Forest Operation Plan

Private Native Forestry Code of Practice for Southern NSW

This template sets out the information you need to record for a Forest Operation Plan (FOP) that complies with the *Private Native Forestry Code of Practice for Southern NSW*.

Refer to the FOP Guidelines.

Throughout this document you will see references to the FOP Guidelines. The Guidelines that accompany this FOP template explain what you have to do with the FOP once it is complete, and contain background information, extra instructions, tips and examples to help you answer the questions set out in this template.

Contact your local private native forestry officer or call the NSW Environment Protection Authority (EPA) on 131 555 if you have any questions about what you have to do, or if you would like help completing this FOP.

To help you identify this FOP:

What is name of the landholding this FOP applies to?

On what date was this FOP completed?

Amendments to the FOP

If you need to amend this FOP after it has been completed, record the changes here:

Date of amendment	What needs to be added or changed?	Which section of the FOP does this apply to?

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FOP map checklist

Refer to the FOP Guidelines page 9.

Features shown on the FOP base map

Check that the FOP base map (supplied by the EPA) shows the location of the following features, where they are present in the FOP area:

- Prescribed streams (see the FOP Guidelines page 16)
- First, second and third-order streams
- Rainforest
- Old growth forest
- Known record sites of listed threatened species.

Features you need to add to the FOP map

Mark the following additional features on the FOP map if they are present in the FOP area:

❒ The location and boundaries of the FOP area, if this is different from the PNF PVP area

❒ Forest types (according to the 'Broad forest types' listed in the Code Table A)

❒ Heathland

❒ Rocky outcrops

❒ Cliffs, caves, tunnels and disused mine shafts (excluding open pits less than 3 m deep)

❒ Aboriginal objects or places

❒ Listed heritage sites

❒ Dispersible and highly erodible soils

❒ New and existing roads*

❒ New and existing drainage feature crossings*

❒ Log dumps (referred to in the Code as 'log landings')

❒ Portable mill sites

❒ Site evidence of listed threatened species, if you find this during the forest operations.

* Before you mark roads or crossings on the map, refer to section 5.1 of this FOP template. The names and numbers you use on the map should be the same as the names and numbers you use in the tables.

You also need to mark the following features on the FOP map. Check the sketch map that the EPA sent you as part of the PVP application process – this may show indicative locations for these features:

❒ Wetlands

❒ Steep slopes

❒ Areas of existing mass movement

1 Property Vegetation Plan

Refer to the FOP Guidelines page 9.

What is the Private Native Forestry Property Vegetation Plan number (PNF PVP no.)?

2 Forest operation planning and management

Refer to the FOP Guidelines page 9.

2.1 Landowner's details

What is the name of the primary landowner?

Phone number:

Mobile number:

2.2 Property details

What is the property address?

What are the property's Deposited Plan (DP) numbers and Lot numbers for the FOP area?

DP numbers:	Lot numbers:

2.3 Forest inventory

Refer to the FOP Guidelines page 10.

The table below lists the main types of forest that are present in this area of Southern NSW (these are referred to in the Code as 'broad forest types').

- Tick the broad forest types that are present in the FOP area.
- Use this table to describe the forest condition and species mix for each broad forest type in the FOP area.
- If you haven't already done so, mark up the FOP map so it shows the area covered by each broad forest type.

Broad forest type	Forest condition	Species mix
❒ Tablelands hardwood		
❒ Tablelands ash		
❒ South coast ash/ stringybark		
❒ Spotted gum		

2.4 History of forest disturbance

Refer to the FOP Guidelines page 11.

Use the table below to briefly describe what you know about how the forest has been disturbed in the past. Disturbances include harvesting, fire and grazing. The time intervals used in this table – 'Last 10 years', '10 to 25 years ago' etc. – are just suggestions. Use other time intervals if appropriate.

When did the disturbance occur?	Harvesting history: target species, products taken and harvesting intensity	Fire history: fuel reduction or bushfire	Grazing history
Last 10 years			
10 to 25 years ago			
More than 25 years ago			

Are there any other types of disturbance that have affected the current condition of the forest?
If so, briefly describe them here:

3 Silvicultural operations

Refer to the Guidelines page 12. Harvesting must be carried out in compliance with the Code section 3.

