

Submission to the Health Department of Western Australia in the implications of climate change for health in Western Australia.

Name: Mavis Blowers

Address: [REDACTED]

Telephone: [REDACTED]

Email: [REDACTED]

- Temperature variations, both hotter and colder, affect the comfort and wellbeing of the elderly.
- Temperatures, both warm and cold, are being affected by climate change at an increasing level which cannot now be denied.
- Cost of increased heating in winter and cooling in summer makes the elderly and handicapped particularly susceptible to the wider variations in temperature, particularly those on pensions.
- Because WA tends to have hotter summers with lower humidity, it is a different type of heat than more humid temperatures.
- Health issues extremely likely to be compounded by the hotter/colder conditions.
- Measures are going to need to be taken to provide either financial or physical assistance to elderly and handicapped for heating and cooling.
- Water protection is now critical if we are going to be able to cope with changes in rainfall, extreme heat, drying wetlands etc. This is a top priority issue for everyone's health.

My submission:

I am making this submission on the basis of the effect climate change is having and will have on the ongoing health and comfort of older persons, not only in Australia but anywhere in the world. This is from two angles:

- Heating and cooling for elderly and handicapped
- The ongoing provision of good clean water.

Because climate change is affecting both hot and cold weather, the elderly are particularly susceptible to these increased variations in weather. Of course, there has always been a certain element of variation from one year to the next and from one decade to the next. There is however, no denying the fact that these last few years are much more drastic in these swings than ever before.

- Glaciers in New Zealand, Switzerland, Iceland are melting at an ever-increasing rate.
- Permafrost is melting in Alaska meaning entire villages have had to be relocated. This melting permafrost then creates increasing levels of methane from rotting vegetation formerly trapped in the ice, thus increasing the impact on climate even more.
- Europe has had record temperatures this last summer with many more extreme rain events over the last year or two.
- Wildfire, hurricanes, tornadoes in the US have been very prolific over recent years, with increased intensity.
- Pacific and Indian Ocean Islands are already experiencing the effects of rising sea levels.
- The Arctic and Antarctica are both experiencing unprecedented melting.

- Rainfall levels have varied greatly over the last few years – tending to be lower here in lower Western Australia.
- Droughts, fires and extreme weather events seem to be happening more regularly here in Australia
- Water has always been a precious commodity in Western Australia but now it is critical that all water be carefully protected to ensure that we have ongoing supply crucial for health and wellbeing. Increased population has no doubt contributed to the need for sourcing water by desalination, treatment etc, when in the past it came from the natural rainfall collection in the dams. But just the same, the difference seems to be far greater than the increased population would suggest. This is probably a top priority for the Health Department as all ultimately goes back to the need of all living things for good clean water.
- Contamination of land and water caused by extreme rainfalls near Broome last year which months later saw chemically-laced fracking fluid evaporative ponds still under water after having washed their contents all over the surrounding countryside.

These are only a few of the effects that are now proving to be becoming almost commonplace.

I grew up in New Zealand in areas where snow was a rare event. And yet now those same places have considerable snow falls disrupting traffic, work and school, every winter. I have friends and relatives (two different sources in three different locations) who told me only this last week that when they lived in England growing up, snow used to be a regular feature of every winter – that every winter their fathers had to climb out windows to be able to clear their doors to enable them to be opened. And in two instances we are talking about southern England which I always believed saw very little snow. These snowfalls are now unusual. English summer temperatures for the last three or four years have been much warmer than experienced in the past.

I have a sister living in Hokitika in New Zealand, not terribly far north of Franz Josef Glacier (which has receded further than in European history), where they have experienced cyclonic type weather several times in the last two to three years. That was unheard of. These storms have eroded massive amounts of coastline right up the West Coast of New Zealand, at great cost to communities in creating sea walls etc, as well as with the loss of land and houses.

Having lived in Western Australia for nearly 40 years now I know that in that time it has gone from being reasonably mild most winters, not requiring very much heating, to being light frosts several times each winter and extremely cold mornings with cooler day temperatures .

Not surprisingly a lot of this is probably caused by the haze that is over Perth due to the higher volume of vehicle fumes etc. The transition for home heating from coal to wood and then to gas should have made these emissions lower. Two years ago we arrived back at Perth Airport and the fumes hit us - that had never happened before.

It is not possible to have this high level of pollution from fossil fuels not affect people's health.

However, I particularly wanted this submission to touch on the effect these changes are having on the elderly, in all areas of health, comfort and economics, without even taking into account the changes which will have to take place to accommodate the ever-rising sea levels.

Partly because the elderly and handicapped are more inclined to be sitting rather than being physically active, mans that cold particularly, has a great impact on their comfort. Often health conditions can also mean more susceptibility to cold or heat.

From our own experience, my husband who is just about to turn 81, has until this winter never really worried about the cold although in later years has suffered from the heat. This winter he cannot get warm and therefore we are having to turn on heating, increase clothing etc. This may be the result of a few health issues arising over the last few months, and possibly also that because of these he is not as active, but he is still relatively healthy in comparison with many we come into contact with. I really feel for them when I consider how they must struggle.

For myself, I have always felt the cold and relished the heat, which means that as I spend a lot of time on computer, sewing machine, knitting/crocheting, etc, I find that most of the winter I am having to have rugs over my legs and round my shoulders to cope with daytime temperatures over about six months of the year. Once again, I wonder how those get on who are not able to move around at a reasonable pace as I am.

Many people struggle with the heat in summer – I am not sure if this is because they have become too used to air conditioning, but what will happen if extreme heat causes power blackouts, etc? As the Health Department, this is technically not your area of responsibility but it is becoming increasingly important that the Department has some input into the effects that extreme heat or cold will have on supply of heating and cooling in the future.

I am aware that this is a very basic aspect of health but felt that perhaps just some everyday insights from an older person may bring this to attention. Having just spent a couple of nights with middle aged son and daughter-in-law and seeing children running around in bare feet and light t-shirts, I realise how different it is for older people to cope with what younger generations take as comfortable.

I therefore believe that one of the important things, particularly in light of the increasing aging population, is for the need for immediate investigation into the heating and cooling requirements of the elderly and handicapped. This will no doubt involve either the provision of more subsidised solar installations, more efficient winter heating, to try to improve the efficiency and economics of heating and cooling, rather than subsidising existing inefficient systems. This may not be Health Department responsibility but surely it would hinge on Health Department input into the necessity.

I further believe that immediate studies need to be made from health angle, into the high water use by industry and mining to ensure that there will always be sufficient good clean water in Western Australia, despite changes in rainfall, etc.

The Health Department would appear to have to put a much bigger input into the need for a permanent ban to be place on all future fossil fuel exploration and production and the need to immediately transition to sustainable energy sources for both heating/cooling and vehicles, to lower emissions immediately to stop increasing levels of climate change and also to protect our health and water from pollution, contamination, and in the case of water, scarcity.

I myself cannot do anything to assist with the necessary changes other than perhaps research and writing. My husband has dementia and I am involved in several voluntary organisations already which take my time. I am however very concerned about the environment and it is sad to see the deterioration and changes caused by corporate farming, removal of trees, desalination, and this winter, even the poor quality of crops due to the extremely dry winter we have had in the Midwest.



30 August 2019