

Subject: Submission to Extreme Weather Inquiry

Dear Australian Senate Committee for Extreme Weather Events.

I think I have valuable experience regarding extreme weather events and I hold opinions on how we can better prepare and respond as a society, that I would like to share with you.

My experience:

- I have completed a Bachelor Of Science at the University of Queensland where I have my foundation in natural sciences, weather and climate in Australia and man induced green house warming
- I have worked in the Natural Resource Management Industry for 17 years, this industry focuses on how to sustain the systems that provide our natural resources whilst exposed to a wide range of natural and man induced pressures. Weather events whilst they can be extreme and very damaging do not usually cause permanent damage and natural systems can be very resilient within certain norms unless they are unusually extensive or frequent.
- My work experience includes designing and implementing city wide urban landscape projects, urban bushland management, wildlife habitat protection and management, waterway management, catchment planning and managing drinking water sources all mostly for local and state government. To perform well in this industry as a professional within the context of a complex natural and built world you must be able to anticipate, plan for and mitigate new threats to the natural asset you are managing including climate and weather events. Society can be very effective at adapting to change and even without onerous planning will often reorganise itself to work around a problem. However this natural tendency to adapt can be limited to the small area affecting individuals and be self serving. More effort and concerted planning is then required to ensure all parts of society and environment we value is adapting as well or it will be neglected.
- My recent work experience since 2006 has been providing advice and planning for land, catchment and water quality management with QLD Bulk Water Supply Authority. I have worked for the QBWSA during the 14 year drought that finished in 2009, through the flood in January 2011 and through many smaller events like wild fires and storms.
- I have lived in rural areas like Somerset Region, where I am now and also urban areas like inner Brisbane city and I have witnessed first hand these extreme weather events in both places.
- My interest in the environment has lead me to read and learn as much as I can about global warming, extreme weather events and human adaptation in the future
- For the sake of brevity I will not attempt to list my other experiences relevant to extreme weather events but I impress upon you my professional interest in this subject and first hand experiences that support my opinions. My opinion on extreme weather events and response
- It is important to know with confidence if extreme weather events are occurring more frequently or more intensely because the resilience found in our natural systems and society will be weakened and the impacts/costs will amplify over time
- Resilience can be built to prepare for more frequent or extreme events but it requires an extensive, coordinated and costly* response from society that must transcend political opinions. *Not building this resilience will be more costly. Currently work is underway by many groups to provide this solution but it is uncoordinated, ad-hoc, under resourced and susceptible to political whims.
- The question of, what is the cause of extreme weather events, natural cycles or man induced global warming must not prevent preparation now. But the answer may provide extremely valuable information for preventing more frequent or more intense events. The answer will also ensure the most

comprehensive solution is implemented and not one that treats the symptoms and not the cause!

- My opinion is that extreme weather events are being caused by man induced global warming and this means the source of the warming ie green house gas emissions must be severely cut as soon as practically possible. The impact of these cuts will initially be very disruptive to our economy ie 0-10 years but will then be compensated by alternative industries and economic solutions. The impact of not cutting sufficient emissions quickly will be far more expensive and disruptive for a long period perhaps as much as 50-100 years without addressing the issue.

- Extreme weather events trigger a strong community response that draws out the resources and conviction required to recover, this is good news but at what cost? How many lives, families, businesses will be disrupted or lost before a serious resilience program is put in place.

- Gains made in public policy and lessons learnt from disasters are very valuable and must be protected because they will be attacked or neglected for political purposes! In SEQ water efficiency measures introduced during the drought were overwhelmingly supported by the public and propelled water policy 20 years into the future, measures are now underway to reverse these policies. Very costly ie billion\$ infrastructure like desalination plants and purified recycled water plants were built only to be operated at a fraction of their capacity or mothballed because of a policy change before a state government election.

- A large amount of independent reliable information and effort to educate is required to counter strong negative community responses and political manipulation of events. Serious public conflict between individuals, groups and government can undermine the solidarity needed to implement recovery efforts. After the 2011 flood when the community was in shock, the credibility of professionals and management of government owned flood mitigation assets was severely attacked, without evidence, by the media and politicians, while the organisation was effectively gagged. The undermining of public confidence in government systems and core services was political and the most extreme example of community manipulation I have ever witnessed.

- Insurance companies have too much freedom in being able to deny legitimate payments to affected claimants following extreme weather events. The industry uses sophisticated techniques to avoid legitimate payments including misleading or confusing the public about what is a legitimate claim and stating policies in a way that can be interpreted in their favour. The ombudsman has recently stated in public that many insurance companies were blatantly fraudulent in not paying claims. The knock on affect of hundreds if not thousands of claims being rejected apart from financial hardship expresses itself as widespread community anger at not only the insurance company but at anyone or thing associated with the flood. This blind fury is very dangerous.

- The planning schemes of local government authorities is shaped as much by best planning practices as economic benefits to the council or even individuals that have the power to approve developments. The outcome being that development standards and locations have been and, are being approved, that compromises public health and safety and are at a high risk of damage from extreme weather events like flooding and wildfire. The public has taken advantage of these decisions to benefit themselves eg buying water frontage land that is clearly below the Q100 only to then get flooded and react with vicious verbal attacks on random people or organisations, or are too embarrassed to say anything.

- The catchments and ecosystems that support our towns and cities are already severely stressed by human land use practices and resource removal is at capacity so catchment resilience to weather events is now compromised. Natural systems when healthy are very resilient to disturbance and infrequent disasters like wildfire, floods, drought, storm etc. Public recognition and understanding of society's complete reliance on ecosystem services is very poor. Little attention or funding is being directed in an effective way to reversing degradation and building resilience of our catchments. If an extreme weather event like wildfires, flood, drought occurs every 5 years our catchments will be so degraded that basic services like raw water will be very expensive up to 5 times the cost today. Water quality will be so poor

that we will be forced to upgrade all water treatment facilities at a price of \$billions each! Planning of this nature is already underway. Ensuring a safe, secure and reliable water supply for almost three million people across South East Queensland and providing essential flood mitigation services (<http://www.seqwater.com.au/>) will be a very difficult promise to keep!

- The financial resources of the state will be sorely tested if extreme weather events become more frequent or extensive, does the state wait and see and then pick up the bill after each disaster or do they invest seriously in an expensive but badly needed resilience program?

Yours sincerely
Daniel Garcia