

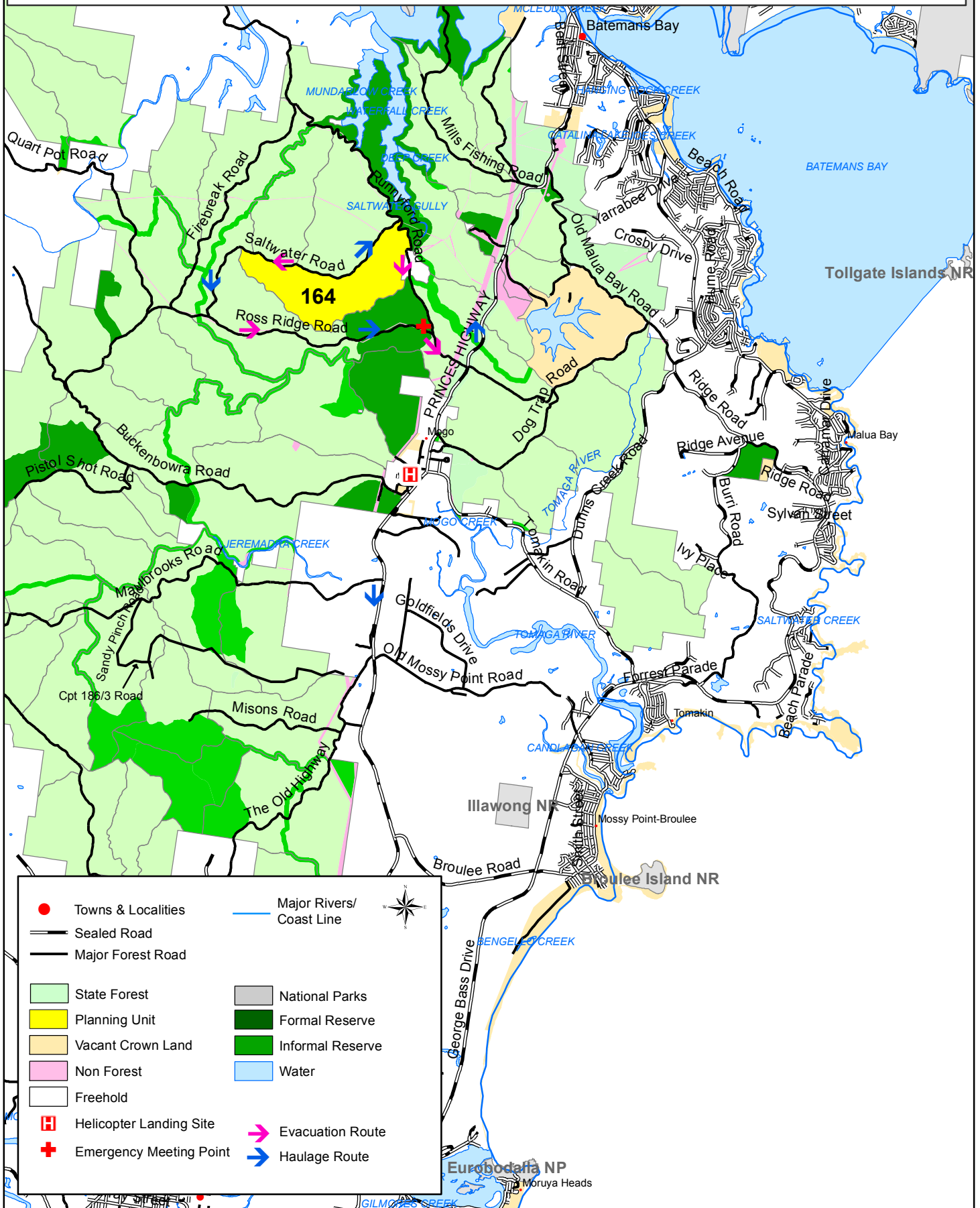
# LOCALITY MAP

Compartment 164

Mogo State Forest No.549

Southern IFOA - South Coast

Scale 1:100,000



Prepared By: Mark Jones

# Harvest Plan Operational Map

Compartment: 164

State Forest: MOGO No: 549

Southern IFOA - South Coast

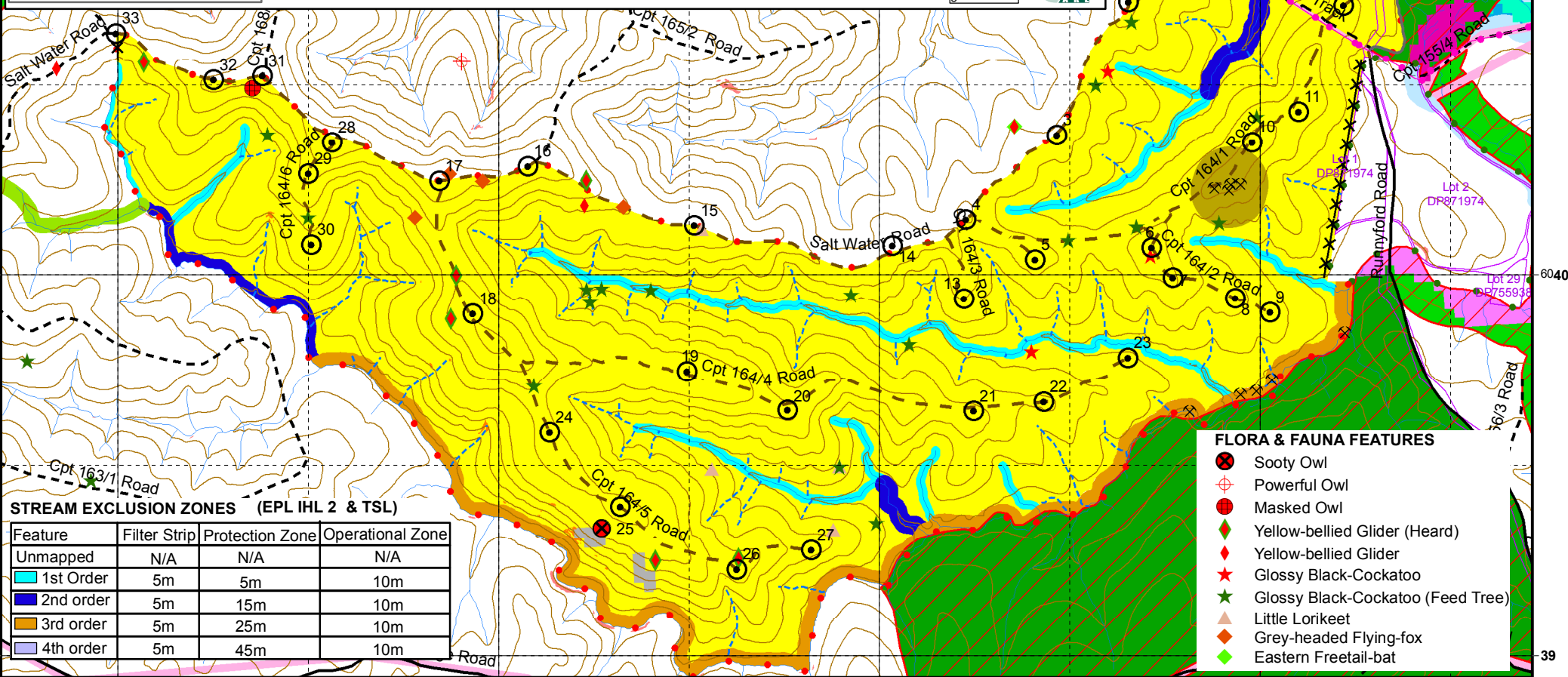
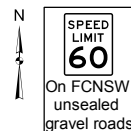
Map Sheet: NELLIGEN 8926-4S / MOGO 8926-3N

