

NRDP129
28/3/08.

I have already sent my own
water Strategy (Water Strategy For Vic.
2008 - 2017) (Blue cover with water droplet)

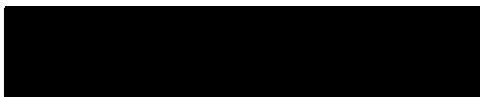
This is a supplement and direct response
to Government Sustainable Water Strategy
Northern Region.

I only received your Strategy 2 weeks
ago and needed to finish mine first before
responding to the Vic Government paper

Hoping you will accept this as all information
is relevant and important for Victoria's
future

With Thanks

Rob Chuck J.P.



RESPONSE TO STATE GOVERNMENT SUSTAINABLE WATER STRATEGY.

This is a short response to the Sustainable Water Strategy, Northern Region discussion paper, published by State Government in January 2008.

While the strategy is reasonable, the reality is very different.

The strategy objectives outlined on page 2 of the Sustainable Water Strategy paper, (Which from this point on refer to as S.W.S. paper.) warrants further discussion before moving on.

objective one:

1. To bring together all national, state and local water policies and projects within the region, and intergrate data to form a regional perspective.

My answer to this is:

It is essential to have policy as long as it's not confusing, discriminating or over governing. It must be beneficial to all Victorians and the environment. Federal, State and local Governments will no doubt take valuable time to sort out which policies should be adopted, while the water crisis becomes worse for many thousands of country townships, industry and irrigators within the Northern Region, or throughout Victoria for that matter.

2. Identify and understand threats to water availability and quality, including the implication of climate change.

It doesn't take a genius to identify and understand the threats to water availability and to water quality.(See Victorian Water Strategy 2008 - 2017 which is attached.) As to climate change, we have little idea **how** climate change will impact on our environment.

Climate change is reality and with population increase in Victoria and less rainfall, Government must prepare for the worst case scenario.

3. Ensure reliable and safe water supplies for towns and associated industries.

Reliable and safe supplies of water shall only occur where there is enough potable water for humans, other animals, including birds, fish, land use, including crop irrigation, river flushing, flooding of wetlands and trees, plus industry requirements.

Without good flows of water into rivers and aquifers, there is no safe reliable supply. The S.W.S. paper strategy relies on continual balance to resolve issues, but if it remains dry for another 3 years, the outlook is grim.

Any water plan will take years to formulate. Any construction arising from the plan will take a few years to a decade to finalize. It will impact heavily on every living thing in Victoria, including parts of N.S.W. and South Australia.

What are other consequences of water shortage?

Lack of water will force industry into operating a few days each week. There will be less working hours due to water shortage. This in turn leading to more unemployment, more stress, more defaults on home loans.

There will be additional pressure on aging infrastructure, higher living costs because growers markets are short on produce. More imports while the Victorian economy slides backwards.

4. Support an economically viable and environmentally sustainable irrigation industry.

The Government is so certain that Victoria won't run out of water. While I believe the water crisis will need to deepen further before any Government takes appropriate action.

But the question is to do with economically viable irrigation industry. An economically viable industry, whether irrigation or industry using water to mix concrete, cannot be sustained under critical water restrictions.

The less water, the less crops to feed Victorians. State Government needs to have enough staff for research and development into what crops are best suited to our climate and to water use. Educational programmes need further development for farmers and ideas sought from farming community to enhance directional policy.

5. Help protect rivers and aquifers from the impacts of drought, climate change and other risks.

Rivers and aquifers are already taking a hiding with very little thought about how long it's taken to accumulate the water underground. I know people who tell me their bore must be O.K. because it's still pumping. I also believe not enough knowledge exists about aquifer quantities, about the dangers from chemical inflow, including sewerage from septic tanks, landfills and more.

Many of the S.W.S. paper objectives are well meaning, but will take far too long before implementation and we don't have the luxury of time. The Hume reservoir is around 14% capacity. Eildon has never recovered over the last decade and Melbourne's water is less than 35%. Algae is the next problem, so more chemical is used to treat the water.

There will be less oxygen in the dwindling water supply, so fish die. More pollution is added to the water through the death of fish, then quality of water drops. Water is harder to pump and with a continual loss of 4.5% of water from Melbourne's reservoir each year, it won't be long before the reservoir will hold less than 25%. (If weather conditions remain similar.)

6. Recognise and where relevant respond to indigenous and other heritage values associated with the regions rivers and catchments.

The minister may come into conflict with indigenous people if they request that a significant site requires water.

We know the act of balancing water supply is becoming more difficult. Soon one or more requirements being balanced will need to be dropped. If an indigenous site of significance is dying and a request is denied by the Minister, there could be serious consequences.

