

EPA AUDIT REPORT – WESTERN LAND LEASE, WILLOW ISLES, 3685

Auditee:	FORESTRY CORPORATION OF NSW (FCNSW)
Audited State Forest & Cpts:	WESTERN LAND LEASE, WILLOW ISLES 3685
Region:	Riverina Red Gum Integrated Forestry Operations Approval (IFOA)
Date/Audit timing:	26 May 2015. Audit debrief with FCNSW staff held on 28 May 2015.
Type of audit:	Compliance
Purpose of audit:	Report on the level of compliance with conditions and environmental performance in line EPA compliance priorities.
Audit objectives:	<ol style="list-style-type: none"> 1. Assess compliance against audit criteria that reflect EPA compliance priorities. 2. Assess and categorise risk of identified non-compliance or appropriate further observations. 3. Request action plans against key audit findings so that auditee can use risk categorisation to inform timeliness and level of risk reduction control 4. Promote continuous improvement of the environmental performance of forestry operations.
Audit scope:	<ul style="list-style-type: none"> • Hollow-bearing and recruitment trees prescriptions • Drainage line protections • Threatened species exclusion zones <p>Physical scope: This audit was limited to the physical boundaries of WLL Willow Isles 3685.</p> <p>Temporal scope: The audit period adopted for assessment of compliance with operational conditions was on the day of the audit inspections (26 May 2015).</p>
Audit criteria:	<p>Habitat and Recruitment tree prescriptions</p> <ul style="list-style-type: none"> • <i>Clause 179; 190; 134(b) retention, selection, protection & mark-up</i> <p>Large Red Gums >120cm</p> <ul style="list-style-type: none"> • <i>Clause 180</i> <p>Drainage Feature Protection prescriptions</p> <ul style="list-style-type: none"> • <i>104 and 106 (Murrumbidgee River)</i> <p>Compartment marking up surveys</p> <ul style="list-style-type: none"> • <i>Clause 167</i> <p>Exclusion zone mark-up for EZ and buffer zones within scope of audit</p> <ul style="list-style-type: none"> • <i>Clause 172</i>
Summary of Operations	<p>Operation commencement date: March 2015</p> <p>Silvicultural practice:</p>

- Mature red gum without regeneration (90% NHA) – Single tree selection regeneration
- Mature red gum with regeneration (10% NHA) - Single tree selection release

1. Audit Findings – Overview

The EPA identified 1 non-compliances and 74 compliances with the IFOA, including determinations of further observations. A summary of EPA's findings are in the table below. Full details and evidence of audit findings can be found in the **Audit Findings Table** in **Attachment 1** including further observations made from the audit.

EPA Compliance Priority 14/15	Audit Scope	Compliant	Non-compliant	Not Determined	Not Applicable
Exclusion Zones	Drainage feature protection	5	0	0	0
	Drainage feature mark-up	3	0	0	0
	Compartment mark-up surveys	1	0	0	0
Hollow bearing and recruitment trees	H and R Retention	2	0	0	0
	H Selection	4	0	0	0
	R Selection	14	0	0	0
	H&R Protection	39	0	0	0
	Large Red gums >120cm	6	0	0	0
Further observation	Woody debris	0	1	0	0
	TOTAL	74	1	0	0

2. Audit Recommendations

Condition No.	Number of non-compliances (and sample)	Action Details	Non-compliance Code	Target/Action Date
146(2)	1/1	Course Woody Debris on Forest Floor Action plan to be implemented to ensure condition 146 is implemented according to IFOA provisions.	Orange	30 August 2015
Total	1			

3. Audit Conclusions

This audit achieved its audit objective by determining compliance with the specified criteria of the audit. The EPA issued FCNSW with the draft audit findings and FCNSW submitted actions to mitigate the non-compliances (Attachment 3). The EPA will follow up on the outcomes of these audits to ensure levels of compliance are enhanced for criteria that relate to this audit.

