

<i>Name of Witness</i>	David Charles Mc CULLAGH
<i>Date of Birth</i>	[REDACTED]
<i>Address and contact details</i>	[REDACTED] ORMISTON, Qld.
<i>Occupation</i>	Primary Producer / Property Developer
<i>Officer taking statement</i>	Detective Sergeant Paul Browne
<i>Date taken</i>	18/08/2011

I, David Charles Mc CULLAGH state;

1. I am a [REDACTED] year old married man, and currently reside with my wife at the above address. We have lived at this address for the past 10 years, and were not flood effected at this address, during the January 2011 flood event.
2. I grew up around Brisbane and my family have been farmers for several generations, originally vegetable farmers in the Cleveland and Redlands areas. In the 1970's it looked as though the Redlands area would be developed into houses and I wanted to farm. The Emerald Irrigation Scheme was opening up in 1973 and I decided to put in for a ballot block. We sold our block at Victoria Point and won the first ever block in Emerald. We were number one and shifted everything we had to Emerald, arriving on Anzac Day 1973.
3. After 30 years in Emerald, I continue to own properties in the area and was a member of the Emerald Shire Council between 1979 and 1985. During that time I held the position of Chairman Town Planning Committee for a period. There was a Town Planner employed by the Council, but I remember we also looked at a fair bit of what was being proposed. I did not do any development myself whilst I was on the Council.
4. Properties that I own in Emerald were flood affected in both 2008 and 2011. Family and staff who reside in Emerald were also flooded on both occasions.

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Exhibit Number:

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Date:

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5. As a result of the Emerald floods in 2008 and again in 2011, on 21<sup>st</sup> February 2011, I made a submission to the Queensland Flood Commission of Inquiry.

**I am able to produce a copy of that submission (Annexure One).**

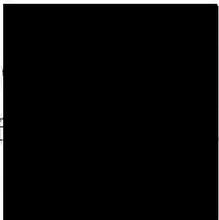
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6. I am not trying to lay the blame on anybody for the floods but just don't want it to happen again.

7. Before moving to Emerald I had been growing Tomatoes, Cabbages and Cauliflowers, but when I went to Emerald I didn't know what I was going to grow. I remember when we arrived there were two pilot farms set-up. Those were established 8 years before the Irrigation scheme was opened and were there to grow crops and see what would best grow in the climate and conditions. I thought that would be pretty good because they would keep all the records and have some idea. After getting set-up I went down to the "Irrigation and Water Supply" building, to see all the records for crops they had tried to grow in the past 8 years. I thought this was important because of the amount of money I was looking to invest in farming in Emerald.

8. I was disappointed when they told me they hadn't written up any of the trials on the crops we were going to grow and that because my farm was close they were going to watch me. This was a scheme that cost 20 million dollars to build a dam and another 10 million to do all the rest and they hadn't kept any records. My family has been farming for 400 years (that we know of) and as farmers we share knowledge with other people. What made it worse was the fellow from the IWS pilot was sitting there and not only didn't they write a report, they wouldn't share what they knew.

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- 9. As a result of that, all of the different farmers settling in the area at the time put our heads together and we would work together with the irrigation people and the Council and Emerald went on to be a very successful area. There were only about 3000 people in town, there were a lot of problems to overcome but we did it as a group.
  
- 10. Cotton became our primary crop which is grown using flood irrigation. We still produce cotton on my properties, but have also diversified into chickpea, wheat and Cattle. We continue to flood irrigate some of our country, but there are also 1000 acres (400 hectares) under central pivot irrigation.

**EMERALD IRRIGATION SCHEME:**

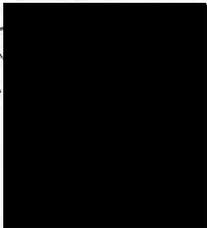
- 11. What I see as one of the major issues in Emerald is the irrigation scheme. This was put together by a man called Don BEATTIE who was an engineer who put St. George together. He didn't believe you should have irrigation country, get people living on that irrigation country and then have them flooded. In most irrigation areas, the irrigation country is as flat as a board. Emerald isn't like that, our farm beside town rises about 20 metres.
  
- 12. A lot of people say that if you live or build on a flood plain then you have to expect and deserve to get flooded. I don't believe the parts of Emerald that were flooded are on a flood plain. What happened was the River comes down towards town and all of that water coming over the irrigation land has to be controlled and taken past the town. Before Emerald there was never anything like this before, because people don't put flood irrigation country on that sort of a slope. This is one of the reasons why St. George is so safe, because the irrigation areas are below the town.

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- 13. When this scheme was put together there was no demand for water from Coal. They need the water in the river for washing Coal (you can't export it without washing it) and the water that comes down that river generates about 15 billion dollars worth of Coal exports. As it is now, the water for most of the Coal from Queensland that has to be washed comes out of Fairbairn Dam and down the Nogoa River, they are not dropping it down a channel. Besides the Coal water, some water also comes down the river for river irrigation.
  
- 14. IWS was the original water group and when they designed the scheme they didn't know we were going to grow cotton. So when they designed the drains they weren't designed for Cotton and high intensity. Not only did they not know what they were going to grow, they didn't have a clue about what to tell people to grow. For example one idea was people would irrigate pastures and grow fat Lambs. This is important to the flooding because when you have sloping country, if you have it under pasture and you get a big storm there is not as much water run-off, as opposed to if it is bare.
  
- 15. Cotton was never going to be grown there, but within a couple of years we were all growing Cotton. Cotton really, with the configuration of Emerald was probably the worst thing you could possibly grow there. You plant it in September and grow it through Summer time, putting on 100mm (4 inches) of water each week. Combined with high intensity storms, this puts an enormous amount of pressure on the drains and those drains are all impacting on the town. Through a combination of factors irrigating has made it very dangerous for the town.
  
- 16. Then when everything changed IWS was taken out and 'Sunwater' came into it. Sunwater is a Government Owned Corporation, they make a profit and it has changed everything. The cost of water now is too dear, our allocations have been cut down and with costs rising it is very hard to make things run. So over the years I have had a few scraps with Sunwater over the way they do things.

