

Application for a



Section 91 Licence

to harm or pick a threatened species, population or ecological community*,
or damage habitat under the *Threatened Species Conservation Act 1995*.

National Parks and Wildlife Service ABN 30 841 387 271

1. Applicant's Name: (if additional persons require authorisation by this licence, please attach details of names and addresses)	[REDACTED] on behalf of [REDACTED] [REDACTED]	
2. Organisation name and position of Applicant: (if applicable)	[REDACTED] [REDACTED]	
3. Postal address:	[REDACTED] [REDACTED] [REDACTED]	4. [REDACTED] telephone: B.H. [REDACTED] A.H. [REDACTED]
5. Location of the action (including grid reference and local government area and delineated on a map).	Shaw's Lane road reserve in Tuckombil Parish of the Ballina Shire Grid reference 545850 6812900 Aerial photo of property and diagram of the location of <i>T. tinosporoides</i> in footprint of activity attached	

* A threatened species, population or ecological community means a species, population or ecological community identified in either Schedule 1 or Schedule 2 of the *Threatened Species Conservation Act 1995*.

<p>6. Full description of the action and its purpose (eg. scientific research, environmental assessment, regeneration activities, development etc.).</p>	<p>To construct an all-weather access driveway to our farm Glen Idyll. The current access regularly floods, at times to a depth of 5.5m, and has been described in council reports as "failing and unsafe".</p> <p>The action involves clearing of a strip of vegetation in the Shaw's Lane road reserve. The driveway location has been designed to minimise impact on the biodiversity values of the road reserve. To this end the driveway location has been selected to minimise the clearing of native vegetation and to minimise edge effects by largely positioning the driveway at the eastern side of the road reserve adjacent to cleared agricultural land.</p> <p>A section of this vegetation to be cleared contains 6 runners of <i>Tinospora tinosporoides</i> (see attached map).</p> <p>There are some twenty-one runners of <i>T. tinosporoides</i> in the vicinity of the proposed activity (see attached drawing). Of these</p> <ul style="list-style-type: none"> • Six runners are directly in the footprint of the proposed activity. Two of these are rooted into the site of the driveway, the other four can be moved off the area of the proposed activity without disturbance to canopy or tap roots (some superficial rooting may be present). • An additional 8 runners are directly adjacent to the activity and will benefit from being trained away from the footprint of the activity • A further 7 runners are nearby but outside the footprint of the activity and screened from the area by established trees and other vines
<p>7. Details of the area to be affected by the action (in hectares).</p>	<p>Total area .065ha (150m by 5m)</p> <p>Area dominated by native vegetation limited to 0.001ha (20m by 5m). This is the area where the <i>T. tinosporoides</i> occurs</p>
<p>8. Duration and timing of the action (including staging, if any).</p>	<p>As per attached translocation plan:</p> <ul style="list-style-type: none"> • Taking of cuttings when the vines are showing signs of active growth (spring) • Planting out of cuttings when they have developed effective root systems and have been hardened off (estimate approximately 8-12 weeks) • Planting out of any additional successful cuttings after a period of 6 months • Monitoring for a period of three years and completion of reports <p>Driveway construction to occur within the year pending approvals</p>

<p>9. Is the action to occur on land declared as critical habitat? (please tick appropriate box)</p>	<p style="text-align: center;"><u>No</u></p> <p style="text-align: center;">√</p>
<p>10. Threatened species, populations or ecological communities to be harmed or picked.</p>	<p><u>Scientific Name</u> <i>Tinospora tinosporoides</i></p> <p><u>Common Name</u> Arrowhead Vine</p> <p><u>Conservation Status</u> Vulnerable</p> <p><u>Details of no. of individual animals, or proportion and type of plant material</u> (eg. fertile branchlets for herbarium specimens or whole plants or plant parts)</p> <p>Six runners to be translocated off the site of the activity as described above, two tap roots potentially to be severed, no other runners will need to be severed from their tap root and no canopy will be damaged.</p> <p>Nearby runners to be trained away from the activity</p> <p>Cuttings to be taken from the relocated runners as insurance against any detrimental impacts (translocation plan attached)</p>
<p>11. Species impact: (please tick appropriate box)</p> <p>a) For action proposed on land declared as critical habitat; or</p> <p>b) For action proposed on land <u>not</u> declared as critical habitat.</p>	<p style="text-align: center;">An SIS is attached</p> <p style="text-align: center;">√ Items 12 to 25 have been addressed</p>

N.B: Provision of a species impact statement is a statutory requirement of a licence application, if the action is proposed on critical habitat.