4. List of Attachments

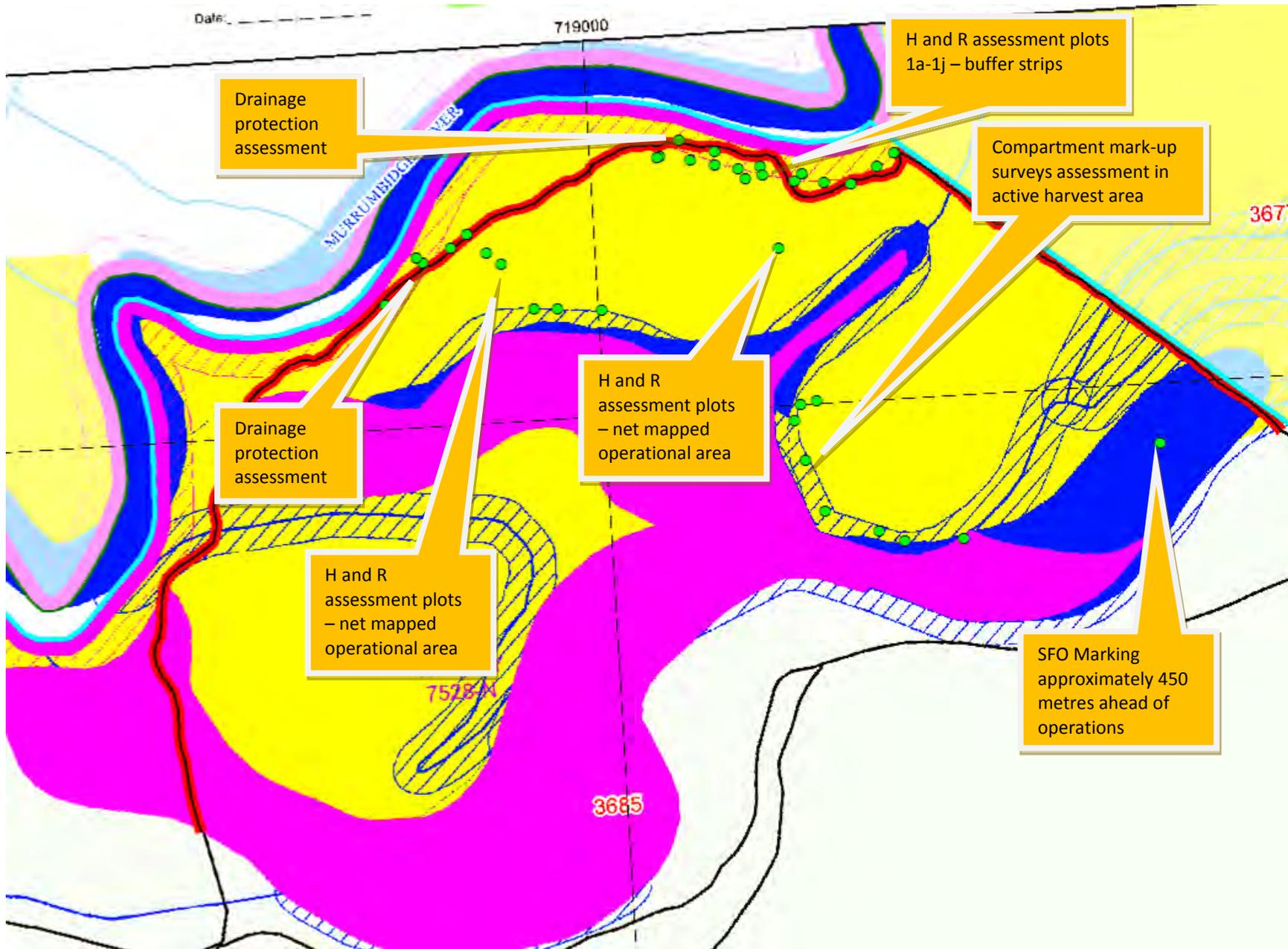
Attachment 1) Audit Findings Table

Attachment 2) EPA Risk Matrix for Non-compliances

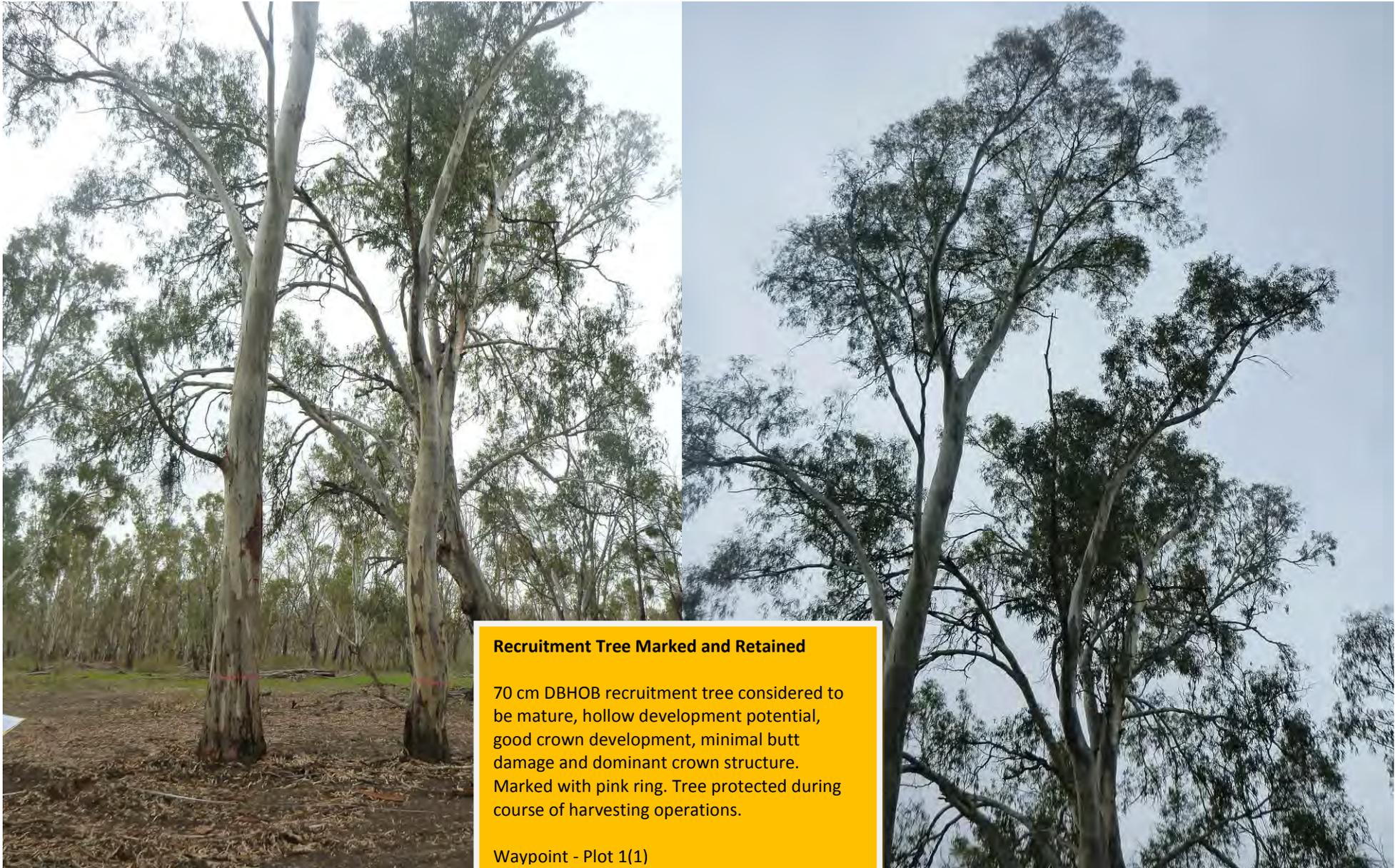
Attachment 3) FCNSW Submission on draft audit findings

ATTACHMENT 1 - EPA DRAFT AUDIT FINDINGS TABLE – Western Land Lease ‘Willow Isles’
Assessment of Compliance with RIVERINA REDGUM Integrated Forestry Operations Approval

CONDITIONS RELATED TO RETENTION OF HABITAT AND RECRUITMENT TREES - RETENTION				
Condition No. and Detail	Compliant? Yes/No/Not determined/ Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
Condition 179(1) Forests NSW must ensure that, at the completion of any logging operation, an average of at least two living river red gum habitat trees (as described in subclause (2)) and at least two living river red gum recruitment trees (as described in subclause (3)) remain in each hectare of land within the net mapped operation area.	Yes	0/1		
Comment and Evidence				
<p>This condition was determined as compliant.</p> <p>EPA officers assessed one (1) hectare of the net mapped area which had been harvested. The method used was two (2) 40 metre radius circular plots to undertake the assessment. Each plot represented approximately half a hectare</p> <p>Within the area assessed, 53 trees had been marked and retained. These trees were marked with a ring around the tree and did not distinguish the purpose for which they were retained. Of the trees marked and retained, EPA officers determined that <u>4 habitat trees and 14 recruitment trees</u> had been appropriately selected, marked and retained. Retention rates were therefore 4H/ha and 14R/ha, exceeding the IFOA requirements of 2H/ha and 2R/ha. Further descriptions of the trees retained are continued in the clauses below.</p>				



Map of EPA Assessment Areas – Attachment One contains waypoint coordinates.



