



Section 70(2)
Environmental Protection Act 1986

VEGETATION CONSERVATION NOTICE

CPS 8252/1

Person to whom this vegetation conservation notice is given (“the Owner”):
(being the owner of the land described below)

Peter William Hubert Shields in 1/3 share; and
PWS Nominees Pty Ltd in 2/3 share as tenants in common

Land to which this vegetation conservation notice relates (“the land”):

Lot 9 on Plan 23599 as comprised on Certificate of Title Volume 2186 Folio 89
Lot M1127 on Diagram 4945 as comprised on Certificate of Title Volume 1550 Folio 74
Lot 311 on Deposited Plan 245072 as comprised on Certificate of Title Volume 1550 Folio 74
Lot 529 on Deposited Plan 246489 as comprised on Certificate of Title Volume 1550 Folio 74
Lot 111 on Deposited Plan 247871 as comprised on Certificate of Title Volume 1550 Folio 74
Lot 875 on Deposited Plan 247940 as comprised on Certificate of Title Volume 1550 Folio 74

Reasons for which this vegetation conservation notice is served:

This vegetation conservation notice is given for the following reasons:

- a) Site inspections by Department of Water and Environmental Regulation Inspectors on 12 November 2018 observed that clearing of native vegetation had taken place.
- b) Examination of aerial photography has shown the land contained native vegetation which has been cleared between June 2016 and May 2017.
- c) I suspect on reasonable grounds that the clearing was not authorised by a clearing permit or by exemption under the *Environmental Protection Act 1986* or the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.
- d) I suspect on reasonable grounds that unlawful clearing of native vegetation, constituting a contravention of section 51C of the *Environmental Protection Act 1986*, has taken place.

Requirements of this vegetation conservation notice:

The person(s) to whom this vegetation conservation notice is given, and each subsequent owner and occupier of the land who is bound by this vegetation conservation notice, are required to undertake the following specified measures, for a period of twenty years from the date this notice is given, to repair damage caused by the clearing.

1. No unlawful clearing

Ensure that no unlawful clearing, or further unlawful clearing, takes place on the land.

2. Revegetation

Undertake *revegetation* of native vegetation in the *specified areas* by:

- (a) Deliberately planting 826 Marri (*Corymbia calophylla*) trees within the *specified area*;
- (b) Construction of a barrier around areas of *revegetation* sufficient to prevent damage to *revegetation* by *livestock*, vermin or native animals;
- (c) Complete the initial *revegetation* by 31 October 2019; and
- (d) Monitor *revegetation* and replace all dead plants by deliberately planting Marri (*Corymbia calophylla*) trees by 31 October of each year, for a period of twenty (20) years after the initial *revegetation*.

3. Installation of Artificial Nesting Hollows

To install artificial nesting hollows by:

- (a) Constructing or obtaining 10 artificial nesting hollows to the design specifications detailed in Annexure 1 of this Notice: *How to design and place artificial hollows for Carnaby's black cockatoo* (DPaW, 2015).
- (b) Installing 10 artificial nesting hollows within the *specified area*, ensuring that mountings and placement are in accordance with Annexure 1 of this Notice and located at least 100 metres apart.
- (c) Mounting artificial nesting hollows that cannot be viewed from a gazetted road so that the base is a minimum of four metres from the ground.
- (d) Mounting artificial nesting hollows that can be viewed from a gazetted road so that the base is a minimum of seven metres from the ground.
- (e) Completing the installation of all artificial nesting hollows by the 30 June 2020.

4. Records must be kept

The following records shall be maintained for activities done pursuant to this vegetation conservation notice:

- (a) in relation to *revegetation* pursuant to measure 2:
 - (i) the date/s of initial *revegetation* activities carried out ;
 - (ii) a description of initial *revegetation* activities undertaken;
 - (iii) the location of initial *revegetation* by producing a map of the *specified area* with areas of *revegetation* marked;
 - (iv) the number of dead plants identified and date replaced in accordance with measure 2 (d).
- (b) in relation to the installation of Artificial Nesting Hollows pursuant to measure 3:
 - (i) the date/s that artificial nesting hollows are installed;
 - (ii) the *coordinates* of the location/s that artificial nesting hollows have been installed;
 - (iii) the height that each artificial nesting hollow has been mounted measuring from the ground to the base of the artificial nesting hollow;
 - (iv) three digital images of each installed artificial nesting hollow depicting in the case of a tree mount the entire tree, in the case of a pole mount the entire pole and an internal and external close-up of the constructed artificial hollow.

