

PRELIMINARY AUDIT OF DOUBLEDUKE STATE FOREST: COMPARTMENTS 144, 145 and 146 SUPPLEMENTARY REPORT 1

**Dailan Pugh, November 2010
For North East Forest Alliance**

ABSTRACT

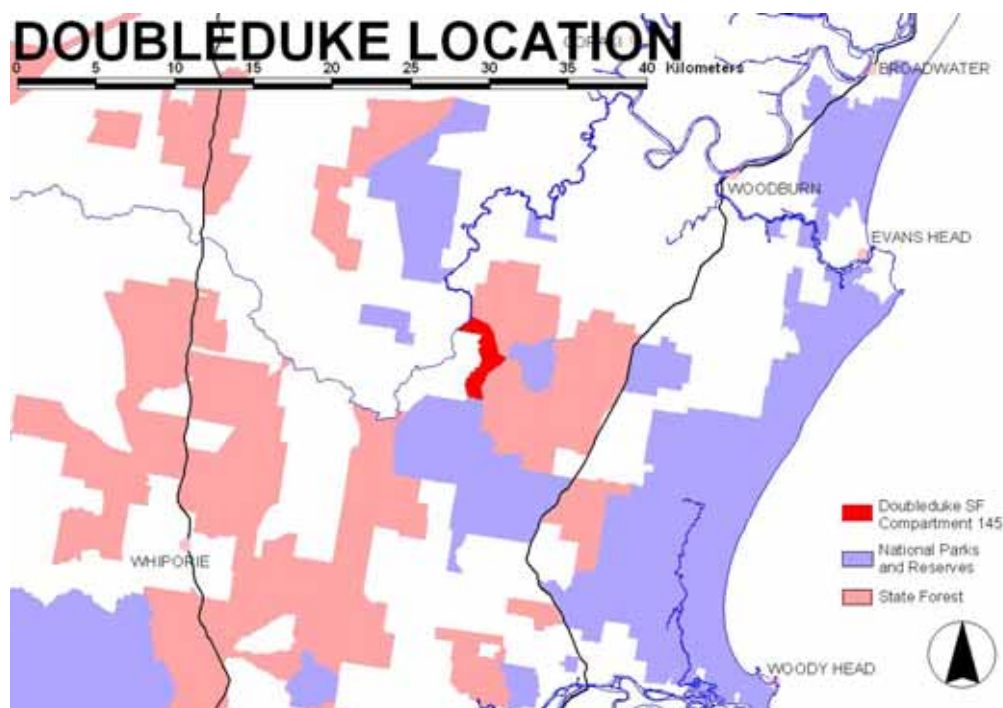
This supplementary report details the finding of additional areas of illegal logging in an Endangered Ecological Community in Compartment 145 of Doubleduke State Forest in north-east NSW. The preliminary audit by NEFA 4 months ago found a patch of 20 trees felled within a stand of the Endangered Ecological Community (EEC) Sub-tropical Coastal Floodplain Forest of the NSW North Coast bioregion. Since then both Forests NSW and the Department of Environment Climate Change and Water (DECCW) have been undertaking audits of the area without finding any additional intrusions. This report details additional intrusions into the EEC, easily found by NEFA, within the same stand of the EEC, downstream from the reported breach, in Compartment 145. We found an additional 46 trees that had been logged within the EEC and 1,387 other trees and shrubs that had been bulldozed out of the ground, trampled by machinery, or had trees dropped on them within the EEC. These activities in the EEC have exposed Forests NSW to a maximum fine of at least \$16,203,000 if they are ever prosecuted.

Within the EECs we also document breaches of 6 requirements of the Threatened Species Licence and 7 of the Fisheries Licence. The failure to duly consider the nationally endangered Oxleyan Pygmy Perch is highlighted. As perpetrators Forests NSW have apparently been aware of the additional breaches of the EEC for at least the past 4 months and failed to admit to them, meanwhile DECCW have failed to take any action over the reported breaches and their ongoing "independent" audit has failed to find these obvious additional breaches. These failings reflect an ongoing culture of denial and cover-up by NSW Government agencies that have significant implications for forest management in north-east NSW.

BACKGROUND

In June 2010 I prepared a report for the North East Forest Alliance identifying breaches of 20 statutory licence conditions in compartments 144, 145 and 146 of Doubleduke State Forest. One of the most significant breaches observed was where logging and machinery intruded into the Endangered Ecological Community (EEC) *Sub-tropical Coastal Floodplain Forest of the NSW North Coast bioregion*. At the time we identified that logging was likely to have intruded into the same EEC elsewhere in compartment 145, though we ran out of time to inspect the likely areas.

After 4 months, with Forests NSW having established a new auditing team and DECCW undertaking audits in Compartment 145, it was apparent that they had failed to identify a single additional intrusion into the EEC. We did not accept that their failures reflected reality. I therefore undertook a brief inspection on 24 October 2010 and within 5 minutes found more breaches where we suspected, only 1.5 to 2 km downstream from our previous report, within the same compartment and, at one location, crossing one of the principal logging tracks.