Version: 1

PLANNING SUPERVISOR APPROVAL

APPROVED: LEE BLESSINGTON

DATE: 4 / 4 / 2016



## STREAM EXCLUSION ZONES (EPL IHL 2 & TSL)

Feature	Filter Strip	Protection Zone	Operational Zone
Unmapped	N/A	N/A	N/A
1st Order	5m	5m	10m
2nd order	5m	15m	10m
3rd order	5m	25m	10m
4th order	5m	45m	10m

## FLORA & FAUNA FEATURES

- Sooty Owl
- Powerful Owl
- Masked Owl
- Yellow-bellied Glider (Heard)
- Yellow-bellied Glider
- Glossy Black-Cockatoo
- Glossy Black-Cockatoo (Feed Tree)
- Little Lorikeet
- Grey-headed Flying-fox
- Eastern Freetail-bat

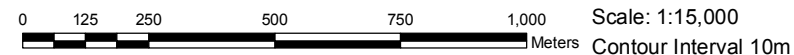
- ### ROADS
- Runnyford Rd (Shire Owned)
  - Major Forest
  - Minor Forest
  - EPL Standard Existing (Major)
  - EPL Standard Existing (Minor)
- ### DUMPS & CROSSINGS
- Temporary Dry Weather
  - Permanent Bee Set Down

- ### LEGEND
- #### NON HARVEST AREA
- Special Management (FMZ 2)
  - Harvesting Protection (FMZ 3A)
  - Subterranean Bat Roost Exclusion (100m)
  - Marine Park Authority Sanctuary Zone
  - Probable Wetland & Exclusion Zone (40m)
  - Rare & Non Commercial Forest Ecosystems
  - Probable EEC - Swamp Oak Floodplain Forest
  - Probable EEC - River-Flat Eucalypt Forest on Coastal Floodplain

- #### NON HARVEST AREA (CONTINUED)
- Non Forest Use (FMZ 7)
  - Ridge & Headwater Habitat (40m)
  - Private Property
  - Slopes >30 (IHL 4)
  - Owl Landscape
- #### HARVEST AREA
- RU1 - STS Heavy (271 Ha)

- ### BOUNDARIES
- State Forest Boundary
  - Compartment Boundary
  - Proposed Control Line
- ### DRAINAGE
- Mapped LIC Drainage (LiDAR Corrected)
  - Indicative Unmapped Drainage Feature

- ### LIDAR OVERLAY
- Indicative LIDAR Slopes >30
- ### SAFETY ALERT FEATURE
- Mine Shaft / Unpredictable Terrain
  - Underground Cable / Pipeline





Prepared By: Mark Jones

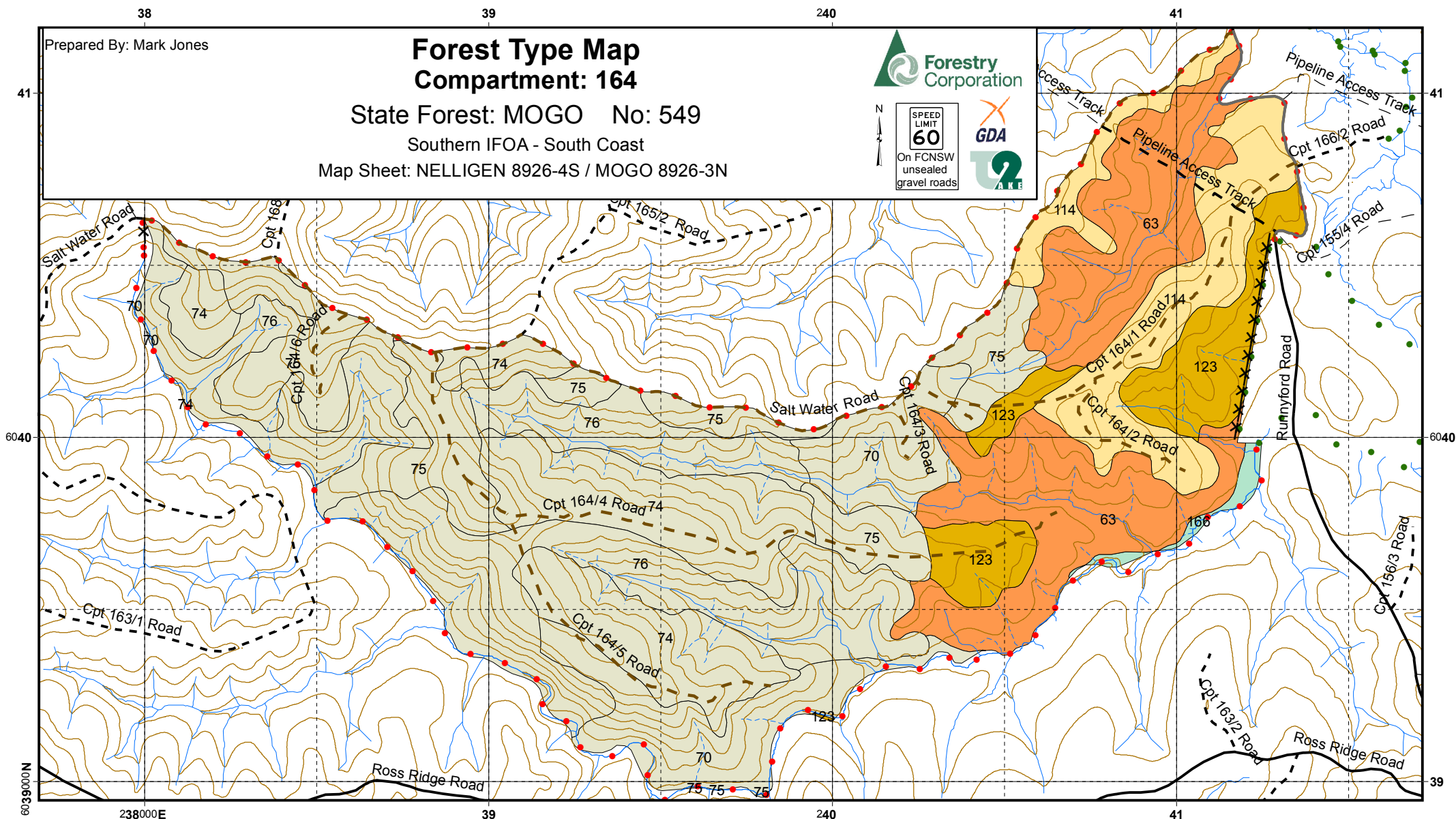
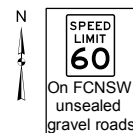
# Forest Type Map