5. Annual reporting

Records required under measure 4 shall be submitted to the *CEO* by 30 June of each reporting year (every three years) on activities done under this vegetation conservation notice between 1 January and 31 December of the preceding three years. The first report being due by 30 June 2023.

Definitions:

CEO means the Chief Executive Officer of the Department of the Public Service of the State through which the *Environmental Protection Act 1986* is administered.

coordinate means a Map Grid of Australia (Geocentric Datum of Australia 1994) coordinate for zone 50.

livestock means any animal kept for domestic or commercial purposes and includes any horse, donkey, mule, cattle, sheep, swine, goat, buffalo, deer, camel or alpaca.

revegetate, revegetated and revegetation means the re-establishment of 826 Marri (*Corymbia calophylla*) trees to a pre-clearing maturity within the specified area.

specified area means the area that is listed as “Land to which this vegetation conservation notice relates” (the land) within this Vegetation Conservation Notice.



Stuart Cowie
EXECUTIVE DIRECTOR
COMPLIANCE AND ENFORCEMENT
DEPARTMENT OF ENVIRONMENT REGULATION

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

15 April 2019

Important Information:

A PERSON WHO IS BOUND BY THIS VEGETATION CONSERVATION NOTICE AND WHO DOES NOT COMPLY WITH THIS VEGETATION CONSERVATION NOTICE COMMITS AN OFFENCE UNDER THE *ENVIRONMENTAL PROTECTION ACT 1986*.

Under section 103 of the *Environmental Protection Act 1986*:

- a person who is aggrieved by a requirement contained in this vegetation conservation notice may within 21 days of being given this notice lodge with the Minister for Environment an appeal in writing setting out the grounds of that appeal; and
- any other person who disagrees with a requirement contained in this vegetation conservation notice may within 21 days of the making of that requirement lodge with the Minister for Environment an appeal in writing setting out the grounds of that appeal.

PENDING THE DETERMINATION OF AN APPEAL REFERRED TO ABOVE, THE RELEVANT REQUIREMENTS CONTAINED IN THIS VEGETATION CONSERVATION NOTICE CONTINUE TO HAVE EFFECT.

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ANNEXURE 1

How to design and place artificial hollows for Carnaby's black cockatoo (DPaW, 2015)



Artificial hollows for Carnaby's cockatoo



How to design and place artificial hollows for Carnaby's black cockatoo

Artificial hollows can be used to help conserve the threatened Carnaby's black cockatoo by enabling the cockatoos to breed in areas where natural hollows are limited.

A wide variety of artificial hollow designs have been used with mixed success. Evidence suggests that, while the hollow must meet some basic requirements, other factors such as proximity to existing breeding areas may be more important in determining the success of artificial hollows. Before using this information sheet to construct or install an artificial hollow, you should refer to the criteria listed in the separate information sheet, *When to use artificial hollows for Carnaby's black cockatoo*.

This information sheet contains broad guidelines for the design and placement of artificial hollows for Carnaby's black cockatoo.

Walls

The walls of the artificial hollow need to be constructed from a material that is;

- Durable enough to withstand exposure to elements for an extended period of time (i.e. 20+ years).
- Able to simulate the thermal properties of a natural tree hollow.
- Not less than 380mm in internal diameter.
- Preferably 1.2m deep overall and 1m deep to top of substrate/nesting material.

Successful artificial hollows have been constructed from sections of salvaged natural hollow, black and white industrial pipe. When using non-natural materials care must

be taken to ensure there are no toxic residues and that the materials are safe to ingest.



Figure 1: Carnaby's cockatoo eggs in an artificial hollow. Photo by Rick Dawson.

Base

The base of the artificial hollow must be;

- Able to support the adult and nestling(s).
- Durable enough to last the life of the nest.
- Free draining.
- Covered with 200mm of sterile, dry, free draining material such as charcoal, hardwood woodchips or wood debris. Do not use saw dust or fibre products that will retain moisture.
- At least 380mm in diameter.

Example materials that could be used for artificial hollow bases include heavy duty stainless steel, galvanised or treated metal (e.g. Zinalume[®]), thick hardwood timber slab or marine ply (not chipboard or MDF). The base material must be cut to size to fit internally with sharp or rough edges ground away or curled inwards and fixed securely to the walls.



Figure 2: bottom of an artificial hollow showing ladder that is fixed to the wall and a chewed sacrificial post which is 200mm from the floor. Photo by Rick Dawson.

Entrance

The entrance of the artificial hollow must;

- Have a diameter of at least 270 mm).
- Preferably be top entry which will minimise use by non-target species.

Top entry hollows are unattractive to nest competitors such as feral bees, galahs and corellas. Side entry hollows have been successful in areas where feral bees are not a problem and where galahs and corellas are deterred.

