

**Taking of seven plants of *Caladenia huegelii*
and clearing of approximately 3.3 hectares of
potential habitat, Lot 1580 Warton Road,
Southern River**

Mt Barker Nominees Pty Ltd

**Report and recommendations
of the Environmental Protection Authority**

**Environmental Protection Authority
Perth, Western Australia
Bulletin 1143
July 2004**

ISBN. 0 7307 6779 5
ISSN. 1030 - 0120
Assessment No. 1531

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1. Introduction and background

This report provides the advice and recommendations of the Environmental Protection Authority (EPA) to the Minister for the Environment on the environmental factors relevant to the proposal by Mt Barker Nominees Pty Ltd to undertake a housing development on Lot 1580 Warton Road, Southern River. This proposal would result in the taking of seven plants of the threatened flora species *Caladenia huegelii* and clearing of approximately 3.3 hectares of potential habitat for this species.

The proposal was referred to the Australian Government Department of the Environment and Heritage (DEH) and it was determined a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 18 May 2004. The proposal was then referred to the EPA under Part IV of the *Environmental Protection Act 1986*.

Based on the information provided in proposal documentation the EPA considered that, while the proposal has the potential to affect the environment, it could be readily managed to meet the EPA's environmental objectives. The EPA and DEH then agreed to an assessment approach that would meet both the State's and Australian Government's statutory requirements. From the State's perspective the assessment approach was to assess the proposal at the level of Assessment on Referral Information (ARI), but with a two-week opportunity for public comment on the proposal documentation. On 16 June 2004 the delegate of the Australian Government Environment Minister accredited this assessment process. This means that the EPA Bulletin will constitute the assessment report under Section 130(2) of the EPBC Act and be taken into account by the Australian Government Environment Minister in deciding whether to approve the proposal and any conditions that should be attached.

The EPA made available the proposal documentation and invited public comment during the two-week period from 23 June 2004 to 7 July 2004. An invitation to comment, the proposal documentation, and information on the agreed assessment process, was sent directly to a number of stakeholders who had previously shown interest in the threatened species *Caladenia huegelii*. This information was also made available on the EPA website, which links to the DEH website, and advertised in the EPA's weekly advertisement in *The West Australian* newspaper.

The EPA considers that the proposal as described can be managed in an acceptable manner, subject to the EPA's recommended conditions being made legally binding.

The EPA has therefore determined under Section 40(1) of the Environmental Protection Act that the level of assessment for the proposal is Assessment on Referral Information, and this report provides the EPA advice and recommendations in accordance with Section 44(1).

2. The proposal

Mt Barker Nominees Pty Ltd is seeking to undertake a housing development on Lot 1580 Warton Road, Southern River (refer to Figure 1). This would result in the taking of seven plants of the threatened species *Caladenia huegelii* and clearing of approximately 3.3 hectares of potential habitat for this species.

In addition, this proposal is linked to a local conservation strategy whereby the State Government will purchase Lots 100 and 101 (refer to Figure 1) and create a permanent reserve for the protection of *Caladenia huegelii*. Lots 100 and 101 are currently held by Mt Barker Nominees which proposes to transfer these lots to the State Government. The seven plants taken from Lot 1580 would be replanted on the new reserve.

The main characteristics of the proposal are summarised in the table below.

Table 1: Summary of key proposal characteristics

Element	Description
Taking of Declared Rare Flora	The translocation of seven plants of <i>Caladenia huegelii</i> from Lot 1580 Warton Road into Lots 100 and 101.
Clearing of <i>Caladenia huegelii</i> habitat	The clearing of approximately 3.3 hectares, which comprises the entire area of Lot 1580 Warton Road (excluding the existing residence).

The potential impacts of the proposal are discussed by the proponent in the referral documentation (Mt Barker Nominees Pty Ltd, 2004).