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**DRAINAGE ISSUES:**

17. There is a Sunwater drain which stops on Selma road, but does follow the creek into the River. In 2008 and 2011 it broke out through the railway line and washed the highway away. Then the water got into LM1 (where LM1 drains all of the farms between blocks 135 and 140).

18. During the 2011 flood event water escaped the Nagoa River North of Emerald and got into the irrigation area and into the drains which are maintained by Sunwater. I believe once you build drains or levee banks, you need to maintain them and are responsible for them. This water got out of the river and once it got high enough it went across properties and into the Sunwater drains. In one instance Sunwater have given approval for the owners of a particular block of land to put in a ring tank on that land. This was approved because Sunwater didn't believe it was a flood plain. Had there been a ring tank there at the time that water would not have been able to go across the land and would have instead been diverted and gone into the township. This would have made the flooding considerably worse in residential areas. Instead the water went through their place and ultimately a drain and eventually flooded parts of North Emerald.

19. As irrigators we pay Sunwater for water allocation and drainage rights. Sunwater spend a lot of time maintaining the channels they deliver us water in, and do a good job with that. The channels fall at about 1 in 5000 and they have a maintenance program which includes drying them out for 2 or 3 months a year, removing the silt and making sure they are exactly right so they can supply what water we need. Aquatic weeds are a sometimes a problem and if they get into the channel they use chemicals to cut them off. In the summertime when it is 42 degrees, cotton needs 700 mega-litres of water a day, so the channels have to be able to supply it.

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20. Although there are complaints about us growing cotton in the Summer and the whole area being cotton, at least in winter time there is an opportunity to have the channels dry (because nobody is growing anything). That stops the weeds growing and when it comes to peak time they are all good and if they do get some aquatic weeds they can use a chemical.
21. The Channels are only one side of the equation, water coming in is fine but it also has to go out and the maintenance of the drains is a different story. Despite paying drainage rights, Sunwater are not doing their job, not maintaining the drains and seem to have no program for maintaining either the drains or the river. These drains will only run water if they are maintained to a standard. It is easy to maintain the channels but not so the drains, because in summer they are so wet. More people are getting wet in town because of the drains than because of the river breaking its banks and if Sunwater and the drains were doing their job and taking the water away this would not be happening.
22. An example of the issues with LM1 is the crossing under the Gregory Highway near the racecourse. That underpass does not have the capacity to take the water that LM1 was designed for. This is only further complicated by the fact that river water is getting into LM1 and water is coming from both industrial and housing developments in the surrounding area. I have a copy of an engineering report from as far back as 1978 suggesting an upgrade as the underpass was not capable of carrying the water. This one location has since come up and been looked on at least 3 other occasions that I am aware of.
23. I have been watching Sunwater for twenty years and they have gotten worse and worse at maintaining the drains. For that reason I don't believe they can be trusted to continue maintaining the drains.

24. Done once, done regularly and maintained the drains are capable of dealing with the water they were designed for. There are a lot of people in the town with the machinery to do this and to maintain it, but the problem is when the EPA comes out and inspects them, they say the drains are too clean. It doesn't seem to matter about the Cotton or other crops but just that the drain was too clean, but unless they are properly maintained they cannot run like they should and that is all we are looking for.

**TOWN DEVELOPMENT:**

25. I have been involved as a property / land developer in the Emerald area, including a housing development where 65 houses got wet in the Kidd street area. From my knowledge of the area and having seen previous flooding and water overflowing from the dam, I really thought that water should have been able to be retained in the river. It is my gut feeling that things that have been done (bridges etc) and not been done in the river (maintenance) were a major contributor to the flooding.

26. Council are also allowing storm water from residential and industrial developments to go into the irrigation drainage (LM1, LM1/2). Despite approving these developments the Council has done nothing to provide for storm water drainage and other than what was put in by developers in the streets themselves, nothing has been done to get it away. Instead they have simply tacked onto the existing LM1 irrigation drainage. The problem with this is, if at the time of heavy rain, LM1 is doing what it is designed for (draining irrigation water) then it is full and there is nowhere for the water to go.

27. Neither the industrial or residential developments should be using LM1 or irrigation drainage, because it is not capable of taking any more water. By the time the industrial and residential water gets to that point it is a Council

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responsibility and what should have happened is there should have been capacity to take that water away and to the river via another means.

28. Other than housing developments there have been a number of Industrial developments as the town has grown, which also impact on the drainage. Currently there is a block of land on Munro road (block 195). Some of this was owned by John DAWSON who bought it from Tom HOWKINS and had a wrecking yard on it. DAWSON then purchased neighbouring pieces of the same block and eventually sub-divided the whole lot. The industrial land that is there now is zoned heavy industry because of a State Government Directive they could have heavy industry there. That land was originally rural conservation when it was owned by Tom HOWKINS and also when John DAWSON first owned it. I'm not sure how it could go from rural conservation to heavy industry when a part of the land which has been re-zoned was owned by the Queensland Government? It has since been sub-divided and sold in parts to private people who have filled it and put sheds on the land. All of the stormwater off those sheds goes directly into LM1.

29. There is a larger block on Munro road which was part of 195, which is now owned by Mal PRATT. The Council seem to be pushing it so that he can start filling it and build a concrete batching plant. That concerns me because I think it is paramount that this should be put on hold whilst the Flood Commission is looking at all of these things because the filling of that area is making the flooding of these houses worse. But the Council have OK'd it to change the zoning, this bloke has bought it and now he wants to put a batching plant there. He is going to have to fill that block before he can build on it and then all of the water is going to go into LM1. LM1 is already struggling to cope with the water it has to take and the water eventually pushes back across and floods into the houses on Kidd street and the surrounding area.

