - A provision is needed that allows restrictions to apply to individual snig tracks so that in effect unaffected tracks can be used. Suggested new wording: Individual snig tracks cannot be used if soil is rutted to a depth of more than 200 millimetres below the track surface over a 20 metre section or longer until rehabilitation has restored track conditions.
Appendix: Listed species ecological prescriptions	
	<ul style="list-style-type: none"> • The existing threatened species prescriptions are complex, onerous and costly. The existing prescriptions as a deterrent for landholders to engage in threatened species protection (i.e. if you don't find a threatened species you don't have to apply the prescription).

Section / Subsection	Issue to be addressed
	<ul style="list-style-type: none"> • To have landholders engage on this issue there needs to be incentives from government for finding and protecting threatened species. Most PNF landholders don't have the expertise to survey for threatened species which can be very costly. If landholders were financially rewarded for finding and protecting threatened species they would be much more inclined to engage qualified experts to survey. Having financial rewards, in the form of a stewardship payment, for finding and managing new threatened species records is highly recommended. • Applying harvesting exclusion zones around existing records of threatened fauna is not supported, unless the animal has been recorded within the last 12 months. Because forests and climate are dynamic animals move around. For records older than 12 months it is highly unlikely that the animal will be found at exactly the same location as it was previously recorded. • Rather than automatically applying a prescription to an old record it is proposed that an old record trigger the need for a new survey (if the government wants to pay for it). If the new survey reveals a new record and a threatened species prescription is triggered then the PNF Plan holder should be eligible for a stewardship payment.
Glossary	
	Core Koala habitat
	<ul style="list-style-type: none"> • Mapped as 'core koala habitat'.
	Basal area
	<ul style="list-style-type: none"> • Include clear definition of basal area and how this is measure across PNF Plan area.
	Old Growth
	<ul style="list-style-type: none"> • Make '...more than 10% of late to over mature growth' consistent with OG protocols
	Pulp logs
	<ul style="list-style-type: none"> • Delete
	Timber products
	<ul style="list-style-type: none"> • Add harvest residue and fire wood.
	Wetland
	<ul style="list-style-type: none"> • Need clear definition of wetland plant communities. Consider RAMSAR definitions

Specific improvements sought to the Code of Practice for Southern NSW

Section / Subsection	Issue to be addressed
Silvicultural operations	<ul style="list-style-type: none"> • Under the current Code applicants are required to nominate the type of silviculture they intend to apply. This simplistic approach does not fit well with the natural diversity of the forest which typically has quite complex silvicultural needs. For example, most PNF Plans cover a variety of different forest types and within each of these forest types the growth status and condition of the forest will vary. • Greater flexibility is needed, than is currently afforded under the existing Code, to ensure the forest receives the most appropriate silvicultural treatment. Guidance on how to match silviculture to forests is needed. • Stocking is too prescriptive – should allow variations on case by case basis to maximise land management outcomes, especially when these may improve fauna habitat quality. For instance Bush Heritage Australia land management for plains-wanderer given as one example.
Single tree selection and thinning	<ul style="list-style-type: none"> • For the reasons detailed above, nominating a single silvicultural technique to the native forest on a property is seldom appropriate. • The current definitions of Thinning, Single tree selection and Australian Group Selection have considerable overlap to the extent that it is often difficult to distinguish between them. In most native forest harvesting operations all three silvicultural techniques are required. As currently defined, we question whether there is any value in the new Codes distinguishing between Single tree selection, Thinning and Australian Group Selection.
Australian Group Selection	<ul style="list-style-type: none"> • If the reference to Australian Group Selection silviculture is retained the maximum gap size needs to increase to at least three (3) whole tree lengths to better facilitate the regeneration and growth of new stands. • The minimum stand basal area for single tree selection and thinning operations specified in Table A does not currently provide sufficient flexibility to address the silvicultural requirements of the forest types to which it refers, particularly where those types have been 'high graded'. • The current ambiguity around the method for calculating stand basal area must be addressed. We recommend that the way basal area is calculated be made consistent with the new Coastal IFOA. To account for this change the BAs