This supplementary report details an inspection undertaken by botanist Andrew Murray and myself on 8 November 2010 where we identified and documented these further incursions into the EEC. We assessed 3 additional areas where logging had occurred within compartment 145. We identified an additional 46 trees that had been logged within the EEC and 1,387 other trees and shrubs that had been bulldozed out of the ground, trampled by machinery, or had trees dropped on them within the EEC.

Damage to Endangered Ecological Communities is not allowed for by DECCW's Threatened Species Licence, this makes this a breach of the National Parks and Wildlife Act 1974. This exposes Forests NSW to a potential fine of \$220,000 and up to 2 years jail, with an additional \$11,000 for each of the 1,453 plants illegally picked or harmed. This is a maximum fine of \$16,203,000.

Not only was the EEC logged illegally, in undertaking that logging Forests NSW breached a variety of the requirements of their Threatened Species Licence and Fisheries Licence. Other breaches within the EEC found in this supplementary audit were failing to retain the required largest trees in the stand, failing to adequately mark habitat and recruitment trees, failing to identify and mark the boundary of an unmapped drainage line and a wetland, driving a bulldozer through and logging within an unmapped drainage line and wetland and their buffers, and felling trees into riparian exclusion zones.

In addition to this it is apparent that Forests NSW has failed to prepare a Fisheries Habitat Assessment for compartment 145 and failed to prepare a legally valid Fisheries Habitat Assessment for compartment 144. It is particularly concerning that Forests NSW have failed to consider the nationally endangered Oxleyan Pygmy Perch what-so-ever in their planning processes. Should it occur in the vicinity of the operations (as indicated by historical records) then the extensive illegal disturbance to floodplain vegetation, soils and wetlands is likely to have a significant affect.

These further breaches prove beyond doubt that the previously reported intrusion was not a one off event, but was part of systematic roading and logging operations within an EEC. Forests NSW should have been aware that they were logging in an EEC at the time of their operations, though they have certainly been aware since we reported the first breach that

Supplementary Audit of Doubleduke State Forest

their logging within this EEC was far more extensive than we identified. The fact that Forests NSW have covered up these additional incursions, and DECCW has failed to find them, is an indictment on both organisations.

Concerns about the logging of Endangered Ecological Communities were included in a letter to the Environment Minister, Frank Sartor, by the Clarence Environment Centre on 15 May 2010. It was thus disappointing that Forests NSW publicly denied that there had been any breaches (Northern Star 22 June 2010), and extremely alarming that they implicated DECCW in the cover up, quoting a Forests NSW spokesperson as stating:

The regulator of the threatened species licence provisions governing the harvest, the Department of Environment Climate Change and Water, has provided Forests NSW with the results of a recent audit of the harvest area and it does not raise any issues with threatened species.

It is hard to believe that an “independent” auditor was unable to find a single one of the numerous breaches of the 17 Threatened Species Licence conditions, or a single one of the 20 trees felled within the Endangered Ecological Community, identified in NEFA’s June audit. At that time DECCW refused my request for a copy of the audit on the grounds it was not complete.

My June report stated:

When considered with DECCW’s failure to take immediate action to apprehend the ongoing breach in compartment 146, this reputed failure to identify obvious breaches (even after being alerted to them) raises grave concerns with DECCW’s independence and effectiveness as a regulator.

It is disappointing that, having been found out once, Forests NSW have continued to cover up these additional breaches – they should have come clean rather than hoping nobody would find them. It is even more concerning that in the past 4 months that neither the Forests NSW nor DECCW auditing teams have found these significant and readily identifiable additional breaches within the compartment they have been auditing.

The questions are:

1. Why were DECCW unable to identify the original incursion into the EEC subject to the first complaint by the Clarence Environment Centre?
2. Why has DECCW failed to instigate any action against Forests NSW 4 months after details of the intrusion into the EEC and other breaches were reported to Government agencies?
3. Why has Forests NSW covered up other incursions into the EEC?
4. Why has Forests NSW’s new audit team failed to identify these additional breaches?
5. While auditing in this compartment over the past 4 months, why has DECCW’s audit team failed to identify these additional and obvious incursions into the same stand of the Endangered Ecological Community they have reputedly been auditing?

WHAT IS THE EEC?

The lower elevations of the area of Doubleduke State forest examined, particularly in Compartment 145, comprise part of the Richmond River floodplain. Evidence for this is provided by the alluvial soils, the 1:100 year flood mapping for the area and wetland mapping undertaken for DLWC for the Richmond River catchment. The Endangered Ecological Community *Sub-tropical Coastal Floodplain Forest of the NSW North Coast*

Supplementary Audit of Doubleduke State Forest

bioregion occurs across all coastal floodplains on the NSW North Coast and is widespread in this area, particularly adjoining Jackybulbin Creek.

The NSW Scientific Committee has identified all the remaining native vegetation on coastal floodplain soils of northern NSW to be threatened. Thus, for any native vegetation growing on floodplains in the area, the only question is which EEC it is. There is no excuse for the failure of Forests NSW to identify the extent of EECs in Compartment 145 of Doubleduke SF.