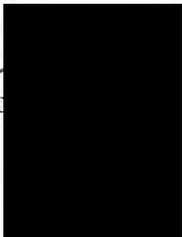
30. Doug SLACK is also a concrete man and has got 15 hectares that he has filled on Cameron road. That is also not far from LM1, just over the road. Council have told him he has got to fill it another 600mm before he can start doing things there, but it is doing nothing for the flooding because he has stopped all the water going North. That water if it came out of LM1 used to run North and across a flood plain, which has become an Industrial development area of the town. He couldn't put his batching plant in there as it is, because of the water that is in there. So the more they fill the block for the batching plant, the worse that is going to be. This is something that should be on hold before any final go ahead is given.

31. Because of the development of that Industrial area on that side of town the flood plain no longer exists and any water that once dispersed across it is now forced back into LM1. Houses that once flooded over on the other side of the Gregory Highway, no longer get any water and houses that once remained dry are now subject to flooding.

32. I spoke with one of the fellows from the Council and told them I didn't think they should be pushing this through until after the Flood Commission of Inquiry has released it's findings, because I feel like it is them saying well sorry it's too late, it is all done.

33. There has also been industrial development around the showgrounds and cattle yards precinct. That development was done by the Council themselves and includes a Council Works depot. The problem with it is all of the storm water and on this occasion flood water (coming from where the river broke its banks North of the town). To get away that water has to find its way back across the Blair Athol railway line and through residential areas until it drops back into LM1 at the end of Creek street. A lot of the houses in that residential area where flooded by water coming from that direction.

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- 34. It is my understanding that Sunwater has told the Council on numerous occasions that the Council cannot continue to put their water into the drains, but they continue to do it and it seems that Sunwater have not done anything further about it. The design of the drains is such that when they are full the water comes out. There is also no additional capacity to take any more water than what they were designed for. Despite this, there has been speculation that Council had a previous 20 year agreement with Sunwater, under which they could put water into the LM1, however that agreement has since expired.
  
- 35. Following the 2008 flood I wrote to the Council and told them they didn't have any place in putting their water in those drains and they wrote back telling me to mind my own business. At a town meeting in Emerald since the flood a question was asked about why Sunwater didn't make their drains bigger, so that the water didn't flood people. Tom WALLWORK, 'Sunwater' Emerald Area Manager was at the meeting and responded by stating: "the town storm water had no place in their drains".
  
- 36. Since 2008, I believe the Council have also rezoned a piece of on Wills road, it is 100 acres. I said to the Council you can't put that water into LM1/2 drain and they said they were not putting any water in the drain. Somebody has since built a building which NQX are using and it has been sold for 4.2 million dollars. I know that the sale has not yet settled because there are issues with a title to the land because the Council won't sign the survey plan. That building has been built on a piece of land which the council rezoned but won't sign the approval plan because NQX can't drop their water into LM1/2, despite Council allowing the development in the first place.
  
- 37. Apart from the maintenance issue, there is nothing else wrong with the drains doing what they were designed to do. Unfortunately, there is no room for any other water in our drains and the problem is just that the town has grown, hasn't

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looked after its stormwater and does not have a drainage system to take excess water in a large rainfall event.

**RIVER IMPEDIMENTS:**

38. As the dam was being built and during the 8 years the pilot farms operated they needed water for irrigation so they built Selma Weir, to supply a constant supply of water. In 2008 that wasn't as big an issue because it only flooded houses close to the River, but in 2011 that was one of the locations where water escaped from the river and flooded houses in South Emerald. I'm not sure whether the water came out of the river or out of the water resources drains but I believe Selma Weir is an impediment in the river and once the irrigation channels were built, it was no longer needed.

39. The town has also expanded a lot over there and that weir could be a problem in flood. I know that Sunwater will disagree because when the Gregory mine was built in the 1980's they needed coal washing water and the best place to put a pump and the pipeline was in Selma Weir. That remains in place but they don't need Selma Weir anymore, because they can get water out of the river at any spot.

40. The Town Weir is another impediment that is no longer needed and creates an obstacle for the flow. It was built before the Dam and the town took its water from Town Weir because the river was a series of waterfalls. The river is now in flow the entire time and the need for a weir no longer exists.

41. There are also a number of bridges crossing the Nogoia River in Emerald. Two new bridges have been built and as it is currently, there are a number of bridges all at different levels. Instead of replacing the existing bridges, the new bridges have just been built alongside the old ones, creating further impediments in the River and I believe it is both the bridges and the piers that create blockages.

- 42. A botanic gardens has also been built on the river flats on the town side of the river, between the railway bridge and the John Gay bridge. That involved the planting of big stands of bamboo and a lot of vegetation planted specifically for handling flooding and being underwater for several days. This is a bit like a dam and I believe that this would raise the river level by over a metre.
  
- 43. A combination of the botanic gardens and the three bridges in that area forms a blockage in the river. I would like to know if when the Main roads department built the new bridge they considered the impact of flooding or thought to build a bridge from bank to bank like the railway bridge which was built 100 years ago. If that bridge is causing or impacting on the town flooding, how much thought did they give to it?
  
- 44. Once the water gets past that point and beyond the Vince Lester Bridge it spreads out across the Golf Course and none of that water gets into town, because the river has an unfettered line.
  
- 45. I believe that the bridges should be built to a height that does not impede the river as not only do they restrict the flow of water but once the water rises above them, the roads and crossings are cut.
  
- 46. There is also a proposal for a bypass bridge to be built. I was not on the Council at the time and was a bit disappointed because of the impact it will have on one of my properties. The suggestion is for a low level bridge to be put in off Codenwarra road, but this will only provide a further impediment in the River and what I believe is they should have considered a bank to bank high level bridge near the existing railway bridge.

47. I believe the Council who bought some land from Main roads, near the railway bridge were trying to be entrepreneurs because they subdivided and sold that land for housing. That would have been a more practical route for a bypass and provided direct access to fuel depots and other industrial. Council are now trying to get the State Government to build the bypass road along Codenwarra road, but the proposal will cost millions of dollars.

**DAM MANAGEMENT:**

48. Some people are talking about gates and overflows but after I have seen what happened with Wivenhoe, I don't want anybody mucking around with it. Fairbairn Dam has an earth filled wall, with a concrete spillway and a bridge over the top. When the Dam is full to the top of the spillway, the water is 100 feet over the height of the town. Once water reaches the spillway it continues to overflow but I don't know what height it can go to. The Dam also has Wing walls and I think that these go East. They don't want the wall to overtop the earth part, so if the overflow rises too high in the spillway it will actually break the wing walls and the water will go overland.