3.1 Forest operations

Which of the following forest operations will be carried out? Tick all that apply.

- ❒ Commercial timber harvesting
- ❒ Non-commercial silvicultural activities
- ❒ Regeneration and restocking activities, e.g. prescribed burning, soil disturbance, seeding etc.
- ❒ Construction or maintenance of roads, crossings or tracks.

3.2 Harvesting technique

Which silvicultural techniques will be used? Tick all that apply.

- ❒ Single tree selection
- ❒ Thinning
- ❒ Australian group selection

3.3 Timber products to be harvested

Which of the following products will be harvested? Tick all that apply.

- ❒ Large sawlogs
- ❒ Veneer or plywood logs
- ❒ Poles or girders
- ❒ Small sawlogs
- ❒ Salvage logs
- ❒ Pulpwood or wood chips
- ❒ Fencing products (e.g. posts, rails, stays)
- ❒ Sleepers
- ❒ Firewood
- ❒ Other products:

_____

_____

3.4 Timber species to be harvested

Which of the following species will be harvested? Tick all that apply.

- ❒ Alpine Ash
- ❒ Bloodwood
- ❒ Brown barrel
- ❒ Grey gum
- ❒ Grey ironbark
- ❒ Manna gum
- ❒ Messmate
- ❒ Mountain gum
- ❒ Peppermint
- ❒ Red ironbark
- ❒ Red stringybark
- ❒ Scribbly gum
- ❒ Silvertop ash
- ❒ Spotted gum
- ❒ Stringybark - gum
- ❒ Swamp Mahogany
- ❒ White ash
- ❒ Woollybutt
- ❒ Other species:

_____

_____

_____

_____

3.5 Harvesting methods and equipment

Which of the following harvesting methods and equipment will be used? Tick all that apply.

- ❒ Manual felling
- ❒ Mechanised felling
- ❒ Snigging or extraction using a forwarder
- ❒ Snigging or extraction using a dozer
- ❒ Snigging or extraction using a skidder or rubber-tyred tractor
- ❒ Log landing and loading using an excavator
- ❒ Log landing and loading using a forwarder
- ❒ Log landing and loading using a skidder, dozer or log loader
- ❒ Other equipment or methods:

_____

_____

_____

3.6 Stand heights and stand basal areas

Refer to the Guidelines page 13. Harvesting limits must comply with the Code sections 3.1 and 3.2.

Use the table below to record stand heights and stand basal areas for each broad forest type in the FOP area.

Note: '*(< 25 m)' means where the stand height is less than 25 m,*
and '(≥ 25 m)' means where the stand height is equal to or greater than 25 m.

Broad forest type	Stand height (m)	Estimated stand basal area (m^2/ha)	Minimum stand basal area from Code Table A (m^2/ha)
❒ Tablelands hardwood	*(< 25 m)*		12
	(≥ 25 m)		16
❒ Tablelands ash	*(< 25 m)*		12
	(≥ 25 m)		16
❒ South coast ash/stringybark	*(< 25 m)*		12
	(≥ 25 m)		18
❒ Spotted gum	*(< 25 m)*		12
	(≥ 25 m)		16

3.7 Regeneration and stocking

Refer to the Guidelines page 14. The minimum stand stocking levels which must be achieved within 24 months of a harvesting or thinning event are set out in the Code section 3.3.

If additional activities will be carried out to promote regeneration (i.e. in addition to harvesting) list them here:

_____

_____

_____

4 Protection of the environment

4.1 Protection of landscape features of environmental and cultural significance

Refer to the Guidelines page 14. Certain landscape features must be protected in accordance with the Code section 4.1. These features trigger the protection requirements listed in the Code Table C.

Which of the following landscape features are present in the FOP area? Tick all that apply.

- ❒ Endangered ecological communities
- ❒ Endangered populations
- ❒ Vulnerable ecological communities
- ❒ Rainforest
- ❒ Old growth forest
- ❒ Wetlands
- ❒ Heathland
- ❒ Rocky outcrops
- ❒ Cliffs, caves, tunnels and disused mine shafts (excluding open pits less than 3 m deep)
- ❒ Steep slopes
- ❒ Aboriginal objects or places (if you're not sure, check with your local office of Environment and Heritage office)
- ❒ Listed heritage sites (if you're not sure, check with your local council)
- ❒ Areas of existing mass movement
- ❒ Dispersible and highly erodible soils

Check that these features are marked on the FOP map.