Section / Subsection	Issue to be addressed
	<p>in the current Codes will need to be reduced to be equivalent to what they currently are.</p> <ul style="list-style-type: none"> • BA needs to better reflect site capacity and silvicultural requirements. • We recommend that the minimum basal areas for selective harvesting be reduced to 8m²/ha in dry and semi-moist types and 10m²/ha in moist types. Spread amongst the stands of trees which contribute to the minimum basal area it is important that there are trees which are healthy and with good growth potential, regardless of their intended purpose (i.e. timber, seed and or habitat). • Intensive harvesting should be allowed (in forests that have become degraded) subject to special LLS approval and conditions including a cap on the percentage of the net harvest area to which it can apply. • Much greater flexibility is needed in relation to how habitat recruitment tree prescriptions are defined and applied. Under the current Codes the way habitat recruitment tree prescriptions interact with good silvicultural practice is ambiguous and the guidelines provide conflicting advice. The current definition of a 'recruitment tree' is a definition that is common with trees that have reached their commercial maturity. Landholders that manage their native forests for timber may have retained these trees from a young age (potentially thinning around them) with a view to producing a large high-quality log when they reach commercial maturity. In the new Codes there needs to be recognition of the right to harvest these trees, particularly where they have been managed from a young age. In the absence of any such guarantees landholders will be disinclined to invest in their forest's long-term health and productivity. • The NSW EPA guideline titled 'Identifying hollow-bearing and recruitment trees' should be abolished as it takes no account of silviculture or economic considerations. The guide contains three illustrated examples which recommend selecting only large diameter mature trees for habitat recruitment' and for the selection to be applied on a scale of 0.2 hectare (25 metre radius). By following this guide virtually all trees containing high quality large logs are retained for habitat which renders operations uneconomic.
Thinning	<ul style="list-style-type: none"> • Guidance is needed on the types of trees that should be retained in thinning operations. The requirements detailed in the Code of Practice for Cypress and Western Hardwood Forests already address this issue, noting that additional flexibility will be needed on the coast (i.e. to accommodate pole and other thinning product markets).

Section / Subsection	Issue to be addressed
Regeneration and stocking	<ul style="list-style-type: none"> • Forest regeneration is a fundamental component of forestry. Poor regeneration is usually a product of poor forest management practices, namely: <ul style="list-style-type: none"> ○ Inappropriate silviculture; ○ A failure to use fire as a management tool; ○ Uncontrolled spread of exotic weeds. • If best forest management practices are employed, a forest will rarely fail to regenerate. Situations where regeneration is likely to be problematic is mostly predictable and as such should be planned for. For example, tall forests on moist sheltered sites where there has been a long absence of fire and a dense understory of viney scrub. In likely problem areas, attention should be given to the amount of seed that is on the trees at the time of harvest. • Should not need to do regeneration assessments after thinning or with minimum basal area or where the canopy structure is mostly in place. Minimum stocking/regeneration requirements should only apply to AGS or forest resets. • LLS should have responsibility for making requirements for regenerating or re-establishing the forest.
Protection of the environment	
Protection of landscape features of environmental and cultural significance	<ul style="list-style-type: none"> • Old growth mapping for southern NSW should be revised, as they have found to be inaccurate over state forest. Some areas are mapped as old growth but do not contain old growth on the ground. • Listed Vulnerable ecological communities <ul style="list-style-type: none"> ○ The blanket ban on harvesting in these areas should be removed. Selective harvesting should be allowed subject to maintenance of the canopy species mix. • Rainforest <ul style="list-style-type: none"> ○ The Code's definition of rainforest has ambiguity around how to treat forest that has been mapped as rainforest but is not rainforest (or vice versa). This ambiguity should be removed. What actually exists should always take precedence. • Heathland <ul style="list-style-type: none"> ○ The existing 20m buffer is considered excessive and not based on any research. It also does not account for management protection, ecological burns. The buffer should be reduced to a maximum of 5m. • Rocky outcrops