In their determination of *Subtropical Coastal Floodplain Forest of the NSW North Coast bioregion*, the Scientific Committee noted that this EEC is:

associated with clay-loams and sandy loams, on periodically inundated alluvial flats, drainage lines and river terraces associated with coastal floodplains. Floodplains are level landform patterns on which there may be active erosion and aggradation by channelled and overbank stream flow with an average recurrence interval of 100 years or less (adapted from Speight 1990).

The profile description of this community is:

While the composition of the tree stratum varies considerably, the most widespread and abundant dominant trees include Eucalyptus tereticornis (forest red gum), E. siderophloia (grey ironbark), Corymbia intermedia (pink bloodwood) and, north of the Macleay floodplain, Lophostemon suaveolens (swamp turpentine).

Other trees may be scattered throughout at low abundance or locally common at few sites, particularly where there is an influence from lithic substrates upslope. These include Eucalyptus moluccana (grey box), E. propinqua (grey gum), E. seeana (narrow-leaved red gum), Angophora subvelutina (broad-leaved apple), E. robusta (swamp mahogany), Eucalyptus resinifera subsp. hemilampra (red mahogany), E. acmenoides (white mahogany), Angophora woodsiana, A. paludosa and rainforest trees such as Ficus spp. (figs) and Cupaniopsis spp. (tuckeroos).

A layer of small trees may be present, including Allocasuarina torulosa (forest oak), Alphitonia excelsa (red ash), Glochidion ferdinandi (cheese tree), Callistemon spp., Melaleuca spp. and Casuarina glauca (swamp oak).

Scattered shrubs include Breynia oblongifolia, Acacia concurrens, Commersonia spp., and Hibiscus spp. Occasional vines include Eustrephus latifolius, Parsonsia straminea and Geitonoplesium cymosum. The groundcover is composed of abundant forbs, scramblers and grasses including Imperata cylindrica, Themeda australis, Vernonia cinerea, Dianella caerulea, Pratia purpurascens, Cheilanthes sieberi and Dichondra repens.

WHAT IS THE OFFENCE?

Endangered Ecological Communities are excluded from Forests NSW's licence, making these incursions a direct offence under sections 118A and 118D of the National Parks and Wildlife Act 1974 where it is an offence to pick or harm endangered ecological communities.

Section 118A of the National Parks and Wildlife Act 1974 "Harming or picking threatened species, endangered populations or endangered ecological communities" states

(2) A person must not pick any plant that is of, or is part of, a threatened species, an endangered population or an endangered ecological community.

Penalty:

(a) in respect of any species presumed extinct, any critically endangered species or any endangered species, population or ecological community-2,000 penalty units or imprisonment for 2 years or both, and an additional 100 penalty units in respect of each whole plant that was affected by or concerned in the action that constituted the offence,

Pick is defined to include gather, pluck, cut, pull up, destroy, poison, take, dig up, crush, trample, remove or injure the plant or any part of the plant. A penalty unit is now worth \$110. This makes the maximum penalty \$220,000 and up to 2 years jail, with an additional \$11,000 for each plant illegally logged or bulldozed over.

WHAT DID THEY DO?

In the first audit twenty trees of four species (Red Mahogany *E.resinifera*, Small-fruited Grey Gum *E. propinqua*, Swamp Box *Lophostemon suaveolens*, Blackbutt *E. pilularis*) were documented as being cut down within the EEC *Subtropical Coastal Floodplain Forest of the NSW North Coast bioregion* in Compartment 145. There was also extensive machinery damage within the EEC associated with this logging. The machinery damage appeared to be indiscriminate, with broad scale damage caused by multiple random tracking through areas with few commercial trees. Post-logging burning also extended into this EEC. An unmarked Yellow-bellied Glider sap-feed tree was also identified within the logged area of the EEC. At that time no attempt was made to document the numerous plants killed by being trampled by logging machinery.