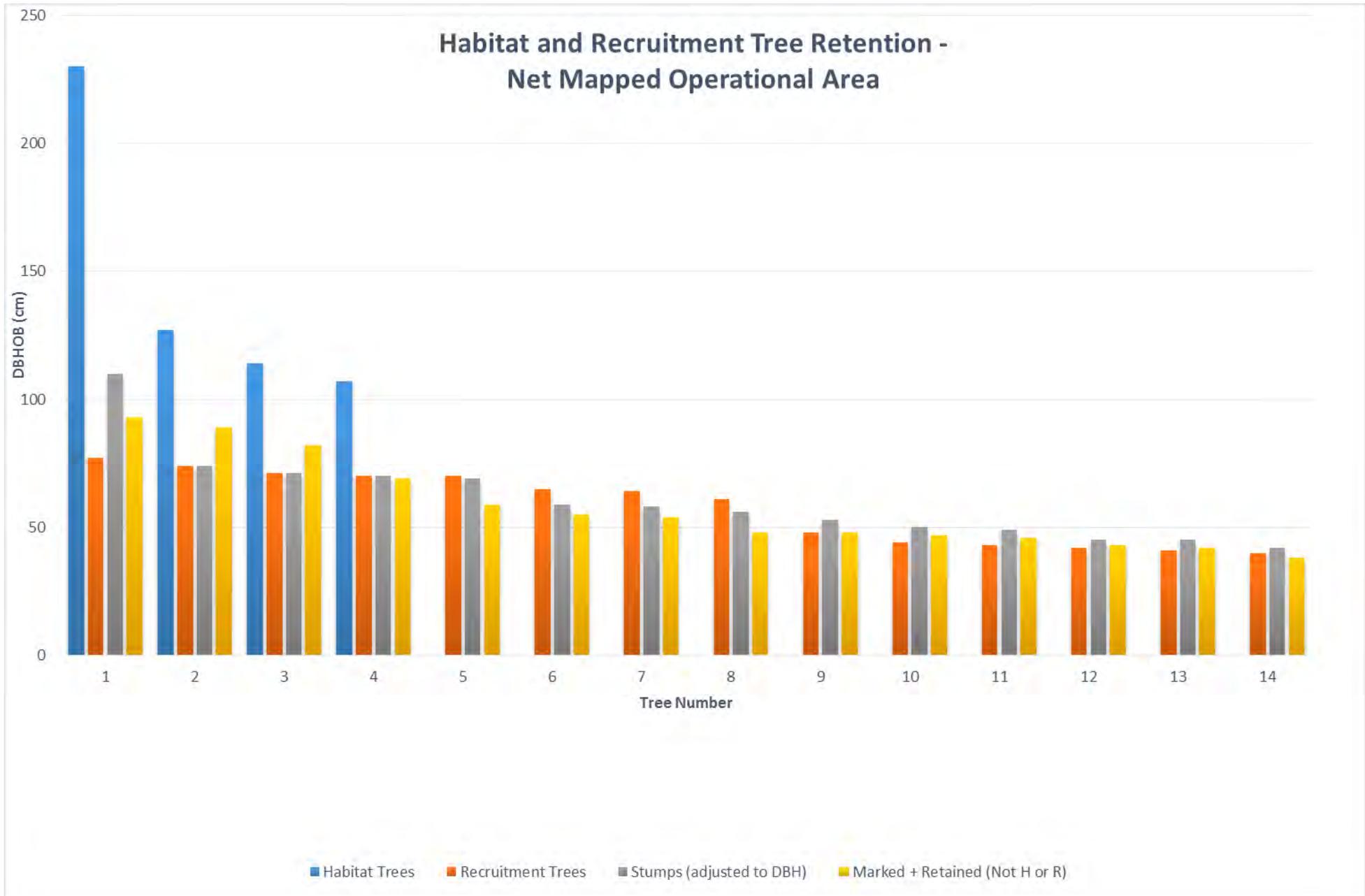
Recruitment Tree Marked and Retained

70 cm DBHOB recruitment tree considered to be mature, hollow development potential, good crown development, minimal butt damage and dominant crown structure. Marked with pink ring. Tree protected during course of harvesting operations.

Waypoint - Plot 1(1)

CONDITIONS RELATED TO RETENTION OF HABITAT AND RECRUITMENT TREES – HABITAT TREE SELECTION

Condition No. and Detail	Compliant? Yes/No/Not determined/ Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
<p>Condition 179(2) From among the trees in the net mapped operation area, <u>habitat trees</u> must be selected with the objective of retaining trees having as many of the following characteristics as possible:</p> <ul style="list-style-type: none"> a) hollow-bearing, b) good crown development, c) minimal butt damage, d) belong to a cohort of trees with the largest diameters at breast height over bark. <p>In this clause, “<i>hollow-bearing</i>”, in relation to a tree, means a tree having a base, trunk or limb that contains a visible hollow, hole or cavity or a visible deformity such as a burl, protuberance or broken limb that indicates that a hollow is likely to be present.</p>	Yes	0/4		
Comment and Evidence				
<p>The condition was determined as compliant</p> <p>EPA officers assessed one (1) hectare of the net mapped area which had been harvested. The method used was two (2) 40 metre radius circular plots to undertake the assessment. Each plot represented approximately half a hectare. The assessment area was located east of active operations as shown in the map above.</p> <p>Within the area assessed, 53 trees had been marked and retained. These trees were marked with a ring around the tree and did not distinguish the purpose for which they were Retained. Of the trees marked and retained EPA officers determined that 4 habitat trees had been retained in the assessed one hectare area. The trees retained were all hollow bearing in that they had clear evidence of hollows, holes or cavities in the base trunk or limbs. All habitat trees had good crown development (i.e. Not suppressed and good crown) with minimal or no butt damage. All habitat trees also belonged to a cohort with the largest DBHOB. The size classes of habitat trees marked and retained is demonstrated in the chart below. All 4 habitat trees were retained of the cohort of the largest DBHOB. EPA officers collected data on the size of trees cut and removed within the assessed area to compare against trees retained for the purposes of determining the cohort of trees retained and removed. There were 60 trees cut ranging from 110 (plot one) - 15 centimetres adjusted with a conservative taper function. The chart below does not depict trees cut and retained under 40cm.</p>				



CONDITIONS RELATED TO RETENTION OF HABITAT AND RECRUITMENT TREES – RECRUITMENT TREE SELECTION

Condition No. and Detail	Compliant? Yes/No/Not determined/ Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
<p>Condition 179(3) From among the trees in the net mapped operation area, <u>recruitment trees</u> must be selected with the objective of retaining trees that will develop hollows, being trees having as many of the following characteristics as possible:</p> <ul style="list-style-type: none"> a) be mature or late mature, b) have potential for developing hollows, c) have good crown development, d) have minimal butt damage, e) be dominant, co-dominant or sub-dominant (but not suppressed). 	Yes	0/14		
Comment and Evidence				
<p>The condition was determined as compliant.</p> <p>EPA officers assessed one (1) hectare of the net mapped area which had been harvested. The method used was two (2) 40 metre radius circular plots to undertake the assessment. Each plot represented approximately half a hectare.</p> <p>Within the hectare assessed, 53 trees had been marked and retained. The marking of these trees with a ring around the trees did not distinguish the purpose for which the trees had been retained. Of the trees marked and retained, EPA officers determined that the <u>14 recruitment trees</u> had been retained within the assessed one hectare area. The trees considered to be recruitment trees by EPA were all mature, had potential to develop hollows exhibited good crown development (i.e. not suppressed and spreading healthy crown) with minimal or no butt damage. All recruitment trees were dominant, co-dominant or sub-dominant. EPA officers did not consider any marked trees for R tree retention purposes if that tree did not exhibit all the characteristics detailed above in their condition. The sizes of recruitment trees was also considered against the trees removed in the assessed area as demonstrated in the chart above.</p>				

