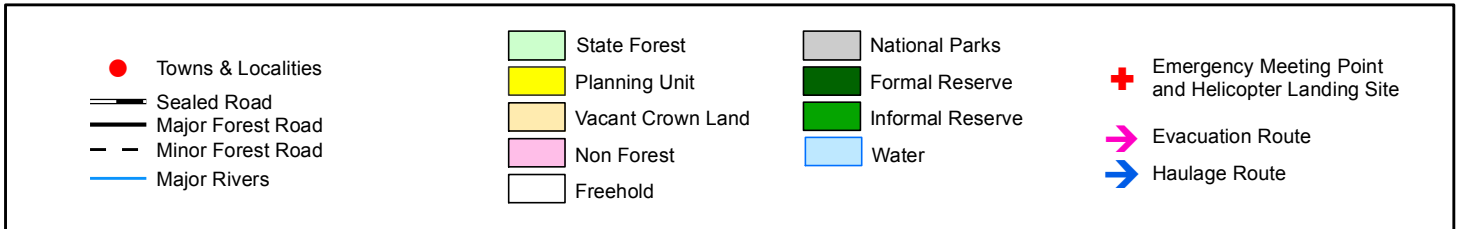
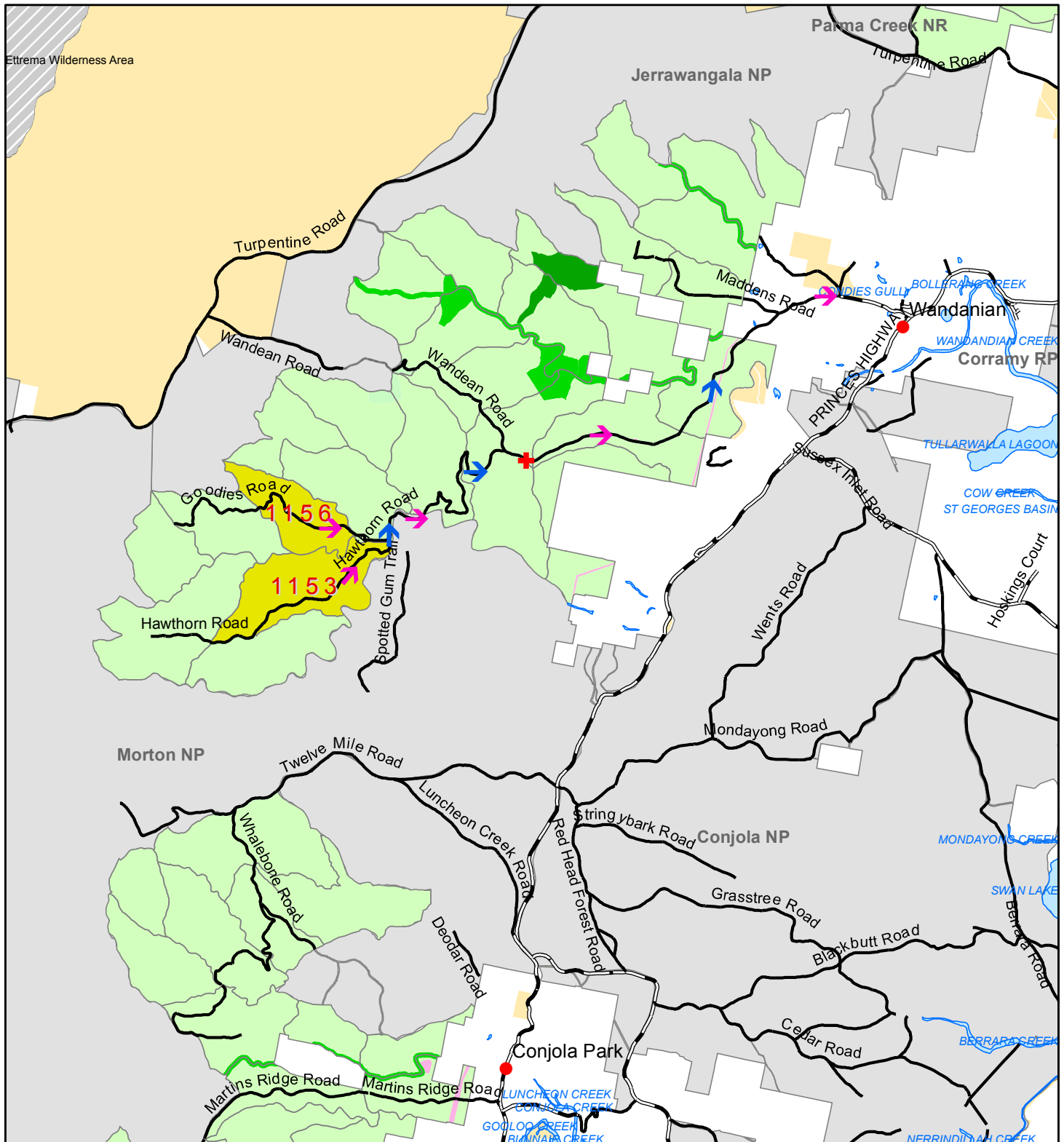


LOCALITY MAP

Compartments: 1153 & 1156
State Forest: YERRIYONG No. 920
SOUTH COAST IFOA NOWRA MANAGEMENT AREA
Scale: 1:100,000