49. We use the water in the dam for irrigation and overall I would say that water in the dam is managed well and have the best storage in the whole of Australia. Agriculture has medium priority water. The mines and town have high priority (6 to 1). You have to have 6 mega-litres of high priority to get 1 mega-litre delivered, but it will be delivered everyday, you won't be cut off. With the Irrigators (Cotton Growers and Grain growers) once the water gets to a certain level they say no more water, we don't get anymore water because ours is medium priority and we have to get by on our own until more rain comes in and the catchment again reaches a certain point. In 35 years we have only had one year when we got a half allocation. We have started the year with zero but we got rain

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and water into the dam and so we got our share. It didn't necessarily come good for Cotton but we were able to grow something else.

**RIVER MAINTENANCE:**

50. Sunwater have responsibility for maintaining the drains but I have no idea who has responsibility for maintaining the River. What nobody seems to have taken into account with the river is that before the Dam, the river would flood occasionally, clean it all out and then there would be just a string of waterholes. I know Sunwater run water in the bottom of the river whereas in the channels they have to run it in the top and in the river they don't know if the bottom has changed.

51. Because of the dam construction there does not appear to be anyway of giving the river a flush, although they do have what is called an 'Environmental flow' in September each year. As I understand it, after they get a certain amount of rain they drop water down the river for an 'Environmental' flush. Our farm has about 6klm of River going past it that we see, but the environmental flow does not look any different to the water they send down to the mines. The level may go a little bit higher but otherwise there is very little visible difference.

52. When the dam wasn't there and we got a storm that water went to the environment. But since the dam, that water is now being caught. So the theory is that the environment has got to get that water (so they say), but for 365 days a year they are letting water go down to the mine anyway. Someone said they have got to have a flush so this is what they do, but really it is only for the fish or something like that and is not much different to what they are already letting out. It really just seems to be a waste of water, considering the ration everyone is on, but it certainly doesn't clean the river out at all.

53. River management is a specialist game but nobody seems to specialising on the Nogoia river. For 17 years between 1991 and 2008 water didn't go over the dam wall. The only other stream that comes into the Nogoia unfettered is St. Helens Creek and not a lot of water comes down there. The First big water that comes in is Theresa Creek. There is actually more water that comes down Theresa than the Nogoia River and because it gets a lot of good water the Nogoia gets a good flush from where the two meet. Nogoia also gets a flush further down from the Comet River.

54. According to DERM figures, water going down the river in 2008-2009 was Industrial Water to the mines 80'000 megalitres a year, 4'000 for urban water and Irrigation water 108'000 (some of that goes down the river). On these figures it is quite possible for the river to have taken 100'000 megalitres to be delivered down the river. For this reason I believe the River has been used as an open channel, meaning the vegetation has accumulated and slowed the water down. When it slows down the water rises and eventually the river breaks its bank.

55. When Sunwater started putting more and more water down the river (with the increasing Coal mine demand), they really should have said to us that this river is going to get over vegetated and there is more chance of you getting a flood. I have been there since the dam opened, but in 1973 there wasn't a lot of coal and there wasn't a lot of river irrigation. As those developed and they have gone on putting more and more water down the river things have grown. It caught me out with a Subdivision I did, when I thought that it would be alright. I knew that the River had broken it banks before but again I thought that it would be OK.

56. In 2008 when the water came out of the river and washed the railway line away (near the Western highway) they replaced it and put two 8 inch pipes there. In 2011 when it was washed away again they put 20 metre pipes there or something like that under the line. I can only assume that after 2008 they never thought it

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was gong to happen again, but the water really shouldn't be getting to that point in the first place.

57. The experts say that the River is not getting over vegetated but if it can be proven that it is, then that just annoys me because all the people in Emerald were lulled into the idea that the Dam was going to take the top off all of the floods we have had before. Had we known about the River we could have built our houses somewhere else. If the vegetation has forced the water out then I am particularly annoyed, especially with all the technology and figures that they have.

58. Vegetation management in a river is not rocket science but when we as Irrigators say there is too much vegetation in the river they say well you can't take it out. Previously there would be cattle in there grazing and fires would be more prevalent so that rubbish and vegetation growth used to get burnt. Unfortunately that has not happened for a long time and now the EPA says that you can't touch any of it. As the vegetations grows up, the water slows and I feel that the EPA and current legislation does not allow them to take the vegetation out or there are too many restrictions imposed upon them. I see this as the real reason, as opposed to the financial reasons which are given in regards to the drains. I don't see that we should make the river any different to what it was when the Aborigines camped beside it, and if it's not like it was when they used to camp beside, then we should make it like that.

59. My concern is that Sunwater or the managing authority are using the River as a big drain, over vegetating it and this is having an impact on the flooding. If I am right they should have realised what the impact of sending so much water down the river was going to be. I know the program we go through or are supposed to go through to keep the drains and the channels right, but there is no process for keeping the river right. It seems to me that they can't get paid for the water if they don't deliver it so the focus is on the channels, but the river and the drains are neglected.

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60. In some areas of Queensland we have authorities called 'River Commissions'. They are private or Council groups who play an active part in maintaining the river systems. I have a cousin who is on a 'Flood Commission' on the Mulgrave River in Gordonvale, North Queensland. When a flood goes down the River and washes a big tree out and it falls in the river, he goes down with his chainsaws and his tractors and pulls it out. He then rings up the President and says the river is right again, I've pulled out the obstruction. He gets nothing for it in return other than some very good timber out of the rainforest and it ensures that the flow of the river is maintained.

61. I believe some Councils actually do this, but it is good if local people can do it themselves and be involved. I would like to see a river commission introduced to manage the Nagoa river in Emerald, run by Irrigators, not the Council. Once we cleared the river the first time and got it clean, there are many irrigators in the town who could maintain it and keep it clean, because you never know when you are going to get another flood. I don't believe that this is that big a job it is just that they don't do it. They keep saying they don't have any money.