4.2 Protection of habitat and biodiversity

Refer to the Guidelines page 14. Certain trees must be retained in accordance with the Code section 4.2. If there are not enough hollow bearing trees, extra recruitment trees must be retained from the 'next cohort' (see Guidelines) so the total number of hollow bearing and recruitment trees in each 2-hectare area is 20 (or more) and complies with the Code Table D.

How will you indicate on site which trees have to be retained? Tick one or both of the following options, and provide extra information if necessary.

- ❒ Trees to be retained will be marked as set out in the tree marking checklist at the end of this FOP.
- ❒ Trees to be retained will be indicated as follows:

_____

_____

_____

4.3 Minimising damage to retained trees and native vegetation

Refer to the Guidelines page 16. All the trees that have to be retained are defined by the Code as 'protected trees'. Trees must be protected in accordance with the Code section 4.3.

Which of the following plant species, also defined as 'protected trees', are present in the FOP area?

❒ Grass tree (*Xanthorrheoa*)

❒ *Banksia*

❒ Forest oak (*Allocasuarina*).

[Note: Bull oak (*Allocasuarina luehmannii*) is not defined as a 'protected tree'.]

How will you indicate on site which trees have to be protected? Tick one or both of the following options, and provide extra information if necessary.

❒ Trees to be protected will be marked as set out in the tree marking checklist at the end of this FOP.

❒ Trees to be protected will be indicated as follows:

_____

_____

_____

How will you minimise damage to protected trees?

_____

_____

_____

_____

4.4 Drainage feature protection

Refer to the Guidelines page 16. Drainage features (also referred to in the Code as 'streams' and including dry drainage features) must be protected in accordance with the Code section 4.4. Forest operations must not occur in riparian exclusion zones (see the Code Table F) except for the purpose of crossing drainage features.

Check that the FOP map shows the location of all the mapped first, second and third-order streams and prescribed streams in the FOP area.

5 Construction and maintenance of forest infrastructure

Refer to the Guidelines page 17. Infrastructure used in the forest operations must comply with the Code section 5.

5.1 Construction and maintenance of roads (and crossings)

New roads

Refer to the Guidelines page 18. All new roads that will be constructed and used in the forest operations must comply with the Code section 5.1.

- Use the table below to provide details about how new roads will comply with the Code. Include all new roads that will be used in the forest operations. Use extra pages if necessary.
- More than one new road can be listed in each column of the table provided that the management prescriptions are the same for these roads.
- Check that the roads are shown on the FOP map using the same names or numbers used in this table.

New roads		
New road name or number:		
Will clearing be required?	❒ Yes ❒ No	❒ Yes ❒ No
If yes, describe the clearing required:		
How will groundcover be established over cleared areas?	❒ Groundcover will be established through natural regeneration. ❒ Groundcover will be established as follows:	❒ Groundcover will be established through natural regeneration. ❒ Groundcover will be established as follows:
Will the road grade exceed 10 degrees?	❒ Yes ❒ No	❒ Yes ❒ No
If yes, the reason for the grade being greater than 10 degrees (but no more than 15 degrees) is:		

New roads		
New road name or number:		
Is any section of the road located on ground with a slope greater than 25 degrees?	❒ Yes ❒ No	❒ Yes ❒ No
How will fill or cut batters be stabilised?		
How will soil erosion on roads be prevented?	❒ Maintaining vegetation cover ❒ Establishing grass cover ❒ Crossfall or shaping ❒ Drainage structures	❒ Maintaining vegetation cover ❒ Establishing grass cover ❒ Crossfall or shaping ❒ Drainage structures
How will drainage be provided (e.g. what types of drainage structures will be used)?		
Will the road be stabilised and allowed to revegetate after this forest operation?	❒ Yes ❒ No	❒ Yes ❒ No

Does this table continue on extra pages? ❒ Yes ❒ No

Existing roads

Refer to the Guidelines page 21. All existing roads that will be used in the forest operations must be maintained and, if necessary, upgraded so they comply with the Code section 5.1.

