

**Carysfield Park and Louisa Reserve Bank Stabilisation and Creek Restoration -  
s91 licence application**

**1. Applicant's Name : *(if additional persons require authorisation by this licence, please attach details of names and addresses)***

Bankstown City Council, its employees and contracted companies and workers.

**2. ABN Number:**

38 380 045 375

**3. Organisation name and position of Applicant : *(if applicable)***

Bankstown City Council

**4. Postal address :**

c/- Rebecca Piper (ESD)  
PO Box 8  
Bankstown NSW 1885

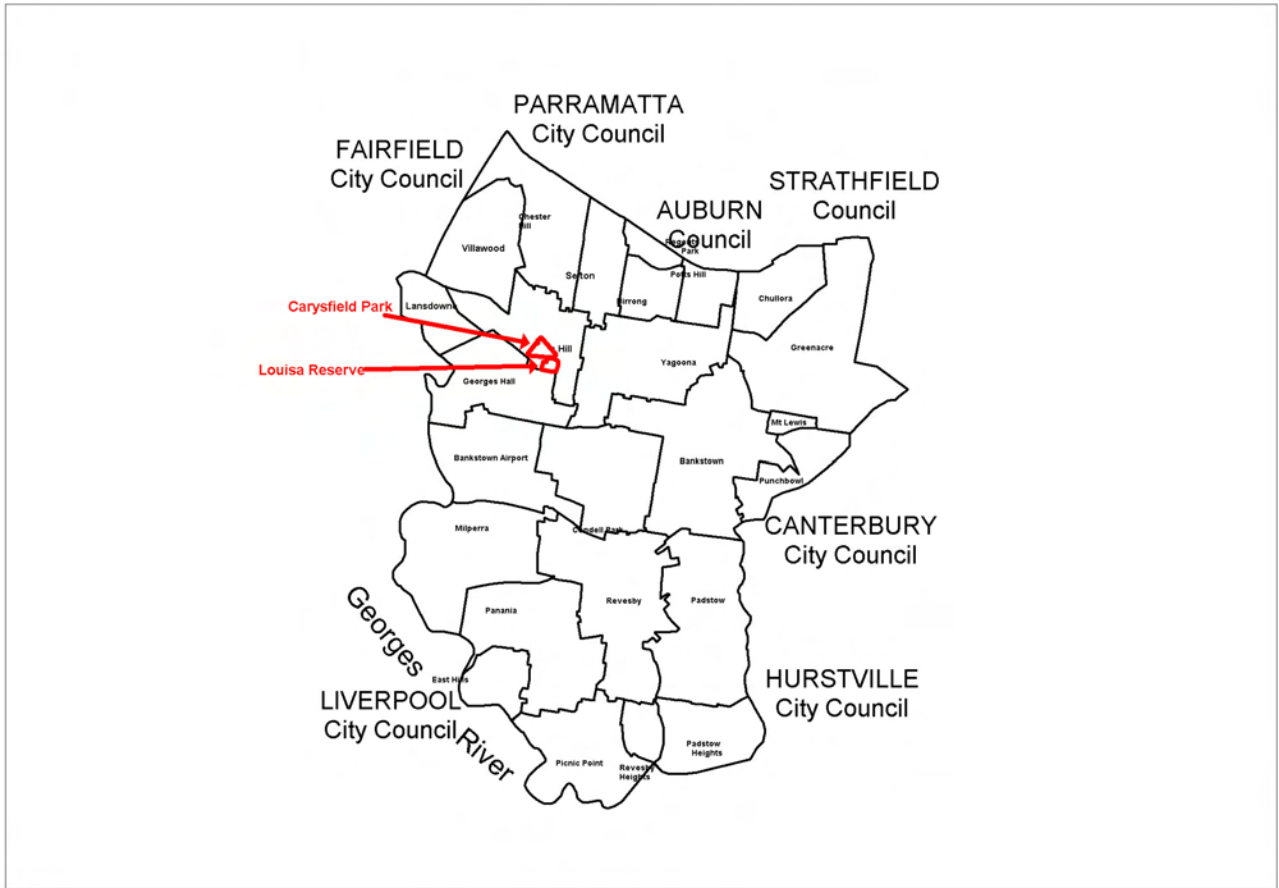
**4. Telephone :**

B.H. (02) 9707 9990  
A.H.

**5. Location of the action *(including grid reference and local government area and delineated on a map).***

Works are to take place at Carysfield Park and Louisa Reserve, Bass Hill, part of The Crest Group of Reserves in the Bankstown LGA. The creekline runs from Louisa Reserve in the south (X315214.19, Y6246594.59) under Johnston Road and through Carysfield Park, to the Hume Highway in the north (X314955.46, Y6246960.31).