62. I know that the 'Greens' and EPA want the Government to ban River Commissions, but when we put all our money into growing a crop and then the water comes out of the drains and takes our profit away we are not that happy. I believe with the appropriate information it can be proven that the river isn't running at the height that it should, compared to when there was no dam there.

**SOLUTION TO DRAINAGE ISSUES:**

63. Since the 2011 flood I have approached a group of landholders with a proposal to dam some of the falling water on their own properties, for release at a later time when the drains are more able to cope (when there is no other water going through them), or alternatively for use on their own properties. Each property would need

to have it's own dam, however some properties already have them. An example is my own property which would need to be expanded, however that would then look after water from two properties. In another instance one property could put in a dam that would look after three properties, but he is already looking after most of his water now. What it would mean is that by working out what sort of rain event could fall on a farm, individual properties would be able to hold it all and would not be putting their water into the drains when there was a large rain event.

64. Effectively this would take out a fair number of the properties putting water into the drains, reducing the amount of water that the drains need to cope with and providing more capacity for the other water that is being put into the drains further down. Amongst those irrigators who are interested we would have enough drainage rights (paying for them every year for 35 years), and if we want to share them with the town we should be able to. This would also be of benefit for the wider community, similar to how the irrigation scheme once worked when it first got off the ground.

65. One of the reasons the town has gotten away with it for so long, is because we try to pick up every bit of water that runs out when we finish irrigating or every bit of water that runs out after a storm, and put that in storage and use that again. We do not let any water go because it is too precious but I believe we could hold even more. This is what has kept the town out of trouble up until now, but the town has grown so big with more buildings generating water and will only continue to grow that it has gone over the capacity that we had sought of given up for them in the past.

66. Management of those individual dams would be up to the owners, but some independent 'officer' could still have access to the tap in consultation with the owner. Those involved would have to enter into and sign agreements to that effect.

Witness Signature [redacted] ..... Signature of officer [redacted] .....

67. With a big rain event and even when the Fairbairn is full it still takes about 4 days for the water to come over the wall. This would allow 4 days to go out and check those dams to ensure that the levels were maintained at a height so that they were able to take all of their water.

68. Individual irrigators would need to spend money at their own cost to do these things and/or improve existing dams and perhaps the compensation for that would be to get some relaxation of zoning and allow further sub-division. There is a need for the land as people don't want to live in mining towns, so they live in Emerald and some also want somewhere to come back to as hobby farms and the like. One Irrigator has tried to sub-divide his property several times but the Council have repeatedly refused to allow his application to do that. In that circumstance he does not want to farm it anymore and the land is just sitting there. The demand is there or those types of property developments and some of the land owners just don't need it anymore.

**COUNCIL INVOLVEMENT:**

69. I understand this would be a decision that rests with Council, however I do not think they would want to be involved. The reason I don't think they would be interested is because it seems Council have made a lot of mistakes and it would cause further embarrassment to those involved with running it. For these reasons I believe the only way that this would work would be for the Flood Commission of Inquiry to make a recommendation.

70. I have already been to speak with the CEO of Emerald to discuss the letters I had written to them and responses I received. In particular a letter they wrote to me advising me that they would let me know what they were going to do after the 2008 flood. They never did which was a bit rude. When I asked what they did after the 2008 flood I was told they did nothing because they were too busy on the

Witness Signature. [Redacted] ..... Signature of [Redacted] .....  
Page Number 19 of 21

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Amalgamation to do anything about the floods. I was also told that since the 2011 flood the Council had employed Hydrologists who are yet to report back. But they did nothing after the 2008 flood.

71. As a result of the State Government Council Amalgamation, what was once the Emerald Shire Council, is now a part of the Central Highlands Regional Council, based in Emerald. Other than the claim they were too busy after 2008 to do anything because of Amalgamation, I don't believe that this had any impact on the flood.

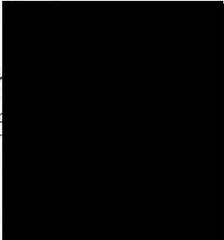
**MOVING ON:**

72. Farmers and irrigators in Emerald are moving on and moving to crops which use the land differently. Some people have moved on from Cotton completely, however there are some who are still growing that, and not everyone could or would want to be involved in such a scheme. There might also be some irrigators that would not have the land for a dam.

73. Myself and some other irrigators are also diversifying into a crop 'Lakina' which is a tree legume that roots 15 feet down in the ground and does not shed much water in a rain event (because the water goes down into the ground). A lot of properties that used to shed water don't have much water coming off them anymore. Because it is not like Cotton that you have to irrigate, these are crops you don't have to irrigate and very little water runs off.

74. I am not interested in blaming anybody for what has occurred but given the town of Emerald flooded in 2008 and then again in 2011 and a lot of people suffered the same fate twice in 3 years, something needs to be done.

Witness Signature  .....  
Page Number 20 of 21

Signature of  .....

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75. I believe there are a number of factors contributing to the flooding in Emerald and ask that the Commission consider the issues I have raised and consider those when making any future recommendations.

**I am able to produce copies of maps and other documents I have referred to in this statement (Annexure Two).**

**Exhibit number.....**

 .....

**David Charles Mc CULLAGH.**

19<sup>th</sup> August 2011.

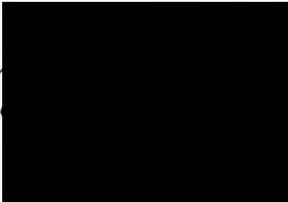
**Justices Act 1886**

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

- (1) This written statement by me dated 19<sup>th</sup> August 2011 and contained in the pages numbered 1 to 21 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.

 .....

Signed at .....Ormiston.....this.....19<sup>th</sup>.....day of.....August.....2011....