Prepared By: Darryl Chaffey
Updated By: Lee Blessington

Version: 2

PLANNING SUPERVISOR APPROVAL

APPROVED: LEE BLESSINGTON

DATE: 13 / 01 / 2015

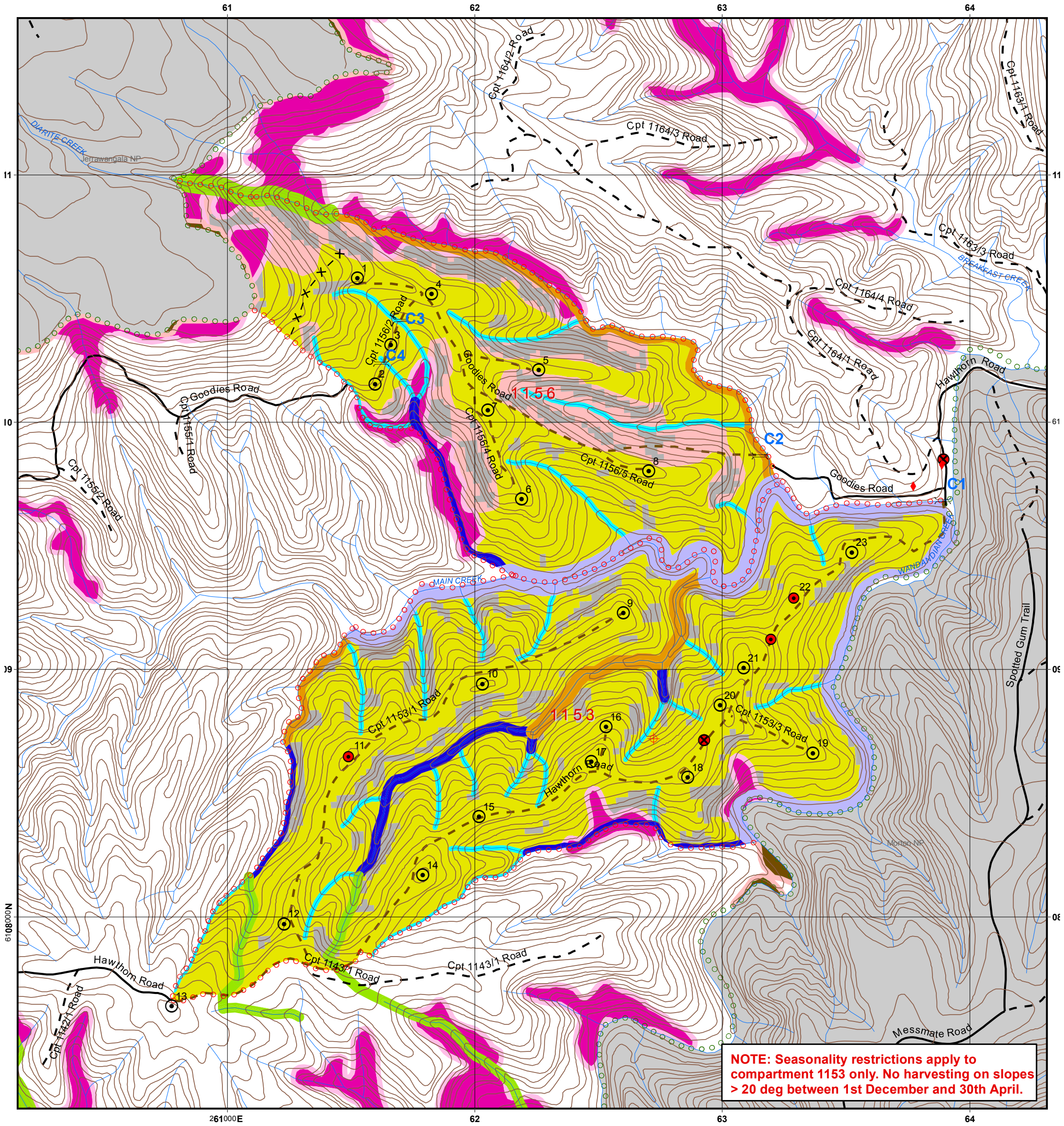
Harvest Plan Operational Map

Compartments: 1153 & 1156

State Forest: YERRIYONG No. 920

Southern IFOA - South Coast

Map Sheet: SASSAFRAS 8927-1N, TIANJARA 8927-1S



LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary

ROADS

- Major Forest
- Minor Forest
- EPL Standard Existing (Minor)

DRAINAGE

- Mapped LIC Drainage

NET HARVEST AREA

- RU1 - STS Heavy

DUMPS & CROSSINGS

- Temporary Dry Weather
- Permanent Bee Set Down
- Existing Crossing

NON HARVEST AREA

- IHL 4
- Ridge & Headwater Habitat (40m total)
- Probable Rainforest & Exclusion Zone (20m)
- Probable Rock & Exclusion Zone (20m)
- Excluded Forest
- National Park Estate

FAUNA FEATURES

- Powerful Owl
- Yellow-bellied Glider
- Sooty Owl

MAP FEATURES

- Proposed Control Line

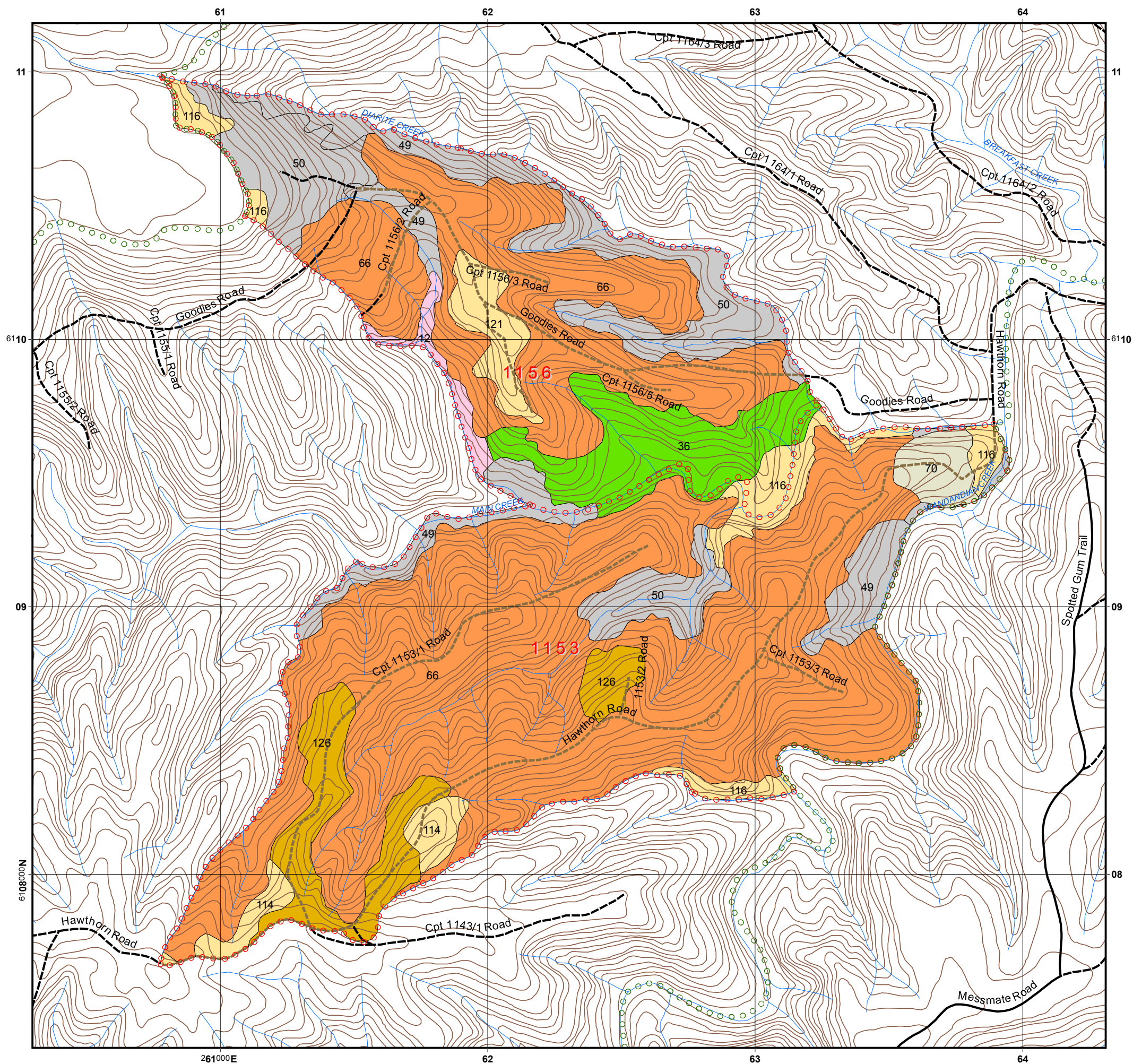
STREAM EXCLUSION ZONES (EPL IHL 3 & TSL)

| Feature | Filter Strip | Operational Zone |
|-----------|--------------|------------------|
| Unmapped | 10m | 10m |
| 1st order | 10m | 10m |
| 2nd order | 20m | 10m |
| 3rd order | 30m | 10m |
| 4th order | 50m | 10m |

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 |

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



LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary

ROADS

- Minor Forest Roads
- DECC Licenced Existing Road (Minor)

DRAINAGE

- Mapped LIC Drainage

FOREST TYPE (RN17)

- Type 12 Coachwood - Sassafras
- Type 36 Moist Blackbutt
- Type 49 Turpentine
- Type 50 Bangalay
- Type 66 Grey Ironbark- Stringybark
- Type 70 Spotted Gum
- Type 114 Silvertop Ash - Stringybark
- Type 116 Sydney Peppermint - Turpentine / Bloodwood
- Type 121 Blueleaved Stringybark
- Type 126 Stringybark - Bloodwood

| Forest Type | Gross Area (ha) |
|--------------|-----------------|
| 12 | 4.5 |
| 36 | 30.1 |
| 49 | 31.9 |
| 50 | 51.0 |
| 66 | 300.5 |
| 70 | 7.0 |
| 114 | 8.3 |
| 116 | 18.5 |
| 121 | 9.6 |
| 126 | 26.3 |
| Total | 487.8 |