## Compartment: 164

State Forest: MOGO No: 549

Southern IFOA - South Coast

Map Sheet: NELLIGEN 8926-4S / MOGO 8926-3N



### LEGEND

#### ROADS

- Runnyford Rd (Shire Owned)
- Major Forest
- Minor Forest
- EPL Standard Existing (Major)
- EPL Standard Existing (Minor)

#### DRAINAGE

- Mapped LIC Drainage (LiDAR Corrected)
- Indicative Unmapped Drainage Feature

#### FOREST TYPES

- Type 63 Woollybutt (56 Ha)
- Type 70 Spotted Gum (31 Ha)
- Type 74 Spotted Gum - Ironbark / Grey Gum (48 Ha)
- Type 75 Spotted Gum - Yellow / White Stringybark (43 Ha)

#### FOREST TYPES (CONTINUED)

- Type 76 Spotted Gum - Blackbutt (72 Ha)
- Type 114 Silvertop Ash - Stringybark (30 Ha)
- Type 123 Coastal Stringybark (23 Ha)
- Type 166 River Peppermint (2 Ha)

#### BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Proposed Control Line

0 125 250 500 750 1,000 Meters Scale: 1:15,000 Contour Interval 10m



## HARDWOOD FORESTS- SOUTHERN IFOA SOUTH COAST HARVESTING PLAN

### Mogo State Forest – Compartment 164

#### Certification

This plan has been prepared in accordance with the Integrated Forestry Operations Approval issued under the Forestry and National Park Estate Act 1998. The Harvest Plan Standard Conditions for Hardwood Forest Operations in South Coast apply to this operation.

Prepared By: Harvest Planner	Mark Jones	Approved By: Planning Supervisor	Lee Blessington
Signature	Mark Jones	Signature	Lee Blessington
Date	4 / 4 / 2016	Date	4 / 4 / 2016

Note: Approval includes the Harvest Plan Operational Map (HPOM) with the corresponding approval date displayed on the map, verifying final approved version. Other maps included with this plan are Locality, Forest Type and Cultural Heritage (limited distribution).

#### Description of Proposal

##### Harvesting of Hardwood forest

Harvesting of Hardwood forest using Single Tree Selection Silviculture subject to the Southern IFOA requirements will be undertaken within this planning unit. **Timber harvesting and road construction will not be licensed under the EPL.**

The primary product of the harvesting is high quality large sawlogs (quota logs), small high quality sawlogs, veneer logs, girders, poles & piles where timber markets are available. Parts of felled logs that do not meet high quality log specifications are segregated and graded into other classifications such as salvage sawlogs, pulp logs & miscellaneous timbers e.g. split & round posts, firewood, mining timbers & craftwood. The availability of miscellaneous timbers depends mainly on forest types, log defectiveness & market conditions at the time of harvesting.

##### Clause 22 – Integrated Forestry Operations Approval (IFOA) Consideration

All relevant factors have been reviewed taking into account the volume and monetary value of each forest product to supply Term Agreement Holders. The harvesting operation also complies with Clause 22 of the IFOA.

**Attachment 1:** Site Safety Plan prescribes safety requirements and Medical Emergency Evacuation Plan for this harvesting operation.

**Attachment 2:** Roading plan prescribes roading requirements for this harvesting operation.

**Abbreviations used in this plan**

FT = Forest Technician, HC= Harvesting Coordinator, PtS= Protection Supervisor, HS = Harvesting Supervisor, RC = Roading Coordinator, IFOA = Integrated Forestry Operations Approval.

**Area Identification and Yield Estimates**

State Forest	Compartment	IFOA Region	Management Area	Certification
Mogo	164	Southern	Batemans Bay	AFS 604224 AS4708:2013

	<b>Cpt 164</b>
Plan Compartment ID	<b>22269</b>
Gross Area (ha)	305
Net Harvestable Area (ha)	271
Harvest Area (ha)	271
Poles, Piles, Veneer & Girders	60m <sup>3</sup>
Quota Logs (HQL)	1600m <sup>3</sup>
High Quality Small	450m <sup>3</sup>
Salvage	1200m <sup>3</sup>
Pulp E1	2050t
Firewood/Misc	650t

**Note:** The yield estimates in the table above are derived from the Plan of Operations.

**Slope Classes (percent of harvest area)**

	<b>Cpt 164</b>
<b>Slope Class</b>	<b>% of harvest area</b>
0-20°	94
20-25 °	5
25-30 °	1