Witness Signature  ..... Signature 

21 February 2011

DC McCullagh

ORMISTON QLD 4160

*Sunwater*

QLD Floods Commission Inquiry  
GPO Box 1738  
BRISBANE QLD 4001

*cc to Barry Jeppesen  
GM Infrastructure management*

*BRISBANE*

Hello

RE: SUBMISSION RE LAND USE PLANNING  
EMERALD REGION

I would like to make a submission to the Qld Floods Inquiry. I would also like to appear at the inquiry for the following reasons:

1. We own Portion [REDACTED] and have farmed it since the scheme commenced in October 1972 and took up our block in February 1973.
2. Some of the problems with flooding occur at the boundary of Portion [REDACTED] where the [REDACTED] Road.
3. We also own [REDACTED] of property in the Junction of Theresa Creek & Nogoia River.
4. Sunwater drops the Emerald irrigation LM1 & LM12 drains into our freehold land without adequate construction to take the water to the Nogoia River in a flood event.
5. The story from Sunwater in Emerald is that they are going to give Central Highlands Regional Council LM1 & LM12 drains to maintain.
6. We have a large vested interest in LM1 & LM12 and we want to know the details before this change happens.

Following is our submission regarding the 2008 & 2011 Floods in Emerald and surrounding regions.

Before Fairbairn Dam was built, the river ran as an unfettered stream that flooded sometimes and then there was a string of water holes. Sunwater has been using the river as an open channel to supply water to the coal mines and downstream users since 1973. The dam did not outflow between 1991 – 2008, 17 years without a flush out but 17 years to grow vegetation that is now impeding the flood flow. The 2008 flood could not remove the vegetation that had grown during 1991 to 2008 as it was too large after 17 years of growth. A low level bridge proposed as a bypass for Emerald will cause more impediment for floods and push more water out of the river in a flooding event.

When the irrigation area was build in 1960 – 1970 in Emerald the need for water for coal washing was in its infancy. The area that was going to be irrigated was cut back substantially to accommodate the coal industry. I am sure that the original design papers would contain the methods to be employed to deliver the water to the coal

mines. The environmental lobby has become all powerful and this could be the reason for the river to get over-vegetated and this neglect to cause the river to break its banks.

I believe the Emerald irrigation area was built for irrigators by the IWS and the irrigators pay drainage rates. I don't believe the council or land holders other than irrigators pay drainage rates and are not entitled to drop their storm water into the drainage channels. The TAFE college, the showgrounds, the industrial area and the sale yards have no facilities for storm water except to drain it into town. This storm water cannot enter the irrigation drains because they are full and then the houses are flooded.

The industrial area north of Munro Road used to have a creek running through it called Boggy Creek and it used to run NE and over the Gregory Highway and into LM12. The industrial area has been filled and the water now runs south into LM1. This water overloads LM1 and forces water into houses and cross the racecourse into more houses.

The water in South Emerald comes under the rail line in a pedestrian tunnel and floods houses in North Emerald. This water should be looked after on the south side into the river instead of flooding North Emerald.

There is a new industrial area beside Wills Road that puts water into LM12 without paying drainage rates and LM12 overflows into Cotton farms on Moffat Road.

The town river has bridges that are impeding the flow of the river in flood. Two new road bridges, two old road bridges, a proposed new bypass road bridge, two weirs (Selma Weir & Town Weir – refer Map 1) and a botanical gardens planted on the flood plain between the two road bridges.

The town has built a sewerage ring tank near Donohoe Road in the middle of the flood plain. Donohoe Road has been washed away in 2008 & 2011 because of this structure.

On Selma Road Sunwater has built drains in Blue to control the runoff from the irrigation farms that amount to approximately 1200HA. The blue drain stops at the first bridge on Selma Road and I suppose the water should lead to the river. It also floods South Emerald. At this bridge on Selma Road Sunwater has built a pump station and a pipeline to LM1 to stop farm water entering the town supply.

Lot 134 owned by Kim & Debbie Walters is the first farm on Selma Road and takes water from the Nogoia River via a pump and pipeline and a 828ML licence. The water that ran through Kim's property in 2008 – 2011 through a depression in his cultivation could not have done this if Kim had built the ring tank that he has approval for. This would also have increased the flood in South Emerald.

Sunwater built the LM1 & LM12 drains to be utilised by the irrigators that it services 1500HA and they pay drainage rates. As LM1 & LM12 pass through Emerald town industrial runoff, TAFE college, sales yards, showgrounds and sportsgrounds all make an attempt to use these drains for runoff plus residential areas are in this also. These

