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MEETING FUTURE DEMAND SUBMISSION

SA Water's Draft Long Term Plan for Eyre Region

The taxpayers of South Australia have paid for between \$6 and \$7 billion dollars worth of pipelines which are under the control of SA Water. This infrastructure should be extended, used and maintained to ensure it provides the highest return on investment while providing water for the current and future uses of the people who live in the State.

SA Water is supposed to be in the business of providing water to the people of the State using the infrastructure and income under their control. It is their business to provide more and better water to who ever and where ever it is needed; after all they have the government monopoly to do so.

It makes no business sense at all for SA Water to spend thousands of dollars each year advertising and trying to educate, as well as subsidising and providing grants, in an attempt to reduce the usage of the water that they are in the business of selling.

To force people to provide tanks, pumping systems etc at their own cost is cost shifting from the public to the private sector and is pushing up the cost of living and home ownership. It is also the most expensive and least efficient way to provide water as the purity of the water and maintenance of the systems are under no comprehensive quality control and are expensive to maintain. They eventually fall into disrepair as historically proven with Housing Trust housing, where tanks were not used or became dangerous to drink from, necessitating removal.

I believe the Port August Gaol rain water tanks have been disconnected to ensure that the prisoners do not drink from them. Yet schools are being provided with tanks, adding a risk factor and on going maintenance to already overstretched school budgets.

The community has never been given the option of deciding if they accept water rationing. Why should they support rationing? Water is an essential commodity and even by providing potable water with desalination it is still the cheapest commodity produced and transported. Yet is the only one rationed. Why? The answer is because of ideology, irrationality and continuation of a government monopoly.

OPTIONS

A number of different options were considered to secure existing potable water supplies on Eyre Peninsula including:

1. **A desalination plant on the lower west coast of Eyre Peninsula** -This is a good idea but very little if any work has been done on where and how this would operate. There is the possibility of using the spillage (excess wind power that can't be put into the grid in off peak times) from the existing wind farm at Cathedral Rocks, which is located in close proximity to the sea and the existing underground water pumping and pipe system, or from future wind farms in the region to desalinate water.
2. **A desalination plant on the north west coast of Eyre Peninsula** - This is the best option because an environmentally friendly site has been established and several years planning has already been done. Based on past experience private enterprise could build it quicker and cheaper than anything SA Water is likely to do.

I am disappointed at the lack of understanding shown by SA Water of the proposed operation of the North West desalination project at Kevin and Lake MacDonnell near Penong (10.3 Assessment of Options – Second Dot Point Page 108) . A power point presentation by the Proponents has been presented and explained a number of times to SA Water bureaucrats. I believe the “Environment” and “Economic/Financial” score for the North West desalination plant should be far lower than shown in Table 10-4 (Final MCA score of options, page 110) as this Desalination project is totally environmentally friendly.

In simple terms, a Mechanical Vapour Compression (MVC) desalinator will use approximately 60% of the water Cheetham Salt currently evaporates from the first two open ponds to produce, in the first stage, 2.5 gicalitres of potable water. Later as demand increases 5 gicalitres of potable water will be produced, with the hypersaline water going back to the 4th or 5th evaporation ponds. The MVC desalinator will be powered by Solar Array and Wind Farm spillage, with energy being stored in a Lloyd Energy graphite block, therefore almost no CO2 production.

I believe the Raw MCA scores for the North West desalination plant should be scored as shown below and not “*evenly been factored up to assist with ease of comparison*” as the NB implies on the next page, (Table 10-3: Raw MCA scores for Eyre Peninsula options - pages 108 and 109).

Criteria North West Desalination plant

| | | |
|---|---|---|
| Improves hardness | 1 | MVC removes all hardness |
| Greenhouse Gas Emissions from Operation | 0 | As explained above, no CO2 emissions |
| Impact on aquatic Ecosystem | 0 | There is no impact on any ecosystem |
| Impact on terrestrial Ecosystem | 1 | This project is based at a mining site. Again no impact. |
| Total Cost | 0 | Original proposal did not require any State Government funding. |
| Total Cost/ ML | 1 | Believe this to be by far the cheapest option |

to produce water. Some intellectual property, however I believe SA Water has been provided with this.
Cost of water delivered will be substantially lower than any properly costed piped system using River Murray or Spencer Gulf desalinated water

| | | |
|-------------------|---|---|
| System complexity | 1 | This is not a complex system. There are over 350 of these units working throughout the world. |
| Operability | 1 | This system was chosen because of the simplicity of its operations, can be satellite monitored and may need one person to check once a week in comparison to RO systems that require 24hr/day monitoring staff and Industrial Chemists. |

To say that SA Water are sustainably managing our ground water resources (4th point page 111) on Eyre Peninsula is very questionable when the Poldra and Robinsons Basins have been drawn down to salt, and the Tod Reservoir mismanaged to a state of being unusable.