- Use the table below to provide details about how existing roads will be maintained or upgraded so they comply with the Code. Include all existing roads that will be used in the forest operations. Use extra pages if necessary.
- More than one existing road can be listed in each column of the table provided that the management prescriptions are the same for these roads.
- Check that the roads are shown on the FOP map using the same names or numbers used in this table.

Existing roads		
Existing road name or number:		
Will clearing be required?	❒ Yes ❒ No	❒ Yes ❒ No
If yes, describe the clearing required:		
How will groundcover be established over cleared areas?	❒ Groundcover will be established through natural regeneration. ❒ Groundcover will be established as follows:	❒ Groundcover will be established through natural regeneration. ❒ Groundcover will be established as follows:
How will soil erosion on roads be prevented?	❒ Maintaining vegetation cover ❒ Establishing grass cover ❒ Crossfall or shaping ❒ Drainage structures	❒ Maintaining vegetation cover ❒ Establishing grass cover ❒ Crossfall or shaping ❒ Drainage structures
Is the road surface shaped for infall or outfall?	❒ Infall ❒ Outfall	❒ Infall ❒ Outfall
Does the current (pre-harvest) road condition comply with the Code?	❒ Yes ❒ No	❒ Yes ❒ No

Existing roads		
Existing road name or number:		
If not, what maintenance or upgrading work will be carried out to bring the road up to the Code standard?		
Is the existing drainage up to standard with the Code?	❒ Yes ❒ No	❒ Yes ❒ No
How will drainage be provided (e.g. what types of drainage structures will be used)?		
Are fill and cut batters currently stable?	❒ Yes ❒ No	❒ Yes ❒ No
If they are not stable, what work will be carried out to stabilise them?		
Will the road be stabilised and allowed to revegetate after this forest operation?	❒ Yes ❒ No	❒ Yes ❒ No

Does this table continue on extra pages? ❒ Yes ❒ No

New drainage feature crossings (e.g. bridges, causeways or culverts)

Refer to the Guidelines page 23. All new crossings that will be constructed and used in the forest operations must comply with the Code section 5.1.2.

- Use the table below to provide details about how new crossings will comply with the Code. Include all new crossings that will be used in the forest operations. Use extra pages if necessary.
- Check that the crossings are shown on the FOP map using the same names or numbers used in this table.

New drainage feature crossings		
New crossing name or number:		
What type of structure will be used (e.g. bridge, causeway, culvert)?		
What material will be used for the base or surface of the crossing?		
What construction work will be carried out to build the crossing?		
What sediment and erosion control works will be carried out?		
How will road drainage on the crossing approaches be provided?		

Does this table continue on extra pages? ❒ Yes ❒ No

Existing drainage feature crossings

Refer to the Guidelines page 25. All existing crossings that will be used in the forest operations must be maintained and, if necessary, upgraded so they comply with the Code section 5.1.2.

- Use the table below to provide details about how existing crossings will be maintained or upgraded so they comply with the Code. Include all existing crossings that will be used in the forest operations. Use extra pages if necessary.
- Check that the crossings are shown on the FOP map using the same names or numbers used in this table.

Existing drainage feature crossings		
Existing crossing name or number:		
What type of structure will be used (e.g. bridge, causeway, culvert)?		
Does the crossing comply with the Code?	❒ Yes ❒ No	❒ Yes ❒ No
If not, what maintenance or upgrading work will be carried out to bring the crossing up to the Code standard?		
What sediment and erosion control works will be carried out?		
How will road drainage on the crossing approaches be provided?		

Does this table continue on extra pages? ❒ Yes ❒ No

5.2 Log landings, portable mill sites and snig tracks

Refer to the Guidelines page 26. Log dumps (referred to in the Code as 'log landings'), portable mill sites and snig tracks must be used and maintained in accordance with the Code section 5.2.

Check that the FOP map shows the location of all the log dumps and portable mill sites that will be used in the forest operations.

Appendix: Listed species

Refer to the Guidelines page 26. Threatened plants and animals must be protected in accordance with the Code Appendix: Listed species ecological prescriptions.

Management actions for listed species

Refer to the Guidelines page 27.