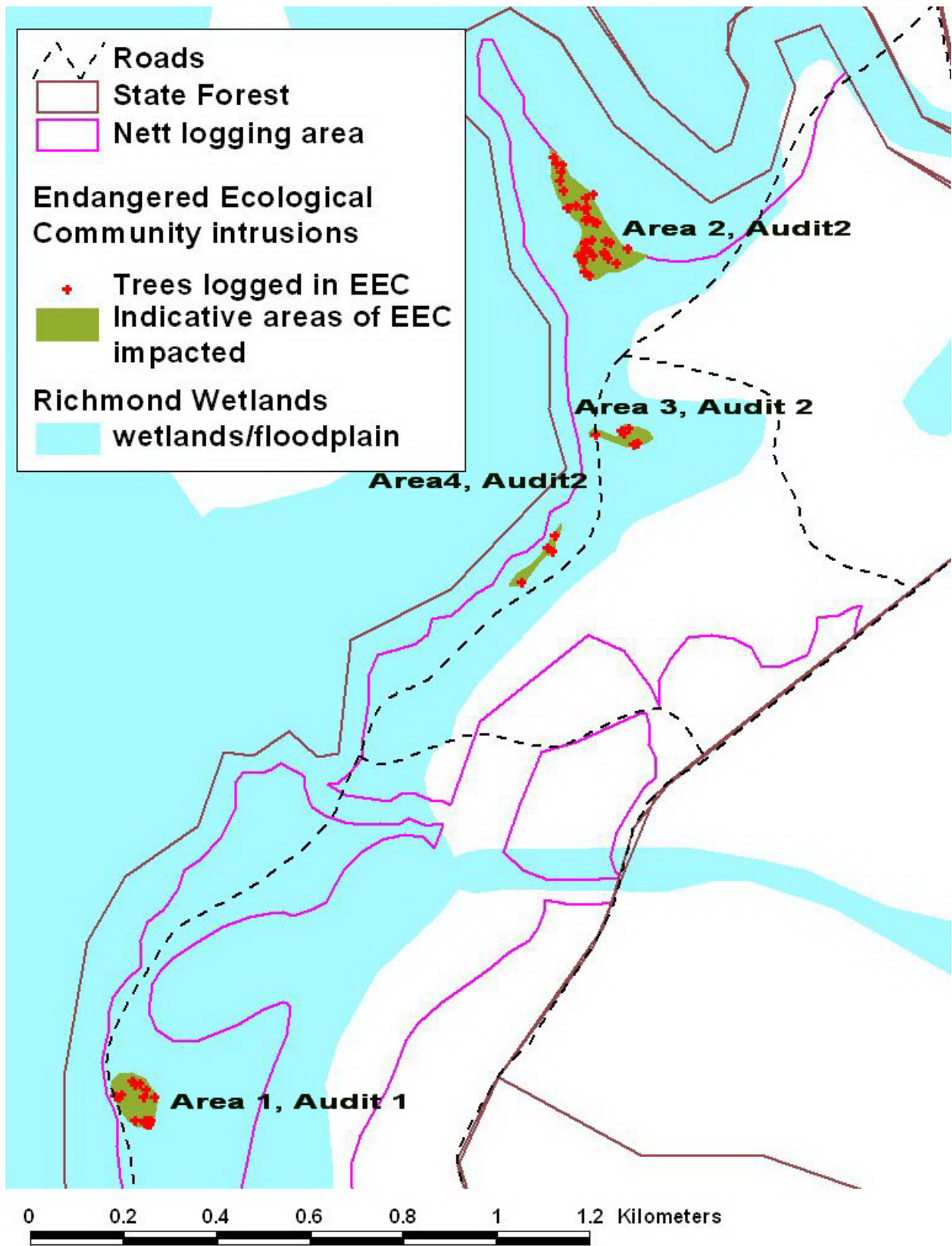
In this supplementary audit an additional 46 trees of five species (Red Mahogany, White Mahogany, Turpentine, Small-fruited Grey Gum and Blackbutt) were documented as logged within the EEC *Subtropical Coastal Floodplain Forest of the NSW North Coast bioregion* in Compartment 145 (see table below and Appendix 1 for detailed list). Note that Red Mahogany is the primary tree targeted and is also identified as a characteristic species of this EEC. This brings the total number of trees deliberately felled for timber within the EEC to 66 trees. Forests NSW and the contractors involved have thus significantly profited from these illegal activities.

INDIVIDUAL PLANTS PICKED (cut down intentionally) WITHIN THE ENDANGERED ECOLOGICAL COMMUNITY AT DOUBLEDUKE

Species		Number Logged
Blackbutt	<i>Eucalyptus. pilularis</i>	1
Grey Gum	<i>Eucalyptus propinqua</i>	1
Red Mahogany	<i>Eucalyptus resinifera</i>	40
White Mahogany	<i>Eucalyptus acmenoides</i>	2
Turpentine	<i>Syncarpia glomulifera</i>	2

MAP 2: Identified trees logged and indicative areas of EEC logged.

DOUBLEDUKE 145: Logging in Endangered Ecological Communities



Supplementary Audit of Doubleduke State Forest

PHOTOS 1-4: Logging in Coastal Floodplain Forest EEC in Compartment 145. Stumps shown are of Red Mahogany, note the extensive damage to other plants.



Supplementary Audit of Doubleduke State Forest

As was found at the first site, there was also extensive machinery damage within the EEC associated with this logging. As before the machinery damage appeared to be indiscriminate, with broad scale damage caused by multiple random tracking through areas with few commercial trees. Aside from a few token habitat trees there is no apparent tree marking for retention or removal. It appears that the operators choose for themselves what to log and go looking for trees in their machines, often turning back when they don't find anything and constructing multiple tracks to have a look around.

In addition to the logged trees, we identified 1,387 trees and shrubs that had been bulldozed out of the ground, trampled by machinery, or had trees dropped on them within the EEC. This was ascertained from a quick preliminary assessment, a detailed inspection would identify many more than this.