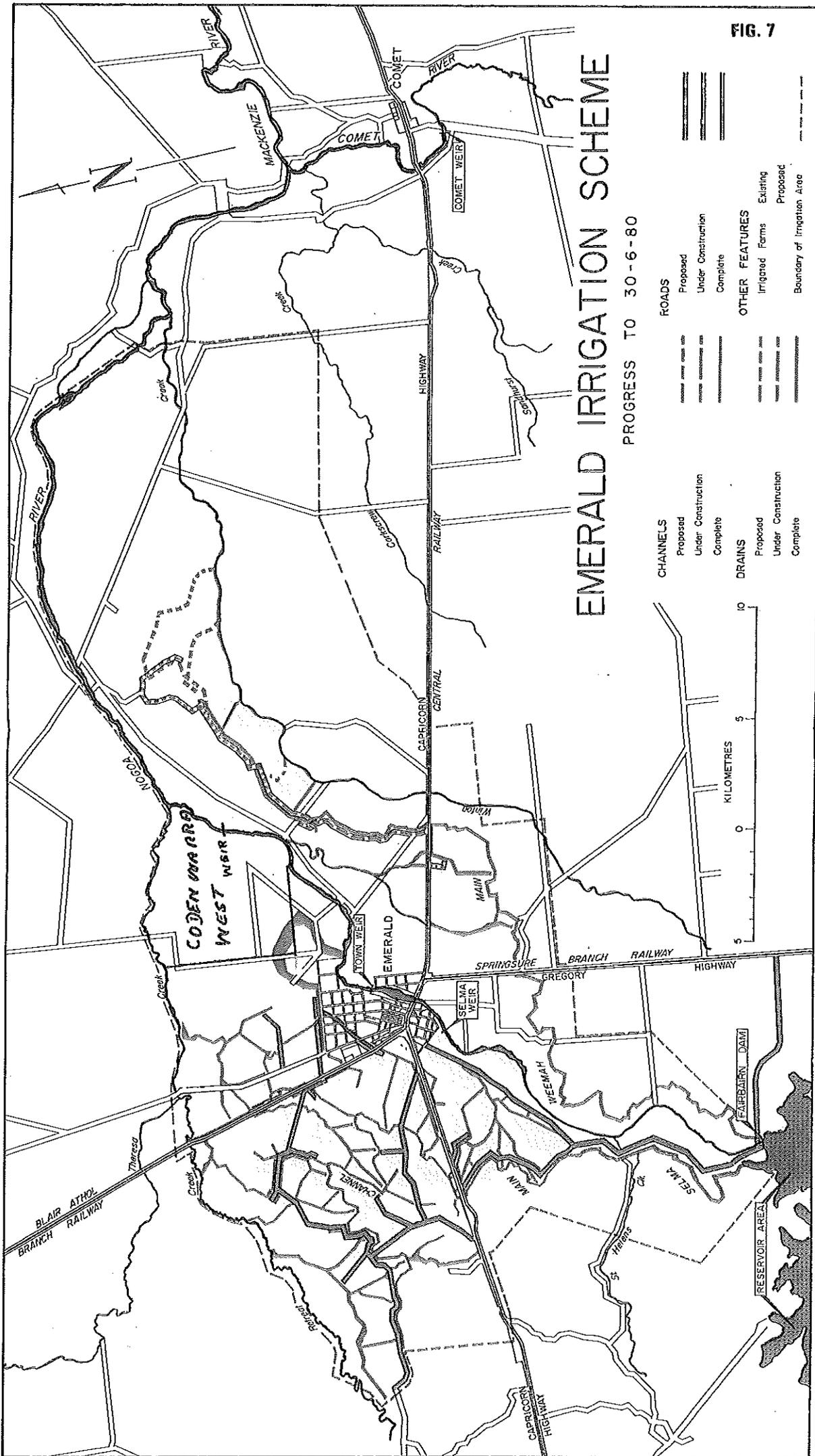
drains are for irrigation use only because the whole irrigation area could be planted to cotton in the summer and cotton's water use is approximately 100mm/week and it is quite common for the whole irrigation area to have just finished irrigation and then receive 150mm in a high intensity storm.

There is no room for any other water in our drains. The nuts & bolts of it is that the town of Emerald does not have a drainage system to take excess water in a large rainfall event. In the 2011 flood, the irrigation area was not being irrigated and it was not raining so the town and the river overflow had the drains on their own. This could have been a much larger disaster.

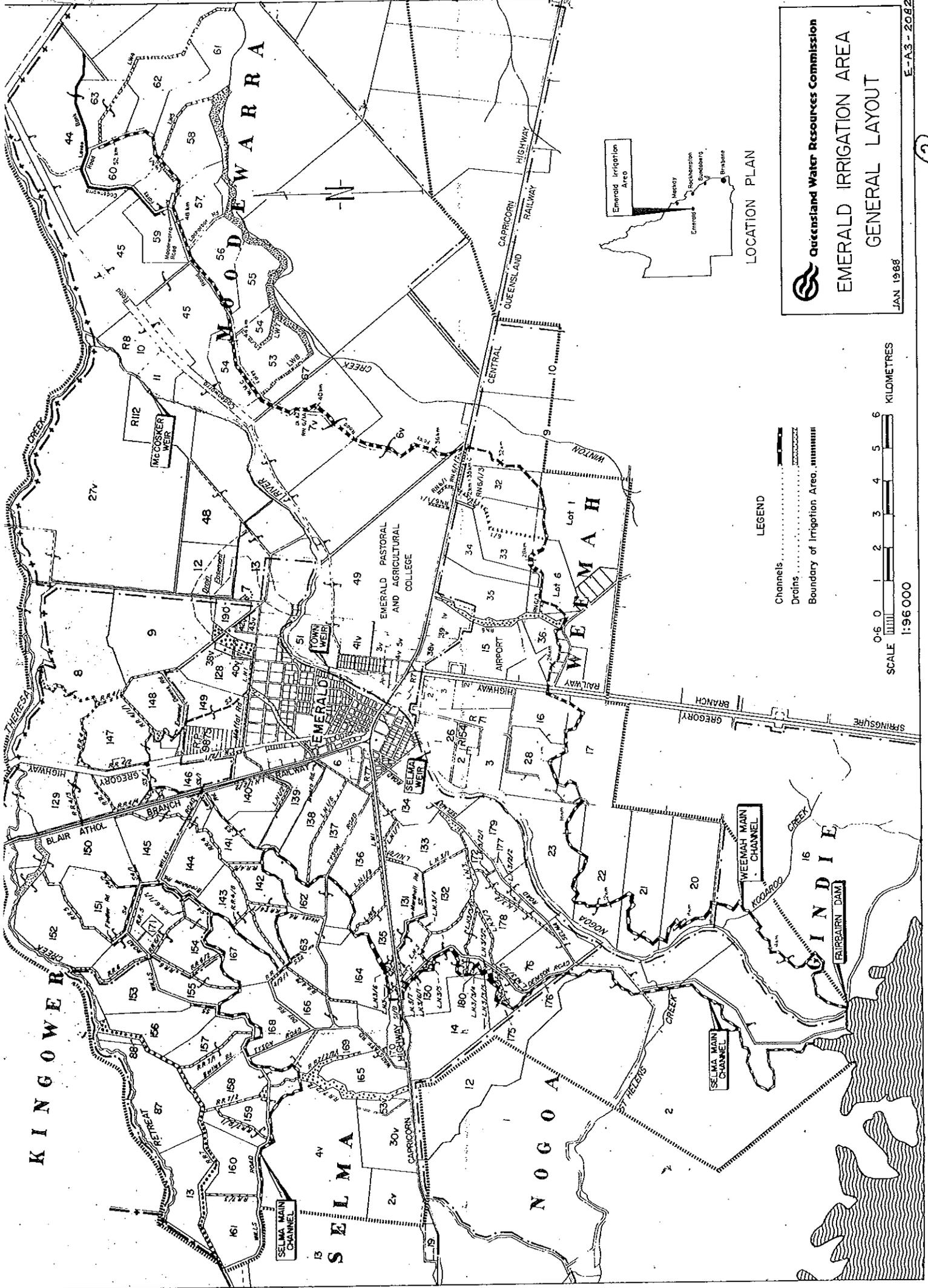
#### APPENDICES INCLUDED.