2.1 Alternatives

Schedule 1 of the EPBC Regulations requires that, to the extent practicable, any feasible alternatives to the action be described in the assessment report. In this case, no feasible alternatives were identified that would allow development of Lot 1580 and significantly reduce the impacts on *Caladenia huegelii*.

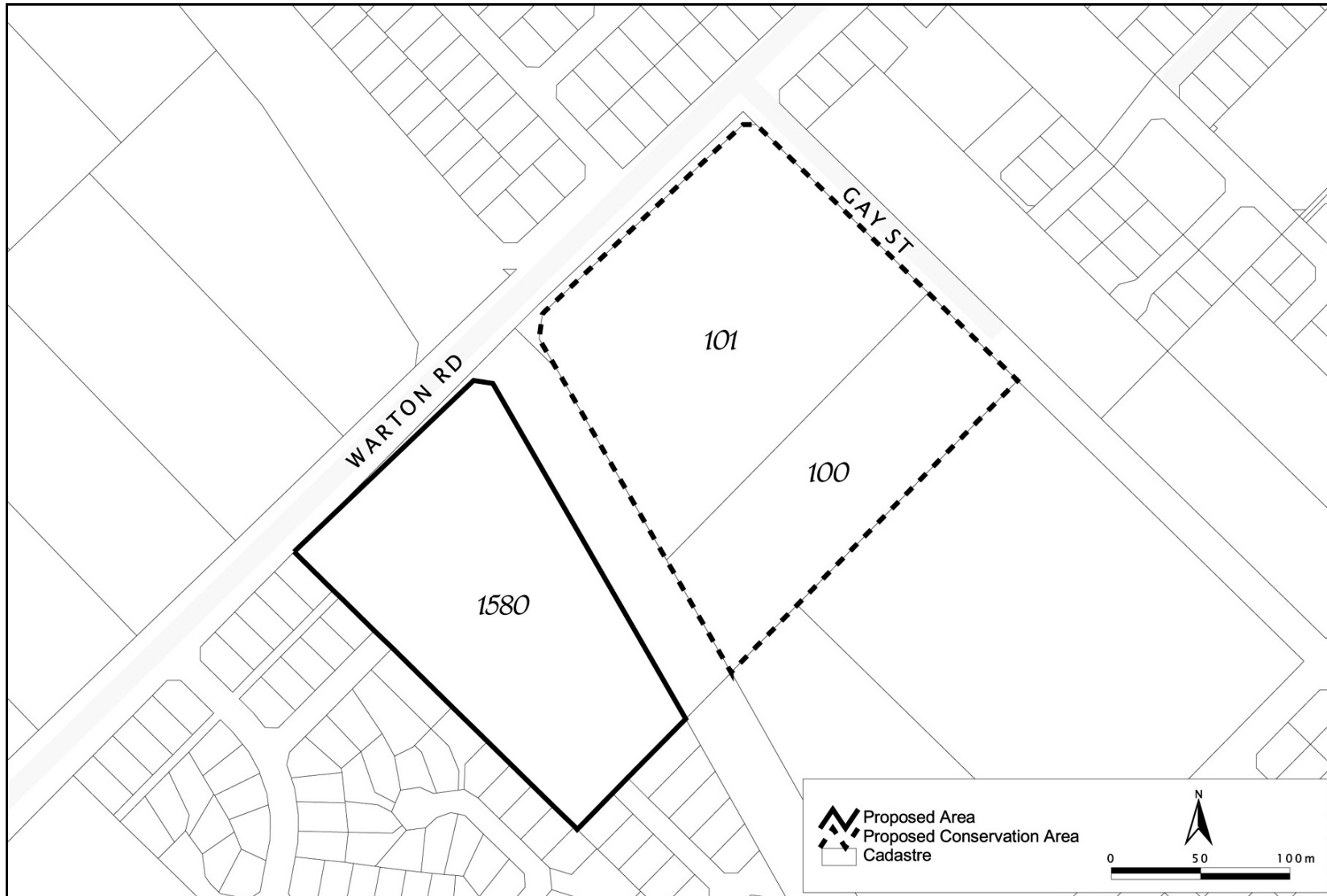


Figure 1: Proposal location and intended area for conservation of Caladenia huegelii

3. Relevant environmental factors

Section 44 of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on the environmental factors relevant to the proposal and the conditions and procedures, if any, to which the proposal should be subject. In addition, the EPA may make recommendations as it sees fit.

