

<i>Name of Witness</i>	<b>Anne Hilary CLARKE</b>
<i>Date of Birth</i>	[REDACTED]
<i>Address and contact details</i>	[REDACTED]
<i>Occupation</i>	President, Oxley Creek Catchment Association Inc.
<i>Officer taking statement</i>	Detective Sergeant Paul Browne
<i>Date taken</i>	19/09/2011

I, **Anne Hilary CLARKE** state;

1. I am the President of the Oxley Creek Catchment Association Incorporated (OCCA) and have held this position from 2002-05, and from 2009 to current. I first became involved in water quality monitoring in Oxley Creek catchment in 1975 as part of the research being undertaken by the 'Australian Littoral Society'.
2. OCCA was originally set-up in 1995 as an 'Integrated Catchment Management' (ICM) organisation after a public forum was held to gather community involvement and interest in developing an ICM plan. The group then collaborated to achieve the publication of the document: "State of the Oxley Creek Catchment Report and Water and Land Use Impact and Management Analysis" by Kinhill, Cameron and McNamara, December 1996. Following that, the group achieved funding to produce the "1999 Oxley Creek Catchment Management Plan" in collaboration with Brisbane River Management Group, Brisbane City Council, Logan City Council and Beaudesert Shire Council and Healthy Waterways.
3. OCCA is funded by membership, partners from various groups and granting bodies, as well as relevant government grants.. As President I am answerable to a Management Committee and the organisation is primarily run by volunteers and a small number of paid employees. A list of our partners is available to the public.

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4. OCCA works with the community to monitor catchment issues and run regular information sessions, designed to educate students of all levels, community and industry members and groups on waterway issues. Wherever possible we try to form partnerships with government, councils, business and the community to improve catchment practices which influence the health of Oxley Creek. An example of these partnerships is a program called "Creekwatch" which was developed following a number of recorded pollution incidents in 2006, where no culprit could be found. On that occasion OCCA was approached by "Bluescope Steel Queensland" and asked to help establish a network of likeminded businesses, community and government representatives. From those initial meetings a group was formed to play a lead role in preventing pollution of our waterways, particularly in and around Industrial areas. OCCA was also able to employ a CreekWATCH officer to assist with that process of education and awareness and to better monitor what was occurring.
5. OCCA is active in the community but are not automatically consulted by Council, Government or Industry. For that reason we try to spend as much time as possible door-knocking and making ourselves known to improve those relationships and develop partnerships in the community. Where circumstances exist we will object to proposed developments that may impact on Oxley Creek. We also play a role in education and try to use funding from larger industries to educate those smaller businesses operating in the catchment area. We operate a website [www.oxleycreekcatchment.org.au](http://www.oxleycreekcatchment.org.au) and publish a regular newsletter.

**I am able to produce a copy of the Newsletter published in February 2011, following the January flood (Attachment 1).**

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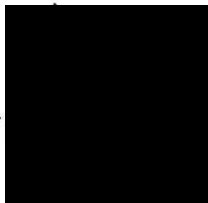


6. In October each year "Healthy Waterways Limited" release a report card on the condition of local waterways and catchment areas. Oxley Creek currently receives a 'D' in that report and OCCA are trying to improve that rating. This condition is primarily due to the geology of the underlying soils combined with bad practices, which result in excessive loads of sediment entering the waterways of Oxley Creek. The sediment not only makes the water turbid but rubbish and particles also attach themselves to this sediment. Oxygen levels drop as the bacteria breakdown all the foreign material, causing fish kills and loss of valuable macro-invertebrate fauna and flora. We have had some success by working in partnership with industry, government and the community to rehabilitate particular areas, but there is a lot more to be done.
7. As a result of the January floods OCCA was involved in the clean-up of Oxley Creek. During that process we took a number of photographs, some of which are included in the February 2011 Newsletter.

**LAND PLANNING AND USE MANAGEMENT:**

8. OCCA is concerned about the way industry does little to protect hazardous material from being flooded out of premises. Some businesses employ measures such as bunding to prevent spillages from exiting their premises, but do little to stop water from coming in during a flood event. In instances where flood water went higher than the bunding the water mixed with the material and flowed out regardless.