Are there any known records of listed species in the FOP area? ❒ Yes ❒ No

Is there any site evidence of listed species in the FOP area? ❒ Yes ❒ No

If you find site evidence of listed species during the forest operations, you need to make sure the Code provisions to protect the listed species are complied with. You may need to amend this FOP. Check with the EPA if you are not sure what to do.

Use the table below to describe the specific management actions that will be carried out to protect listed species.

Note: This table must not include the **names** of known records of listed species (this information is protected by a licence agreement with the EPA). However, the locations of listed species **record sites** (see Guidelines) are shown on the FOP base map supplied by the EPA, and each record site needs to be included in the table. Names of species identified through site evidence can be included in the table.

Check the map: Make sure the numbers you use to describe the record sites in the table are also used on the FOP map.

Management actions for listed species		
Threatened plant or animal:	Record site 1:	Record site 2:
Does an exclusion zone apply to this species? If so, what is the exclusion zone?		
For plants, what % of individuals will be protected by the exclusion zone?		
Does a buffer zone apply to this species? If so, what is the buffer zone?		
Do extra tree retention measures apply to this species? If so, what are the extra retention measures?		
If exclusion or buffer zones apply, how have they been marked in the field?		
Will other management actions be carried out? If so, what are they?		

Does this table continue on extra pages? ❒ Yes ❒ No

Tree marking checklist

If you will be using tree marking, which of the following marks will you use? Tick all that apply.

❒ FOP area boundary	Single yellow tape or ring
❒ Exclusion zone	≡ or single blue tape
❒ Riparian buffer zone	═
❒ Machinery exclusion zone	X
❒ Log landing or portable mill site	D
❒ Stream crossing site	↕
❒ Trees to be removed	● (or a number of dots)
❒ Trees to be retained for growing on	—
❒ Directional felling mark	← ●
❒ Habitat trees to be retained	H
❒ Recruitment trees to be retained	R
❒ Other trees to be retained (including feed, roost, nest and individual species)	E
❒ Boundary of Australian group selection canopy opening	*
❒ Boundary of listed threatened species buffer area	— T

If you will be using other types of tree marking, describe or illustrate them here:

FOP sign off

Working with a Contractor

If the work is to be carried out by a Contractor:

- You must fully brief the Contractor on the requirements set out in this FOP before work starts.
- You must give the Contractor a copy of this FOP and ask them and all crew members to read, sign and date it, before work starts.
- All people signing this FOP must be fully aware that by signing the FOP they are legally bound to comply with the *Private Native Forestry Code of Practice for Southern NSW*.
- You must make sure that anyone else who will work on the site is fully briefed on the requirements set out in this FOP before work starts.
- You must make sure the Contractor and anyone who will work on the site is familiar with the physical features of the FOP area and any boundaries and exclusion zones.
- A copy of this FOP must be available on site during operations.
- The Contractor must notify you immediately if there are any operational changes that require this FOP to be amended. Amendments must be noted on this FOP.

Contractor's declaration

I, the person contracted to carry out the forest operations set out in this plan, certify that I have read and understand the requirements of this Forest Operation Plan (FOP).

I, and any people working on my behalf, will carry out the work in accordance with this FOP and with the *Private Native Forestry Code of Practice for Southern NSW*.

I will have a copy of this FOP on site during the operations.

I will notify the landowner immediately if there are any operational changes that require this FOP to be amended.

Name:

Signature: Date:

Others who will work on site

Any person who will work on site during any stage of the forest operations must read, sign and date this FOP:

Signature:	Date:
Signature:	Date:
Signature:	Date:
Signature:	Date:
Signature:	Date:
Signature:	Date:
Signature:	Date:

Note: All new crew members who join the team during the operations, including workers such as truck drivers, must also read, sign and date this FOP (but this does not have to be written up as an amendment to the FOP).

Landowner's declaration

Note: Where there are joint landowners, this declaration may be signed by a single landowner only where that landowner has the authority to sign on behalf of all landowners.

I, the landowner, declare that I have read and understand all the requirements set out in this Forest Operation Plan (FOP).

Signature:	Date:

Who completed this FOP?

Name of person who completed this FOP:	
Signature:	Date:
Phone no.:	Mobile no.:

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