It is the EPA's opinion that the environmental factor relevant to the proposal and which requires evaluation in this report is "*Caladenia huegelii* (Grand Spider Orchid)".

The controlling provisions under the EPBC Act are sections 18 and 18A (Listed threatened species and communities) and the matter protected is a listed threatened species or ecological community.

3.1 *Caladenia huegelii* (Grand Spider Orchid)

Description

The proposal to be assessed is the taking (and translocation) of seven plants of *Caladenia huegelii* and clearing of approximately 3.3 hectares of potential habitat.

Caladenia huegelii is known from a number of small populations, scattered between Wanneroo and Busselton on the Swan Coastal Plain. Currently there are 29 known populations with a total of 634 plants. It is listed as 'declared rare flora' under State legislation and as 'Endangered' under the EPBC Act.

In addition, this proposal is linked to a local conservation strategy whereby the State Government will purchase Lots 100 and 101 (refer to Figure 1) and create a permanent reserve for the protection of *Caladenia huegelii*. Lots 100 and 101 together contain 11-12 plants and cover an area of approximately 5.5 hectares.

The parcel of land comprising lots 1580, 100 and 101 is covered with native vegetation apart from two existing house blocks. The vegetation appears to be in generally good condition although there is the possibility that dieback disease may occur on lot 1580. There are some weed occurrences near the margins and some off-road driving and rubbish dumping has occurred. The land is surrounded by roads and housing development.

Submissions

Two public submissions were received during the period for comment (see Appendix 1). The submissions were provided to the proponent.

A submission was made pointing out that it would be better to keep all of the area for the conservation of *Caladenia huegelii* (i.e. Lots 1580, 100, & 101) rather than a portion of it.

In brief, the City of City of Gosnells made a submission requesting that:

- the acquisition of Lots 100 and 101 include compensation to the City for cost contributions to infrastructure that would be foregone by not developing these lots;
- the impacts of the Garden Street extension on *Caladenia huegelii* be considered by the EPA as part of this assessment; and
- an extension of the public comment period be granted.

Assessment

The EPA's objective for this factor is to ensure the conservation of the flora species *Caladenia huegelii*.

The EPA notes that the local area (comprising of Lots 1580, 100, and 101) is an important area for the conservation of *Caladenia huegelii* in that it contains the 4th largest known population of this species and because surveys have demonstrated that most of the area is suitable habitat for the species. While, to the exclusion of all other issues, it would be preferable to keep all of this area intact, the EPA notes that a local strategy to conserve this species has been put forward that takes into account plans to develop some of this area. It is this development that the EPA has assessed.

The conservation strategy entails the proponent agreeing to transfer Lots 100 and 101 to public tenure to be managed as a conservation reserve. While there is every expectation that this transfer will occur, the timing of the transfer is not fixed at this stage of the negotiations. In the interim, no development of these lots should occur as any proposal to do so would require referral to the EPA under Part IV of the *Environmental Protection Act 1986*.

The orchids occurring on Lot 1580 will be translocated to Lots 100 and 101 before the Lot 1580 is developed. The EPA notes that the Department of Conservation and Land Management considers that Lots 100 and 101 will form a viable conservation area for *Caladenia huegelii* (see Appendix 4). The Department's view is that translocation of the seven plants can occur with reasonable likelihood of success because the area is a demonstrated habitat for the species and will provide the translocated plants with their specific mycorrhizal and pollinator requirements.