INDIVIDUAL PLANTS PICKED (bulldozed, crushed, dug up and smashed) WITHIN THE ENDANGERED ECOLOGICAL COMMUNITY AT DOUBLEDUKE

Species		Size Class (DBH)			
Common Name	Botanical name	>20cm	>10cm-20cm	>5cm-10cm	<5cm
Red Mahogany	<i>Eucalyptus resinifera</i>	8	16	6	2
Blackbutt	<i>Eucalyptus pilularis</i>	1			
White Mahogany	<i>Eucalyptus acmenoides</i>		1		
Swamp Turpentine,	<i>Lophostemon suaveolens</i>	1	13	22	17
Turpentine	<i>Syncarpia glomulifera</i>	3	15	29	26
Yellow Ti-tree	<i>Leptospermum polygalifolium</i>		3	25	80
Prickly-leaved Ti-tree	<i>Melaleuca nodosa.</i>	7	156	314	213
	<i>Melaleuca selberi</i>		1	1	
Wattles	<i>Acacia sp.</i>		10	4	9
Red Ash	<i>Alphitonia excelsa</i>			4	11
Geebung	<i>Persoonia stradbrokeensis</i>				6
Willow Bottle Brush	<i>Callistemon salignus</i>			2	13
	<i>Petalostigma triloculare</i>			7	60
Other				26	275
TOTALS		20	215	440	712

As identified in the Preliminary Audit there is no excuse for Forests NSW's failure to identify these as Endangered Ecological Communities. As shown then, flood hazard mapping and soil mapping both indicate the likely presence of EECs. Map 2 of this report shows DLWC's wetland mapping for this area, which once again identifies the likely presence of EECs (as well as wetlands).

Supplementary Audit of Doubleduke State Forest

It is also important to recognise that Area 2 was an old growth stand of this endangered ecosystem (only 3 old stumps were found in the 1.75 ha assessed and the stand had been clearly dominated by old trees). This significantly increases its ecological value as little of this community remains in an essentially undisturbed condition.

PHOTOS 5 and 6: Machinery damage in Coastal Floodplain Forest EEC in Compartment 145. Note the indiscriminate damage cause by trampling and bulldozing trees out of the ground. The pale golden trunks are Prickly-leaved Ti-tree, the most severely impacted species in the area.



These findings bring the total number of plants identified by us as having been picked or harmed within the Endangered Ecological Community *Sub-tropical Coastal Floodplain Forest of the NSW North Coast bioregion*, within compartment 145 of Doubleduke State Forest, to 1,453. This is without the total extent of affected plants being fully documented. The facts are that Forests NSW should have known better than to have logged within an EEC, that once the first incursion into the EEC was identified they should have come clean with the additional incursions which were then clearly breaches, and that for the past 4 months they have been covering up these breaches hoping to get away with it. These breaches, and Forests NSW's response to them, put them in the worst category of such offences and Forests NSW must be prosecuted for them.

Under the Act, this exposes Forests NSW to a potential fine of \$220,000 and up to 2 years jail, with an additional \$11,000 for each of the 1,453 plants illegally picked or harmed. This is a maximum fine of \$16,203,000.

OTHER ISSUES ARISING

During logging within this Endangered Ecological Community Forests NSW also breached various requirements of their Threatened Species Licence (TSL) and Fisheries Licence (FL), as well as failing to undertake the required assessments of the nationally endangered Oxleyan Pygmy Perch – even though it could be affected by Forests NSW's various illegal works within streams, wetlands and on floodprone lands.

It is an indictment of Forests NSW that even within an Endangered Ecological Community they did not comply with their Threatened Species Licence and Fisheries Licence.

Tree Retention

The EEC Area 2 assessed was 1.75 hectares in size. Within this area all recently cut stumps and all retained trees over 40cm diameter at breast height over bark (dbhob) were measured and plotted.

Of those trees retained 3 were marked as Habitat Trees (Red Mahogany 56, 67, 69 cm dbhob) and 3 were marked as Recruitment Trees (Red Mahogany 43, 50, 62 cm dbhob). Under the applicable licence conditions (TSL 5.6c,d) 10 hollow-bearing trees, and a corresponding number of recruitment trees, per 2 hectares are required to be retained where available. For this area the habitat trees were available, so over the assessed EEC area the retention requirements were 8.75 habitat and 8.75 recruitment trees.

The data show retention of 3 marked habitat trees and a further 8 unmarked trees over 60cm, many of which are likely to have hollows. Similarly, while only 3 recruitment trees were marked for retention, an additional 8 trees 40-59cm were retained which would be suitable as recruitment trees. These retention requirements appear to have been satisfied. Inadvertently because they were not marked for retention.