In decision making does the Minister :

- A) Keep water for urban consumption ?
- B) Protect and maintain industry?
- C) Water crops for food supplies and allow an allocation to water domestic and farmer livestock ?
- D) Look after the environment including the significant site?

What must the indigenous community think of white society. In less than 200 years we have managed to clear fell vast area's of land, cause erosion, pollute rivers and lakes. In the mouth of the Yarra River at the moment lay toxic pollutants, we've fouled the air we breathe, cause salinity, pour dangerous cocktails of chemicals onto our land, redirect water such as the Snowy River and by doing so ruin Snowy River ecology and cause the death of many species of mammals, animal life, and more. (See the S.W.S. paper re Snowy River.) When aboriginal people lived in harmony with this continent for many thousands of years.

AQUIFERS

Page 14 of the S.W.S. paper states that the next most significant source is groundwater from aquifers. The figure of 197 GL is quoted, but just how was that figure arrived at? Who used it and from which part of the North?

How was 117GL of drainage water estimated before it returned through drains to rivers? The S.W.S. paper is unclear on this point!

MY PLAN.

My plan calls for four stratigically placed desalination plants to be setup along the Victorian coast to pump potable water inland. This will benefit most larger townships, giving a constant supply of good quality potable water.

Carbon emissions are off set through the use of 3 wind turbine generators which should generate enough electricity to power each desalination plant.

Any rain that naturally falls accumulates in current reservoirs, with moderate supplies of water to irrigators through Caps.

The use of desalination water into catchments and reservoirs supplying Melbourne continues to add to their reserves of water, until reaching full capacity. Then desalination plants ease off or are put into moth balls until required once more. (As California, USA do currently.)

Irrigation supplies are increased over many years until full water rights occur for irrigators too.

Once more there is complete balance. This is where State Government needs a futuristic plan with adequate policy to govern reservoirs, urban use, industry, farmers, irrigators and environment.

Because of constant water supplies into country townships a form of desentralization is possible to State Government and Councils. Promotion through incentives can move people away from the coastline

and State Government may direct 500,000 people inland over the next 20 years to lessen the burden on coastal infrastructure while strengthening country townships with employment, housing etc.

There are many other benefits from my plan, but at a cost. Water must rise to a few hundred dollars per quarter. There are exceptions with rebates or reduced pricing for groups of people, hospitals and some industry.

At the moment combined Government's will be spending:

\$10 billion dollars on a National plan for water security.

There's a cost to taxpayers to have Minister's from each State sit on the Murray Darling Basin Ministerial Council to make policy regarding water.

The Ministerial Council has committed itself to spending \$500 million dollars to recover up to 500 GL of water over 5 years.

The Victorian Government has a commitment of \$115 million to recover 214GL over by June 2009.

Victorian Government is spending \$20 million in a Northern stormwater and recycling fund.

The Murray Darling basin generates about 40% of it's fresh water for domestic consumption and for industrial use.

By mid 1990's it was clear that the water flowing down through the basin was not sustainable. About 80% was disappearing before reaching the ocean, and as pointed out above, the less water the more difficulty in pumping, then there's algal bloom, a rise in salinity and a loss of vegetation and animal life.

Caps are of major importance at this point in time along with policing irrigation channels for illegal water use. Even with full reservoirs caps on the amount of water used by individuals must stay.

This is a wakeup call and careful management including policy will play it's part, but that balance must be gained first.

Whether we can sustain growth in industry, while continuing to increase our base population is one thing. To manage floodplains, 200 year old redgums and promote fish spawning and bird reproduction is another. Many wildlife species have very limited habitat, the continued drought and lack of long term planning by Governments may see some species disappear completely. This State Government now has the burden of resolution.

Salinity as pointed out on page 17 is also another issue.

Why the Victorian Government want to pipe water South when supply is limited in Northern Victoria is beyond me! The S.W.S. paper clearly points out that the Snowy River deverts 1,000 GL per annum to the Murray Darling Basin. By doing so, it has caused significant environmental damage to The Snowy River. Why ignore scientific research which points to an environmental disaster? Why duplicate such a disaster and ignore policy for balance as stated in the S.W.S. paper?

LOSSES TO OUR ECONOMY.

Allowing algal bloom in Kow Swamp for just one month, will cost, according to the S.W.S. paper, \$4.4 million in lost agricultural production.

Water sports, holiday makers, fishing trips, camping and other recreational sports further loss of \$937 million approximately.

Wetland tourism another \$ 146 million.

Northern Victoria generates from agriculture around \$3.26 billion dollars.

UNDERGROUND AQUIFERS.

Page 18 of the S.W.S. paper, (Sustainable Water Strategy) notes the importance of healthy aquifers.

Careful monitoring doesn't occur and much of continual flow and quality is guess work.