The Department of Conservation and Land Management has outlined a protocol for translocation, involving digging down to the tuber during the dormant summer period and removing the whole structure to another location. This procedure would be undertaken with advice from experts. Nonetheless, there has been only one previous translocation of this species, involving four plants, and the long-term success has not been demonstrated. The EPA recognizes the possibility that some or all of the seven plants may not survive translocation from Lot 1580 to the new reserve. (refer to Appendix 4).

Based on the above, and having regard to the strategy to conserve the species on adjoining land, the EPA considers that the taking of seven plants and the loss of approximately 3.3 hectares of habitat will not compromise the conservation of this species at either a local or global level.

With regard to the City of Gosnells submission, the EPA suggests the City take up the issue of compensation with the Western Australian Planning Commission and advises that the Garden Street extension will be considered separately by the EPA, as it is not part of this proposal and has not been referred to the EPA.

Summary

Having particular regard to:

- the local conservation strategy for *Caladenia huegelii* that has been developed by the Department of Conservation and Land Management; and
- the fact that this proposal is consistent with that strategy,

it is the EPA's opinion that the proposal can be managed to meet the EPA's environmental objective for this factor.

4. Conditions and Commitments

Section 44 of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on the environmental factors relevant to the proposal and on the conditions and procedures to which the proposal should be subject, if implemented. In addition, the EPA may make recommendations as it sees fit.

In this case, no proposal-specific conditions are considered necessary. Standard conditions that restrict the implementation of the proposal to that described to the EPA and assessed by it, are considered sufficient.

Implementation of the proposal will also require a *Permit to Take Declared Rare Flora* under Section 23F of the *Wildlife Conservation Act 1950*.

Further to the conditions stated in this report, Mt Barker Nominees also may be subject to conditions attached to an approval granted by the Australian Government Environment Minister under the EPBC Act to protect matters of national environmental significance.

5. Conclusions

The EPA has considered the proposal by Mt Barker Nominees Pty Ltd to undertake a housing development on Lot 1580 Warton Road, Southern River.

The EPA notes that this proposal is consistent with a local conservation strategy which has been developed to ensure continuation of a viable population of *Caladenia huegelii* in the immediate area.

The EPA has concluded that the proposal is capable of being managed in an environmentally acceptable manner such that it is most unlikely that the EPA's objectives would be compromised, provided there is satisfactory implementation of the recommended conditions set out in Section 4.

6. Recommendations

The EPA submits the following recommendations to the Minister for the Environment:

1. That the Minister notes that the proposal being assessed is the taking of seven plants of *Caladenia huegelii* and clearing of approximately 3.3 hectares of potential habitat, Lot 1580 Warton Road, Southern River;
2. That the Minister considers the report on the relevant environmental factor as set out in Section 3;
3. That the Minister notes that the EPA has concluded that it is unlikely that the EPA's objectives would be compromised, provided there is satisfactory implementation by the proponent of the recommended conditions set out in Appendix 3.
4. That the Minister imposes the conditions and procedures recommended in Appendix 3 of this report.

Appendix 1

List of submitters

Organisations:

City of Gosnells

Individuals:

Warwick Boardman

Appendix 2

References

Mt Barker Nominees Pty Ltd (2004). Proponent's referral and preliminary information under the *Environment Protection and Biodiversity Conservation Act 1999*. (Reference No. 2004/1471) Unpublished

DCLM (2004). Letter from Department of Conservation and Land Management to EPA Service Unit dated 18 June 2004. (Reference No. CRN207114)

Appendix 3

Recommended Environmental Conditions

RECOMMENDED CONDITIONS AND PROCEDURES

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

TAKING OF SEVEN PLANTS OF *CALADENIA HUEGELII* AND CLEARING OF APPROXIMATELY 3.3 HECTARES OF POTENTIAL HABITAT, LOT 1580 WARTON ROAD, SOUTHERN RIVER, CITY OF GOSNELLS.

Proposal: A housing development which involves the taking of seven plants of *Caladenia huegelii* and clearing of approximately 3.3 hectares of potential habitat, Lot 1580 Warton Road, Southern River, City of Gosnells.