Section / Subsection	Issue to be addressed
	<ul style="list-style-type: none"> ○ The definition of a rocky outcrop is ambiguous and needs to be more clearly defined. The 20m buffer is excessive and not based on any research. The buffer should be reduced to a maximum of 5m. ● Cliffs <ul style="list-style-type: none"> ○ Definition of Cliffs is unclear and can lead to significant compliance risk.
Protection of habitat and biodiversity	<ul style="list-style-type: none"> ● The definition of what qualifies as a 'habitat tree' is unduly restrictive and needs to be broadened. For example, specifying a preference for trees with '<i>well developed spreading crowns and minimal butt damage</i>' is not supported by published research data. Similarly, specifying <i>that habitat tree should represent the range of species in mature and late mature growth stages</i> may be ecologically desirable but is not consistent with what actually exists. ● Dead trees with hollows should count towards retained hollow trees, given their known use by fauna. ● The current definition for 'recruitment trees' is also unduly restrictive and needs to be broadened. Specifying that all 'recruitment trees' be large and vigorous is questionable and not underpinned by any published research data. It is accepted that large and vigorous trees will eventually develop good hollow-bearing limbs however many trees that develop good hollows do not meet the current definition. Smaller trees that are dominated by others are typically weaker and as such more prone to insect attack (termites), die-back and limb damage which are all processes that facilitate rapid hollow formation. ● Greater discretion is needed around where habitat trees can be located. The requirement in the existing Code that says <i>habitat trees, where possible, should be evenly distributed throughout the area of harvesting operations and within the net logging area</i> should be removed. Habitat trees include four categories of trees - <i>hollow bearing trees, recruitment trees, food resource trees, roost trees and nest trees</i>. There is no evidence that these trees naturally occur <i>evenly throughout the forest</i>. On the contrary, research shows that the best habitat trees mostly occur within areas that are already protected as landscape and drainage features. These trees should be recognised in any rules which prescribe minimum habitat tree retention (the current Code only permits up to 50% of recruitment trees to be located in a riparian buffer zone). Within the area available for harvesting there is naturally less discretion around the retention location of <i>hollow-bearing trees</i> than there is around <i>recruitment trees</i> and <i>food resource trees</i>, which are more common. The rules should allow <i>recruitment trees</i> and <i>food resource trees</i> to be clustered around hollow-bearing trees. ● The way habitat tree retention is measured needs to be clarified. The current rules and how they are interpreted by the

Section / Subsection	Issue to be addressed
	<p>EPA are too restrictive and have an adverse impact on silviculture/forest health. The requirement to use ‘2 hectares’ as the audit measure for <i>hollow-bearing</i> and <i>recruitment trees</i> is not supported. Measuring levels of habitat tree retention should begin within the non-harvest areas. Any tree that meets the definition of habitat tree within the non-harvest areas should be eligible to be counted. Auditing of habitat trees within the net harvest area should only occur when minimum retention levels have not been achieved within non-harvest areas.</p> <ul style="list-style-type: none"> • The NSW EPA’s guideline ‘Identifying hollow-bearing and recruitment trees’ has created conflict by being even more restrictive than the Code. The guide which instructs people to select recruitment trees from within a 25-metre radius and to pick those with the largest diameter is completely impracticable and should be updated by LLS. • The existing requirement to retain additional ‘recruitment trees’ where the total number of hollow bearing trees is less than 10 trees per 2 hectares⁶ is not supported. In effect this condition makes the landholder responsible for improving wildlife habitat value at their expense which is not consistent with the Code’s legislative charter. If the government thinks that it is important to increase the number of habitat trees within a private native forest (to improve its wildlife value), then the Government should be prepared to pay the private landholder to do so (not impose the obligation on them). In effect the requirement to retain additional ‘recruitment trees’ that meet the definition in the Code can render an operation uneconomic. This is because the bulk of the trees containing large valuable large logs currently meet the definition of a ‘recruitment tree’. • Pictures of ‘feed trees’ would be helpful.
Minimising damage to retained trees and native vegetation	<ul style="list-style-type: none"> • The Code should include the words as ‘far as practicable’ or ‘reasonable endeavours’ in recognition of practical complexity of PNF operations and the need to put safety first. • Some clarification need as to why there is a preference for trees with minimal butt damage • “Protected trees” needs to be defined. Branches broken in the heads of recruitment trees promote earlier hollow formation.