TABLE 3: Tree Retention in EEC Area 2

TREES RETAINED				TREES REMOVED	
Marked Habitat Trees	Marked Recruit Trees	Unmarked 40-59 cm	Unmarked 60 cm +	40-59 cm	60 cm+
3	3	8	8	10	25

Section 5.6 (c)(ii) of the TSL requires that *“Retained, hollow-bearing trees must be selected from the trees with the largest dbhob”*. It appears that 4 of those trees retained (without marking) are likely to have been the largest trees in the stand (80-99cm dbhob), though, based on extrapolation from stump diameters (80-82cm d), it appears that the next 3 largest trees in the stand were logged (note that the next largest retained tree had a dbhob of 71cm). None of the marked (selected) habitat trees (56, 67, 69 cm dbhob) within this area were from trees with the largest dbhob. It is evident that TSL Section 6 (c)(ii) was not complied with.

Section 5.6 (f)(iii) of the TSL requires that retained trees *“must be marked for retention”*. As shown in Table 3 only 3 trees were marked as habitat trees and 3 as recruitment trees within EEC Area 2. To test this further an additional area of over 2 ha to the west (up to the boundary of the creek exclusion) was included, bringing the total area to at least 3.75 hectares. In this expanded area 7 trees had been marked for retention as habitat trees and 5 as recruitment trees, compared to requirements to mark 19 habitat trees and 19 recruitment trees. This is clearly inadequate and contravenes Section 5.6 (f)(iii).

Time did not permit a fuller assessment of tree retention requirements.

Wetlands and Drainage Lines

Within EEC Area 3 (Map 2) there is a wetland with a stream flowing into it. As well as logging the EEC surrounding this wetland, Forests NSW have dropped a large number of trees into it, including into the unmapped drainage line flowing into it (see Appendix 1 for two localities and photo 7 below). As well dropping trees into the wetland they have driven machinery across it at two separate localities, for no reason other than to get to the other side without going around it (see Appendix 1 for two localities and photos 8 and 9 below).

Under the Fisheries Licence (FL), a Wetland includes *“a vegetated depression with a permanent, seasonal or intermittent water table at or slightly above the floor of the depression (typically having a vegetation type that indicates a wetter micro-environment than that of the surrounding land)”*. The Threatened Species Licence (TSL) has a similar definition.

The FL (7.2.b (i)) requires that a 10m buffer be established around wetlands that have a surface area of at least 2mx2m, while the TSL (5.9(a),5.9(c)) requires that specified forestry activities be excluded from 10m exclusion zones established *“irrespective of the size of the wetland”*. Both FL (7.2(c)) and TSL (5.9(g)) require that FNSW must, before commencing that operation, record the wetland on any harvesting plan and mark it in the field so that it can be protected. Irrespective of the surrounding EEC this wetland should have been identified and protected. Note its occurrence on Map 2 within an identified wetland area. It is believed likely that other definable wetlands occur within logging areas in this vicinity.

Unmapped drainage lines are variously assigned exclusion, and protection zones under the Environmental Protection Licence (EPL D.6), and Fisheries Licence (FL 7.1, 7.4, 7.5) from which logging is excluded and machinery use limited. The FL (7) requires *“The boundary of any exclusion zone or buffer zone is to be marked in the field before a specified forestry activity is commenced where the activity will come within 50 metres of that boundary”*.

Had this wetland and unmapped watercourse of been protected in accordance with both the TSL and FL then most of the EEC in this vicinity would have been protected.

Supplementary Audit of Doubleduke State Forest

PHOTOS 7, 8 and 9: Intentional damage to a wetland and stream within the Endangered Ecological Community. Photo 7 shows debris felled into an unmapped drainage line. Note that after crossing the pools downstream in the unmapped drainage line, the tracks in 8 and 9 go across the wetlands at right angles to the flow – solely because this is the quickest route to the other side.



Supplementary Audit of Doubleduke State Forest

In EEC Area 4 Forests NSW also felled a tree into an exclusion zone established along the main creek (see Appendix 1 for location). While this is allowed if it is accidental, it is still a breach. It is not known whether this was reported.

PHOTOS 10 and 11: Photo 10 shows a tree within the EEC, felled across the marked boundary of a stream exclusion area. Please note that the tree to the left in the foreground has scratches indicating that it is frequently used by Koalas. Photo 11 is taken from one of the main tracks and shows logging into the margin of the EEC in area 4.



Fish Habitat

The Preliminary audit identified that for two hastily constructed creek crossings on Lower Slopes Road in compartment 144:

There was no attempt to minimise disturbance, stabilise disturbed areas, or implement erosion mitigation works. Despite both bridges only being in place for a short period of time the works had resulted in significant mobilisation of sediments into the streams.

...

Both crossings were constructed in a manner which caused disturbance to stream beds and banks and caused transport of sediments into streams (breaches EPL J45, FL 8.4.1.(a)), soil stabilisation of disturbed areas was not undertaken within 20 metres (breaches EPL J52, FL 8.4.2.(b)), and permanent or temporary soil stabilisation measures were not put in within 5 days on banks (breaches EPL J46, FL 8.4.3.(b)). These identified breaches are indicative of a disregard for stream pollution. It is likely that other Licence conditions were breached.