Ladder

For artificial hollows made of non-natural materials, or of processed boards, it is necessary to provide a ladder to enable the birds to climb in and out of the hollow easily.

The ladder must be;

- Securely mounted to the inside of the hollow.
- Made from an open heavy wire mesh such as WeldMesh[™] with mesh size of 30-50mm, or heavy chain.
- Not made of a material that the birds can chew.
- Not galvanized because the birds may grip or chew the ladder and ingest harmful compounds.

If using mesh for the ladder, the width will depend on the curvature of the nest walls. A minimum width of about 60-100mm is recommended.

Artificial hollows for Carnaby's cockatoo

Sacrificial chewing posts

For artificial hollows made of non-natural materials, or of processed boards, it is necessary to provide sacrificial chewing posts. The birds chew material to prepare a dry base on which to lay their egg(s).

The sacrificial chewing posts must:

- Be made of untreated hardwood such as jarrah, marri or wandoo
- Be thick enough to satisfy the birds' needs between maintenance visits.
- Extend beyond the top of the hollow as an aid to see whether the nest is being used.
- Be placed on the inside of the hollow.
- Be attached in such a way that they are easy to replace e.g. hook over the top of hollow or can slide in/out of a pair of U bolts fitted to the side of the hollow.

It is recommended that at least two posts are provided. Posts 70 x 50 mm have been used, but require replacing at least every second breeding season when the nest is active. Birds do vary in their chewing habits and therefore the frequency at which the chewing posts require replacement will also vary.

Mountings

The artificial hollows must be mounted such that:

- The fixings used will last the duration of the nest e.g. galvanized bracket or chain fixed with galvanized coach screws.
- It is secured by more than one anchor for security and stability.
- It is positioned vertically or near vertically.

Placement

Sites should be chosen within current breeding areas and where they can be monitored, but preferably not conspicuous to the general public. It is important that artificial hollows are placed where they will be accessible for future monitoring and maintenance. For more detail refer to the separate information sheet, *When to use artificial hollows for Carnaby's black cockatoo*.

The height at which artificial hollows should be placed is variable. The average height of natural hollows in dominant tree species in the area is a good guide. Natural hollows used by Carnaby's black cockatoos have been recorded as low as 2 m above the ground. If located on private property the hollows can be placed lower to the ground so they are accessible by ladder or a rope and pulley system can be used. Where public access is possible artificial hollows should be placed at least 7 m high (i.e. higher than most ladders) and on the side of the tree away from public view to reduce the chance of interference or poaching.

Carnaby's black cockatoo show no preference for aspect of natural hollows, however, it may still be beneficial to place artificial hollows facing away from prevailing weather and where they receive the most shade and protection.

Artificial hollows to be placed in trees require:

- Accessibility of the tree for a vehicle, elevated work platform or cherry picker.
- A section of trunk 2-3 m long suitable for attaching the hollow

If necessary, artificial hollows may be placed on poles, but this may result in excessive exposure to sun during very hot weather. When erected on poles there should be"

- A hinge at the bottom of the pole that can be secured when the pole is in the upright position.
- Access for a vehicle to assist raising the pole.

Safety

Care needs to be taken when placing artificial hollows to ensure safety is considered at all times. Artificial hollows are heavy and require lifting and manoeuvring into position up to 7 m above the ground.

Maintenance and monitoring

Once artificial hollows have been placed they require monitoring and maintenance to ensure they continue to be useful for nesting by Carnaby's black cockatoo. It is important to monitor artificial hollows to determine use by Carnaby's

black cockatoo, other native species as well as pest species. By undertaking monitoring the success of the design and placement of artificial hollows can be determined and areas for improvement identified for future placement of artificial hollows.

Monitoring can also assess whether any maintenance is required. Without regular maintenance artificial hollows are unlikely to achieve their objective (that is, they will fail to provide nesting opportunities for threatened cockatoos). Therefore it is important to continue a regime of regular maintenance while the artificial hollow is required. It may be several (to many) decades until a natural replacement hollow is available.

For further advice on monitoring and maintenance of artificial hollows please refer to the separate information sheet *How to monitor and maintain artificial hollows for Carnaby's black cockatoo*.

Acknowledgements

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Figure 3: examples of successful artificial hollows. Note the signs of fresh chewing on the hollow entrances (left) and chewing posts (middle). Photos by Christine Groom and Rick Dawson

Further information

Contact your local office of the Department of Parks and Wildlife

See the department's website for the latest information: www.dpaw.wa.gov.au

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Department of
Parks and Wildlife



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