See next page for LGA and aerial maps.



**6. Full description of the action and its purpose (eg., environmental assessment, development etc.).**

Bank stabilisation, creek restoration, riparian and bushland revegetation and regeneration works in remnant Cooks River/Castlereagh Ironbark Forest (CRCIF), an EEC. Removal of a few trees from remnant CRCIF may be necessary to allow for regrading and rockwork to stabilise the eroding creekline and protect the riparian community and downstream water quality. Almost 50,000 locally indigenous plants are expected to be planted over the course of the project.

**7. Details of the area to be affected by the action (in hectares).**

Total area of bushland in reserves 7.8ha, potential loss of vegetation restricted to a few individuals

**8. Duration and timing of the action (including staging, if any).**

First stage - Engineering works (regrading and rock work); revegetation of the affected areas (4000+ plants indicative of CRCIF community); staged removal of in-stream weeds. Due to commence in March 2009.

Future stages (3-5 years) - extensive weed removal; revegetation (~45,000 plants indicative of CRCIF); bush regeneration works; fencing to protect remnant vegetation; a bridge to formalise access and prevent further erosion between the BMX track and skate park. Due to commence in 2009/10. Complete in 2010/11.

**9. Is the action to occur on land declared as critical habitat\*? (please tick appropriate box)**

No.

**10. Threatened species, populations or ecological communities to be harmed or picked.**

**Scientific Name**

Cooks River/Castlereagh Ironbark Forest under the TSC Act 1995

**Common Name (if known)**

**Conservation Status (ie. Critically endangered, endangered or vulnerable)**

Endangered Ecological Community

**Details of no. of individual animals, or proportion and type of plant material (eg. Fertile branchlets for herbarium specimens or whole plants or plant parts)**

No vegetation has been identified for removal in the detailed designs. Damage and or/removal is not expected but construction activities may damage or necessitate removal of a very small number of individuals.

**Scientific Name**

*Acacia pubescens*

**Common Name (if known)**

Downy Wattle

**Conservation Status (ie. Critically endangered, endangered or vulnerable)**

Vulnerable under the TSC Act 1995 and the Environment Protection and Biodiversity Conservation (EPBC) Act 1999

**Details of no. of individual animals, or proportion and type of plant material (eg. Fertile branchlets for herbarium specimens or whole plants or plant parts)**

No individuals have been identified for removal in the detailed designs. Damage and/or removal is not expected but construction activities may inadvertently cause damage to or necessitate removal of individual plants on the creek bank. Removal would only be carried out following close consultation between the construction company and Council's Bushland Officer and other staff, and only if no alternative can be identified, particularly if removal of some individuals in the short term will allow works to increase the protection of the broader riparian community in the long term. Relocation will be considered if necessary.

**11. Species impact: (please tick appropriate box)**

**a) For action proposed on land declared as critical habitat; or**

**b) For action proposed on land not declared as critical habitat.**

**12. Describe the type and condition of habitats in and adjacent to the land to be affected by the action.**

Recent flora surveys (UBM, 2008) classified remnant vegetation condition in the area of works at Louisa Reserve as Fair, with the balance Poor-Very Poor. CRCIF in the area of works at Carysfield was classified as Very Poor, with smaller areas in Poor and Fair condition to the west, and patches in Good condition to the north and west of the park.

The surrounding Crest reserves are dominated by remnant CRCIF, Cumberland Plain Woodland (CPW) and Sydney Turpentine Ironbark Forest (STIP) (all EEC's). In 2001, vegetation condition was classified as Good for STIP; mainly Poor-Fair in the southern group of reserves (CPW); and mostly Very Poor-Fair for the northern reserves (mostly CRCIF).

Overall local floral diversity is very high with 322 indigenous plant species recorded (2001 Bushland POM), including 62 indigenous flora species recorded for Louisa Reserve and 69 for Carysfield Park (UBM, 2008).

**13. Provide details of any known records of a threatened species in the same or similar known habitats in the locality (include reference sources).**

Remnant vegetation in the area to be affected is CRCIF (EEC, NSW TSC Act 1995). *Acacia pubescens* occurs at The Crest, Carysfield, Louisa and Thornton Reserves

(Vulnerable, NSW TSC Act 1995, EPBC Act 1999). *Pimelea spicata* (Endangered, NSW TSC Act 1995) is known to have occurred in the area, but was not identified in the 2008 flora and fauna surveys. *Pomaderris prunifolia* occurs at The Crest (Endangered Population, NSW TSC Act 1995).