⁶ to bring the total number of retained hollow bearing and recruitment trees up to 20 trees per 2 hectares

Section / Subsection		Issue to be addressed
		<ul style="list-style-type: none"> Oaks (<i>Allocasuarina</i> sp.) can be a fire weed and out-compete overstorey and understorey species that provide greater habitat value.
	Drainage feature protection	<ul style="list-style-type: none"> Stream order should continue to be determined according to the Strahler System however its low accuracy needs to be recognised. Where a mapped stream does not occur where it is shown on a map there should be no requirement to apply a mapped drainage feature prescription (i.e. the rules which apply to unmapped drainage lines and depressions should apply). If LiDAR terrain data is available it should be used instead of the Strahler System as it is much more accurate. LLS should encourage the NSW Government to invest in LiDAR over all private native forest. The point where the riparian exclusion zone is measured is hidden amongst text in 4.4 (4), and should be clear and upfront. Consideration should be given to the removal of buffer zones (i.e. only have exclusion zones) as they compromise good forest practice. The current restrictions on harvesting disturbance which apply to buffer zones impact on the forest's ability to regenerate post-harvest. By impeding regeneration the current rules are facilitating forest degradation in areas that would normally be highly productive. Changes to the rules are needed to ensure that forest that is harvested within a buffer zone is given the best chance of regeneration - this means allowing the ground to be disturbed. If trees are accidentally felled into riparian exclusion zones they should be able to be removed in their entirety provided that the removal results in minimal soil disturbance. Where disturbance to the bed and banks of the drainage feature occurs there should be a responsibility to rehabilitate.
	Construction and maintenance of forest infrastructure	
	Construction and maintenance of roads	<ul style="list-style-type: none"> Clearing widths should be consistent with allowable agricultural activities. A special allowance for increased clearing on the northern side of log haulage roads is needed to enable roads to dry out following periods of wet weather. Crossing to enable the passage of fish and other aquatic fauna should be limited to 3rd order streams or above where there is water most of the time.

Section / Subsection	Issue to be addressed
	<ul style="list-style-type: none"> • The requirement to stabilise a fill batter should only apply if greater than a prescribed height (e.g. 1m). • A clear definition and guidance material on what 1-in-5-year storm event and withstand a 1-in-10 year storm means. Providing information on minimum culvert sizes would assist. • Change wording to “crossbank or equivalent structures” to allow for rubber flap drains and roll over banks
Log landings, portable mill sites and snig tracks	<ul style="list-style-type: none"> • There should be a provision for using an existing log landing within an exclusion zone provided the environmental impact is minimal/less than the creation of new log landing. • Consider including limit on piles of bark (e.g. 3m3) and mineral track around accumulated material to reduce fire hazard. Also worth considering IFOA prescriptions. • Preferred wording is ‘Blading off of snig tracks and extraction track must occur to the minimum extent necessary and should minimise soil disturbance’. • Wet weather limitations - A provision is needed that allows restrictions to apply to individual snig tracks so that in effect unaffected tracks can be used. Suggested new wording: Individual snig tracks cannot be used if soil is rutted to a depth of more than 200 millimetres below the track surface over a 20 metre section or longer until rehabilitation has restored track conditions.
Appendix: Listed species ecological prescriptions	
	<ul style="list-style-type: none"> • The existing threatened species prescriptions are complex, onerous and costly. The existing prescriptions as a deterrent for landholders to engage in threatened species protection (i.e. if you don’t find a threatened species you don’t have to apply the prescription). • To have landholders engage on this issue there needs to be incentives from government for finding and protecting threatened species. Most PNF landholders don’t have the expertise to survey for threatened species which can be very costly. If landholders were financially rewarded for finding and protecting threatened species they would be much more inclined to engage qualified experts to survey. Having financial rewards, in the form of a stewardship