Contour Interval 10m

Scale: 1:15,000

01252505007501,000

Meters



HARDWOOD FORESTS- SOUTHERN IFOA SOUTH COAST HARVESTING PLAN

Yerriyong State Forest - Compartments 1153 & 1156

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 | Darryl Chaffey | Updated & Approved By: Planning Supervisor | Lee Blessington |
| Signature | Darryl Chaffey | Signature | Lee Blessington |
| Date | 14/07/2011 | Date | 13/01/15 |

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, Roding 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 in compartment 1153 will be EPL licensed; and**
- **Timber harvesting in compartment 1156 will not be EPL licensed.**

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: Roding plan prescribes roding 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 | Compartments | IFOA Region | Management Area | Certification |
|--------------|--------------|-------------|-----------------|--------------------------|
| Yerriyong | 1153 & 1156 | Southern | Nowra | AS4708:2007 ISO 14001 |

| | Cpt 1153 | Cpt 1156 | Total |
|--------------------------------|--------------------|-------------------|--------------------|
| Plan Compartment ID | 14610 | 14611 | NA |
| Gross Area (ha) | 301 | 186 | 487 |
| Net Harvestable Area (ha) | 239 | 99 | 338 |
| Poles, Piles, Veneer & Girders | 20m ³ | 30m ³ | 50m ³ |
| Quota Logs (HQL) | 1170m ³ | 625m ³ | 1795m ³ |
| High Quality Small | 450 m ³ | 340m ³ | 790m ³ |
| Salvage | 600 m ³ | 300m ³ | 900m ³ |
| Pulp E1 | 800t | 300t | 1100t |
| Firewood/Misc | 2000t | 1000t | 3000t |

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

Slope Classes (percent of harvest area)

| | Cpt 1153 | Cpt 1156 |
|-------------|-------------------|-------------------|
| Slope Class | % of harvest area | % of harvest area |
| 0-20° | 60.3 | 59.1 |
| 20-25 ° | 27.2 | 24.2 |
| 25-30 ° | 12.5 | 16.7 |



ATTACHMENT 1: SITE SAFETY PLAN

| Worksite Information | | | |
|---|---|--|-------------|
| Is this Declared Hunting Area: Yes | | Comments: Hunting exclusion zone established | |
| Have Exclusion Zone signs been erected or checked prior to starting work daily. | | N/A | |
| Comments: No signage required | | | |
| 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 assumes haulage from the compartments will be east via Hawthorn Road turning right onto Wandean Road (80km/hr Road). The Hawthorn/Wandean Roads intersection has been assessed as achieving a minimum of 160m sight distance on both approaches. Therefore at this intersection additional signage in accordance with a Traffic Control Plan is not required.</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 RTA road laws and standard operating procedures in relation to haulage routes outside the control of FCNSW.</p> <p>Dust, noise and school bus routes Dust and noise – 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-aiders | | | |
| | | | |
| 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. Cliff lines & rocky very steep terrain | Operators to assess work site within two tree lengths to identify immediate hazards. Communicate to other operators and mark sites. | | |
| 3. Hazardous or dead trees | Refer to FCNSW operational safety standard OSS010. 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 Contractor is responsible for implementing control strategies during harvesting. | | |
| 4. Overhead hazards associated with dumps | Refer to FCNSW operational safety standard OSS010. Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump site. Contractor is responsible for implementing control strategies during harvesting. | | |
| 5. 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. | | |
| 6. | | | |

- **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: Good | GSM: N/A | | Satellite: N/A |
| GPS Lat/Long: 35° 08' 8" S / 150° 23' 56" E | MGA: 263014E 6108811N | Datum: GDA94 | Zone: 56 |
| Location description: High point on Hawthorn Rd, near dump 20. | | | |
| Emergency meeting point for ambulance / police (refer to attached Locality Map) | | | |
| GPS Lat/Long: 35° 06' 56" S / 150° 26' 04" E | MGA: 266282E 6111316N | Datum: GDA 94 | Zone: 56 |
| Location description: Intersection of Wandean Road and Perch Hole Road. | | | |
| Helicopter landing place (refer to attached Locality Map) | | | |
| GPS Lat/Long: 35° 06' 56" S / 150° 26' 04" E | | | |
| Location description: Intersection of Wandean Road and Perch Hole Road. | | | |
| Procedures to obtain ambulance assistance | | | |
| <ol style="list-style-type: none"> 1. Dial 000 2. If there is no mobile coverage, dial 112 (which will work on any mobile phone system). 3. If no response on 112: <ul style="list-style-type: none"> • use a radio link (TARA, be discrete with personal information) • move to an area with mobile coverage • find a landline • use another network (e.g. a contractor's VHF radio) | | <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: Yerriyong Nearest town or locality: Wandandian Nearest ambulance station: Sussex Inlet | |
| 3. Address? | | Wandean Road | |
| 4. Nearest road junction/cross street? | | Wandean Road and Perch Hole Road | |
| 5. Local government area? | | Shoalhaven | |
| 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. Travel 13km west to Princess Highway. Turn right and travel 3km to Wandean road on left. Travel 8.6 km to Perch Hole Road. This is Emergency Meeting Point 66. | | | |
| 8. 4WD ambulance required Y / N | | 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 | 1983 | 1987 | 1995 | 2001 |
|------------------------|-------|------|------|------|
| TSI | X | X | X | X |
| HR Burning | X | X | √ | X |
| Wildfires | X | X | √ | √ |
| Logging m ³ | 5,583 | 30 | 0 | 0 |

√ - applies, X – not applicable

| Compartment | No. of Sweeps | BA Average (m ² /ha) | BA Range (m ² /ha) |
|-------------|---------------|---------------------------------|-------------------------------|
| 1153 | 10 | 26 | 24-32 |
| 1156 | 10 | 28 | 24-32 |

Silvicultural Planning

Single Tree Selection

The STS tract (487ha) is a predominantly mixed aged mature forest and will be harvested under a heavy Single Tree Selection (STS) regime. The objective within the 338 ha Net Harvest Area for this operation (Resource Unit 1) is to remove 45% of commercially mature and defective trees 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 on average 30 years time.

The STS tract for IFOA purposes includes the Net Harvest Area/Resource Unit 1 of Compartments 1153 and 1156 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 10m² within the tract.

| Resource Unit (Refer to HPOM for detail) | Species Composition | Stand Structure and Condition |
|---|--|--|
| 1 | Overstorey dominated by Iron Bark, Stringy Bark, Turpentine and Ash with Grey Gum, Spotted Gum Blue Gum and Bloodwood. | Unevenaged, mostly fully stocked. Highly variable over short distances. Mostly mature and overmature with some advanced pole/small sawlog sizes and some clumps of sapling regrowth. Condition: Poor-good. The area to the north of 1153/1 Road is poor. The rest of area ranges from average to good. Remnant overstorey in very poor timber condition; advanced growth and regrowth is generally good and showing good vigour and form. |

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"> Retain and protect from harvesting/fire damage: <ul style="list-style-type: none"> poles/advanced growth (<40cm DBHOB) with good form and vigour, habitat and recruitment trees as per TSL, 4 seed trees/ha (can include other suitable retained trees). Retained trees should be evenly spaced. Ensure no more than 45% of the BA is removed, while retaining a minimum BA of 10m² within the tract. 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"> reject tree felling (HC must first obtain approval from HS), defer harvesting until ideal market conditions prevail, and consider harvesting under a light or medium STS regime. |

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

Special Requirements**Non-harvest areas**

The HPOM indicates the non-harvest areas in the compartments, as detailed in the legend. Harvesting disturbance is not permitted in non-harvest areas unless authorised by the Planning Supervisor.

Noxious Weeds/Disease/Pests Hygiene Requirements

Compartments 1153 & 1156 are within Shoalhaven 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 Shoalhaven 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.

Occupation Permits**Apiary**

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

| Name | Site Number | Contact number | Pre burn notification complete? |
|------|-------------|----------------|---------------------------------|
| | | | |
| | | | |

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

- The HC must provide the apiary permittees with at least two weeks advance notice when bee boxes need to be removed or relocated.
- Permanent apiary set down sites are located on dumps 11 & 22 (see HPOM), these dumps must be levelled and free of debris at the completion of logging.
- Permanent sites must not be ripped.