The provision of information addressing items 12 to 17 is a statutory requirement of a licence application if the action proposed is not on land that is critical habitat. Information addressing any of the questions below must be attached to the application.

* Critical habitat means habitat declared as critical habitat under Part 3 of the *Threatened Species Conservation Act 1995*.

<p>12. Describe the type and condition of habitats in and adjacent to the land to be affected by the action.</p>	<p>Work to be undertaken on a public road reserve.</p> <p>Regenerating rainforest in the road reserve to the west and north, cleared macadamia plantation to the east, formed roadway of Shaw's Lane to the south and grazed farmland to the northeast and to the north beyond the road reserve</p>
<p>13. Provide details of any known records of a threatened species in the same or similar known habitats in the locality (include reference sources).</p>	<p>Eleven occurrences have been recorded on Glen Idyll with a total upwards of 300 runners</p> <p>Records verified by Dr Peter Bundook and Mr Peter Eggler of the Centre for Plant Conservation Genetics, Southern Cross University</p> <p>These records entered into DEC Wildlife Atlas (aerial photos with mapped occurrences attached).</p>
<p>14. Provide details of any known or potential habitat for a threatened species on the land to be affected by the action (include reference sources).</p>	<p>20m by 5m of regenerating rainforest occurs in the area where the <i>T. tinosporoides</i> runners occur. The remainder of the area is dominated by exotic species including large-leaved privet, lantana and grassland, some native species also occur in these areas.</p> <p>NB: A further condition of consent of the DA approved by Ballina Shire Council is that a Revegetation, Rehabilitation and Weed Control Plan (RRWCP) be developed. It is anticipated that habitat for <i>T. tinosporoides</i> will be improved in the immediate vicinity through the implementation of the RR&WCP.</p>
<p>15. Provide details of the amount of such habitat to be affected by the action proposed in relation to the known distribution of the species and its habitat in the locality.</p>	<p>0.001 ha to be affected by the activity.</p> <p>An estimated 8ha of habitat occurs on the adjoining Glen Idyll with eleven <i>T. tinosporoides</i> records from a rapid survey within that 8ha</p> <p>There are a number of additional records within 15 kilometres of the proposed activity (Arcview data, July 2004)</p>

16. Provide an assessment of the likely nature and intensity of the effect of the action on the lifecycle and habitat of the species.

The activity is likely to have minimal impact on the lifecycle and habitat of the species.

Lifecycle

Four of the six runners are unlikely to suffer detrimental effects as a result of the relocation as they will not need to be severed from their parent root nor will their canopy be damaged. Two runners may need to be severed from a taproot. Cuttings, propagation and replantings will be undertaken as per the attached translocation plan.

The other recorded runners in the vicinity activity will be trained away from the footprint of the activity. Eight of these runners may experience an increase in light levels however a further 10 or more will not be disturbed by the activity as they are 4.5 metres from the site and are behind larger trees and a screen of vines.

Given that the two runners that may suffer detrimental effects as a result of the activity constitutes less than 10% of the runners in the immediate vicinity and less than 0.05% of the runners within 800m it is considered that the potential loss of this one runner will not have a significant impact on the local population.

In addition, should the runners be successfully propagated and additional material is available, the replanting of additional runners may result in a net increase in abundance of the vine in the road reserve.

Habitat

The activity will result in the permanent removal of 0.001ha of existing habitat and the removal of 0.065 hectares of *potential* habitat.