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9. It is thought that during the floods there were five or six fuel stations on the floodplain totally or partially inundated. Most of these had adjoining workshops where many hydrocarbon type fuels are used and stored. Most of the stations have sludge pits which would have been flooded and it is not known whether these were pumped out and disposed of thoughtfully or how they were treated. There has not been any indication from oil companies or others as to what volumes were lost in the flood and with such large numbers being flooded, it may have been beneficial to have treated the event as an oil spill? There has been no evidence that this occurred or that such experts were brought in.
10. What are the regulations concerning the storage of these hydrocarbon type products? What are the regulations in regard to the construction of petrol stations? OCCA has requested such information from the Council but it has not been provided. We believe that such information should be available to all concerned parties.
11. Paint factories are another area of concern. OCCA is aware that 'Dulux' had bunds in place to contain spills from within the factory, however no precautions were thought necessary to cope with an incoming flood of water from outside the factory. No doubt, other paint factories and chemical industries in the area would have also suffered inundation from an unexpected direction.
12. OCCA believes that when Environmentally Relevant Activity(ERA) licences are issued, the response to flooding needs to be made a part of the risk evaluation process.
13. From a residential perspective, OCCA is aware that the Brisbane City Council (BCC) appears to have made strenuous efforts since March 2001, to encourage householders to move off the floodplain and we believe that this should be further encouraged.



**REGULATORY PROCESS:**

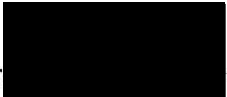
14. One of our ongoing initiatives has been to launch a brochure or booklet for local industrial businesses about the laws regarding hazardous materials, approval procedures, reporting and penalties. This project arose out of the 'Creekwatch' program and would include processes to follow in the event of a contamination or where a business observes that something has happened to the Creek in their local area. Council officers and EPA have been involved with the drafting but so far we have had about 5 different drafts, with the problem being that the legislation and regulatory controls are so complex that it is difficult to simplify or comprehend.
15. Those regulatory processes are one of the issues OCCA would like to see simplified as it is not clear who has responsibility for responding to an incident. The current regulations for many of the land uses allowed on the floodplain, appear to have no simple way of differentiation as to which arm of government (DERM, EPA, Council etc) is responsible for their location, construction and practices. This makes it very difficult for a group like OCCA to follow the regulatory control and different responsibilities of the various agencies. It is equally as hard for industry members and this was why we began the information booklet process, hoping to simplify the process so more people would become involved in and take an interest in protecting the waterway.
16. Currently the brochure is in draft form waiting for final editing and production. Instead the simplest solution is in the event of external or internal evidence of a spill, we encourage the public to ring the BCC call centre. They assess the issue and will direct the response to whichever is the relevant agency.

I am able to produce a copy of the latest draft of that information booklet (Attachment 2).

Exhibit number .....

**PREPARATION PRIOR TO A FLOOD / EDUCATION AND AWARENESS:**

17. It appears that owners of Unit developments are much more aware of flood levels than their tenants who are only renting the property. I believe (personal opinion only) that a block of 90 units at the eastern end of Long Street Graceville with a beautiful waterway in between the units, should not have been approved, given the potential of flood and impacts. From OCCA's knowledge of that complex the people renting those units had no knowledge of the previous floodwater levels, hence their response to the emergency would have been much slower. Fortunately no lives were lost.
18. At a recent meeting of our 'Creekwatch' partners, OCCA led a discussion about precautions undertaken for this flood event. One industry partner located at Annie Street, Coopers Plains (an area often subject to flooding from rainfall events) shared with us the precautions they undertook to prevent their materials from moving around or escaping their premises. From materials on hand (rolls of 2 metre wide plastic), they wove a barrier in and out of their doorways so that no materials would be able to be moved. Fortunately the floodwaters in January 2011 did not push up beyond Riawena Road, so these safeguards were not tested in this instance. Although this may not be an effective measure for chemicals or soluble materials, it is a good example of a business trying to protect their product from escaping and of what might be achieved.

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19. Householders should also be made more aware of the risks that are posed to the waterways from the storage of herbicides, paints and insecticides. The BCC appears to conduct regular opportunities for householders to dispose of old or semi-used containers, however from anecdotal reports it appears large volumes of these were swept from under people's houses during the flood. For this and other reasons associated with the clean-up, households also had a significant impact on the waterway. OCCA believes that more emphasis should be put into these types of regular collection and the benefits of such.
20. There also needs to be far more awareness of precautionary practices which can be undertaken when an event is signaled. These should be made available to both residents and industries on the flood plain. Opportunities for education about such practices should be embraced and local governments should be assisted to continue their assistance to householders. OCCA would appreciate support to take the opportunity to extend our 'Creekwatch' program to readiness for floods as well as spill containment and riparian restoration.
21. Regardless of the nature of the businesses, industry operating in a flood prone area should also be required to have a flood plan of what to do in the event of a flood. This should include evacuation of materials and measures that can be taken to ensure retention of any remaining product so as to have as little impact on the environment as possible.

**CLEAN-UP AFTER A FLOOD:**

22. The goodwill which existed following the flood and the effort by people who assisted with the clean-up was exemplary. However, there appeared to be little thought as to the best way of undertaking such a recovery process.