Rocky Terrain

Rocky terrain occurs within the net planned area. FT/HC will continue to conduct on the ground mark-up and search for Rocky Outcrops and Cliffs and report back to Planner/Field Ecologist any feature requiring further investigation.

National Parks and Nature Reserves

National Park neighbours compartment 1153 to the east and compartment 1156 to the west.

No harvest disturbance is permitted within National Parks.

- Harvesting debris must not be left within five metres of the boundary fence lines.
- The contractor must repair any damage to fences.
- Access roads must be maintained free of debris and in a trafficable state.
- Boundaries must be marked in the field.

Forest Management Zoning

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

IFOA Required Approval of Forestry Activities

Approvals have not been obtained for snig track construction and/or use, road construction, road re-opening, routine road maintenance and log haulage in FMZ 1/2/3A. If the HC identifies the need for harvesting related activities to occur within FMZ 1/2/3A during the operation, the Planner must be contacted to seek Planning Supervisor approval.

All areas of Rainforest require prior OEH approval and Stream Exclusion Zones require prior Planning Supervisor approval before forest harvesting related activities (eg: road or snig track construction & reopening) can be undertaken. It is the responsibility of the HC to identify any exclusion areas which will need to be crossed during harvesting. The HC must then contact the Planner to obtain the necessary approval.

Cultural Heritage

Cultural Heritage -

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:

Sooty Owl (*Tyto tenebricosa*), **Gang Gang Cockatoo** (*Callocephalon fimbriatum*).

Tree Retention

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

√ - Condition applies

General exclusion zones

General exclusions as listed below are shown on the HPOM.

| Feature/Condition | TSL cond'n | Occurs within Planning Unit |
|--|---------------|---|
| Rainforest | 5.4 | Has been assessed as a risk that Cool Temperate/Depauperate (Dry) may occur in the field. May require further investigation#. |
| Riparian Protection Zones | 5.7 | Yes |
| Ridge & Headwater Habitat | 5.8 | Yes |
| Wetlands | 5.9 | Has been assessed & is unlikely to occur in the field. May require further investigation#. |
| Heath and Scrub | 5.10 | Has been assessed & is unlikely to occur in the field. May require further investigation#. |
| Rocky Outcrops and Cliffs | 5.11 | Has been assessed as a risk that it may occur in the field. May require further investigation#. |
| Endangered Ecological Community | NA | Has been assessed & is unlikely to occur in the field. May require further investigation#. |

#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

| Feature | Records in 1153 & 1156 | Licence conditions under the TSC Act |
|---|------------------------|--------------------------------------|
| 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 | No | 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 1153 & 1156 | Licence conditions under the TSC Act or relevant Site-specific prescription |
|---|------------------------|---|
| Powerful Owl <i>Ninox strenua</i> , Masked Owl <i>Tyto novaehollandiae</i> . | Yes No | 6.4 |
| Spotted tailed Quoll <i>Dasyurus maculatus</i> | No | 6.10 |
| Yellow-bellied Glider <i>Petaurus australis</i> | No | 6.13 |

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

Site-specific EPL Conditions

| Elements | Conditions - 1153 | Conditions - 1156 |
|-----------------------------|---------------------|---|
| Unmapped Drainage Lines | EPL applies. | EPL does not apply: refer to drainage feature protection below. |
| Drainage Feature Protection | See HPOM for widths | See HPOM for widths |
| Inherent Hazard Class | 3 | 2 |
| Dispersible Soils | No | No |
| Seasonality Harvesting | Yes # | No |

| | | |
|-----------------------------|-----------------------------------|-----------------------------------|
| Exclusions | | |
| Seasonality Exclusions | Burning Yes # | No |
| Log Dumps | Refer relevant conditions for IHL | Refer relevant conditions for IHL |
| Snig Tracks | Refer relevant conditions for IHL | Refer relevant conditions for IHL |
| Roads | See Schedule 5 of EPL Booklet | See Schedule 5 of EPL Booklet |
| Slope limits for harvesting | Refer to Schedule 4B.3 of EPL | Refer to Schedule 4B.3 of EPL |

for Compartment 1153, harvesting, roading or hazard reduction burning is not permitted on slopes greater than or equal to 20 degrees between 1st December to 30th April.

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.

Compartment 1153

Table 1: Minimum filter strip and operational zone widths for mapped and unmapped drainage lines, prescribed streams and watercourses in hardwood forests in Inherent Hazard Level 3 (metres – measured along the ground surface)

| Stream Order | EPL Filter Strip | EPL Operational Zone | Drainage Feature Protection: FT/HC marking instruction |
|----------------------------------|------------------|----------------------|---|
| Unmapped | 10 | 10 | 10m (Pink & Yellow) |
| 1st order | 10 | 10 | 10m (Pink & Yellow) |
| 2nd order | 20 | 10 | 20m (Pink & Yellow) |
| 3 rd order | 30 | 10 | 30m (Pink & Yellow) |
| 4 th order or greater | 50 | 10 | 50m (Pink & Yellow) |

Note: TSL Protection zones (hard & soft) are contained within the EPL Filter strip which have the greater level of protection.

Compartment 1153

Table 1a: 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 1 & 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) |
| 3 rd order | 5 | 25 | 10 | 30m (Pink) |
| 4 th 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

23 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.

For compartment 1153 inherent hazard level 3 Conditions 26, 27, 29, 30, 32 and 33 of Schedule 4 of the EPL must apply.

For compartment 1156 inherent hazard level 2 Conditions 26, 27, 28, 30, 31 and 33 of Schedule 4 of the EPL must apply.

Drainage Feature Crossings

5 road crossings (C1, C2, C3 and C4) are approved for use on drainage features. (Refer to HPOM). Road crossing details are contained in Attachment 2 of this Plan.

Mass Movement

Compartments 1153 & 1156 are 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 1156. 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 |
|---------------------------|----------------------|
| Jerawangala National Park | |

Pre-Operational Briefing

I acknowledge that I have received a copy of the Harvesting Plan for Compartments 1153 & 1156 in Yerriyong 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 |
|----------|------|-----------|------|
| | | | |
| | | | |
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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 | Yes | | | | |
| Existing Roads | Yes | | | | |
| New Roads | No | | | | |
| Heath | No | | | | |
| Powerlines etc | No | | | | |

| |
|-------------|
| HC/FT Notes |
|-------------|

[illegible]

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| HC/FT Notes (continued) |
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[illegible]

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| HC/FT Notes (continued) |
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| HC/FT Notes (continued) |
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[illegible]

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| HC/FT Notes (continued) | |
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[illegible]

Clearance Certificate

COMPARTMENTS: 1153 & 1156 YERRIYONG STATE FOREST

ToHC

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 Roading 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 (eg. Too steep, defective timber). Make reference to map.