CONDITIONS RELATED TO RETENTION OF HABITAT AND RECRUITMENT TREES – RETENTION IN BUFFER STRIPS

Condition No. and Detail	Compliant? Yes/No/Not determined/ Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
<p>134. Restrictions in buffer strips Forestry operations may be carried out in buffer strips in accordance with the other Chapters of this approval (as if it were not a buffer strip) but: a) AGS must not be used in any buffer strip; and b) if logging is carried out in a buffer strip, a minimum rate of 5 habitat trees and 5 recruitment trees must be retained per hectare of buffer strip.</p>	<p align="center">Yes Yes</p>	<p align="center">0/1 0/1</p>		

Comment and Evidence

134(a) – This condition was determined as compliant. EPA officers did not record any AGS applied within buffer strips. Location of buffer strips assessed detailed below.

134(b) – This condition was determined as compliant.

EPA officers assessed half a hectare (5000m²) of buffer strips adjacent to Murrumbidgee River within the 30 metre buffer strip required to be applied to this zone. The area had been harvested. EPA method used ten 13 metre radius circular plots to undertake assessment. Each plot assessed represented approximately 500m². The total area assessed was approximately 5000m².

Within the assessed area a total of 78 trees had been removed by harvesting ranging from DBHOB (adjusted by conservative taper function) 90 – 15cm. A total of 53 were marked and retained across the assessed area ranging from 125cm – 28cm in size. The marking of these trees was with a ring around the trees and as such did not distinguish the purpose for which that tree had been retained.

Recruitment trees: Of the trees marked and retained, EPA officers determined that 15 Recruitment trees had been retained in the assessed area. The trees considered to be Recruitment trees by EPA were all mature, had potential for developing hollows, exhibited good crown development (i.e. not suppressed and spreading healthy crown) with minimal or no butt damage. All recruitment trees were dominant, co-dominant or sub-dominant. EPA officers did not consider any marked trees for R tree retention purposes if that tree did not exhibit all the characteristics detailed above in the condition.

Habitat trees: Of the trees marked and retained, EPA officers also determined that 6 habitat trees had been retained in the assessed area. Two of the six trees had evidence of hollows. Four of six trees were considered belonging to a cohort with the largest DBHOB. All habitat trees had good crown development (i.e. not suppressed and healthy spreading crown) with minimal or no butt damage. EPA officers collected data on the size of trees cut and removed within the assessed area to compare against trees retained and removed. The four trees which didn't exhibit hollows were of the cohort of the largest DBHOB.

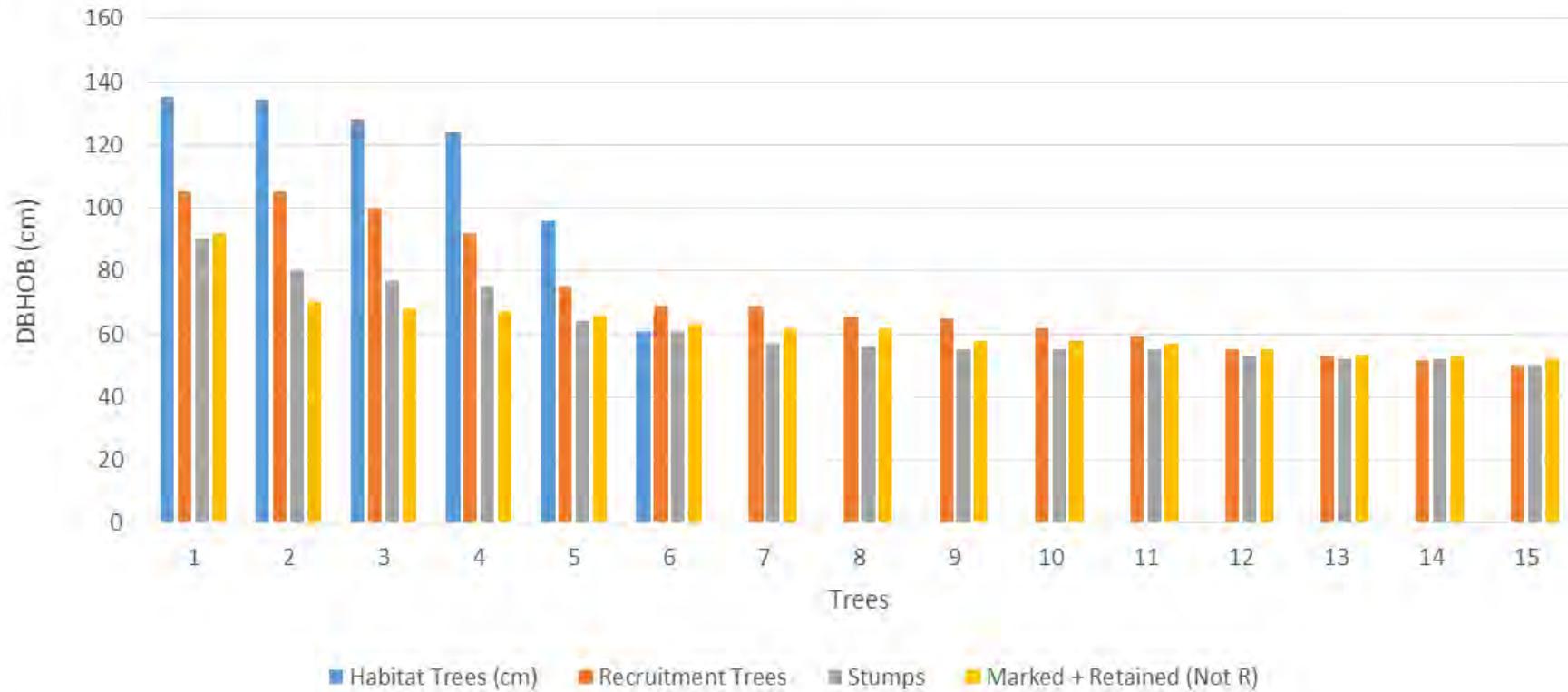
Average Retention Rates in Buffer Strips: Based retention rates achieved across the assessed area the average retention rates of habitat trees is 12H/ha and recruitment trees 30R/ha in buffer strips noting the limited area of assessment. This retention rate is above the specified rates of 5 H and 5 R per hectare.