23. After the floods and during the clean-up a lot of businesses and home owners used a large volume of water to flush-out or wash down buildings and roads. Unfortunately there was no thought given to where that water would go or the downstream effects of such cleaning efforts. There was no evidence of any bunding material, and no absorbent socks or booms used to stop water from flowing into Oxley Creek. An example of something that could have been considered was the use of hay bales, similar to what the Fire Brigade use when they turn out to a Chemical Fire. BCC were providing sandbags from depots for areas, there needs to be socks, booms and other containment measures stockpiled and brought into play when such an event occurs.

24. Compounding that was the toxic nature of chemicals and other hazardous materials which had been removed from buildings and distributed on footpaths for collection. The contents of these were not recognised or addressed in an appropriate manner. For example, in Franklin Street, Rocklea, there were bags of cement and lime lying on the footpath and the consequent high pH values resulting from such a mix would be deleterious to any surviving waterway life. In another example, pool chemicals were left out for collection and were being further washed by falling rain. This simply added to the mix of what was already going into the creek.

**STORAGE WITHIN RIPARIAN AREAS and THE RESULTANT DEBRIS:**

25. It appears to be accepted practice that any extra materials such as pallets, portaloos, shipping containers, and garbage bins can be left on or stored on the banks of tributaries and waterways. This is prevalent in the Moolabin, Rocky Water Holes, Stable Swamp Creek and Oxley Creek, particularly in the areas of Tennyson, Moorooka, Rocklea, Salisbury, Coopers Plains and Oxley.

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26. Prior to the flood we had been in contact with the BCC and asked them to clean-up debris left in the creek from previous floods (March 9, 2001 and November 2004). However, although some work was done, and the age of some of the materials pulled out following this January flood was sufficiently obvious that it was noted. These added to the "new" load of port-a-loos, pallets and containers spread throughout the area.
27. Throughout the Oxley Creek Catchment area there were also in excess of 2000 hazardous material 'containers' which were found in the clean-up and recovered. One of the items that I witnessed myself was a huge diesel container which had escaped from Shoebury Street, Rocklea. It was only one of the items which had to be lifted out by crane and returned to the grateful owner. OCCA was relieved that DERM contracted the removal of those Hazardous Containers to a specialist Expert Team (Transpacific) and provided us with a map of the locations and recovery of those containers as of February 2011. This map demonstrates the particular concentration of containers in those same areas where debris had collected from previous flood events. Other items which cause debris are boating pontoons and one of our members has told us that when the Department of Harbours and Marine licensed such pontoons, each was constructed with "scuttle valves" so that they would sink and not contribute to the debris build-up. An examination of this idea should be undertaken.

**I am able to produce a copy of the Map (Attachment 3).**

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28. I am aware that DERM engaged an independent auditor to overview that recovery process. Unfortunately the nature or contents of those containers has not been provided to us, although we believe from our own observations that they consisted mostly of shipping containers, 44 gallon drums and fuel storage tanks. The distribution of those hazardous containers and the markings on them must have given some indication of their original locations, but OCCA has not been privy to that information. Nor are we aware of any analysis of the drums or their condition once they were recovered.
29. We are also unaware of what determination was used to define a container as 'hazardous' and for future knowledge and recovery of the area it would be good to have this knowledge and know what was where?
30. A further example of this is demonstrated in the OCCA February 2011 Newsletter, where a concerned Greenbank resident reported the location of a 44 gallon drum of "Metham" which is a soil sterilizer. This was found at Crewes Creek which is an upper tributary of Oxley Creek, however it is not known from where the container came or whether or not any of the contents had leaked out. What I can relate is that when the manufacturer attended to collect the drum the finder was surprised to see staff wearing full Hazmat protective suits.
31. It should be asked where did that drum come from, why was it loose and how is that such a drum was permitted to be stored so close to a creek?
32. We all recognize that "recycling" is vital to prevent waste but many of these companies have practices which need close examination. Some have established on old extractive industry sites and other flood prone land so their impacts in flood events have the potential to be large.



33. Some of the recyclers such as AMCOR flatten drink cans etc and pack them in rectangular cages. These rectangular cages were particularly difficult to collect post flood as the wire netting flattens and the items inside are distributed over a large area. Small items from these cages were particularly evident along Dunn Road, Rocklea, and at the Oxley Creek Common beside Stable Swamp and Oxley Creeks. The question which needs to be asked is what level of regulation would enable these "recycling" industries to have nil downstream effects in the catchment? Current enforcement activities do not appear to be working.
34. Shipping pallets are also stored in very tall piles and in large numbers in and around the Brisbane Markets. These were another problem following the flood and in one instance, it seemed difficult to get the owner of those pallets to reclaim them. The owner of some pallets was contacted but was not interested in coming to retrieve them as he was still receiving rent for them, despite the fact they were in the flood water. Large towers of pallets are still in existence today.
35. The Oxley Creek Common was used as a storage point for all of the items that were being recovered, including the pallets, fuel storage units, port-a-loos and shipping containers. After recovery, owners were contacted and asked to come and collect things that were able to be identified.