Post Logging Basal Area sweeps

| Dump No# | Sweep 1 | Sweep 2 | Sweep 3 | Sweep 4 | Average |
|-----------------|---------|---------|---------|---------|----------------------|
| | | | | | |
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| | | | | | |
| Post BA Average | | | | | m ² /ha |
| Pre BA Average | | | | | 27m ² /ha |

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 | |

| | |
|---------------------|---------------------|
| ATTACHMENT 2 | ROADING PLAN |
|---------------------|---------------------|

Summary of Roding Requirements

| Feature | Details | Works Required |
|-----------------------------------|----------|----------------|
| Existing roads to be used. | 9,690m/9 | Yes |
| New roads to be constructed | 0 | NA |
| Existing crossings used | 4 | Yes |
| New crossings to be constructed | 0 | NA |
| Length of road >10° | 50m | NA |
| Borrow pits and gravel pits | 0 | NA |
| Mass movement prescriptions apply | No | NA |
| Dispersible soil conditions apply | No | NA |
| Seasonality provisions apply | Yes | NA |

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 roding 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 |
|--------------------|--|--------------|---------------|-----------|
| Hawthorn | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure existing pipes and mitre drains are clear and working.</p> <p>Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5).</p> <p>Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| Goodies | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure existing pipes and mitre drains are clear and working.</p> <p>Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5).</p> <p>Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| 1153/1 | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure existing mitre drains are clear and working.</p> <p>Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5).</p> <p>Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| 1153/2 | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure existing mitre drains are clear and working.</p> | | | |

| | | | | |
|--------|--|--|--|--|
| | <p>Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5). Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| 1152/3 | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure existing mitre drains are clear and working. Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5). Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| 1156/2 | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure existing mitre drains are clear and working. Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5). Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| 1156/3 | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure existing mitre drains are clear and working. Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5). Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| 1156/4 | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure</p> | | | |

| | | | | |
|--------|---|--|--|--|
| | <p>existing mitre drains are clear and working. Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5). Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| 1156/5 | <p>Grade and recrown pavement/install crossfall, open windrows and clear roadside to 3m either side. Ensure existing mitre drains are clear and working. Road drainage structures must be maintained in working order during harvest and haulage (refer to EPL Schedule 5). Install Rubber Flaps as per marked in the field.</p> <p>RC/HC Comments:</p> | | | |
| C1 | <p>Note: upon completion of works at C1, contact the Harvest Planner who must then contact the Fisheries Conservation Manager (Department of Primary Industries) and inform them the work has been completed.</p> <p>Survey levels of creek bed, banks and water depth must be recorded prior to works commencing. Install 100mm rock. In order to facilitate fish passages ensure addition of rock does not raise the crossing by more than 100mm above the existing bed level. Monitor while haulage is in progress. If deterioration occurs notify Harvest Planner.</p> <p>Gravel approaches.</p> <p>Install Rubber Flaps on both approaches.</p> <p>Refer to EPL Schedule 5.</p> <p>RC/HC Comments:</p> | | | |

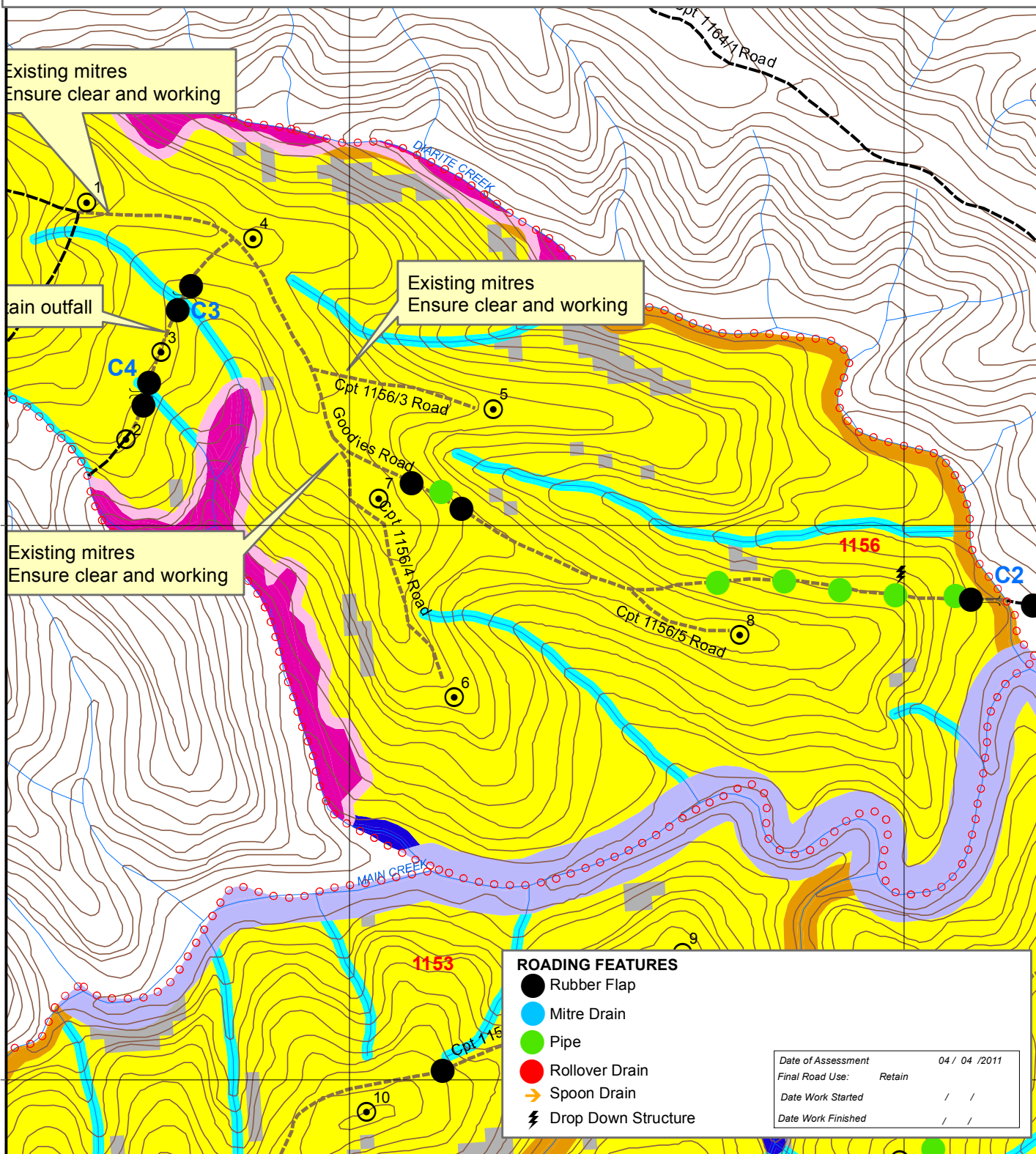
| | | | | |
|----|--|--|--|--|
| | | | | |
| C2 | <p>Install Rubber Flaps on both approaches. Monitor while haulage is in progress. If deterioration occurs notify Harvest Planner.</p> <p>Refer to EPL Schedule 5.</p> <p>RC/HC Comments:</p> | | | |
| C3 | <p>Ensure existing pipe is clear and working. Install Rubber Flaps on both approaches, and rock dissipater. Repair headwall of pipe.</p> <p>Refer to EPL Schedule 5.</p> <p>RC/HC Comments:</p> | | | |
| C4 | <p>Ensure existing pipe is clear and working. Install Rubber Flaps on both approaches, and rock dissipater.</p> <p>Refer to EPL Schedule 5.</p> <p>RC/HC Comments:</p> | | | |

Existing Road Description

Road Name: Goodies

Assessors Name: Darryl Chaffey

| Features | Works | Plant/Material |
|-------------------|---|--|
| | Goodies Rd = 1660m, 1156/2Rd = 500m, /3 = 300m, /4 = 300m, /5 =100m | |
| Pavement | Clear fallen debris, ensure windrows are open. Grade pavement where required. | Grader: 8 hours Dozer: 8 hours |
| Roadside Clearing | 3 metres either side where required. | |
| Gravelling | N/A | |
| Drainage | Install rubberflaps. Maintain existing mitres and pipes - ensure clear & working. | Rubberflaps x 7 lab 8 hrs, machine 8hrs |
| Erosion control | Natural vegetation, slash, seed/mulch | Dropdown x 1 |