The Robinson Basin is currently being filled with water pumped from the Southern Basins, which I consider to be reprehensible.

We should not be relying on ground water supplies for our base line water supply. The Robinson Basin went to salt very quickly and the same could happen to South Uley, these basins should only be used for back up supply. I believe this is what the participants at the Streaky Bay meeting meant. We should be moving as quickly as possible towards not relying on ground water as opposed to looking to 20 years hence as suggested, 1st paragraph page 3 of Minutes.

It is difficult to rely on statements by SA Water. A past SA Water employee stated that South Uley was the last basin with acceptable potable water however SA Water spent \$6 million boring more holes and adding more pipes to pump this system out faster! We have still not been advised if the Coffin Bay lens is sustainable and if it is how big it is - although I understand that an assessment has finally been made. Are the Government worried that if they admit it is a sustainable basin for use by the small community of Coffin Bay they will have to refund the more the \$1/2 billion augmentation fees that they have collected from these unlucky people.

3. **Rehabilitation of the Tod Reservoir** - This is the most ridiculous suggestion as it will take many years to achieve any improvement here and if climate change means less rain, why would you bother.
4. **Augmentation of stage 2 of the Iron Knob to Kimba pipeline** - Pumping more water from the River Murray is absolutely criminal when people who live in the Riverland are being denied their livelihoods and the excessive greenhouse emissions used by pumping water this distance goes against all current thinking.

We should not be looking to the River Murray Water for the water security of Eyre Peninsula. If "Climate Change" means lower rainfall over the Murray Darling Basin it is madness to think it will continue to provide water security for South Australia, especially Eyre Peninsula, particularly as South Australia is on the end of this river system.

Five years ago when water was free it cost \$3.80 a kilolitre to bring water from the River Murray to Whyalla. Add the cost to pump it to consumers at Kimba and south and reversing the pumps the cost could nearly double. If desalinated water is used, you have the cost of the water plus the pipeline. The North West desalination alternative and other plants near consumers minimises pipeline costs.

5. **Construction of a new trunk main from Whyalla to Cowell** - Whoever thought this up should be sacked!
6. **Additional ground water resources** - SA Water has been all over this Peninsula looking for water and advising that our ground water is a reliable resource. The Coffin Bay lens maybe of some local value, but it is not sustainable practice to rely upon ground water resources for the security of water supply for the development of a growing region.

11.1 Ongoing Review of the Long Term Plan (page 113) – A major departure from an assumption can trigger a total review of the plan and the strategies it recommended.

The assumptions (departure from which can cause a major review of the Draft Long Term Plan) can be known as trigger points or key parameters. The key parameters or trigger points in this plan are listed below: - where is the mention or consideration of the mining boom this government is talking up??

Summary Booklet - MEETING FUTURE DEMAND

I do not believe that the people who compiled SA Water's Draft Long Term Plan – Meeting Future Demands have an understanding of the targets set in the updated version of the State's Strategic Plan.

Summary Booklet Page 11- South Australia's Strategic Plan

The 7 main targets that are considered relevant to this Long Term Plan are:

- **Reduction of greenhouse gas emissions** - How can the energy required for the pumping of water all the way from the River Murray be helping to reduce greenhouse gas emissions?
- **Managing water supplies within sustainable limits** - This has not happened from past practice from the drawing down of the Robinson and Poldas Basins)
- **Supporting the development of renewable energy** - For the last three years we have been proposing a totally renewable energy desalination plant at Penong which has not been supported by the government or SA Water.
- **Maintain minerals exploration** - As stated above there is very little mention of minerals exploration in the Plan.
- **Increase minerals production** - SA Water is saying that mining companies must supply their own water and have not factored any increased demand, as evident in assumptions listed on page 113.

However at the least the processing and value adding of minerals should be supported to create wealth and jobs in regional areas and adequate water provided. This would assist Eyre Peninsula to reach the targets set in the State's Strategic Plan. (The mineral sand is already going to Western Australia for processing.) I understand 3 gegalitres of water will be required to process the Kaolin deposit.

I urge SA Water and the Government implement a Long Term Plan for Eyre Region which takes into consideration future opportunities for the region to reach its full potential. Not only mining must be taken into account but also the growing of more trees for the environmental and the benefits from carbon credits.

Finally the mental health of the people who live in our communities is lifted by beautiful gardens and plentiful water. We do not want to go back to the barren conditions of our forefathers. If SA Water cannot do the job let private enterprise do it.

Yours sincerely,

A handwritten signature in black ink that reads "Liz Penfold". The signature is written in a cursive style with a large, looping initial "L".

Mrs. Liz Penfold MP
Member for Flinders