Buffer Strip Habitat and Recruitment Tree Retention

Habitat Trees (cm – DBHOB)	Recruitment Trees (cm – DBHOB)	Stumps (adjusted by conservative taper function) (cm – DBHOB)	Marked + Retained (Not H or R) (cm – DBHOB)
135	105	90	92
134.5	105	80	70
128	100	77	68
124	92	75	67
96	75	64	66
61	69	61	63
	69	57	62
	65.5	56	62
	65	55	58
	62	55	58
	59	55	57
	55	53	55
	53	52	53.5
	51.5	52	53
	50	50	52

Note: (table limited to trees cut and retained above 50cm)

Habitat and Recruitment Tree Retention - Buffer Strips





Habitat Tree Marked and Retained – Buffer Strips

96 cm DBHOB habitat tree with hollows, good crown development, minimal butt damage and belonging to cohort of trees with largest DBHOB. Marked with pink ring. Tree protected during course of harvesting operations.

Waypoint - Plot 1i

CONDITIONS RELATED TO RETENTION OF HABITAT AND RECRUITMENT TREES – PROTECTION

Condition No. and Detail	Compliant? Yes/No/Not determined/ Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
<p>189. Protection of retained trees generally 1. Damage to trees that must not be felled under, or are retained for the purposes of, this Part in a logging operation must be avoided or minimised to the greatest extent practicable in carrying out that operation or any other forestry operation (whether carried out at the same or subsequent time).</p>	YES	0/39		
Comment and Evidence				
<p>This condition was determined as compliant.</p> <p>EPA assessments recorded a total of 39 ‘protected trees’ (10 habitat trees and 29 recruitment trees) across the 1.5 hectare assessment area. Of these trees marked and retained it included. The assessment area included net mapped area and within buffer strips as detailed in tree retention provisions above. There was no recorded instances of damage to these 39 retained habitat and recruitment trees.</p>				



Habitat trees protected during operations

39 'protected trees' (10 habitat trees and 29 recruitment trees) across the 1.5 hectare assessment area were marked and protected.

CONDITIONS RELATED TO RETENTION OF HABITAT AND RECRUITMENT TREES – PROTECTION

Condition No. and Detail	Compliant? Yes/No/Not determined/ Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
<p>Condition 190(6) Logging debris must be prevented, to the greatest extent practicable, from accumulating within 5 metres of any protected tree during a logging operation. If logging debris does accumulate, then it must be flattened to a height of less than one metre or removed before any post-harvest burning is carried out. However, in flattening or removing the logging debris, disturbance to the ground surface and the understorey must be avoided to the greatest extent practicable.</p>	<p align="center">Yes</p>	<p align="center">0/39</p>		
Comment and Evidence				
<p>This condition was determined as compliant.</p> <p>EPA assessments recorded a total of 39 ‘protected trees’ (10 habitat trees and 29 recruitment trees) across the 1.5 hectare assessment area. Of these trees marked and retained it included. The assessment area included net mapped area and within buffer strips as detailed in tree retention provisions above. There was no recorded instances of tree debris accumulated greater than one metre within five metres across the 39 protected trees.</p>				

CONDITIONS RELATED TO RETENTION OF HABITAT AND RECRUITMENT TREES – PROTECTION

Condition No. and Detail	Compliant? Yes/No/Not determined/ Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
Condition 190(7) In carrying out a logging operation, disturbance to the ground surface and understorey within 5 metres of any protected tree must be avoided or minimised to the greatest extent practicable.	Yes	0/39		

Comment and Evidence

This condition was determined as compliant.

EPA assessments recorded a total of 39 'protected trees' (10 habitat trees and 29 recruitment trees) across the 1.5 hectare assessment area. Of these trees marked and retained it included. The assessment area included net mapped area and within buffer strips as detailed in tree retention provisions above. Ground disturbance at the base of marked and retained protected trees (habitat and recruitment trees) were considered to the greatest extent practicable. There was no evidence of moderate to severe ground disturbance.

CONDITIONS RELATED TO OF LARGE RIVER RED GUM TREES – RETENTION

Condition No. and Detail	Compliant? Yes/No/Not determined/Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
CONDITION 180. Retention of large river red gum trees A river red gum tree having a dbhob of 120 cm or more must not be felled in a logging operation.	Yes	0/6		

Comment and Evidence

This condition was determined as compliant.

EPA officers located six trees within its assessed areas (1.5 hectares) which were greater than 120cm DBHOB. These trees were marked for retention and protected. Trees greater than 120cm DBHOB included 230cm; 127cm; 135cm; 134.5cm ; 128cm; 124cm trees. There were 60 trees cut ranging from 110 (plot one) - 15 centimetres adjusted with a conservative taper function.



Six Red Gum trees > 120cm DBHOB – Marked and protected

Six trees within the EPA assessed areas (1.5 hectares) were greater than 120cm DBHOB. These trees were marked for retention and protected. Photo includes two trees 135cm DBHOB and 128 cm DBHOB at plot location 1(h) E 719393 ; N 6156316 Zone 54

Red Gum 128 cm DBHOB marked and protected

Red Gum 135 cm DBHOB marked and protected

No trees removed above 120cm DBHOB detected

110cm DBHOB tree removed. Permitted within the RRG IFOA.

Waypoint - Plot 1(1)



CONDITIONS RELATED TO DRAINAGE PROTECTION AREAS - PROTECTION

Condition No. and Detail	Compliant? Yes/No/Not determined/Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
110. Logging operations prohibited in drainage protection areas 1. A logging operation to which this Part applies must not be carried out in a drainage protection area, except as provided by this clause.	Yes	0/3		