1. Emerald Irrigation Scheme
2. Emerald Irrigation Area General Layout
3. Town Planning Scheme of Emerald (Zoning Map No 2)
4. Letter from Central Highlands Regional Council refusing map of 2008 Emerald flood.
5. McCosker Weir
6. 2011 Map of Flooded Emerald

FIG. 7



1




**Queensland Water Resources Commission**  
**EMERALD IRRIGATION AREA**  
**GENERAL LAYOUT**

JAN 1988

E-A3-2082





YOUR REF:  
OUR REF: 20110201DMcCullaghFloodMapAccess  
CONTACT NAME: B Wilkinson  
TELEPHONE: (07) 4982 8380  
MOBILE: [REDACTED]  
FAX: 1300 242 687  
EMAIL: bwilkinson@chrc.qld.gov.au  
Emerald Office, PO Box 21 Emerald Qld 4720

1<sup>st</sup> February 2011

Dave McCullagh  
Emerald Qld 4720

Dear Dave,

**Re: Request for copy of Emerald 2008 flood event map**

In regard to your request, Council passed a resolution soon after the 2008 event, that members of the public were able to visit our Emerald office to view a copy of the flood maps, but Council would not release paper or electronic copies of the maps to the public.

I cannot provide you with a copy of the map. You are welcome, as are all members of the public, to arrange an appointment time to review the maps and discuss any of the data they contain.

Yours faithfully,

A large black rectangular redaction box covering the signature of Bryan Ottone.

**Bryan Ottone**  
**Chief Executive Officer**

(4)



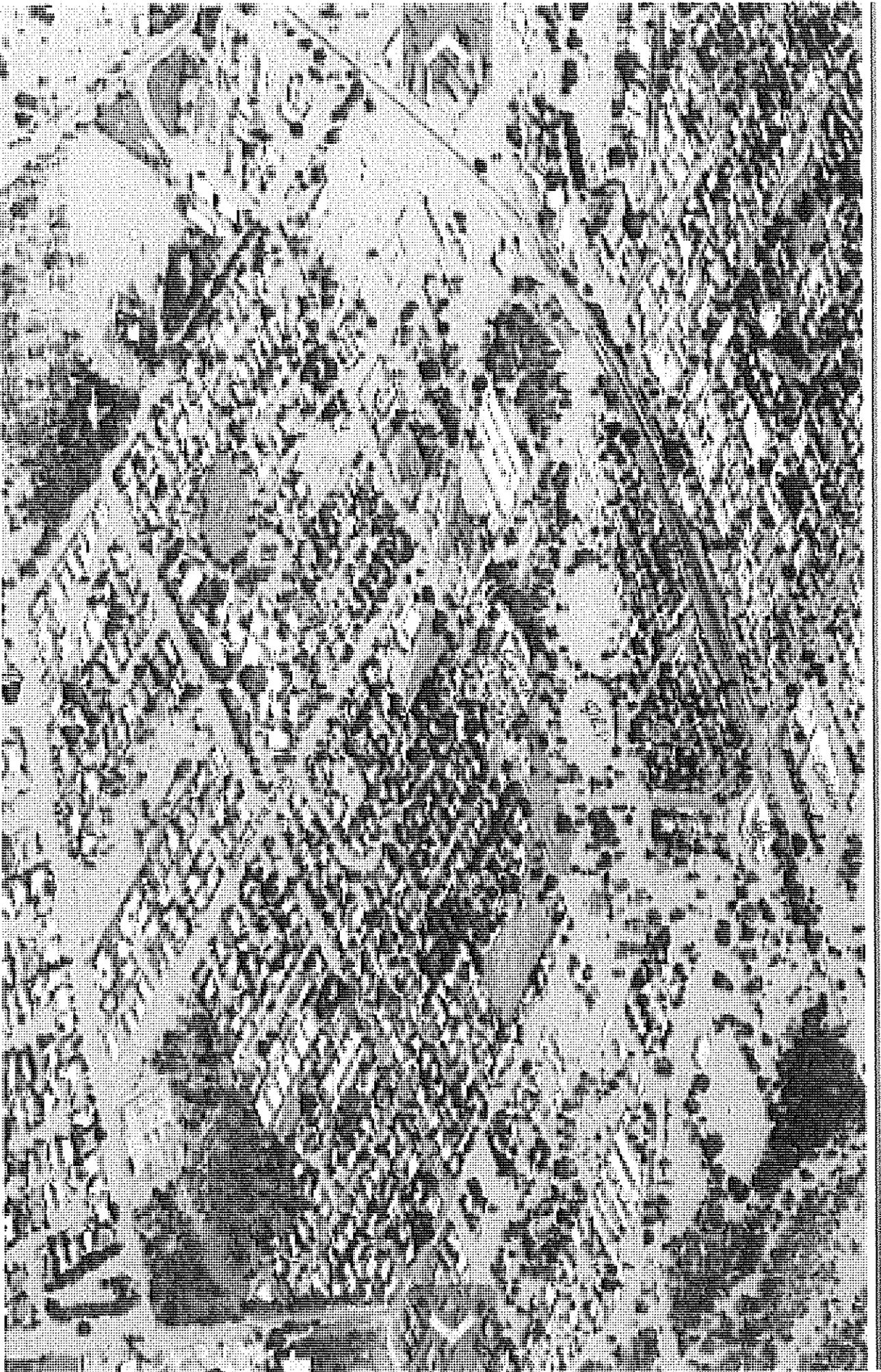


Image 1 of 3

An aerial image showing properties hit by floodwaters in Emerald, Queensland Photo: EPA

Kovic ST

Kovic ST