Section / Subsection	Issue to be addressed
	<p>payment, for finding and managing new threatened species records is highly recommended.</p> <ul style="list-style-type: none"> • Applying harvesting exclusion zones around existing records of threatened fauna is not supported, unless the animal has been recorded within the last 12 months. Because forests and climate are dynamic animals move around. For records older than 12 months it is highly unlikely that the animal will be found at exactly the same location as it was previously recorded. • Rather than automatically applying a prescription to an old record it is proposed that an old record trigger the need for a new survey (if the government wants to pay for it). If the new survey reveals a new record and a threatened species prescription is triggered then the PNF Plan holder should be eligible for a stewardship payment.
Glossary	
	<p>Ecological logging regime</p> <ul style="list-style-type: none"> • Good concept, but only gets small mention in Table C (Requirements for protective landscape features; ecological harvesting plan). Approval costs are prohibitive.
	<p>Rocky outcrops</p> <ul style="list-style-type: none"> • Definition is overly-conservative and difficult to interpret on the ground
	<p>Timber products</p> <ul style="list-style-type: none"> • Add harvest residue and fire wood.

Specific improvements sought to the Code of Practice for Cypress and Western Hardwood Forests

Section / Subsection	Issue to be addressed
Introduction	<ul style="list-style-type: none"> The definition of Cypress Forests should focus on the dominant forest type rather than percent of stand basal area (80%). OEH mapping of plant community types should provide a more reliable way to define Cypress Forest.
Silvicultural operations	<ul style="list-style-type: none"> Recognition is needed that not all Cypress forest is natural forest (i.e. it didn't exist in 1750). In principle forests that are 'not natural' should not be constrained by silvicultural retention rules.
Cypress Pine Non-commercial thinning	<ul style="list-style-type: none"> The Code should only apply to commercial operations accepting that commercial operations may include some non-commercial activities. The Code should be silent on whether the thinning is commercial or non-commercial. As markets change so does the line between non-commercial thinning and commercial thinning.
Cypress Pine Commercial thinning	<ul style="list-style-type: none"> More flexibility is needed in relation to the residual basal area.
Oldest age class harvest (release operation)	<ul style="list-style-type: none"> Applying a minimum stand basal area to oldest age class Cypress forest is not appropriate as the Cypress trees are predominantly less than 40cm dbhob, Note, under the current Code the basal area is not specific to 'Cypress' which means that all wood vegetation can contribute to the minimum basal area (currently 6m²/ha). Instead of using basal area, a minimum tree stocking of 6 Cypress trees per ha is recommended. This requirement should be measured over 5 hectares (i.e. 30 trees per 5 ha). A stocking of 6 trees per hectare is consistent with historic records that pre-date European impacts. Retained Cypress trees should be of a minimum size and in good health/condition. For Eucalypt species, where the trees grow over 40 cm dbhob, the minimum basal area should be set at 4m²/ha for trees <25 m in height and 6m²/ha for trees =>25 m in height . Note, under the current Code the basal area is not specific to 'eucalypts' which means that all wood vegetation is contributing to the minimum basal area (currently 8m²/ha for trees < 25m and 12m²/ha for trees => 25m) For Bull Oak there is little need for retention prescriptions as the species is invasive and not in need of any special

Section / Subsection		Issue to be addressed
		protection. If deemed necessary, a requirement to retain 2 trees per ha would be appropriate.
	Regeneration and stocking	<ul style="list-style-type: none"> No comment
Protection of the environment		
	Protection of landscape features of environmental and cultural significance	<ul style="list-style-type: none"> Heathland <ul style="list-style-type: none"> The existing 20m buffer is considered excessive and not based on any research. The buffer should be reduced to a maximum of 5m. Rocky outcrops <ul style="list-style-type: none"> The definition of a rocky outcrop is ambiguous and needs to be more clearly defined. The 20m buffer is excessive and not based on any research. The buffer should be reduced to a maximum of 5m.
	Protection of habitat and biodiversity	<ul style="list-style-type: none"> The following prescription should be deleted - Where the total Old Grey and cypress recruitment trees are less than 5 trees per hectare, additional recruitment trees must be retained to bring the number up to 5 per hectare. If the Government wished to enhance the increase the density of old Cypress trees it should pay the landholder to do so (i.e. through a stewardship payment). All roost, nest and feed trees should be included in the tree count for the tree retention requirements in Table D. Similarly, dead standing trees with hollows are important habitat so should be counted as hollow bearing trees. Large dead standing trees can also have habitat value as roosting sites for birds and reptiles so should be eligible to be counted as retained trees. Small dead standing trees without hollows do not have any special habitat value so should remain available for removal. Retained trees do not need to be the largest. The requirement to retain all species listed as feed trees is excessive and unwarranted. Many of the species listed as food trees are abundant and very widely distributed. The retention of trees species listed as feed trees should be incorporated into the prescriptions which specify the required no. of trees to retain.
	Minimising damage to retained trees and native vegetation	<ul style="list-style-type: none"> There are dozens of species of <i>Allocasuarina</i> and <i>Banksia</i> most of which are common and widespread. Not all <i>Banksias</i> grow into trees. The current 'tree protection' prescriptions regarding these genera are unduly onerous- in particular. (b) machinery operations must not harm protected trees, and (c) directional felling techniques must be