Comment and Evidence

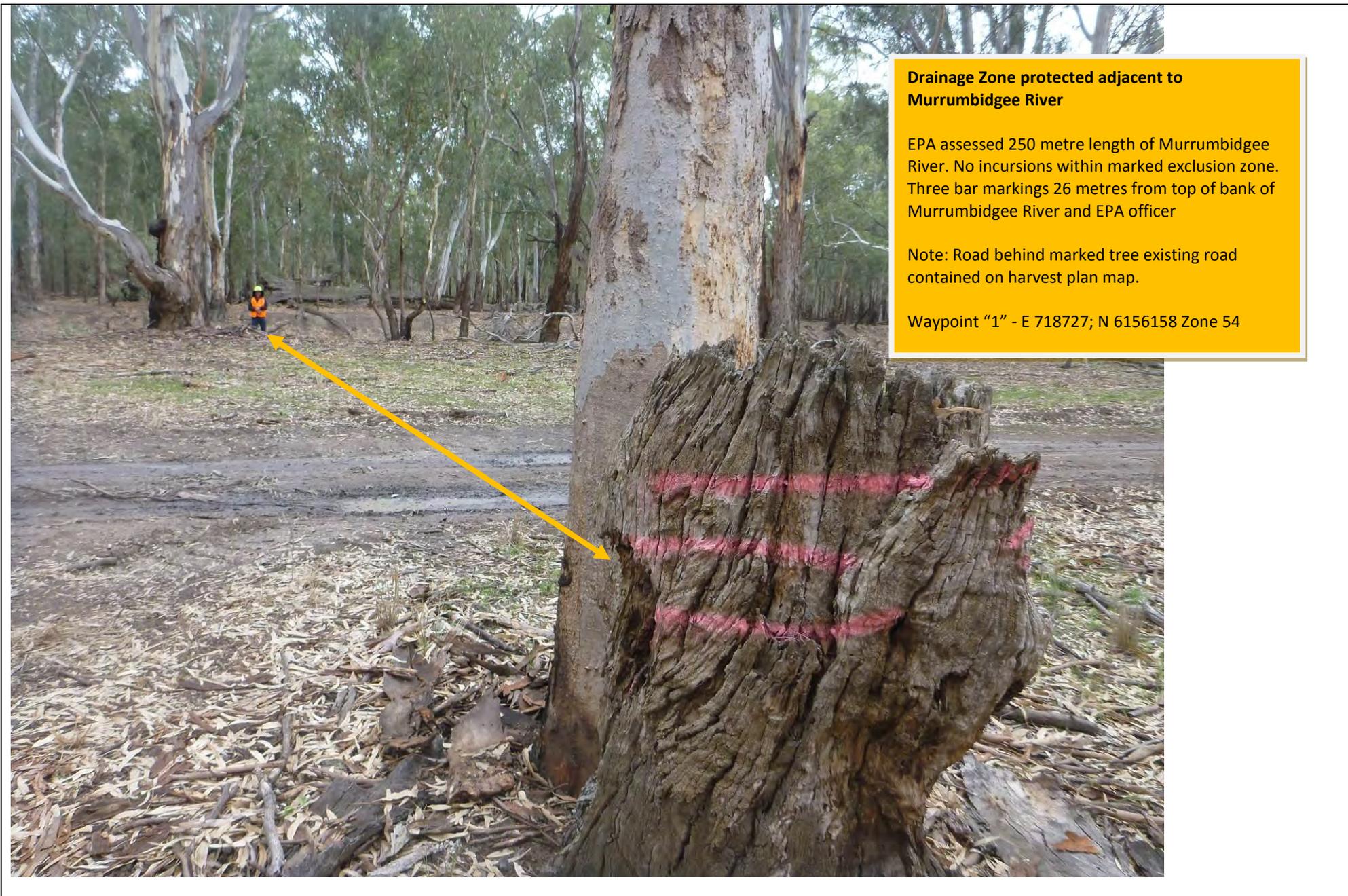
This condition was considered to be compliant.

EPA officers assessed four areas of drainage protection areas. Two sections adjacent to the Murrumbidgee River and two further drainage protection areas /FMZ 3A sections in the centre of the property approximately 250 metres south of the Murrumbidgee River.

Location One: Murrumbidgee River: 250 metre length assessed (two sections - 70 metre section and 180 metre section). No incursions into the drainage area detected across the assessed length. Area clearly marked and identified with 3 band pink marking on trees. Protection area marked ranged from 21 metres from drainage feature to 31 metres from top of bank of drainage feature. No harvesting within the protection zone.

Location Two: Unnamed Drainage Feature / FMZ 3A: 90 metre section assessed. Area assessed between E 718917; N 6156144 and E 719005; N 6156136. No incursions into the drainage area detected across the assessed length. Area clearly marked and identified with 3 band pink marking on trees. Protection area marked ranged from 22 metres from drainage feature to 25 metres from top of bank of drainage feature. No harvesting within the protection zone.

Location Three: Unnamed Drainage Feature / FMZ 3A: 250 metre section assessed. Area assessed between E 719254; N 6156000 and E 719379; N 6155818. No incursions into the drainage area detected across the assessed length. Area clearly marked and identified with 3 band pink marking on trees. No harvesting within the protection zone.



Drainage Zone protected adjacent to Murrumbidgee River

EPA assessed 250 metre length of Murrumbidgee River. No incursions within marked exclusion zone. Three bar markings 26 metres from top of bank of Murrumbidgee River and EPA officer

Note: Road behind marked tree existing road contained on harvest plan map.

Waypoint "1" - E 718727; N 6156158 Zone 54



Drainage Zone / FMZ protected

EPA assessed 90 metre length of Murrumbidge River. No incursions within marked exclusion zone. Three bar markings 26 metres from top of bank of Murrumbidgee River and EPA officer

Note: Road behind marked tree existing road contained on harvest plan map.

Waypoint "1" - E 718727; N 6156158 Zone 54

CONDITIONS RELATED TO DRAINAGE PROTECTION AREAS – MARKING UP

Condition No. and Detail	Compliant? Yes/No/Not determined/Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
<p>172. “Marking-up” of boundaries of protected areas</p> <p>1. This clause applies to a forestry operation of any of the following kinds if a site specific operational plan is required for the operation:</p> <p>a) a logging operation, b) ancillary road construction.</p> <p>2. Forests NSW must ensure, as far as practicable, that a forestry operation to which this clause applies does not come within 50 metres of any part of a boundary of an area of land that is protected in relation to that operation (as described in subclause (4)) unless that part of the boundary has been first “marked up”.</p>	Yes	0/3		
Comment and Evidence				
<p>This condition was determined as compliant.</p> <p>EPA officers assessed four areas of drainage protection areas. Two sections adjacent to the Murrumbidgee River and two further drainage protection areas /FMZ 3A sections in the centre of the property approximately 250 metres south of the Murrumbidgee River.</p> <p><u>Location One:</u> Murrumbidgee River: 250 metre length assessed (two sections - 70 metre section and 180 metre section). No incursions into the drainage area detected across the assessed length. Area clearly marked and identified with 3 band pink marking on trees. Protection area marked ranged from 21 metres from drainage feature to 31 metres from top of bank of drainage feature. No harvesting within the protection zone.</p> <p><u>Location Two:</u> Unnamed Drainage Feature / FMZ 3A: 90 metre section assessed. Area assessed between E 718917; N 6156144 and E 719005; N 6156136. No incursions into the drainage area detected across the assessed length. Area clearly marked and identified with 3 band pink marking on trees. Protection area marked ranged from 22 metres from drainage feature to 25 metres from top of bank of drainage feature. No harvesting within the protection zone.</p> <p><u>Location Three:</u> Unnamed Drainage Feature / FMZ 3A: 250 metre section assessed. Area assessed between E 719254; N 6156000 and E 719379; N 6155818. No incursions into the drainage area detected across the assessed length. Area clearly marked and identified with 3 band pink marking on trees. No harvesting within the protection zone.</p>				



Drainage Zone / FMZ protected

Three bar markings at EPA location three. At time of inspection active harvesting operations were approximately 140 metres from marked boundary location.