**OXLEY WATER RECLAMATION PLANT (Sewage Treatment Plant):**

36. While it is recognised that sewage treatment plants are often located on a floodplain, their functionality should not be compromised by flooding events. OCCA has received advice from Queensland Urban Utilities about what happened at the Oxley plant during the actual event, but it must be emphasised that there were too many sewage overflow events prior to 11<sup>th</sup> January 2011.

37. Some residents in Allawah Street, Yeerongpilly, were subjected to numerous sewer overflow events which were excessive and not well addressed. Ongoing sewer discharges are thought to be contributing to the very high enterococci results which have been recorded, however no results have been available for Oxley Creek since 21<sup>st</sup> July 2011. Up to that time the figures for Kendall Street, Cliveden Avenue and Pamphlett Bridge, were too high for all forms of recreation other than boating and I am concerned as to why these enterococci figures for Oxley Creek are no longer publicly available on the BCC website?

38. Photographs taken of an un-named waterway at Donaldson Road, Rocklea (depicted in February Newsletter), show the extent of damage suffered by the waterways. This water looked so dead that I felt the bugs in there may have been producing methane. I have been unable to find out exactly what conditions produce such dead black water and although it was reported to BCC, there has not been a satisfactory answer to date. Currently the waterway appears to have improved marginally but in recent times, some cattle were grazed in that area and their droppings have fouled the waterway again.

**IPSWICH MOTORWAY:**

39. There is a current project underway to improve traffic flow on the "Darra to Rocklea part of the Ipswich Motorway." To achieve this, many of the on and off ramps will be closed in this section and there is an intention to join Boundary road (Oxley) to Boundary road (Archerfield) by passing through 2054 Ipswich Road. OCCA has concerns about this project that unless the pylons for the connection are adequately constructed, and the resulting design verified by an independent authority that it will not exacerbate the current conditions, it should not proceed. A bunded wall design would severely impact the waterway and surroundings by creating a damming effect in any future flood.



40. Along the creek and across the northern side of the Ipswich Motorway is a wrecking yard, and spare parts and other recyclers. These also caused us much concern in the January floods.

**RECOMMENDATIONS:**

41. From our knowledge of the area and time spent in and around the Oxley Creek Catchment, OCCA have a number of concerns. In addition to those already raised throughout this statement we ask the Commission of Inquiry to consider the following:

- The appropriateness of industry warehouses being situated so close to residential development and the effect this had on Oxley Creek after the floods;
- Processes undertaken during the clean-up and the lack of precautions taken after the flood;
- Regulatory control in response to when an incident occurs and who has responsibility;
- Storage of hazardous materials (industrial and residential) and what happens to those items during a flooding event;
- Education and Awareness for residents and industries in the Oxley Creek catchment area;
- The effects of Sewage Treatment Plants located on a floodplain and steps to mitigate these effects;

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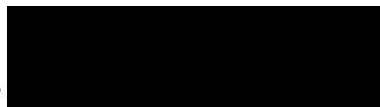
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- Enhancement and protection of vegetation corridors and in particular the Flinders-Greenbank-Karawatha corridor and the connections for existing vegetation on Oxley Creek and its tributaries. Enhanced protection would diminish erosion and slippages and decrease the sedimentation level;
- Improved management of the floodplains of Oxley Creek, to include: an analysis of licenses on the floodplain ensuring an appropriate clause exists so that upon notification of an event companies activate their contingency planning mechanism; attention paid to the licenses for operating the Oxley Sewage Treatment Plant, the Brisbane Markets and other smaller facilities such as Petrol stations, Paint and Plastic industries or recyclers; and
- The erection of flood markers so that industry and residents appreciate the height of floodwaters where they live, work and play.

42. I ask the Commission to consider these issues and suggestions when making future recommendations.




Anne Hilary CLARKE.

21<sup>st</sup> September 2011.

**Justices Act 1886**

I acknowledge by virtue of section 110A(5)(c)(ii) of the Justices Act 1886 that:

- (1) This written statement by me dated 21<sup>st</sup> September 2011 and contained in the pages numbered 1 to 14 is true to the best of my knowledge and belief; and
- (2) I make this statement knowing that, if it were admitted as evidence, I may be liable to prosecution for stating in it anything that I know is false.

..........Signature

Signed at .....Brisbane.....this....21<sup>st</sup>.....day of .....2011....

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