Section / Subsection	Issue to be addressed
	<p>employed to avoid (as far as is practicable) damage to protected trees. Greater flexibility is needed around the application of the <i>Allocasuarina</i> and <i>Banksia</i> prescriptions (i.e. include the phrase ‘where practicable’ and ‘mature trees’)</p>
Drainage feature protection	<ul style="list-style-type: none"> • Stream order should continue to be determined according to the Strahler System however its low accuracy needs to be recognised. Where a mapped stream does not occur where it is shown on a map there should be no requirement to apply a mapped drainage feature prescription (i.e. the rules which apply to unmapped drainage lines and depressions should apply). If LiDAR terrain data is available it should be used instead of the Strahler System as it is much more accurate. LLS should encourage the NSW Government to invest in LiDAR over all private native forest. • The exclusion zone prescriptions (and the principles that support them) should be consistent across all Codes. The gentle terrain in the Western region (and low harvesting intensity) means that drainage protection strips do not need to be as wide to keep sediment from entering waterways. • Prescriptions that exclude machinery need to be carefully reviewed to ensure that they are not preventing harvested forest from being regenerated (i.e. which leads to forest degradation). • Prescribing the direction of travel for harvest machinery operating near watercourses is one way to reduce the risk of water pollution. • It can be difficult to predict the location of unmapped drainage lines and easy to breach a drainage protection rule in forest where visibility is low. Unmapped drainage lines are often discontinuous which means the water and sediment that sometimes flows in them is not at risk of entering the main waterways. The requirement for a 10m exclusion zone on discontinuous unmapped drainage lines needs to be removed.
Construction and maintenance of forest infrastructure	<ul style="list-style-type: none"> • No comment
Appendix: Listed species ecological prescriptions	
	<ul style="list-style-type: none"> • The existing threatened species prescriptions are complex, onerous and costly. The existing prescriptions as a deterrent for landholders to engage in threatened species protection (i.e. if you don't find a threatened species you

Section / Subsection	Issue to be addressed
	<p>don't have to apply the prescription).</p> <ul style="list-style-type: none"> • Applying harvesting exclusion zones around existing records of threatened fauna is not supported, unless the animal has been recorded within the last 12 months. Because forests and climate are dynamic animals move around. For records older than 12 months it is highly unlikely that the animal will be found at exactly the same location as it was previously recorded. • Having financial rewards, in the form of a stewardship payment, for finding and managing threatened species records is recommended. • There are currently six different categories of threatened and protected flora. There is no research justifying the need for so many categories. The conditions applying to these categories and unduly complex and onerous. The need for such large exclusion zones on certain species and not on others is unjustified. Given the low intensity of harvesting in Cypress and western hardwood forests, protection of individual plants (without the need for exclusion buffers) should be adequate. The need for 50-metre and 20-metre exclusion zones is highly questionable and should be reviewed as these prescriptions are extremely onerous to implement.
Glossary	
	<p>Australian Group Selection</p> <ul style="list-style-type: none"> • Not applicable
	<p>Timber products</p> <ul style="list-style-type: none"> • This definition should be expanded to include – woody biomass for bioenergy (incl. firewood), pulpwood or other lower value end uses.

