

Caboolture Catchment Management Plan

Part A

4/5B

Parramatta East Public School



4/5B - Parramatta East Public School



 **Identify the cause and effect of the MuM09 crime. Explain how the victim, villain and crime site are related.**



**Blue Banded Bee
Victim**

Source: http://blog.adonline.id.au/uploads/blue-banded_bee_02.jpg



**Caboolture River
Crime Site**

Source: <http://www.abovephotography.com.au/Aerial-Photos/Queensland/Brisbane/Caboolture-001344/>



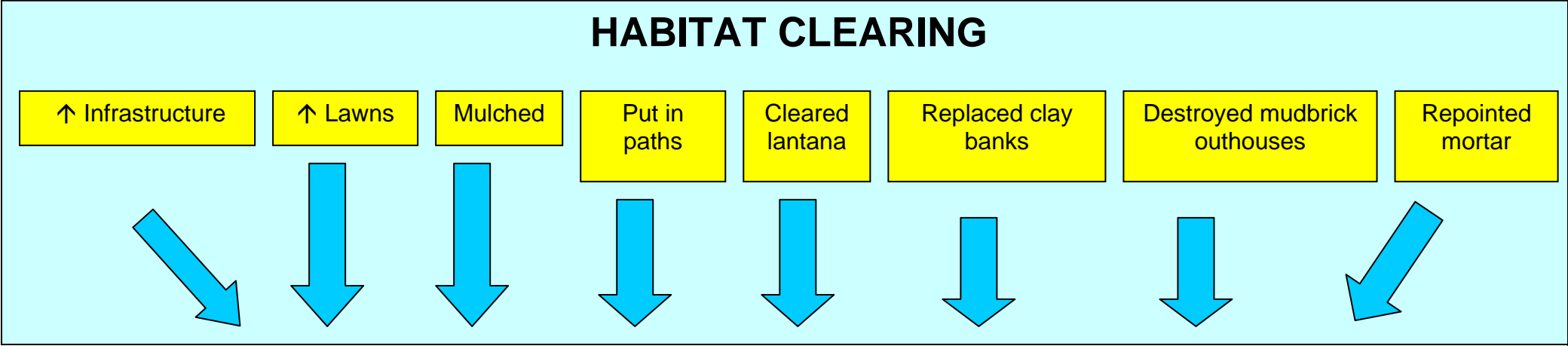
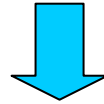
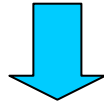
**Habitat Clearing
Villain**

Source: .bp.blogspot.com/_ugr5bDRsMOw/RtZb_UH1411/AAAAAAAAARY/IOfUEYpn8Fs/s400/coronet%2520turf%2520lawn.jpg



Urban developments @ Eden Lakes

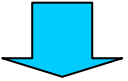
Top Autumn Town Contest and Town Clean Up Of Caboolture



NO NESTING SITES OR FOOD FOR BLUE BANDED BEE IN IMMEDIATE AREA


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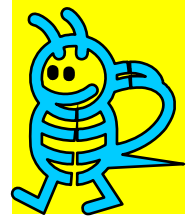
LIMITED FORAGING RANGE OF BLUE BANDED BEE








LOCALISED EXXTINCTION OF BLUE BANDED BEE








 **Predict what will happen in the catchment if a management plan is not implemented.**





-  The Blue Banded Bee will become extinct in the Caboolture area.
-  Plants that rely on buzz pollination eg. Kangaroo Apple and lavender will become locally extinct.
-  Animals that rely on the Blue Banded Bee eg. the Neon Cuckoo Bee will be affected and may become locally extinct.
-  Over time, a decrease in biodiversity in the area will occur.
-  The people of Caboolture may not be aware that some of their actions, e.g. repointing mortar and laying down more lawns, are having a huge impact on some native species.

 **Outline the evidence to support your views about the future of the catchment.**

-  When the scientists completed the survey about Blue Banded Bee numbers they found localised extinction
-  Zahara noticed there was no lavender at “Lavender Cottage”. Hugo couldn’t find any Kangaroo Apple flowers for his steroid production. **NO BLUE BANDED BEES TO POLLINATE = EXTINCTION OF PLANT SPECIES, INCLUDING MANY NATIVE SPECIES THAT REQUIRE BUZZ POLLINATION.**
-  Kiri’s tomatoes were flavourless and misshapen. **NO BLUE BANDED BEES FOR BUZZ POLLINATION MAY AFFECT FOOD PRODUCTION E.G. TOMATOES.**
-  The Neon Cuckoo Bee disappeared. **NO BLUE BANDED BEE NESTS MEANS THE NEON CUCKOO BEE CANNOT REPRODUCE.**
-  Most of the people interviewed by Daniel Bookham did not even realise the existence of the Blue Banded Bee. In order to protect them, they must be aware of their importance and how they can be affected by developments and loss of habitat.