Supplementary Audit of Doubleduke State Forest

The audit was sent to the Minister for Environment, Mr Frank Sartor MP, and copied to the Minister for Forest Resources, CEO Forests NSW, and Regional Manager Forests NSW NE. There has been no response to these complaints and, despite breaches of the Fisheries Licence being specifically mentioned, apparently none of these authorities bothered to refer the complaint to Fisheries NSW. Forests NSW have told me that they subsequently repaired the crossings. This does not excuse the failure of the responsible Ministers to refer our complaint to the responsible agencies.

For this supplementary audit Forests NSW were asked to provide “a copy of any Pre-logging and Pre-roading Aquatic Habitat Assessment (s) prepared for compartment 144 and/or compartment 145 of Doubleduke State Forest in accordance with Condition 9 of the Fisheries Licence”. In response I was provided with the document “Assessment of Proposal for In-stream Works in Aquatic Habitats” (1/7/2009) which is limited to proposed stream crossings in Compartment 144.

The “Terms of Licence under section 220ZW of the Fisheries Management Act, 1994 to harm threatened fish species during undertaking of forestry related activities. Upper North East Region” (the Fisheries Licence) requires in Section 9 for Forests NSW to prepare “Pre-Logging And Pre-Roading Aquatic Habitat Assessments”:

9.1 General Requirements

a) Specified forestry activities must not be undertaken in any compartment unless a pre-logging and pre-roading aquatic habitat assessment has been conducted. This condition applies to all harvest operation planning not yet commenced

Forests NSW apparently made no attempt to prepare a Pre-Logging and Pre-Roading Aquatic Habitat Assessment for Compartment 145, and the one prepared for compartment 144 is patently inadequate. Section 9.1 has not been adequately complied with.

The audited compartments occur within the identified “likely natural distribution” of the Oxleyan Pygmy Perch *Nannoperca oxleyana*, with a pre 1980 record of this species apparently in the vicinity of the junction of Jackybulbin Creek and Bungawalbin Creek, in or near Compartment 145 (see below). NSW Fisheries were asked for more details on this record, though it was not provided.

Extract from Oxleyan Pygmy Perch Recovery Plan, Background Information, NSW Department of Primary Industries, 2005

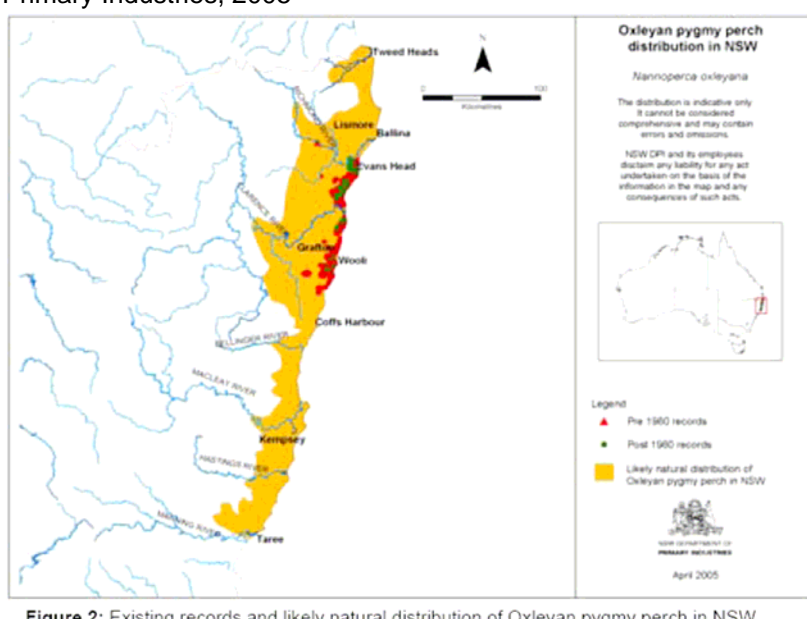


Figure 2: Existing records and likely natural distribution of Oxleyan pygmy perch in NSW

The Oxleyan Pygmy Perch is identified as 'endangered' under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and the NSW *Fisheries Management Act 1994*. It has also been listed as 'vulnerable' under the Queensland *Nature Conservation Act 1992*. These Compartments have been identified as potential habitat for this species and are thus Class 1 habitat. Threats to this species include runoff and sediment from stream crossings, logging operations and post-logging burns. The assessment undertaken fails to recognise the existence of this species despite the assessment proforma included in the licence identifying this as one of the 3 primary target species.