Specific improvements sought to Code of Practice for River Red Gum

Section / Subsection	Issue to be addressed
Introduction	<ul style="list-style-type: none"> • There needs to be explicit recognition that River Red Gum regrowth forests are new forests that have developed since the arrival of European settlers and the removal of fire.
Silvicultural operations	<ul style="list-style-type: none"> • The silvicultural attributes of River Red Gum need to be covered i.e. its invasive nature, its sensitivity to fire and the role of grazing in keeping fire hazard manageable
Single tree selection	<ul style="list-style-type: none"> • The definition of how to calculate optimal spacing needs to be clearer (more explicit)
Australian Group selection	<ul style="list-style-type: none"> • Guidance on the selection of trees to be thinned (removed) is recommended (i.e. similar to Cypress) • The current min BA of 12 m²/ha will need to be reduced to 8m²/ha if the measurement is applied to the harvestable area. • The reference to AGS could be removed as is not commonly practiced (subject to some flexibility in how the min BA for STS is measured, e.g. gaps and clusters are allowed)
Regeneration and stocking	<ul style="list-style-type: none"> • RRG is a naturally invasive species that regenerates rapidly and on mass under the right environmental conditions • The current prescriptions should be carefully reviewed to determine their relevance and need. • Restrictions on forest grazing (post-harvest) to allow regeneration to establish undamaged may be appropriate.
Protection of the environment	
Protection of landscape features of environmental	<ul style="list-style-type: none"> • River Redgum forests subject to PNF are all regrowth forests. Reference to Old Growth Forest is therefore not applicable.

Section / Subsection	Issue to be addressed
and cultural significance	<ul style="list-style-type: none"> • The spatial extent of wetlands in the RRG area poorly defined. Interpretation against the Code is unclear. Definitions of wetlands needs to be clarified • No known disused mineshafts in RRG
Protection of habitat and biodiversity	<ul style="list-style-type: none"> • Table B should be simplified. • The requirement to retain additional 'recruitment trees' where the total number of hollow bearing trees is less 10 trees per hectare within 20–50 metres of any permanent water course, water bodies or major wetlands or 4 per hectare elsewhere is not supported. In effect this condition makes the landholder responsible for improving wildlife habitat value at their expense which is not consistent with the Code's legislative charter. If the government thinks that it is important to increase the number of habitat trees within a private native forest (to improve its wildlife value), then the Government should be prepared to pay the private landholder to do so (not impose the obligation on them).
Minimising damage to retained trees and native vegetation	<ul style="list-style-type: none"> • The prescriptions under this heading should be reviewed/deleted as they are mostly irrelevant to RRG forest.
Drainage feature protection	<ul style="list-style-type: none"> • Wording should be made consistent with other Codes. Unmapped drainage lines can be discontinuous so limited value in applying an exclusion zone • 4.4 (2) (c) is an unduly complex prescription that should be reworded or deleted. It is unclear how the BA should be measured • Mean water level is difficult to assess on the ground and therefore difficult for industry to comply with. • 4.4 (4) and (5) could be combined and simplified • 4.4 (6) should be deleted. Mechanical harvesters have the ability to remove these logs with minimal disturbance. • In 4.4. (7) Remove the words 'provided that the crown is cut off the log at the boundary of the exclusion zone and left

Section / Subsection		Issue to be addressed
		where it has fallen'. Mechanical harvesters have the ability to remove these log with minimal disturbance.
Construction and maintenance of forest infrastructure		<ul style="list-style-type: none"> A clear definition and guidance material on what 1-in-5-year storm event and withstand a 1-in-10 year storm means. Providing information on minimum culvert sizes would assist.
Appendix: Listed species ecological prescriptions		
		<ul style="list-style-type: none"> The existing threatened species prescriptions are complex, onerous and costly. The existing prescriptions as a deterrent for landholders to engage in threatened species protection (i.e. if you don't find a threatened species you don't have to apply the prescription). Applying harvesting exclusion zones around existing records of threatened fauna is not supported, unless the animal has been recorded within the last 12 months. Because forests and climate are dynamic animals move around. For records older than 12 months it is highly unlikely that the animal will be found at exactly the same location as it was previously recorded. Having financial rewards, in the form of a stewardship payment, for finding and managing threatened species records is recommended.
Glossary		
	Wetland	<ul style="list-style-type: none"> A clearer definition of wetland plant communities is needed.