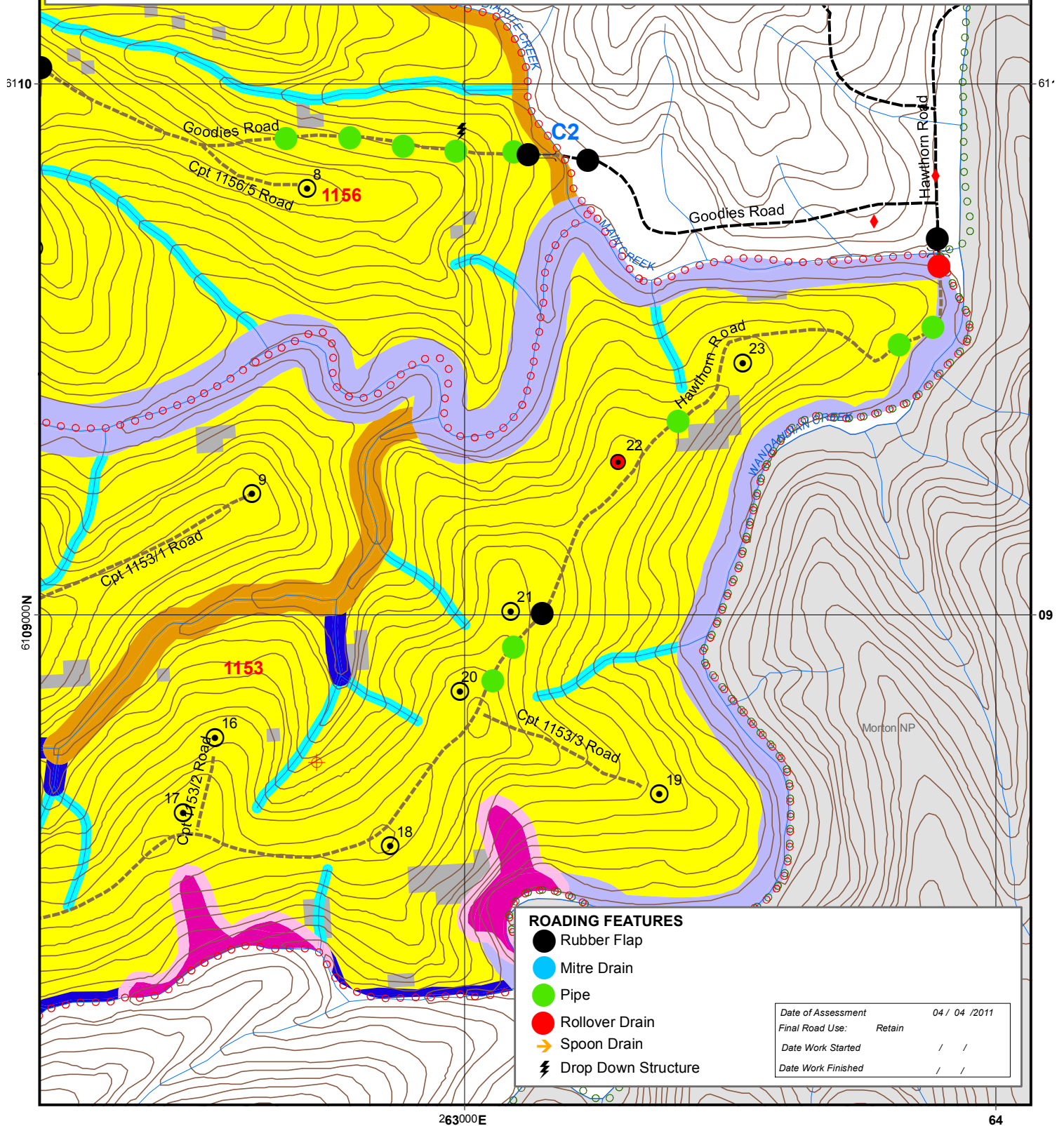


Existing Road Description

Road Name: Goodies

Assessors Name: Darryl Chaffey

| Features | Works | Plant/Material |
|-------------------|---|---|
| Pavement | Hawthorn Rd Pt1 = 2000m, 1153/2 = 300m, 1153/3 = 300m Clear fallen debris, ensure windrows are open. Grade pavement where required. | Grader: 8 hours Dozer: 8 hours |
| Roadside Clearing | 3 metres either side where required. | |
| Gravelling | N/A | |
| Drainage | Install rubberflaps. Maintain existing mitres and pipes - ensure clear & working. | Rubberflaps x 2 lab 1 hrs, machine 1 hrs |
| Erosion control | Natural vegetation, slash, seed/mulch | Dropdown x as required |

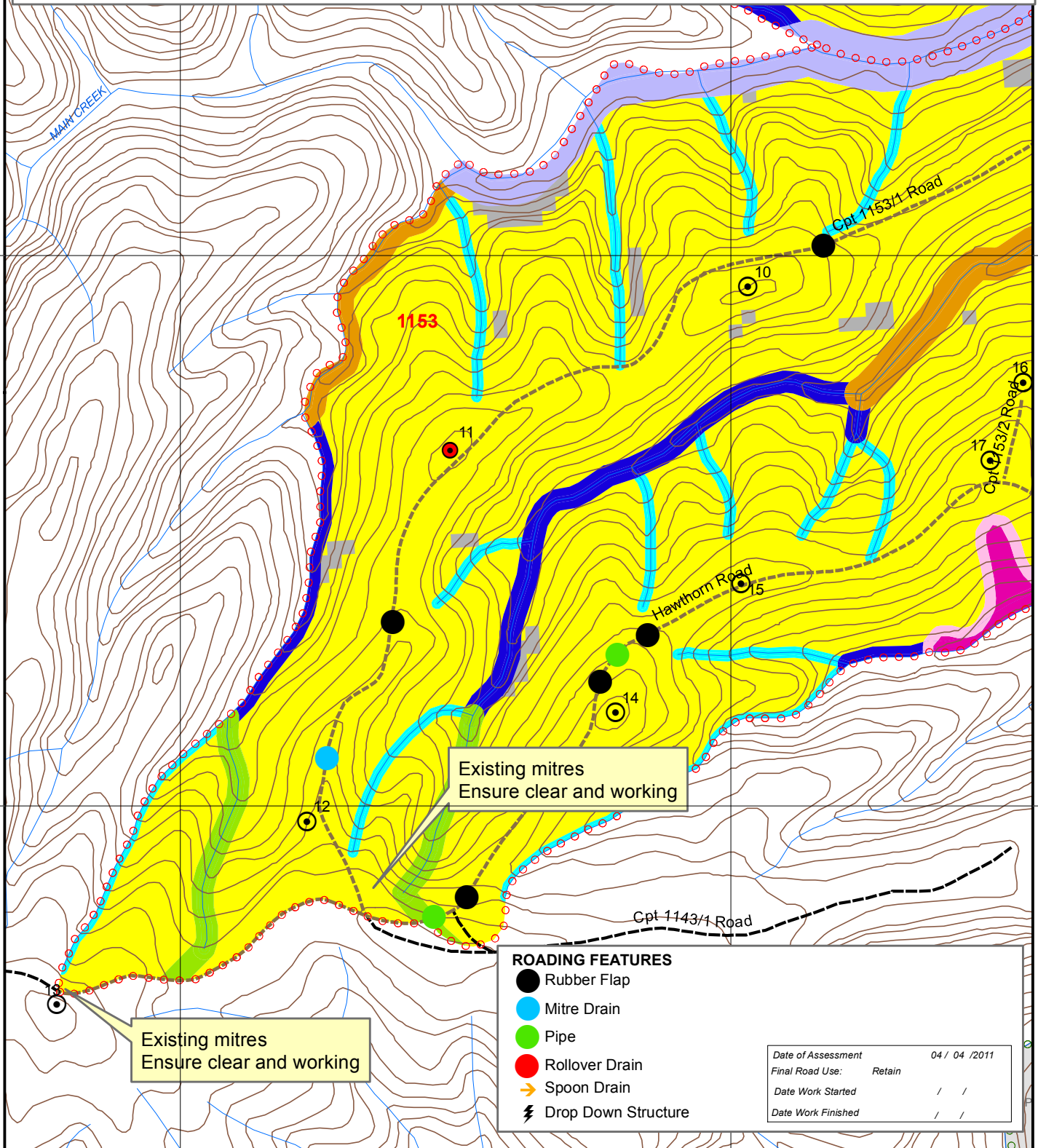


Existing Road Description

Road Name: Goodies

Assessors Name: Darryl Chaffey

| Features | Works | Plant/Material |
|-------------------|---|---|
| Pavement | Hawthorn Rd Pt2 = 1920m, 1153/1 = 2190m Clear fallen debris, ensure windrows are open. Grade pavement where required. | Grader: 8 hours Dozer: 8 hours |
| Roadside Clearing | 3 metres either side where required. | |
| Gravelling | N/A | |
| Drainage | Install rubberflaps and mitre drains. Maintain existing mitres and pipes - ensure clear & working. | Rubberflaps x 5 lab 3 hrs, machine 3 hrs |
| Erosion control | Natural vegetation, slash, seed/mulch | Dropdown x as required |