## ATTACHMENT 1: SITE SAFETY PLAN

Worksite Information		
Is this a Declared Hunting Area: Yes	Comments: Hunting exclusion zone in place	
Have Exclusion Zone signs been erected or checked prior to starting work daily.	Yes / No	
Comments:		
Description of Work to be undertaken on site: - Refer to description of proposal above.		
Site Supervisor		
Name:	Contact number:	
Communication		
Radio channel number	VHF:	UHF
Other (e.g. hand signals):		
Traffic management (describe) e.g. Signage, Road closure, Traffic control		
<p>This plan identifies haulage from the western half of the compartment as west via Saltwater Road (FCNSW Owned) turning left onto Ross Ridge Road (FCNSW Owned), then right onto Runnyford Road (Eurobodalla Shire Owned), then left or right onto the Princes Highway (RMS Controlled).</p> <p>This plan identifies haulage from the eastern half of the compartment as east via Saltwater Road (FCNSW Owned) and Cpt 164/1 Road (FCNSW Owned) turning right onto Runnyford Road (Eurobodalla Shire Owned) then left or right onto the Princes Highway.</p> <p><b>Consideration of sight distances at Intersections</b></p> <p>The intersection of Ross Ridge Road and Runnyford Road does not have a minimum sight distance of 200m for vehicles travelling on Runnyford Road in a westerly direction. Therefore, prior to haulage commencing, a suitably qualified person must implement "TCP195_Runnyford_RossRidge" (attached to this harvest plan) at this intersection.</p> <p>The intersection of Saltwater Road and Runnyford Road does not have a minimum sight distance of 200m for vehicles travelling on Runnyford road in a northerly or southerly direction. Therefore, prior to haulage commencing, a suitably qualified person must implement "TCP_195_RunnyfordRd_Saltwater_Cpt164_1Rd" (attached to this harvest plan) at this intersection.</p> <p>The intersection of Cpt 164/1 Road and Runnyford Road does not have a minimum sight distance of 200m for vehicles travelling on Runnyford road in a northerly or southerly direction. Therefore prior to haulage commencing, a suitably qualified person must implement "TCP_195_RunnyfordRd_Saltwater_Cpt164_1Rd" (attached to this harvest plan) at this intersection.</p> <p>Road intersections outside the control of FCNSW are not covered by this plan or any FCNSW Traffic Control Plan. Haulage contractors must abide by NSW road laws and standard operating procedures in relation to haulage routes outside the control of FCNSW.</p> <p><b>Traffic management/road closures</b></p> <p>When harvesting within 2 tree lengths of Runnyford Road, the road must be temporarily closed in accordance with "TCP78_57_RunnyfordRd_Cpt164" attached to this plan. Forestry Corporation will provide suitably qualified personal to carry out the traffic control.</p> <p><b>Dust and noise</b> – Where log haulage routes pass close to rural housing along natural surface/gravel roads dust and noise must be minimised to the greatest extent practicable. Trucks should reduce speed, restrict use to daylight hours and minimise the use of engine brakes through these areas.</p>		

Name of on-site safety first-aider/s			
Location of first-aid kit			
SITE HAZARD & RISK ASSESSMENT NO.	CONTROL	WHO	IMPLEMENTED
1. Vehicle collision at adjoining roads of various traffic levels	Warning signs at FCNSW intersections, road closure on FCNSW roads. Implement Traffic Control plans (where specified in this harvest plan). 60km/hr speed limit on all State Forest gravel roads unless otherwise signposted. Compliance with FCNSW lights on policy.		
2. Underground cables, pipelines	Minimise ground disturbance across or along cables & pipelines. Increase depth of earth cover if required.		
3. Mine shafts/quarries/unpredictable terrain	Compartment 164 is within a Potential Mine Shaft Area. Known existing mine shaft locations / areas of unpredictable terrain are identified on the HPOM. Assess snig track routes and tree felling paths prior to operating. Identify and mark sites accordingly.		
4. Hazardous or dead trees	<b>Refer to FCNSW WHS procedure 4.26.</b> Assess area within two tree lengths of work site. Assess risk, mark any Distinctly Dangerous Trees with the symbol Ø & if necessary remove hazard or move work site. Use machinery to assist with hazard removal if possible <b>Contractor is responsible for implementing control strategies during harvesting.</b>		
5. Overhead hazards associated with dumps	<b>Refer to FCNSW WHS procedure 4.26.</b> Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump site. <b>Contractor is responsible for implementing control strategies during harvesting.</b>		
6. Dust from passing vehicles along dirt haulage routes	Restrict speed to minimise dust generation, slow down when passing vehicles. Turn on driving and hazard lights to increase visibility.		
7.			

- **All** visitors, contractors and employees **must** be fully **inducted** onto the worksite by the workplace supervisor e.g. the Principal Contractor or the Forestry Corporation supervisor. This must be recorded on the attached induction sheet.
- Relevant **Safe Work Procedures** are available and understood for the type of work to be undertaken.
- A **Risk and Hazard Assessment Worksheet** must be completed if site specific hazards are identified that are not covered by a **Safe Work Procedure**. The top (pink sheet) is to be attached to this site safety plan.
- Operators in training must be supervised by the site supervisor.
- All appropriate Personal Protective Equipment (PPE) must be worn on the worksite at all times



# MEDICAL EMERGENCY EVACUATION PLAN

Nearest reliable mobile phone reception (describe location)			
Next G Network: Average		GSM: N/A	
GPS Lat/Long: -35° 44' 49.78" / 150° 6' 43.07"		Satellite: N/A	
GPS Lat/Long: -35° 44' 49.78" / 150° 6' 43.07"		MGA: 238845E 6040247N	Datum: GDA 94
Zone: 56			
Location description: Intersection of Saltwater Road and Cpt 164/4 Road			
Emergency meeting point for ambulance / police (refer to attached locality map)			
GPS Lat/Long: -35° 45' 36.03" / 150° 8' 39.43"		MGA: 241809E 6038908N	Datum: GDA 94
Zone: 56			
Location description: Intersection of Ross Ridge Road and Runnyford Road.			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: -35° 47' 14" / 150° 08' 11"			
Location description: Mogo Football ground.			
Procedures to obtain ambulance assistance			
<ol style="list-style-type: none"> <li>1. Dial 000</li> <li>2. If there is no mobile coverage, dial 112 (which will work on any mobile phone system).</li> <li>3. If no response on 112: <ul style="list-style-type: none"> <li>• use a radio link (TARA, be discrete with personal information)</li> <li>• move to an area with mobile coverage</li> <li>• find a landline</li> <li>• use another network (e.g. a contractor's VHF radio)</li> </ul> </li> </ol>		<p>Contact nearest Forestry Corporation office on:</p> <p>Channel: 236</p> <p>Telephone: 1300 880 548</p> <p>Give details of the situation and ask for a 000 call to be placed.</p>	
000 operator question:		Response:	
1. Police, Fire, Ambulance?		NSW Ambulance,	
2. Suburb?		State Forest name: Mogo Nearest town or locality: Mogo Nearest ambulance station: Batemans Bay	
3. Address?		Intersection of Ross Ridge Road and Runnyford Road.	
4. Nearest road junction/cross street?		Intersection of Ross Ridge Road and Runnyford Road.	
5. Local government area?		Eurobodalla	
6. Nature of the problem?		Describe the accident, number and condition of casualties	
7. Where is the accident?		Refer to safety meeting point above	
Directions to navigate from nearest ambulance station to the emergency meeting point. From Batemans Bay head south on the Princes Highway travel approx. 6km to intersection with Runnyford Road. Turn right onto Runnyford Road then travel approx. 1km to intersection with Ross Ridge Road			
8. 4WD ambulance required: No		CB radio channel to use:	
9. Injuries?		Give detailed information about the condition of the casualty (do not mention names over radio system)	
10. Your name and call back number:			