The Black Bittern (*Ixobrychus flavicollis*) has been recorded in The Crest Reserves (Vulnerable, NSW TSC Act 1995). During recent fauna surveys, the Grey-headed Flying Fox (*Pteropus poliocephalus*) (Vulnerable, NSW TSC Act 1995, EPBC Act 1999); the Eastern Bentwing Bat (*Miniopterus schreibersii*) (Vulnerable, NSW TSC Act 1995); and the Bearded Dragon (*Pogona barbata*), which is of regional conservation concern (NPWS 1997) were all recorded at Carysfield Park and/or Louisa Reserve.

Bankstown City Council. 2001. The Crest Reserves Bushland Plan of Management. UBM Ecological Consultants. 2008. Flora and Fauna Surveys & Ecological Assessment for Louisa Reserve and Carysfield Park, Bankstown.

**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).**

NPWS Wildlife Atlas recording a sighting of *Pultenaea parviflora* (listed as Endangered under the NSW TSC Act 1995 and listed as Vulnerable under the EPBC Act 1999) in the locality. Targeted flora surveys in 2008 failed to locate the species in Carysfield Park or Louisa Reserve, but further surveys are planned in 2009 to determine if the area still provides habitat for this species.

The Regent Honeyeater (*Xanthomyza phrygia*), listed as Vulnerable under the NSW TSC Act 1995, has been recorded nearby at Lansdowne Reserve and Chullora and may use the area for foraging.

Bankstown City Council. 2001. The Crest Reserves Bushland Plan of Management. UBM Ecological Consultants. 2008. Flora and Fauna Surveys & Ecological Assessment for Louisa Reserve and Carysfield Park, Bankstown.

**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.**

It is unlikely that any habitat will be affected. Only weed species have been identified in the detailed designs for removal. Removal of a small number of other trees may be necessary, but these will only be identified during the construction process.

Habitat will be improved through stabilisation of the eroding creekline in the short term, bush regeneration activities in the medium-term future, and through revegetation of CRCIF species (up to 45,000 plants) as part of this and future stages of this project.

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

Minimal negative impact, only a few CRCIF individuals and 1 *Acacia pubescens* will possibly require removal. Large positive impact through bank stabilisation, bush regeneration and revegetation works.

**17. Provide details of possible measures to avoid or ameliorate the effect of the action.**

Restoration works have been designed to minimise likely impacts to remnant vegetation. Councils Bushland Officer and environmental officer is to be consulted if on undertaking the works damage to remnant bushland and/or *Acacia pubescens* is possible.

Site depot is to be located away from remnant vegetation areas and all remnant vegetation is to be roped off and designated a no-go area. All contractors to be inducted to the site and informed of remnant vegetation and no-go areas.

**18. In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.**

Very unlikely given that only a limited number of plants will be lost, if any, and the condition and extent of habitat in the reserves will be improved. The works will also lead to increased species diversity, removal of exotic weeds and protection of a number of mature plants that are under threat from bank erosion.

**19. In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction.**

N/A, no endangered populations occur at this location

**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 ecological community such that its local occurrence is likely to be placed at risk of extinction.**

If plants need to be removed as part of this project, the loss will be limited to a few individuals out of a total area of 7.8ha. This is not likely to have either of the above impacts. Additionally, bush regeneration works and revegetation (up to 45,000 plants indicative of CRCIF species) will improve the condition and extent of the EEC.

The proposed stabilisation works will actually protect existing remnants from further loss due to creek bank slumping, etc. and will improve habitat connectivity through bush regeneration and removal of informal tracks.

**21. In relation to the habitat of a threatened species, population or ecological community:**

**(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and**

**(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and  
(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.**

Very few plants likely to be removed, therefore it is unlikely that the works will result in any negative long-term impacts.

The works will actually result in improved habitat condition and habitat connectivity through stabilisation works to protect the riparian community from bank slumping, bush regeneration and removal of informal tracks in the long-term.

**22. Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly).**

N/A. No critical habitat has been declared for either CR/CIF or *Acacia pubescens*.

**23. Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan.**

Recovery plans have not been developed for CRCIF, the Black Bittern (*Ixobrychus flavicollis*) or the Grey-headed Flying Fox (*Pteropus poliocephalus*).

The recovery plan for *Acacia pubescens* has identified Carysfield Park and Louisa Reserve as two of 7 sites identified for potential reservation to protect the species. The actions for this project are not out of line with the aims of the recovery plan to preserve the species. Everything possible will be done to ensure that all *A. pubescens* individuals are protected during construction. Only one individual has been identified that may be damaged or removed during construction activities but this will only occur as a last resort after close consideration of alternatives by the construction company and Council. Bush regeneration and revegetation works will improve the condition and extent of this habitat for this threatened species throughout the reserve.

**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.**

As a whole this project will reduce the impact of the key threatening processes for this species, namely "loss of habitat" and "degradation of habitat".