CROSSING NAME: C1

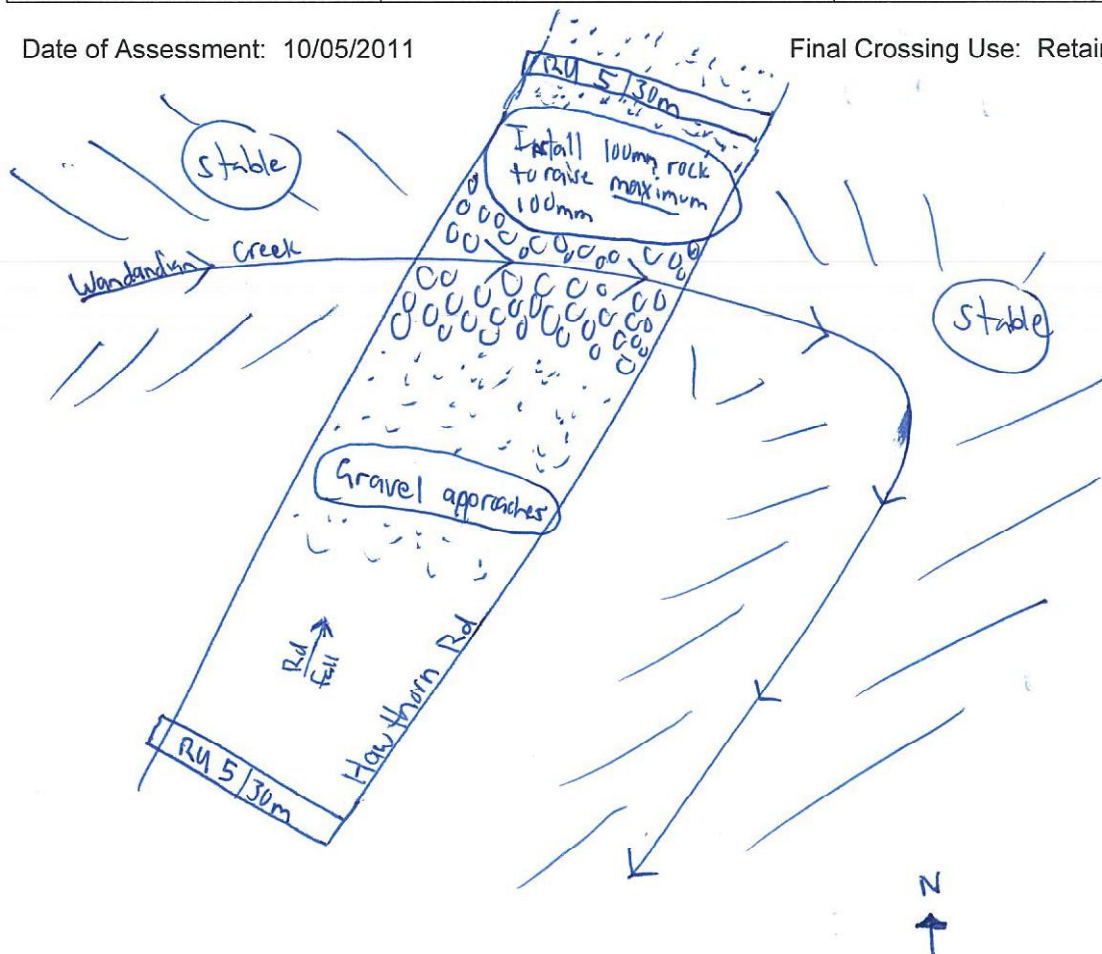
Waterway Classification: Class 1-Major Fish habitat

Assessors Name: Darryl Chaffey**Crossing Type:** Causeway

| Features | Works (As per EPL Schedule 5) | Plant/Materials |
|---|--|--------------------------------|
| Structure | Install rock and raise surface a maximum 100mm. | 10m3 100mm rock. |
| Bed and Banks | Minor reshaping of approaches. | Grader x 1 hour |
| Erosion and Sediment Control | Gravel approaches. Seed and mulch disturbed areas as required. | Gravel 10m3 Seed and mulch. |
| Disposal of excess spoil | Remove from outside Filter Strip. | N/A |
| Soil Stabilisation within 20m | N/A | N/A |
| Road drainage within 5-30m <ul style="list-style-type: none"> Type outlet control table drain checking devices | Rubber Flaps Silt Traps N/A | RU X 2 Mesh and pegs N/A |

Date of Assessment: 10/05/2011

Final Crossing Use: Retain



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

| | |
|-------|-------------------|
| →Ru | Rubber strip |
| →M | Mitre drain |
| xxx | Roadside clearing |
| →Ro | Rollover drain |
| ψ | Silt Log |
| ooooo | Rock |
| ψ | Seeding |
| ▽ | Silt trapping |
| ∴ | Gravel |

CROSSING NAME: C2

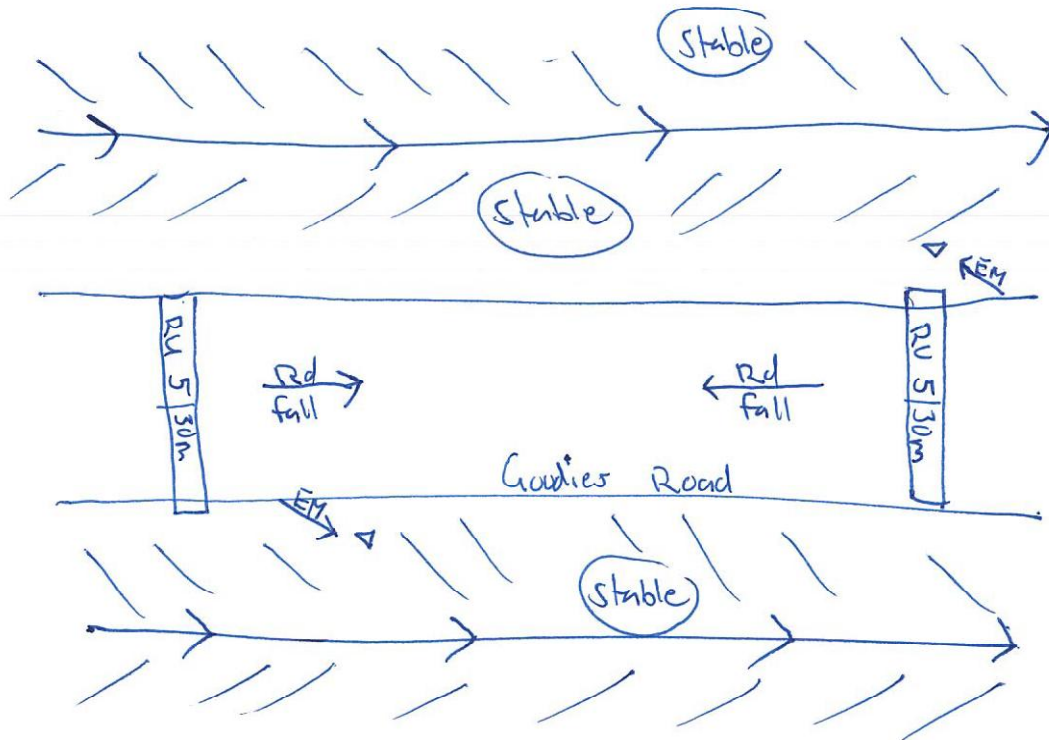
Waterway Classification: Class 4- Unlikely fish habitat.

