

# Alice Springs

## Water Resource Strategy 2005

### Community Forum: Myths, facts & future of Alice Springs water

Saturday 22<sup>nd</sup> October, 2005  
Alice Springs Water Resource Strategy

NT Government Staff

John Childs – Regional Manager Policy and Planning

Jonathan Veal – Natural Resource Planner

Robbie Henderson – Community Educations and Engagement

Luke Diddams – Rural Advisory Officer

#### MINUTES:

#### Introduction

Robbie Henderson introduced the forum, including aims, staff introductions, house-keeping issues and forum program.

#### Presentation – Myths facts and Future of Alice Springs Water

Robbie Henderson presented information about Alice Springs water resources including:

- Dispelling common myths
- Describing where our water comes from
- Detailing how much water we have and how fast we are using it
- Exploring scenarios for when we could 'runout' of water, depending on how it is used

#### Discussion & Questions

Audience members moved into discussion groups of approximately 8 members per group (5 groups) to consider the presentation and formulate a question to ask the panel.

#### Questions taken from audience:

**Group 1 Question:** In terms of 'useable' water, what about economic viability of other sources and desalination of other waters?

**Answer (John Childs):** At the moment, other sources are not considered economic. The plan is adaptive and has provision to change: it is reviewed every five years and can incorporate regular amendments.

**Question:** But surely it should be in the definition of 'useable' water?

**Answer:** the definition of usable includes economics: we have set a limit of 300 metres depth even though the water goes deeper, as this is an approximate limit of current economic pumping depth.

**Question:** What about the economics of the cost of drilling the new 'Rocky Hill' bore field, say against the desalination of town basin water?

**Answer:** when the time comes when it looks like Rocky Hill will be required, then I expect the water supply utility will look at all of the alternatives. (Note that the town basin has a small capacity -- maximum of 10% of our current usage.)

**Group 2 Question:** Economics: Water has to be pumped and to do so we are currently using (power supplied from) gas from the Mereenie Gas Field which will run out in about 10 years. Will we then move to using diesel? – the price of which is rising substantially. We are interested to know how far subsidies will go?

**Answer (John Childs):** The cost of water is not addressed in the strategy, the strategy is looking at what resources are reasonably available.

**Answer (Robbie Henderson):** Sure, economics is a big part of it but really is for other work...

**More on economics and the Alice Springs Water Resource Strategy:**

The NRETA panel weren't satisfied that they adequately addressed the economic question in the forum. A more detailed response will be prepared and presented here.

**Group 3 Question:** Our question revolves around pricing and regulation: What incentives are going to be put into place to get people to conserve water? What about the education side of things? What is happening about all this?

**Answer (John Childs):** Since 2000, we have had a research program running to investigate questions like this, and it shows that we need enhanced education, and incentives for people to use less water. Government has announced some rebates for purchase of water-efficient fittings and appliances, starting next financial year. The effectiveness of a full range of water conservation measures is currently being assessed for presentation to government.

**Answer (Jonathan Vea):** The strategy provides an overarching framework to plan, manage and regulate our water resources. The plan recognises education as an important concern and has incorporated community education as an important component of the strategic work program.

**Group 4 Question:** If it is predicted that we could use our 'good' quality water within 90 years, then why would we propose to use it for agriculture which is a short term economic gain?

**Answer: (John Childs):** This can change and will need to be decided. The draft strategy proposes limiting horticulture to the poorer quality waters. There is a small amount of good quality water which was allocated for agriculture several years ago (up to 1000ML/a at Rocky Hill) recognising a historical right.

**Answer (Robbie Henderson):** Your question is a key question that we want the community to consider – what uses of water do you think are appropriate? You have a chance to address this in a question specifically directed at this in the submission form.

**Group 5 Question:** Firstly I would like to say well done and good work. It's great to see the facts and figures. Our question is that we are being asked to contribute but are the figures presented being rigorously and independently checked for their accuracy?

**Answer (John Childs):** Yes, the department's senior groundwater engineer in Darwin is checking and signing off on all calculations.

**Question:** But he is still within the department?

**Answer (John Childs):** Yes. National Competition Council (now National Water Commission) examines our strategies and may seek independent review. For example they had CSIRO checker parts of the Ti Tree water resource strategy.

**Group 6 Question:** You were showing the projected figures before, but what about the tourists...some 500,000 tourists come here every year. We aren't counting these tourists that may be 50 – 60,000 a week. You should go and do your sums again...