### Silviculture and Harvesting Prescriptions

Year	1963	1970	1982	1990	1991	1994	2008	2003
TSI	X	X	X	X	X	X	X	X
HR Burning	X	X	√	X	X	X	√	√
Wildfires	√	√	X	√	√	√	X	X
Logging	X	X	X	X	√	X	X	X

√ - applies, X – not applicable

Compartment	Resource Unit	No. of Sweeps	BA Average (m <sup>2</sup> /ha)	BA Range (m <sup>2</sup> /ha)
164	1	17	17	8 - 24

### Silvicultural Planning

#### Single Tree Selection

The STS tract (RU1 – 271 ha) is a predominantly mixed aged mature forest and will be harvested under a heavy single tree selection (STS) regime. The objective within the 271 ha harvest area for this operation (resource unit 1) is to remove 45% of the basal area to create canopy openings for regeneration, whilst retaining and minimising damage to young regenerating stems, seed trees, habitat and recruitment trees.

It is envisaged that the next harvesting operation in this compartment would be in approximately 30 years.

The STS tract for IFOA purposes includes resource unit 1 of compartment 164 as indicated on the HPOM.

**Single Tree Selection (STS) must remove no more than 45% of the basal area (BA), while retaining a minimum BA of 10m<sup>2</sup> per hectare within the tract.**

Resource Unit (Refer to HPOM for detail)	Species Composition	Stand Structure and Condition
1	Overstorey dominated by spotted gum ( <i>Corymbia maculata</i> ), grey ironbark ( <i>E. paniculata</i> ), silvertop ash ( <i>E. sieberi</i> ), and White Stringybark ( <i>E. globoidea</i> )	Mature to over mature stand that has reached endpoint with limited further growth potential.

**Harvesting Prescription**

Resource Unit (Refer to HPOM for detail)	% of Harvest Area	Silvicultural Treatment
1	100%	<p>STS heavy:</p> <ul style="list-style-type: none"> <li>Retain and protect from harvesting/fire damage: <ul style="list-style-type: none"> <li>-poles/advanced growth (&lt;40cm DBHOB) with good form and vigour,</li> <li>-habitat and recruitment trees as per TSL,</li> </ul> </li> <li>Retained trees should be evenly spaced throughout the resource unit.</li> <li>Ensure no more than 45% of the BA within the resource unit is removed, while retaining a minimum BA of 10m<sup>2</sup> per hectare within the tract.</li> <li>All other products should be removed markets permitting. If this objective cannot be achieved the following options should be considered: <ul style="list-style-type: none"> <li>-reject tree felling (HC must first obtain approval from HS),</li> <li>-defer harvesting until ideal market conditions prevail,</li> <li>-consider harvesting under a light or medium STS regime</li> </ul> </li> </ul>

Note: The area of each silvicultural treatment must be mapped and recorded in the Post logging information section of this plan.

**Special Requirements****Noxious Weeds/Disease/Pests Hygiene Requirements**

Compartment 164 is within Eurobodalla Shire Council which is a designated red zone for Myrtle Rust. In order to prevent the spread of Myrtle Rust all harvesting machinery, equipment and vehicles heading west from Eurobodalla Shire Council or south into Victoria must be inspected for vegetation containing Myrtle Rust. If present, the vegetation must be removed from the harvesting machinery, equipment or vehicle prior to leaving the compartment.

**Inventory Plots**

Any inventory plots located during the harvesting operation are to be treated the same as the surrounding area.

**Road Works**

Except for Runnyford Road (Shire owned and maintained), within the compartment boundary only roads that are shown on the HPOM as EPL standard or sealed may be used for haulage.

**Private Property**

Private property occurs adjacent to the eastern boundary of the compartment, as indicated on the HPOM. Private property owners have been notified of the scheduled harvesting and post-harvest burning. The table below lists neighbours who adjoin Compartment:

Name	Lot/DP Number (s)	Postal Address	Contact number (& email if available)	Was harvest plan notification letter returned to sender?
	Lot 1 / DP871974			No

- No harvest disturbance is permitted on private property.
- Harvesting debris must not be left within five metres of the boundary fence lines.
- Any damage to fences must be repaired by the contractor.
- Access roads must be maintained free of debris and in a trafficable state.

## Occupation Permits

### Utility Occupation

A utility occupation permit is licenced within the planning unit, as detailed in the table below. Contact details are available from the Batemans Bay office.

Name	Permit type & No.	Contact number
	Water Facility Permit No.14827	

The area covered by this utility occupation permit corresponds with the FMZ 7 areas within compartment 164. Both the FMZ 7 areas and the approximate location of underground water supply infrastructure associated with the utility occupation permit have been identified on the HPOM. Prior to any harvesting or roading activity taking place in the vicinity of the underground water supply infrastructure, the HC should inspect the area for markers or other evidence of the infrastructure and flag with marking tape. When carrying-out harvesting or road maintenance activities near the underground water supply infrastructure, minimise ground disturbance across or along it and increase depth of earth cover if required.

From time to time above ground infrastructure associated with the underground water infrastructure occurs. Where this infrastructure is detected, the FT should pass the location and details on to the burning supervisor who should consider if extra protection measures (e.g. rake hoe lines) are required.

### Apiary

6 apiary sites provided in the table below are located within the planning unit. Contact details are available from the Batemans Bay office.

Name	Site Number	Contact number
	18.12, 19.12	
	20.13	
	19.13	
	18.13, 20.14,	

- The HC must provide the apiary permittees with at least two weeks advance notice when bee boxes need to be removed or relocated.

### **Underground Cables**

A dial before you dig request query of the compartment indicates that underground Telstra cables are present within the compartment. Dial before you dig and field markers (where located) have been used to indicate the approximate location of the cable on the HPOM. Prior to any harvesting or roading activity taking place in the vicinity of the cables, the HC should inspect the area for markers or other evidence of the cables and flag with marking tape.