Assessors Name: Darryl Chaffey**Crossing Type:** Gully Stuffer

| Features | Works (As per EPL Schedule 5) | Plant/Materials |
|---|---|--------------------------------|
| Structure | Nil (Stable). Monitor condition during operation. | N/A |
| Bed and Banks | Nil (vegetated and stable). | N/A |
| Erosion and Sediment Control | Nil. Stable at time of assessment. | N/A |
| Disposal of excess spoil | Remove from outside Filter Strip. | N/A |
| Soil Stabilisation within 20m | Nil. Stable at time of assessment. | N/A |
| Road drainage within 5-30m <ul style="list-style-type: none"> Type outlet control table drain checking devices | Rubber Flap Silt Trap N/A | RU X 2 Mesh and pegs N/A |

Date of Assessment: 05/04/2011

Final Crossing Use: Retain



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

| | |
|-------|-------------------|
| →Ru | Rubber strip |
| →M | Mitre drain |
| xxx | Roadside clearing |
| →Ro | Rollover drain |
| ψ | Silt Log |
| ooooo | Rock |
| ψ | Seeding |
| ▽ | Silt trapping |
| ∴ | Gravel |

CROSSING NAME: C3

Waterway Classification: Class 4- Unlikely fish habitat

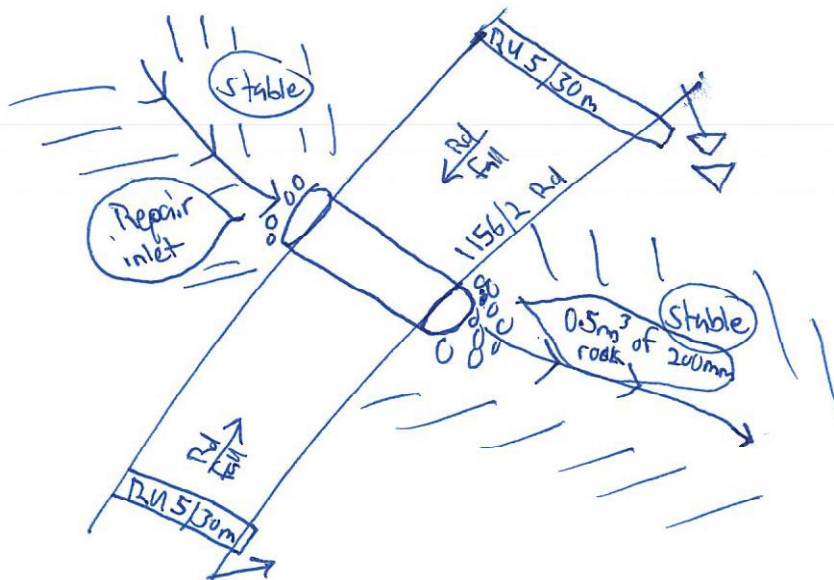
Assessors Name: Darryl Chaffey**Crossing Type:** 525mm Pipe

| Features | Works (As per EPL Schedule 5) | Plant/Materials |
|---|---|-------------------------------|
| Structure | Clean Pipe and inlet. | N/A |
| Bed and Banks | Stable | N/A |
| Erosion and Sediment Control | Pack 200mm diameter rock at outlet and inlet. Repair inlet. | 0.5m ³ 200mm Rock |
| Disposal of excess spoil | Remove from outside Filter Strip. | N/A |
| Soil Stabilisation within 20m | Stable at time of assessment. | N/A |
| Road drainage within 5-30m <ul style="list-style-type: none"> Type outlet control table drain checking devices | Rubber Flaps Silt Traps. N/A | RU X2 Mesh and pegs N/A |

Date of Assessment: 06/04/2011

Final Crossing Use: Retain

| Event | Min. pipe size(mm) | Min. Fill (cm) | Outlet Protection |
|-------|--------------------|----------------|-------------------|
| 1:5 | 525 | 50 | 200mm Rock |



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

| | |
|-------|-------------------|
| →Ru | Rubber strip |
| →M | Mitre drain |
| xxx | Roadside clearing |
| →Ro | Rollover drain |
| ψ | Silt Log |
| ooooo | Rock |
| ψ | Seeding |
| ▽ | Silt trapping |
| ∴ | Gravel |

CROSSING NAME: C4

Waterway Classification: Class 4 - Unlikely fish habitat.

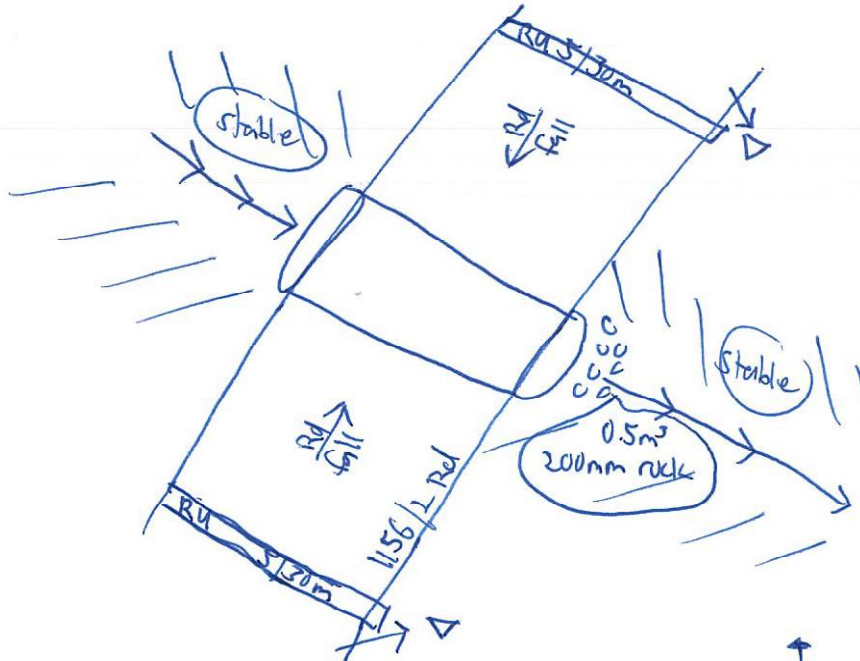
Assessors Name: Darryl Chaffey**Crossing Type:** 375mm pipe

| Features | Works (As per EPL Schedule 5) | Plant/Materials |
|---|-------------------------------------|---------------------------------|
| Structure | Clean Pipe and inlet. | N/A |
| Bed and Banks | Stable. | N/A |
| Erosion and Sediment Control | Pack 200mm diameter rock at outlet. | 0.5 m3 200mm Rock |
| Disposal of excess spoil | Remove from outside Filter Strip. | N/A |
| Soil Stabilisation within 20m | N/A (stable at time of assessment). | N/A |
| Road drainage within 5-30m <ul style="list-style-type: none"> Type outlet control table drain checking devices | Rubber flaps Silt traps N/A | RU X 2 Mesh and pegs. N/A |

Date of Assessment: 10/05/2011

Final Crossing Use: Retain

| Event | Min. pipe size(mm) | Min. Fill (cm) | Outlet Protection |
|-------|--------------------|----------------|-------------------|
| 1:5 | 375 | 50 | 200mm Rock |



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

| | |
|------|-------------------|
| →Ru | Rubber strip |
| →M | Mitre drain |
| xxx | Roadside clearing |
| →Ro | Rollover drain |
| ψ | Sill Log |
| oooo | Rock |
| ψ | Seeding |
| ▽ | Silt trapping |
| ∴ | Gravel |