Waypoint location at and around E 719279; N 6155862 Zone 54

CONDITIONS RELATED TO COMPARTMENT MARK-UP SURVEYS

Condition No. and Detail	Compliant? Yes/No/Not determined/Not applicable	Number of non- compliance and (sample size)	Why it is important & Risk Ranking Code Explanation	Action required by licensee
<p>167. "Compartment mark-up survey" for nests, roosts, dens, scats etc.</p> <p>2. A forestry operation to which this clause applies must not be undertaken on any part of the compartment or other tract of land unless:</p> <p>a) that part, and any area within about 200 metres of that part (including land outside the compartment or other tract of land, if accessible), have first been surveyed in accordance with the requirements of this clause and clauses 155 to 158 (inclusive), and</p>	Yes	0/1		

Comment and Evidence

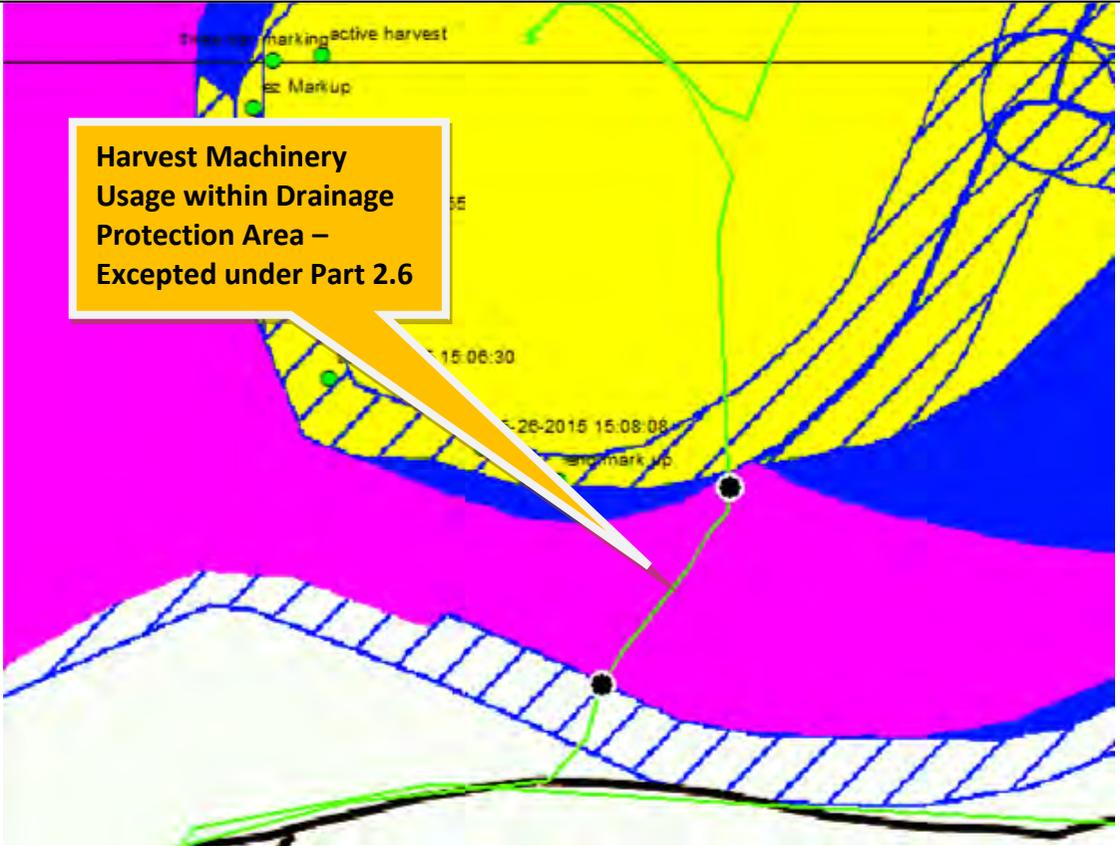
This condition was determined as compliant.

EPA assessed ahead of active operations within 200 metres of active harvesting. Harvesting had temporarily ceased at the time of inspection. The inspection was at and around E 719254; N 6156000 and E 719379; N 6155818. There was evidence that the area directly surrounding the active harvesting area had been 'marked up' as evidenced by the marking of trees for the purpose of retention. There was also evidence that exclusion zone boundaries in the vicinity of the active work area had been marked up. Therefore it is likely that an officer had assessed the area for the likelihood of environmentally sensitive elements referred to in condition 167/168. EPA observations also noted that the SFO was searching and marking in area well ahead of operations, estimated at 450 metres from the active operations.

FURTHER OBSERVATIONS TABLE – Western Land Lease – “Willow Isles”

These are matters that were recorded during the field investigation but relate to conditions outside the audit scope

Relevant Condition	Number of non-compliances and sample	Risk Code	Details of matter	Recommendation
<p>129. Prohibition on use of harvesting machinery in drainage protection areas 1. A harvesting machine must not enter, or be used within, any part of a drainage protection area except in accordance with this Part or clause 111.</p>	0/1		<p>Harvesting Machinery within drainage protection area EPA officers spoke with harvesting contractors during the audit. Contractors made EPA aware of a self report incident in which a harvest machine used an existing/unapproved farm road to cross a drainage protection area/FMZ 3A exclusion zone. It is understood that this was self-reported by harvesting contractors to FCNSW staff. The length of incursions was approximately 100 metres. Entry and exits points of drainage protection area E: 719455; N6155816 Z54 and E719398; N6155730 Z54</p> <p>FCNSW audit submissions: FCNSW is aware of this action by the Operators. Their loader did travel an existing farm track through a drainage protection area. As Part 2.6, Condition 132(b) states, a harvesting machine may travel along an existing track within a drainage protection area in the course of a forestry operation, but only if that track was constructed before the granting of this approval. To FCNSW knowledge, this is a long time arm track, but the Supervising Forestry Officer gave direction to the crew not to use it, and it was not included on the HPOM as a harvesting track. As such, FCNSW considers this to be a breach of a Forestry Officers direction to the crew, and they were issued with a Non-Conformance on 22/05/15.</p> <p>The EPA has reviewed FCNSW's submission and notes that FCNSW have issued a non-conformance to the contractor for this matter for breach of Forestry Officers instructions. The EPA also accepts that Part 2.6 Condition 132(b) makes allowances for such situations for the usage of tracks that were constructed prior to the commencement of the IFOA. The EPA considers based on field evidence that the track was constructed prior to forestry operations.</p>	

				
<p>146. Collection of residue from floor of forest prohibited 2. Logging debris and naturally fallen woody debris lying on the floor of the forest must not be collected as part as a logging operation if removal would result in the density and nature of woody debris across the net operational area not</p>	<p>1/1</p>	<p>Orange</p>	<p>Course Woody Debris Collection and Piling During the course of the audit it was apparent that course woody debris (including fallen timber and logging debris) was being piled across the operation area and in buffer strips. It is understood from discussions that the leesee has given directions to the harvesting contractors to undertake the task of piling woody debris. It has been suggested that this is to enable the lease-holder to burn the woody debris. The practice has left significant areas of the forest floor devoid of all course woody debris. All areas have not been mapped. This practice has significant potential impacts on the ground habitat of native animals. Further conversations with the leesee stated forest floor was to be “cleaned-up” as part of logging operations. These directions are not in accordance with IFOA requirements under condition 146 and 145. A number of photos have been included with reference to Schedule 6 photo standard of course woody debris. It is evident that the piling, removal and clearing of course woody debris has resulted in the density and nature of woody debris across the net operational area not being representative of a natural forest, a practice which does not comply with the IFOA. It is evident that there is a conflict in the level of FCNSW supervision and direction from the leesee and that the IFOA outcomes are not being met based on discussions with harvesting contractors.</p>	<p>Action plan to be implemented to ensure condition 146 is implemented according to IFOA provisions.</p>

being representative of a natural forest, as represented in the photo standards in Schedule 6 to this approval.