Proponent: Mt Barker Nominees Pty Ltd

Proponent Address: PO Box 1646, OSBORNE PARK WA 6916

Assessment Number: 1531

Report of the Environmental Protection Authority: Bulletin 1143

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

1 Implementation

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.

2 Proponent Nomination and Contact Details

2-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.

2-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement

endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.

- 2-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

3 Commencement and Time Limit of Approval

- 3-1 The proponent shall substantially commence the proposal within five years of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

- 3-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 3-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;
2. new, significant, environmental issues have not arisen; and
3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

Notes

- 1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.
- 2 The proponent is required to obtain a *Permit to Take Declared Rare Flora* under Section 23F of the *Wildlife Conservation Act 1950*.

Schedule 1

The Proposal (Assessment No. 1531)

To undertake a housing development on Lot 1580 Warton Road, Southern River (refer to Figure 1). This will result in the taking of seven plants of the threatened species *Caladenia huegelii* and clearing of approximately 3.3 hectares of potential habitat for this species.

The key proposal characteristics are shown in Table 1.

Table 1: Summary of key proposal characteristics

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Clearing of <i>Caladenia huegelii</i> habitat	The clearing of approximately 3.3 hectares, which comprises the entire area of Lot 1580 Warton Road (excluding the existing residence).

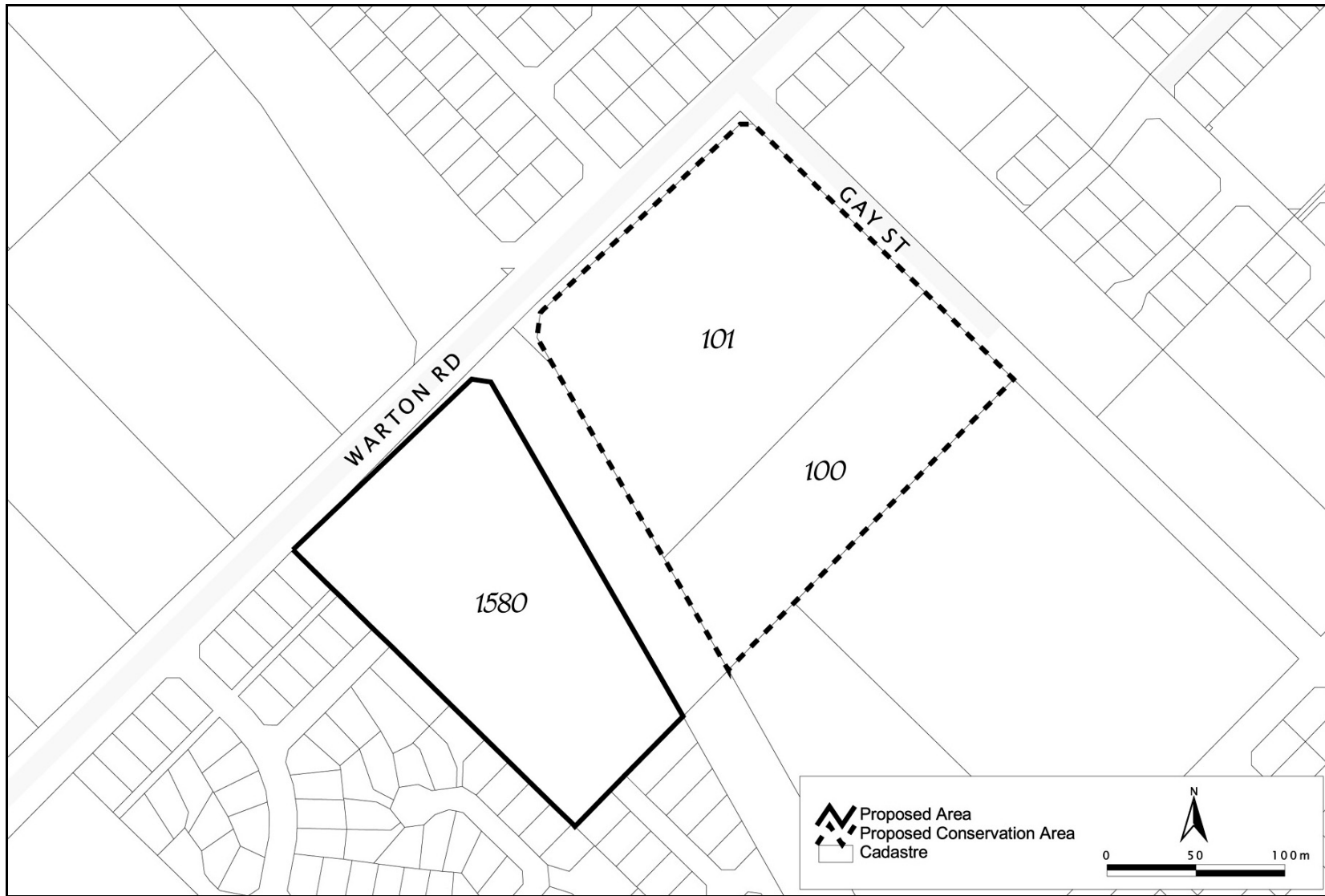


Figure 1: Proposal location and intended area for conservation of Caladenia huegelii

Appendix 4

Letter from Department of Conservation and Land Management

Your Ref:
Our Ref:
Enquires: Ken Atkins
Phone: (08) 9334 0425
Fax: (08) 9334 0278
Email: kena@calm.wa.gov.au



URGENT

Mr Murray Hogarth
EPA Service Unit
Department of Environment
Westralia Square
141 St George's Terrace
PERTH WA 6000

DEPARTMENT OF ENVIRONMENTAL PROTECTION RECORDS SECTION	
18 JUN 2004	
FILE NO	380/04
NAME	M HOGARTH
FILE NO	
NAME	

Dear Murray

LOT 1580 WARTON ROAD, SOUTHERN RIVER

CW 207114

