



# *Dillwynia tenuifolia*

## Endangered Population Kemps Creek

The following information is provided to assist authors of species impact statements, development and activity proponents, and determining and consent authorities, who are required to prepare or review assessments of likely impacts on threatened species pursuant to the provisions of the *Environmental Planning and Assessment Act 1979*. These guidelines should be read in conjunction with the NPWS *Information Circular No. 2: Threatened Species Assessment under the EP&A Act: The '8 Part Test' of Significance* (November 1996) and with the accompanying "Threatened Species Information" sheet.

### Survey

*D. tenuifolia* is best surveyed during the peak flowering period of September when it is easiest to observe and identify.

Non-flowering plants are superficially similar to other sclerophyllous vegetation and may be overlooked when spindly and growing in thick scrub.

*D. tenuifolia* has been reported to have been confused with *D. glaberrima* and *D. sieberi*, but can be separated from other pea species by its relatively soft and long (4-12mm), linear, terete leaves with an apex which is frequently recurved. The inflorescence is 1- or rarely 2-flowered, borne on a peduncle <3mm long, occurring terminally or in the upper leaf axils (Harden 1991). In open areas it may have a distinctive form - a low and compact shrub with arching branchlets.

### Life cycle of the species

Proposals which are likely to affect the life cycle of the species, such that the endangered population is put at risk of extinction would include proposals that:

- result in total destruction of habitat;
- result in a partial destruction or modification (including changes to hydrology and nutrification of the soil substrate) of the habitat or the

vegetation structure which may result in dense monospecific regrowth of large shrubs, trees or invasion of alien species;

- result in a requirement for frequent fire hazard reduction, so that the seedbank cannot be adequately replenished;
- increase vehicular bike or pedestrian access to the population; or
- increase rubbish dumping and associated weed invasion or arson (for example, through adjacent residential development).

### Threatening processes

"High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition" is listed in the NSW Threatened Species Conservation Act 1995 as a key threatening process. *D. tenuifolia* is fire sensitive and is therefore vulnerable to high frequency fires.

Clearing of native vegetation is listed as a key threatening process and is pertinent for the consideration of impact assessment for *D. tenuifolia*.

The Kemps Creek population is threatened by proposals which would involve clearing of vegetation to allow for residential subdivision. To date, such proposals have been refused. The current zoning, however, allows certain types of development with consent (Liverpool City Council 1997).

Other threatening processes currently affecting this population include clearing, slashing, herbicide application, grazing, habitat modification through altered fire regime, runoff from adjoining properties, weeds, rubbish and fill dumping, vehicular arson and access, horse riding and trampling.

## **Viable local population of the species**

The population is large, estimates range from 10,000 to 219,000 individuals. The species is widespread throughout the site with localised high density occurrences. Cunningham (1997) and CFFIS (2001) concluded that the population is viable due to the large numbers of individuals present across the majority of the site.

## **A significant area of habitat**

The entire habitat area which supports the endangered population is considered to be significant due to the condition and the high numbers of the species and its widespread occurrence across the site.

## **Isolation/fragmentation**

The endangered population at Kemps Creek is a disjunct occurrence of the species near the southern limit of the species known distribution. This population is therefore effectively

## **For Further Information contact**

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## **References**

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isolated from the core distribution of the species.

## **Limit of known distribution**

The endangered population is that which occurs in the area bounded by Western Road, Elizabeth Drive, Devonshire Road and Cross Street, Kemps Creek in the Liverpool Local Government Area.

## **Adequacy of representation in conservation reserves or other similar protected areas**

The site on which the population occurs is zoned Environment Protection 7b but, as this does not prevent all development, this population must be considered inadequately conserved.

## **Critical habitat**

No critical habitat has been declared for the endangered population of *D. tenuifolia* at Kemps Creek.