When carrying out harvesting or road maintenance activities near cables, minimise ground disturbance across or along and increase depth of earth cover if required.

From time to time above ground infrastructure associated with the cables occurs. Where this infrastructure is detected, the FT should pass the location and details on to the burning supervisor who should consider if extra protection measures (e.g. rake hoe lines) are required.

Any damages to cables must be immediately reported to Telstra on 13 22 03.

### **Forest Management Zoning**

FMZ 7 Non Forest and FMZ 4- General Management (normal harvesting prescriptions apply) occur within the compartment. Refer to HPOM for more detail.

**FMZ 7** – Prescribed burning is only permitted if fire does not conflict with the specific non-forest use of the site.

### **IFOA Required Approval of Forestry Activities**

Construction or re-opening of roads or snig tracks may occur with prior approval in the following exclusion zones:

- Planning Supervisor approval required for Stream Exclusion Zones

During the harvesting operation the HC must identify any crossings required in these exclusion zones and contact the Planner to obtain required approvals.

### **Cultural Heritage**

#### **Cultural Heritage**

All relevant representatives have been consulted &/or inspected Compartment 164.

## Flora and Fauna

### Species adequately covered by general prescriptions:

The following species have been recorded in or around the compartments and are adequately covered by the general prescriptions. No further protection measures are required for these species:

**Eastern Freetail-bat**, (*Mormmopterus norfolkensis*), **Gang-gang Cockatoo** (*Callocephalon fimbriatum*), **Glossy Black-Cockatoo** (*Calyptorhynchus lathami*), **Grey-headed Flying Fox** (*Pteropus poliocephalus*), **Little Lorikeet** (*Glossopsitta pusilla*), **Sooty Owl** (*Tyto tenebricosa*), **Scarlet Robin** (*Petroica boodang*), **Square-tailed Kite** (*Lophoictinia isura*), and **Varied Sittella** (*Daphoenositta chrysoptera*).

### Tree Retention

Zone	Hollow bearing Trees/ha	Recruitment Trees /ha	Protection of Retained Trees	Dead Standing Trees (only if safe)	Significant Food Resource*
<b>Regrowth</b>	<b>Up to 5</b>	<b>1 for every tree retained under 5.6d</b>	√	√	√
<b>TSL condition</b>	5.6d	5.6e	5.6h	5.6f	5.6g

√ - Condition applies

\*23 Glossy black cockatoo feed trees occur within compartment 164 at 17 locations shown in the table below.

Species	Feature	Zone	GDA Easting	GDA Northing	Comments
Glossy Black-Cockatoo	Feed tree	56	240569	6040499	Crushed cones (2)
Glossy Black-Cockatoo	Feed tree	56	240892	6040138	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	240675	6040128	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	240663	6040666	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	240991	6040416	Crushed cones (1)*
Glossy Black-Cockatoo	Feed tree	56	240078	6039819	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	239926	6039949	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	238393	6040370	Crushed cones (2)
Glossy Black-Cockatoo	Feed tree	56	238500	6040152	Crushed cones (2)
Glossy Black-Cockatoo	Feed tree	56	239093	6039710	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	239231	6039962	Crushed cones (2)
Glossy Black-Cockatoo	Feed tree	56	239400	6039961	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	239240	6039930	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	239271	6039965	Crushed cones (1)
Glossy Black-Cockatoo	Feed tree	56	240496	6040092	Crushed cones (1)*
Glossy Black-Cockatoo	Feed tree	56	239896	6039497	Crushed cones (3)
Glossy Black-Cockatoo	Feed tree	56	239992	6039349	Crushed cones (1)

Glossy Black-Cockatoo feed trees have been flagged with either pink or orange tape in field

\*Glossy Black-Cockatoo feed tree not yet flagged in field – requires flagging during mark-up  
(Number) indicates number of feed trees identified and flagged at location



**General exclusion zones**

General exclusions as listed below are shown on the HPOM.

<b>Feature/Condition</b>	<b>TSL cond'n</b>	<b>Occurs within Planning Unit</b>
<b>Rainforest</b>	5.4	Has been assessed & is unlikely to occur in the field. May require further investigation#.
<b>Riparian Protection Zones</b>	5.7	Yes
<b>Ridge &amp; Headwater Habitat</b>	5.8	Yes
<b>Wetlands</b>	5.9	Has been assessed & is unlikely to occur in the field. May require further investigation#.
<b>Heath and Scrub</b>	5.10	Has been assessed & is unlikely to occur in the field. May require further investigation#.
<b>Rocky Outcrops and Cliffs</b>	5.11	Has been assessed & is unlikely to occur in the field. May require further investigation#.
<b>Endangered Ecological Community</b>	NA	Has been assessed & is unlikely to occur in the field. May require further investigation#. <b>Harvesting, harvesting machinery and post harvest burning must be excluded from all areas of EEC.</b>

#FT/HC will continue to conduct on the ground mark-up & searches and report back to foresters/ecologists any features requiring further investigation.

**General Threatened Flora and Fauna Prescriptions**

<b>Feature</b>	<b>Records in 164</b>	<b>Licence conditions under the TSC Act</b>
Threatened Frog General Protection Measures	No	5.12
Bird Nest and Roost Site Protection	No	5.13
Tree Bat Roost Protection	No	5.14.1
Subterranean Roost Protection	Yes: Two overlapping 100m exclusion zones are in place for mine sites at: 240917E, 6040223N & 240922E, 6040238N	5.14.2
Protection of flying-fox Camps	No	5.14.3
Burning	Net planned area	5.16
Ground Habitat Protection	Net planned area	5.17

**Species & Site-Specific Threatened Flora and Fauna Prescriptions**

The following species have been recorded within or nearby the area and the associated prescriptions must be implemented:

Threatened species and habitat features within trigger distance	Records in 164	Licence conditions under the TSC Act or relevant Site-specific prescription
<b>Powerful Owl</b> <i>Ninox strenua</i>	No	6.4
<b>Masked Owl</b> <i>Tyto novaehollandie</i>	Yes	6.4
<b>Spotted tailed Quoll</b> <i>Dasyurus maculatus</i>	No	6.10
<b>Yellow-bellied Glider</b> <i>Petaurus australis</i>	Yes	6.13
<b>Pomaderris bodalla</b>	No	6.16.1 Exclusion of specified forestry activities from 100% of individuals and no buffer. To assist burning crew exclude burning individuals, minimise accumulation of debris around the base or retained trees within a 10m radius of each record.  Species profile is attached to plan.