Oxleyan Pygmy Perch



Photo, NSW Fisheries

Section 9.2 "Desktop Review of Proposed Operation(s)" of the Fisheries Licence requires a variety of assessments, including "a database search for threatened fish records", that for each record "species name (both common and scientific), location (AMG), date of record, type of record (e.g. observed, trapped), observer's name, and source of record", and "Maps of potential habitat of those species requiring consideration". In contravention of this section, the assessment has not included a database search, has not identified and described records of Oxleyan Pygmy Perch, and has not included maps of the distribution of Oxleyan Pygmy Perch or Eastern Freshwater Cod. Section 9.2 has been clearly breached,

The Fisheries Licence requires that those undertaking assessments have some expertise:

9.5 Surveyor Experience

a) In order to conduct efficient and effective pre-logging and pre-roading aquatic habitat assessments the surveyor must be suitably experienced and trained in the appropriate field. Suitable experience and training is defined as:

- i. Experience with aquatic habitat survey work and also familiarity with the types of habitat in which locally occurring threatened fish species occur.*
- ii. Tertiary biological or ecological qualifications are preferable but not essential if the above criterion is met.*

For compartment 144 the aquatic assessment was undertaken by Forester Flavio Bugno. The fact that he is apparently unaware of the existence of the Oxleyan Pygmy Perch is proof enough that he is not suitably experienced and trained. It is apparent that Condition 9.5 of the Fisheries Licence has been breached.

There was no pre-logging and pre-roading assessment undertaken in compartment 145 to determine whether the potential habitat of threatened species does occur within the wetland

Supplementary Audit of Doubleduke State Forest

and other potential Class 1 habitat subject to forestry operations. This makes the incursions into the wetland and unmapped drainage line identified above even more significant.

The pre-1980 record of the Oxleyan Pygmy Perch near compartment 145 and the identification of this area as potential habitat indicates that occupied habitat could occur in this vicinity and that this species could be significantly affected by sedimentation from the instream activities undertaken and damage to the floodplains onto which the fish may move during flood events. Surveys need to be undertaken to assess the status of the species in this vicinity.

APPENDIX 1

Details and locations of trees identified as logged in the Endangered Ecological Community (size is the diameter measured across the top of the stump)

Species	Size (cm)	Type	MGAs North	MGAs East
Red Mahogany	48	Logged	6772244.72	517727.46
Red Mahogany	56	Logged	6772228.97	517735.44
Red Mahogany	57	Logged	6772220.79	517743.76
Red Mahogany	69	Logged	6772213.80	517776.44
Red Mahogany	73	Logged	6772184.47	517726.25
Turpentine	77	Logged	6772204.22	517794.37
Blackbutt	45	Logged	6772429.82	517660.32
Red Mahogany	71	Logged	6772248.11	517782.37
Red Mahogany	68	Logged	6772290.82	517752.37
Red Mahogany	69	Logged	6772251.32	517771.40
Red Mahogany	71	Logged	6772294.39	517745.44
Red Mahogany	76	Logged	6772413.65	517678.48
Red Mahogany	61	Logged	6771851.19	517819.98
Red Mahogany	65	Logged	6771818.36	517839.04
Red Mahogany	62	Logged	6772606.39	517767.93
Red Mahogany	56	Logged	6772586.10	517779.86
Red Mahogany	60	Logged	6772568.60	517775.56
Red Mahogany	81	Logged	6772510.96	517792.48
Red Mahogany	80	Logged	6772509.95	517796.27
Red Mahogany	36	Logged	6772516.91	517810.19
Red Mahogany	62	Logged	6772539.23	517847.76
Red Mahogany	64	Logged	6772531.39	517831.70
Red Mahogany	65	Logged	6772509.34	517834.39
Red Mahogany	60	Logged	6772507.80	517827.97
Red Mahogany	68	Logged	6772488.06	517836.98
Turpentine	44	Logged	6772423.78	517920.50
Red Mahogany	58	Logged	6772416.55	517872.46
Red Mahogany	60	Logged	6772411.34	517873.81
Red Mahogany	45	Logged	6772441.74	517843.71
Red Mahogany	68	Logged	6772435.66	517832.91
White Mahogany	70	Logged	6772422.48	517832.79
Red Mahogany	63	Logged	6772412.74	517824.51
Red Mahogany	50	Logged	6772407.44	517816.92
Red Mahogany	73	Logged	6772401.66	517827.71
White Mahogany	48	Logged	6772394.57	517825.94
Red Mahogany	82	Logged	6772366.52	517838.44
Red Mahogany	70	Logged	6772024.36	517853.86
Red Mahogany	76	Logged	6772029.14	517913.95
Red Mahogany	59	Logged	6772034.69	517909.39
Red Mahogany	60	Logged	6772003.40	517935.89
Grey Gum	70	Logged	6771809.56	517766.31
Red Mahogany	70	Logged	6771782.66	517749.15
Red Mahogany	76	Logged	6771775.66	517761.88
Red Mahogany	78	Logged	6771710.28	517694.69
Red Mahogany	77	Logged	6772546.77	517784.34
Red Mahogany	67	Logged	6772484.08	517832.02

Supplementary Audit of Doubleduke State Forest

Details and locations of damage to an unmapped drainage line and wetland within the Endangered Ecological Community

Type	MGAs North	MGAs East
Debris in Stream	6772019.60	517994.54
Debris in Stream	6772014.74	517986.46
Stream/Wetland crossing	6772017.10	517960.60
Stream/Wetland crossing	6772007.42	517919.65

Location where tree felled into marked exclusion zone in the Endangered Ecological Community

Species	Size (cm)	Type	MGAs North	MGAs East
Red Mahogany	70	Logged	6771782.66	517749.15