A Revegetation, Rehabilitation and Weed Control Plan (RRWCP) is currently in preparation for the area and it is anticipated that habitat for *T. tinusporoides* will be improved in the immediate vicinity through the implementation of the RR&WCP

Of the 8ha of habitat on the adjacent property, 5ha has been fenced from stock (northwest corner) and the *T. tinusporoides* is flourishing.

Given the relative abundance of habitat on the adjacent property (and its protection and planned increased protection), the activity is not likely to have a significant impact on the local population.

<p>17. Provide details of possible measures to avoid or ameliorate the effect of the action.</p>	<p>Cuttings will be taken for replanting back into the site as per the attached translocation plan</p> <p>A weed control programme will be developed and precautions will be undertaken during weed management activities to protect the <i>T. tinosporoides</i> from any further disturbance.</p> <p>Stock will continue to be fenced out of the areas of <i>T. tinosporoides</i> habitat on Glen Idyll, thereby providing for further flourishing of the local population and enhancement of its habitat.</p>
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N.B: The Director-General must determine whether the action proposed is likely to significantly affect threatened species, populations or ecological communities, or their habitats. To enable this assessment the Applicant is required to address items 18 to 25. Information addressing any of the questions below must be attached to the application.

<p>18. In the case of a threatened species, whether the life cycle of the species is likely to be disrupted such that a viable local population of the species is likely to be placed at risk of extinction.</p>	<p>Limited information is available for the species <i>T. tinosporoides</i>. A recovery plan is yet to be prepared and species profiles provide limited information. The extent of populations of <i>T. tinosporoides</i> have not been defined or confirmed by genetic testing.</p> <p>The species is represented by some 21 runners in the immediate vicinity of the proposed driveway (Map attached). All runners of <i>T. tinosporoides</i> have been clearly identified and caution taken to minimise disturbance.</p> <p>The activity will directly affect 6 runners. Of these, only two runners may require severing from the parent root. No canopy will be damaged and no other runners will be required to be severed from the parent roots. An additional nearby eight runners may experience higher light levels however this is not anticipated to have a significant detrimental effect as <i>T. tinosporoides</i> is observed to locally favour areas with moderate light levels. A further seven runners will be protected from the activity as they are behind larger trees and screen by vines.</p> <p>An additional 11 separate occurrences in three disjunct locations are recorded within 800 metres of the Shaw's Lane occurrence. Total number of runners counted in these nearby sites is upwards of 350.</p> <p>The proposed action is not likely to have a significant impact on the <i>T. tinosporoides</i> in the vicinity of the proposed driveway and, given the abundance of additional plants and runners nearby, it is not likely to place the local population at risk of extinction.</p>
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19. In the case of an endangered population, whether the lifecycle of the species that constitutes the endangered population is likely to be disrupted such that the viability of the population is likely to be significantly compromised.

The population is not listed as endangered.

20. In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(ii) is likely to substantially and adversely modify the composition of the community such that its local occurrence is likely to be placed at risk of extinction.

The community is not listed as an endangered ecological community.

<p>21. In relation to the habitat of a threatened species, population or ecological community:</p> <p>(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and</p> <p>(ii) whether an area of habitat is likely to become fragmented or isolated from other areas or habitat as a result of the proposed action , and</p> <p>(iii) the importance of the habitat to be removed, modified or fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.</p>	<p>(i) The area of actual habitat affected is limited to 0.001ha (20m by 5m) as a significant proportion of the total area to be affected by the activity is infested with privet and lantana or is dominated by grassland. Accurate figures for regional distribution of habitat are not available however there is approximately 8 hectares of similar habitat on the adjacent property of Glen Idyll. There may be an increase in light levels to sections of the adjacent habitat however <i>T. tinosporoides</i> appear to favour areas of moderate light levels and the remainder of the canopy will be largely undisturbed.</p> <p>(ii) The activity will not isolate any areas of habitat for the species. The proposed driveway is located adjacent to cleared agricultural land in order to avoid the isolation of habitat and minimise disruption to the ecological integrity of the native vegetation.</p> <p>Given the area of habitat to be removed is limited to 20m by 5m (0.001ha) and there is some 8ha of similar habitat on the adjacent property, it is considered that the removal of this small area of habitat will not compromise the long-term survival of the species.</p>
<p>22. Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly.</p>	<p>No critical habitat has been identified in the area of the activity.</p>
<p>23. Whether the action proposed is consistent with the objectives or actions of a recovery plan or a threat abatement plan.</p>	<p>A recovery plan has not yet been prepared for <i>T. tinosporoides</i>.</p>

24. Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of a key threatening process.	Clearing of native vegetation is listed as a key threatening processes on Schedule 3 of the <i>Threatened Species Conservation Act</i> 1995. The activity has been planned to minimise the clearing of native vegetation. The area of vegetation to be removed is limited to a strip of 100m by 5m adjacent to cleared agricultural land. Sections of this strip include native vegetation however as significant proportion is cleared grassland or dominated by lantana and privet.
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REFERENCES

Briggs J. D. and Leigh J.H. 1996, Rare or Threatened Australian Plants, CSIRO Publishing, Melbourne.

NSW NPWS, 2000, Threatened Species of The Far North Coast of New South Wales, NSW National Parks and Wildlife Service, Hurstville.

ACKNOWLEDGEMENTS

Annie Bundock, previously of Cutting Edge Natives, was consulted to discuss methods of translocation and risks of the activity to the plants (June 2004)

Annette McKinley, Landmark Ecological Services, was consulted to discuss the known ecology of the species (June 2004)

Nigel Slator, Tissue Culture Manager at the Centre for Plant Conservation Genetics was consulted in relation to translocation planning (May 2006)

Important information for the Applicant

Processing times and fees

The *Threatened Species Conservation Act 1995* provides that the Director-General must make a decision on the licence application within 120 days where a species impact statement (SIS) has been received. No timeframes have been set for those applications which do not require a SIS. The Director-General will assess your application as soon as possible. You can assist this process by providing clear and concise information in your application.

Applicants may be charged a processing fee. The Director-General is required to advise prospective applicants of the maximum fee payable before the licence application is lodged. Therefore, prospective applicants should contact the NPWS prior to submitting a licence application.

A \$30 licence application fee must accompany a licence application.

Protected fauna and protected native plants*

Licensing provisions for protected fauna and protected native plants are contained within the *National Parks and Wildlife Act 1974*.

Request for additional information

The Director-General may, after receiving the application, request additional information necessary for the determination of the licence application.

Species impact statement

Where the application is not accompanied by a SIS, the Director-General may decide, following an initial assessment of your application, that the action proposed is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats. In such cases, the *Threatened Species Conservation Act 1995* requires that the applicant submit a SIS. Following initial review of the application, the Director-General will advise the applicant of the need to prepare a SIS.

Director-General's requirements for a SIS

Prior to the preparation of a SIS, a request for Director-General's requirements must be forwarded to the relevant NPWS Zone Office. The SIS must be prepared in accordance with section 109 and 110 of the TSC Act and must comply with any requirements notified by the Director-General of National Parks and Wildlife.

Certificates

If the Director-General decides, following an assessment of your application, that the proposed action is not likely to significantly affect threatened species, populations or ecological communities, or their habitats, a Section 91 Licence is not required and the Director-General must, as soon as practicable after making the determination, issue the applicant with a certificate to that effect.

* Protected fauna means fauna of a species not named in Schedule 11 of the *National Parks and Wildlife Act 1974*.

Protected native plant means a native plant of a species named in Schedule 13 of the *National Parks and Wildlife Service 1974*.

N.B: An action that is not required to be licensed under the Threatened Species Conservation Act 1995, may require licensing under the National Parks and Wildlife Act 1974, if it is likely to affect protected fauna or protected native plants.

I confirm that the information contained in this application is correct. I hereby apply for a licence under the provisions of Section 91 of the *Threatened Species Conservation Act 1995*.

[REDACTED]

[REDACTED]

[REDACTED]

Applicant's name,
organisation and position
(Please print)

[REDACTED]

Applicant's signature

7/6/06

Date