I refer to your email of 3 June 2004 to Ken Atkins of this Department requesting additional information on the conservation and management of *Caladenia huegelii* in relation to the proposed development of the above location.

Translocation information

The issues and risks associated with the translocation of *Caladenia huegelii* are related to the ecology and biology of the species.

Concerns in relation to the ecology relate to the specific mycorrhizal and pollinator requirements of this species, and the capacity for these two elements to be supported at a translocation site. In the proposal relating to Lot 1580, the intention is to translocate the plants to the adjacent proposed conservation area (Lots 100 and 101), which is known to support a larger population of this species. It is thus clear that the mycorrhizal and pollinator associates are present in this area, and there is no reason to suggest that this potential difficulty with translocation will be of concern in this situation.

The issue with the biology of the plant relates to its geophytic characteristic of remaining dormant for periods, and then sending up flowering shoots from a subterranean tuber, with these shoots occasionally appearing at different locations. Techniques have been developed by the Department of Conservation and Land Management (CALM) and the Botanic Gardens and Parks Authority for the translocation of these types of plants. This involves the tracking of the old (previous years) flowering sheath through the soil to the tuber, when in its dormant stage, and carefully removing the whole structure to another location by hand. This technique not only moves the tuber and flower sheath, but also elements of the mycorrhizal fungus to ensure immediate inoculation of the plant at its new site.

Caladenia huegelii is dormant during the summer months, and hence it would be proposed that the translocation work be undertaken during this period. There is some flexibility as to the actual time of moving the tubers, and advice will be provided on the suitable translocation time by experts in this field at the time, based on seasonal conditions.

The location of the known plants has been accurately marked at Lot 1580, which will permit the location of the flower sheath, and hence tracking down to the tuber. This will facilitate the translocation of these plants, and maximise the potential to salvage the plants and establish them in the proposed adjacent conservation reserve.