**Fisheries Licence Conditions**

There are no known records of threatened fish species or class 1 or 2 aquatic habitat relevant to this operation. The conditions of the fisheries licence are not triggered for this operation.

**Soils and Water Protection****Refer to EPL Booklet & Standard Plan Conditions****Spatially Corrected LIC Drainage**

Spatially corrected LIC drainage has been built using LiDAR derived drainage in compartment 164. Protection zones and filter strips have been rebuilt based on spatially correct LIC drainage and an additional mean stream bed width included for each stream order. The FT or Harvest Contractor may use the HPOM and GPS mapping to locate exclusion boundaries or traditional measure and mark up methods. If GPS mapping is being used to locate boundaries, as a minimum the FT must mark with flagging tape all unmapped and 1st order drainage features.

**Site-specific EPL Conditions**

Elements	Conditions
Unmapped Drainage Lines	EPL does not apply: refer to drainage feature protection below.
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	2
Dispersible Soils	No
Seasonality Harvesting Exclusions	No
Seasonality Burning Exclusions	No
Log Dumps	Refer relevant conditions for IHL
Snig Tracks	Refer relevant conditions for IHL
Roads	See Schedule 5 of EPL Booklet
Slope limits for harvesting	Refer to Schedule 4B.3 of EPL

**Drainage Feature Protection**

Filter strips (EPL), Protection Zones (EPL), Operational Zones (EPL), Protection Zones -hard (TSL) and Protection Zones -soft (TSL) must be retained along all drainage lines, prescribed streams and watercourses within the net planned area of the compartments at minimum widths as stated in the Table below.

**Table 1: Minimum filter strip, protection zone and operational zone widths for mapped and unmapped drainage lines, prescribed streams and watercourses in hardwood forests in Inherent Hazard Level 2 (metres – measured along the ground surface)**

Stream Order	EPL Filter Strip TSL Protection (hard)	EPL Protection Zone TSL Protection* (soft)	EPL Operational Zone	Drainage Feature Protection: FT/HC marking instruction
Unmapped	N/A#	N/A#	N/A#	5m (Red)
1st order	5	5	10	10m (Pink)
2nd order	5	15	10	20m (Pink)
3rd order	5	25	10	30m (Pink)
4th order +	5	45	10	50m (Pink)

# for this operation FCNSW has chosen to harvest this area without EPL coverage. All EPL conditions continue to apply **except** for the rules applying to filter strips, protection zones and operational zones of the **unmapped drainage lines**. Refer to Best Management Practices for unmapped drainage lines in the standard conditions. Harvesting of unmapped drainage lines, **MUST NOT** occur in unmapped drainage lines which are running or holding water. It is the responsibility of the HC to inspect each unmapped drainage line prior to harvesting it, to determine if it is running or holding water.

**Log Dump Location**

33 log dumps are indicated on the HPOM. Field location of log dumps must utilise the most level site available consistent with the location indicated on the HPOM. Inherent hazard level 2 Conditions 26, 27, 28, 30, 31 and 33 of Schedule 4 of the EPL must apply.

### Mass Movement

Compartment 164 is not in an area identified as having a potential for mass movement. No specific prescriptions relating to mass movement/snigging are required.

### Suitability of existing log dams and gully stuffers

There are no known log dams or gully stuffers on snig track or road crossings in the compartments. Condition 47 of Schedule 4 of the EPL must apply.

### Post Log Burning Control Lines

To assist the post log burning crews prevent fire from entering areas to be excluded from burning, control line construction must be undertaken concurrently with harvesting. Where possible snig tracks patterns should be designed to double as control lines. Control lines must be located as close as reasonably practical to the feature to be excluded from burning. The HC must assess the areas harvested, snig track network and existing roads to determine if there are sufficient control lines in place and where required instruct the contractor to construct additional mineral earth control lines to supplement these. The HC must record instances where it was not possible to construct a suitable control line close to the feature to be excluded and recommend harvest areas which should be excluded from the post log burning operation due to inadequate control lines.

The table below lists critical boundaries in compartment 164. Where possible design snig track patterns so they double as bare earth containment lines as close as possible to these boundaries. Where this is not practical, it is NOT necessary to construct a bare earth break along boundary of the exclusion; the practice of no direct ignition will be followed.

Critical boundary	Completed Yes /No
FMZ 3A	
Owl Landscape	
Subterranean Bat Roost Exclusion	
Ridge and Headwater Habitat	
FMZ 7	

The table below lists critical boundaries in compartment 164. Where possible design snig track patterns so they double as bare earth containment lines as close as possible to these boundaries. Where this is not practical, HC must instruct contractor to construct a bare earth break (drained as per EPL snig track conditions) as close as possible to the critical boundary.

Critical boundary	Completed Yes /No
Private Property	

**Pre-Operational Briefing**

I acknowledge that I have received a copy of the Harvesting Plan for Compartment 164 in Mogo State Forest and that I have been briefed on the conditions of the Plan and understand the supervision and operational control requirements as explained to me by the HS or his/her delegate.

Position	Name	Signature	Date

**Post-Harvest Mapping Features Confirmation Checklist**

Feature	Planning Updates	Reason (Error/New)	GIS update tool completed?	Harvesting Updates	Comments
Soil Regolith	No				
Mapped Drainage	No				
Rainforest	No				
Rocky outcrops	No				
Wetlands	No				
Cultural Heritage	No				
Existing Roads	No				
New Roads	No				
Heath	No				
Powerlines etc	No				
Other (state what it is)					





HC/FT Notes
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[illegible]

HC/FT Notes (continued)
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[illegible]

HC/FT Notes (continued)
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[illegible]

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HC/FT Notes (continued)	
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100	100

[illegible]

**Clearance Certificate**

**COMPARTMENTS 164, MOGO STATE FOREST**

To .....HC

I request approval for me to move my logging crew and all associated machinery from the above-mentioned area to the next compartment in accordance with Section 3.5 of the Forest Practices Code.