It may have taken millions of years to accumulate and a few short years to empty an aquifer. Ground water has it's own environment. Trees often draw from aquifers. Lowering the levels of these waterways is highly dangerous and in many instances causes additional salt across the soil surface.

There is no control as such. Licences are given out, but monitoring is

poor. The S.W.S. paper makes it sound as if there's untapped billions of litres of water just waiting to be drilled. Possibly there is, but how long has it taken to accumulate? How long before we empty it and who is responsible for the consequences?

Rainfall effects aquifers. There hasn't been much rain in a decade. There's a significance increase and dependence on under ground water which is being exploited and to some extent wasted under these dry conditions.

Government needs to issue permits to everyone, not just a few and to monitor closely any extraction of water from any underground supply. In addition, we need to know how large or small these aquifers are. Only through continual testing and monitoring will we acquire adequate knowledge to allow balancing of this most precious resource.

RECYCLED WATER.

In the Northern Region I'm told by the S.W.S. paper that 36 GL of recycled water was recovered compared to 34 GL in 2005/6

From where?

Where did these figures come from? (Page 23)

Surely the figure on page 24 are estimates regarding stormwater?

CONSUMPTION.

The water strategy states that use by urban and industry is 163GL per annum. What it doesn't tell us is how much each used.

What's the projected use by industry by 2050?

Wangaratta households for example consumed 324 litres per day according to the S.W.S. paper.

On a farm it might be as high as 100 litres per day for a family, I suggest. On our farm between the two of us about 30 litres per day for showering, household use and drinking.

BALANCING NEEDS.

What happens if the State Government can't find a balance between the needs of the environment, domestic, plus industry needs?

Already there's an over allocation on water and the beginning of quality issues, for both surface water and aquifers. Population growth verses climate change may have a multiplying effect towards complete loss of a most precious resource.

Yes, Caps will remain effective, but if supplies continue to disappear, Caps will continually need to be revised until some players find it uneconomical to continue.

Crop production will diminish. Farmers will leave the land for cities and more food will be bought in from interstate, or overseas.

Balancing can only occur if you have something to balance. Without water all your policies in the world will be worthless.

CROPS.

Whether producing cotton, timber, rice, other food crops, flooding grass pasture, or other horticultural, floricultural businesses. Government study must be accurate and provide a list of what is and what is not economically viable to grow when taking into account the quantity of water to be used.

Water is about maintaining that balance, plus pursuing a further balance in food production for an expanding population.

A level of structure. A list of crops of major importance directly linked to sustainability of water, environment including soil, farmer income, consumer needs and management of the Victorian economy.

State Government need to be seen as a leader making tough decisions in future needs and growth.

FARM DAMS AND RAINWATER TANKS.

On page 36 of the S.W.S. paper, it runs into conflict when it states that unlicensed dams could have a considerable impact on reservoirs and river flow. While I agree with this statement the conflict occurs when approximately 2.5 million ML is being held in new water tanks along the Murray River. If there are around 500,000 dwellings and businesses within 1 km. of the Murray River who install on average a 5000 litre water tank and apply to Government for a rebate, then it's equivalent to farming dams interfering in river flow rates.

Swimming pools also, whether in Melbourne or elsewhere also hold large volumes of valuable water.

FORECASTING FUTURE WATER AVAILABILITY.

Refer to page 44 of the S.W.S. paper.

Forecasting and prediction of local weather and what might happen into the future is a form of crystal ball gazing. It's not something that will deliver accuracy. Weather forecasters find it difficult getting it right on a daily basis. We can however see a real change in weather and melting of our polar caps.

Hoping for an extremely wet Victorian Winter may give some, but this

run off into reservoirs will soon disappear once more under pressure from population, industry and irrigation requirement. Again we'll face lack of water with a long term solution still being sought.

It's this State Government under current climate conditions that needs to make a stand. Seven tenths of our planet is water and until something better occurs, desalination has to be the answer. There is no other suitable option. I challenge people, or Government to come up with a better idea than mine to assist urban and country Victoria in bringing about that balance that's required.

FINAL SUMMARY.

Government needs to be futuristic and look to the worst case scenario. What happens if we run out or come close to running out of water? All the policies, graphs, jargon and statistics won't help if the State runs dry. The next 9 months is crucial to farmers and to urban areas. After that we're into a further cycle of Summer and a continued drop in reservoir levels. Remember too the timeline, (See my water strategy plan.) from planning to completion.

I ask Government to provide a feasibility study, and quickly, into suitable sites and associated costs of desalination, wind generation and pipeline to pump water to suggested townships. Hoping that my research and project document is met favourably by Government and if I can provide assistance in any capacity please advise.

Rob Chuck J.P.