Course Woody Debris Piled – near Murrumbidgee River E718815; N6156227 Z54



Course Woody Debris actively cleared from forest floor by harvesting contractors –

Not accordance with Schedule 6 leaving forest floor devoid of debris

Course Woody Debris Piled – near Murrumbidgee River E718815; N6156227 Z54



Course Woody Debris actively cleared from forest floor by harvesting contractors –

Not accordance with Schedule 6 leaving forest floor devoid of debris – near Murrumbidgee River E718815; N6156227 Z54

SCHEDULE 6 – PHOTO STANDARD FOR WOODY DEBRIS TAKEN FROM RIVERINA REDGUM IFOA



ACTION PLAN – Western Land Lease ‘Willow Isles’

Condition No.	Number of non-compliances (and sample)	Action Details	Non-compliance Code	Target/Action Date
146(2)	1/1	<p>Course Woody Debris on Forest Floor</p> <p>Action plan to be implemented to ensure condition 146 is implemented according to IFOA provisions.</p>	Orange	30 August 2015
Total	1			

EPA Audit Locations

EPA Identifier	easting	northing
1	718727	6156159
2	718777	6156210
3	718770	6156217
4	718815	6156227
5	718837	6156243
6	718878	6156203
6	718860	6156218
7	718917	6156144
8	718948	6156141
9	719004	6156137
10	719117	6156347
11	719163	6156331
12	719220	6156308
13	719273	6156295
14	719237	6156202
Debris piled	719200	6156294
plot 1a	719161	6156314
plot 1b	719192	6156306
plot 1c	719223	6156297
plot 1d	719263	6156287
plot 1e	719301	6156283
plot 1f	719336	6156279
plot 1g	719370	6156299
plot 1h	719393	6156316
plot 1i	719131	6156322
plot 1j	719091	6156328
05-26-2015 14:29:34	719087	6156327
Non compliance crossing	719455	6155817
active harvest	719275	6156004
three bar marking	719254	6156001
ez Markup	719245	6155981
05-26-2015 15:04:55	719257	6155930
05-26-2015 15:06:30	719278	6155863
05-26-2015 15:08:08	719345	6155833
end mark up	719379	6155819
SFO active marking area	719715	6155925

ATTACHMENT 2 - Risk Assessment of Non-compliance

The significance of any non-compliances identified during the audit process are categorised. Following risk assessment of non-compliances, an escalating response relative to the seriousness of the non-compliance is determined to ensure the non-compliance is addressed by the enterprise.

The risk assessment of non-compliances involves assessment of the non-compliance against two criteria; the likelihood of environmental harm occurring and the level of environmental impact as a result of the non-compliance. After these assessments have been made, information is transferred into the risk analysis matrix below.

	Likelihood of Environmental Harm Occurring			
		Certain	Likely	Less Likely
Level of Environmental Impact	High	Code Red	Code Red	Code Orange
	Moderate	Code Red	Code Orange	Code Yellow
	Low	Code Orange	Code Yellow	Code Yellow

The assessment of the likelihood of environmental harm occurring and the level of environmental impact allows for the risk assessment of the non-compliance via a colour coding system. A red risk assessment for non-compliance denotes that the non-compliance is of considerable environmental significance and therefore must be dealt with as a matter of priority. An orange risk assessment for non-compliance is still a significant risk of harm to the environment however can be given a lower priority than a red risk assessment. A yellow risk assessment for non-compliance indicates that the non-compliance could receive a lower priority but must be addressed.

There are also a number of licence conditions that do not have a direct environmental significance, but are still important to the integrity of the regulatory system. These conditions relate to administrative, monitoring and reporting requirements. Non-compliance of these conditions is given a blue colour code.

The colour code is used as the basis for deciding on the priority of remedial action required by the licensee and the timeframe within which the non-compliance needs to be addressed. This information is presented in the action program alongside the target/action date for the non-compliance to be addressed.

While the risk assessment of non-compliances is used to prioritise actions to be taken, the EPA considers all non-compliances are important and licensees must ensure that all non-compliances are addressed as soon as possible.

ATTACHMENT 3 – AUDITEE SUBMISSIONS ON DRAFT AUDIT FINDINGS

Condition No.	EPA draft finding / risk categorisation	Location – description, GPS	FCNSW submission	EPA response to FCNSW submission	EPA final finding & risk categorisation
129(1)	Yellow	WLL Willow Isles	<p><u>Protection of Drainage Features</u> FCNSW is aware of this action by the Operators. Their loader did travel an existing farm track through a drainage protection area. As Part 2.6, Condition 132(b) states, a harvesting machine may travel along an existing track within a drainage protection area in the course of a forestry operation, but only if that track was constructed before the granting of this approval. To FCNSW knowledge, this is a long time arm track, but the Supervising Forestry Officer gave direction to the crew not to use it, and it was not included on the HPOM as a harvesting track. As such, FCNSW considers this to be a breach of a Forestry Officers direction to the crew, and they were issued with a Non-Conformance on 22/05/15.</p>	<p>The EPA has reviewed FCNSWs submission. The EPA notes that FCNSW have issued a non-conformance to the contractor for this matter for breach of Forestry Officers instructions. The EPA also accepts that Part 2.6 Condition 132(b) makes allowances for such situations for the usage of tracks that were constructed prior to the commencement of the IFOA. The EPA considers based on field evidence that the track was constructed prior to forestry operations. The EPA has changed the audit finding to compliant.</p>	Compliant

146(2)	Orange	WLL Willow Isles near Murrumbidgee River E718815; N6156227 Z54	<p>Course Woody Debris Collection and Piling</p> <p>The direction to pile debris was a separate arrangement between the WLL lessee and the Timber License holder (licensee/contractor). FCNSW is of the understanding the WLL lessee is permitted to manage the lease for grazing and that in doing so is permitted under the terms of the lease to push up fallen timber etc. This activity was not undertaken in the course of the logging operation and was not authorised by FCNSW.</p>	<p>The EPA has reviewed FCNSW's submission. The EPA audits the conditions of the IFOA and associated licences. The collection and piling of course woody debris is not permitted under condition 146 (2) of the IFOA.</p> <p>This audit was undertaken during active logging operations. Discussions with the logging contractor made it clear that piling was being progressively done as part of the harvesting operation. FCNSW is obligated to meet the Conditions of the IFOA (Clause 20 Obligations imposed on FCNSW by approval) for the duration of the logging operation.</p> <p>No change in audit findings.</p>	Non-compliant Code Orange
--------	--------	---	--	--	------------------------------