I certify that:

- (a) all permanent roads, trails and mitre drains have been cleared of harvesting debris;
- (b) butt damage to retained trees has been kept to acceptable limits;
- (c) all trees marked for removal have been felled;
- (d) utilisation limits have been satisfactorily met;
- (e) stump heights conform to requirements;
- (f) all hanging trees have been felled and brought down;
- (g) all log dumpsites have been satisfactorily restored as required;
- (h) harvesting debris is not accumulated around retained trees;
- (i) all accumulated litter has been disposed of properly;
- (j) all filter and buffer strip requirements have been complied with;
- (k) all snig track, extraction track and temporary logging road drainage has been installed satisfactorily and other required rehabilitation work has been completed;
- (l) all necessary repairs to damaged roads, signs, fences and other structures have been carried out.
- (m) ..... **(insert quantity) rubber flaps have been recovered in a satisfactory condition and reported to Roding Coordinator for collection.**
- (n) all machinery, equipment and vehicles have been checked and are free of noxious weeds, diseases and pests.

I believe that I have met all my obligations under the conditions of the Contractors Licence, the EPL and TSL which apply to the compartment just completed, as stated in this Harvesting Plan.

Signature.....Name.....Date .....  
Contractor

As a result of inspections of the logging operations made in accordance with this Harvesting Plan, I am satisfied that, to the best of my knowledge, the contractor responsible for this harvesting operation has satisfactorily completed all work and approval is given for her/him to remove her/his machinery and equipment and leave the area/commence operations in another compartment.

This clearance does not release the contractor from any obligation to undertake any remedial work if subsequent deficiencies are shown to result from inadequate practices during the harvesting operation, which are found during any inspections of the area made within 12 months of the date of this post-harvesting inspection.

Last inspection was made on .....(Date)

Signed .....(Date).....  
HC

### Post Logging Information

Record any circumstances of significance relating to the harvesting of this compartment. Please draw or include any annotations on the attached operation scale map.

#### Summary of silvicultural treatment

Treatment type	Area (ha) subject to treatment (HC estimate)	Number of AGS gaps created	Comments
Australian Group Selection			
Single Tree Selection			
Thinning/Spacing			
Post Harvest Silviculture			

**Actual area harvested (record on attached HPOM)** Give reasons for harvestable areas that were not harvested (e.g. Too steep, defective timber). Make reference to map.

#### Post Logging Basal Area sweeps

Sample point	GPS (GDA 94)	Pre-harvest (B) BA m <sup>2</sup> /ha	Post-harvest(A) BA m <sup>2</sup> /ha	Difference (D) (B – A) m <sup>2</sup> /ha	% BA removed D/B x100	Comments
1	E N					
2						
3						
4						
5						
6						
7						
8						
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10						
11						
12						
13						
14						
15						
16						
17						
18						
Total averages						

Comply with maximum STS BA removal of 45% or Thinning BA removal of 60% Y/N

#### Possible next cut (tick appropriate boxes)

Main product type	Anticipated volume		
	H	M	L
Girders			
Veneer			
Poles/piles			
Quota			
Smalls/Thinnings			
Salvage			
Pulpwood/chipwood			

Time to next harvest	
0 to 5 years	
5 to 10 years	
10 to 20 years	
20 to 30 years	
30 plus years	

<b>ATTACHMENT 2</b>	<b>ROADING PLAN</b>
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**Summary of Roding Requirements**

Feature	Details	Works Required
Existing roads to be used.	12,676m/8	Yes
New roads to be constructed	0m/0	NA
Existing crossings used	0	NA
New crossings to be constructed	0	NA
Length of road >10°	0m	NA
Borrow pits and gravel pits	0	NA
Mass movement prescriptions apply	No	NA
Dispersible soil conditions apply	No	NA
Seasonality provisions apply	No	No

**Note:** Maintenance works not completed by Roding Coordinator must be recorded and passed onto the HC for completion during harvesting and documentation.

The start and finish dates of all maintenance and construction must be recorded on the individual roading sheets along with other relevant changes or explanations.

All rubber flaps on minor forest roads must be removed and replaced with trafficable rollover banks on completion of operation.

### CHECKLIST OF WORKS REQUIRED ON ROADS & CROSSINGS

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
Salt Water Road	<p>Reshape road &amp; maintain existing drainage structures, install new drainage as required and to meet EPL standard;</p> <p>Spacing of drainage on this road was not assessed by the planner;</p> <p><b>RC/HC Comments:</b></p>			
Cpt 164/1 Road	<p>Reshape road &amp; maintain existing drainage structures, install new drainage as required and to meet EPL standard;</p> <p>Spacing of drainage on this road was not assessed by the planner;</p> <p><b>RC/HC Comments:</b></p>			
Cpt 164/2 Road	<p>Reshape road &amp; maintain existing drainage structures, install new drainage as required and to meet EPL standard;</p> <p>Spacing of drainage on this road was not assessed by the planner;</p> <p><b>RC/HC Comments:</b></p>			

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
Dump 5 Road	<p>Reshape road &amp; maintain existing drainage structures, install new drainage as required and to meet EPL standard;</p> <p>Spacing of drainage on this road was not assessed by the planner;</p> <p><b>RC/HC Comments:</b></p>			
Cpt 164/3 Road	<p>Reshape road &amp; maintain existing drainage structures, install new drainage as required and to meet EPL standard;</p> <p>Spacing of drainage on this road was not assessed by the planner;</p> <p><b>RC/HC Comments:</b></p>			
Cpt 164/4 Road	<p>Reshape road &amp; maintain existing drainage structures, install new drainage as required and to meet EPL standard;</p> <p>Spacing of drainage on this road was not assessed by the planner;</p> <p><b>RC/HC Comments:</b></p>			
Cpt 164/5 Road	<p>Reshape road &amp; maintain existing drainage structures, install new drainage as required and to meet EPL standard;</p> <p>Spacing of drainage on this road was not assessed by the planner;</p> <p><b>RC/HC Comments:</b></p>			

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
Cpt 164/6 Road	<p>Reshape road &amp; maintain existing drainage structures, install new drainage as required and to meet EPL standard;</p> <p>Spacing of drainage on this road was not assessed by the planner;</p> <p><b>RC/HC Comments:</b></p>			

# Pomaderris bodalla

## Description:

- A shrub between 2 and 4 metres high
- Young stems have spreading rusty simple hairs and dense greyish hairs
- Shaped like a football, sometimes elongated
- Mostly 2-3 cm long and 12-15 mm wide
- Leaves upper leaf surface dark green and hairless
- Leaves lower surface has sparse spreading rusty hairs over short greyish hairs
- Flowers cream and display in loose, irregular clusters



## Habitat

- On the south coast occurs in moist open forest along sheltered gullies or along stream banks

## Distribution

- Generally found between Bodalla and Merimbula

## TSL REQUIREMENTS

- **Condition 6.16.1 Exclusion of specified forestry activities from 100% of individuals and no buffer**