 *If the Blue Banded Bee disappears, a decrease in biodiversity in the area will occur. In only a short period of time the food web has already been affected with the disappearance of the Blue Banded Bee leading to the disappearance of the Neon Cuckoo Bee. Other animals which form the food web including the Blue Banded Bee and the Neon Cuckoo Bee will eventually be affected.*

 **Identify short-term (6 – 12months) and long-term (2 – 10 years) solution to prevent the crime from happening (340)**

 **Short Term Goals -**

- *Caboolture Shire Council should distribute Blue Banded Bee nest blocks to all residents. This would provide places for Blue Banded Bees to nest in Spring. Instructions for making nest blocks are found at <http://www.aussiebee.com.au/aussiebeeonline008.pdf>*
- *Residents should minimise the areas of mulched ground and lawn in their gardens. This would help to provide nesting sites for the bee.*
- *The Council should immediately start a volunteer Bush Regeneration Group. The group could concentrate their efforts on the areas where Blue Banded Bees could live and nest. They should try to plant species which Blue Banded Bees will be attracted to and ensure that there are areas of clay for nesting sites.*
- *The council should look carefully at current development applications and consider the impact these will have on the Blue Banded Bee, as well as other native species.*
- *Residents should ensure they do not use pesticides if at all possible, to encourage Blue Banded Bees to return to the area.*
- *The Council could combine with the local schools to produce an information booklet about the plight of the Blue Banded Bee and how we can save them. The school children could help to make this booklet.*






Long Term Goals -


- *The Wildflower Garden should be restored to benefit all native species.*
- *The Council should implement policies regarding developments which ensure a balance between impervious surfaces, grassed areas and areas left for green corridors for native species.*
- *Hugo's nursery could establish a program with the local residents to distribute native seeds and seedlings for planting in gardens. This could encourage residents to remove foreign species and plant natives which would encourage the return of native animals e.g. the Blue Banded Bee.*
- *The council should continue distributing nest blocks and support the bush regeneration group.*
- *The local schools in the area should establish an environmental program to teach students about local native species and the impact humans can have on them.*
- *The Schools and Council could combine to start a "Blue Banded Bee Day" to raise awareness and money to help fund the distribution of clay nest blocks, the bush regeneration group and native seeds and seedlings.*











 **Identify the factors that would need to be monitored to make sure the catchment plan is working and explain how these factors will be monitored, include details about who could do it and how often**

What?	How?	Who?	When?
Blue Banded Bee numbers	Survey and record bee and nest numbers	Peter Mbangwa	Every spring (nests) and summer (bees)
Neon Cuckoo Bee numbers	Survey and record bee numbers		Every summer
Flowering natives	Survey the number of flowering natives e.g. Kangaroo Apples	Bush Regeneration Group	Every spring when plants are flowering
Food crops	Monitor the quality of produce e.g. tomatoes	Kiri	
Native plant species	Residents inventory native plant numbers in their gardens and areas of lawn, mulch etc.	Local residents	
Number of volunteers	Record participation numbers	Council	Every time the group meets
Number of nesting blocks	Council keeps a record of number of nesting blocks		Throughout summer as blocks are distributed
Number of development applications	Council records type and number of developments in the area		Every time an application is received
Usage of pesticides	Sales could be monitored and limited	Native Seeds Nursery	Each purchase
Environmental Awareness	Questionnaires for school students and local residents to determine knowledge of impacts of human actions on environment and the blue banded bee	Council and local schools	Immediately and then after the education program



 **Predict based on your understanding of the site – a likely vision of how the site may look in 5 – 10 years, if the plan is carried out.**

-  *If the plan was implemented and efficiently monitored the Blue Banded Bee should return to the local area and will gradually increase in numbers.*
-  *The Kangaroo Apple will gradually return to the area.*
-  *The Neon Cuckoo Bee will gradually return to the area.*
-  *The quality of Kiri's organic vegetables will be dramatically improved.*
-  *Hugo may be able to start his steroid production.*
-  *The Wildflower Garden will be restored and will provide habitats for many native species.*
-  *Green Corridors will be established which will provide habitat for native species.*
-  *Lawns and mulched areas will be minimised.*

 **Identify all the resources you used to develop this plan (eg. websites, books and people)**

-  http://blog.adonline.id.au/uploads/blue-banded_bee_02.jpg
-  <http://www.abovephotography.com.au/Aerial-Photos/Queensland/Brisbane/Caboolture-001344/>
-  http://www.bp.blogspot.com/_ugr5bDRsMOw/RtZb_UH141I/AAAAAAAAARY/IOfUEYpn8Fs/s400/coronet%2520turf%2520lawn.jpg
-  <http://www.microscope.edu.au>
-  <http://www.aussiebee.com.au/aussiebeeonline008.pdf>