**Answer (Robbie Henderson):** The scenario of 1.5% annual growth refers to growth in water consumption, not just in resident population. I agree tourists could also contribute to growth in water consumption ...this is just one scenario for growth, but probably a realistic one. Use by tourists is already included in historical and current water consumption figures which have been used as the basis for predictions.

**Comment:** They all have showers and they all use the evaporative air conditioners...

## **Presentation – Alice Springs Water Resource Strategy**

Jonathan Vea, presented an overview of the Draft Alice Springs Water Resource Strategy (ASWRS) including:

- What is the ASWRS about?
- Who does it affect?
- Definition of Beneficial Uses and Water Allocations
- Proposed Beneficial Uses and Water Allocations
- NRETA sustainability policy (the “80/20 rule”)
- Key components of the ASWRS that are open for negotiation (including the “80/20 rule” and beneficial uses)

## **Questions and Answers**

**Question:** What about rainwater tanks for all residents

**Answer:** This is out of the scope of the strategy.

**Question:** But it is critical – How can this be so limited? There is nothing about rainwater tanks or the cost of energy?

**Answer (John Childs):** We have another project that focuses on water efficiency, but this is only indirectly linked to the strategy. The Water Efficiency Study is being undertaken by the Institute for Sustainable Futures...is in 3 stages. The first two stages are concerned with how much water we used and how we use it, and the third stage is concerned with economics and cost questions for consumers and industry. This third stage is currently underway, so more will be said in the future about the most effective water efficiency measures.

**Answer (Jonathan Vea):** This plan looks at the resource and sets conditions etc. to encourage water efficiency...it is a regulatory document. Things like efficiency programs will follow this. The more detailed water efficiency approaches will require quite detailed social, economic and market mechanisms which need to be implemented holistically by Government and Power & Water Corporation.

**Answer (Robbie Henderson):** If for instance the allocation for public water supply is reaching its upper limit then the water supply utility will need to put into place extra efficiency measures. But the strategy doesn't determine which water efficiency measure should be implemented, this is done separately.

**Question:** If you're looking for feedback – then how are we supposed to do that without these factors coming in?

**Answer (Jonathan Vea):** It comes down to where we can function; our area of responsibility lies with the sustainability of the resource. This strategy is subordinate legislation under the Water Act. This strategy is limited by the scope of the Water Act and the roles and responsibilities of our department and the Controller of Water Resources.

**Answer (John Childs):** These other aspects have other ways of incorporating your feedback. For example the Urban Water Reference Group has been active in setting priorities -- for example several years ago they decided that dealing with sewage overflow was the first priority.

**Question:** When you split the 100 years into 10 year units, we are tapping the cheapest water now – Doesn't cost and delivery come into it? In the same way that some Aboriginal communities are unsustainable and will need to be abandoned within ten years, can't Alice Springs become like this in 100 years?

**Answer:** Our approach of splitting the resource into 10 year portions to ensure allocations are consistent with our overall sustainable use of the resource, based on our 80/20 policy on use

of the resource. Breaking allocations into 10 year portions over time, provides us a rate of depletion and ensures that over time we stay within what we define as being sustainable.

**Question:** In regards to the allocations to agriculture – it looked like some good quality water is allocated to agriculture?

**Answer(Jonathan Vea):** Yes, that is the Rocky Hill block and the figure was for their 10 year extraction was based on an existing extraction licence for agriculture. Further demand projections using the poorer quality water were based on proposals previously presented to the department, for which in-principle allocations were determined.

**Question:** So what happens after 10 years?

**Answer:** water extraction at Rocky Hill for agriculture would continue as specified by the licence.

**Question:** So are these 99 year leases?

**Answer:** No, agricultural licences are generally limited to 10 years, whereas public water supply licences can be up to 50 years.

**Question:** Is it practical to separate good and poorer quality waters?

**Answer (John Childs):** Water licences are tradable so that could be bought back.

**Robbie Henderson questions audience participant:** Well, do you think that it is appropriate to use that good quality water for agriculture? These are the questions for the community to comment on...

**Question:** Let's go back to that question; is it possible to have two pipelines? One for drinking and one for garden etc. A dual water supply?

**Answer (John Childs):** I think that is an economic question that we need to ask...

**Question:** I need clarification; Did you say that we can use 80% of our water and that it is sustainable? Is there any way to change that?

**Answer (Jonathan Vea):** It is a key question in the strategy that we would like the community to comment on. We need community input to determine what levels of depletion of water storage is acceptable and over what period, for Alice Springs . Our current policy sets an absolute maximum of 80% over 100 years. This is our default policy, upper limit, for water allocation in the arid zone. Our question to the Alice Springs community is whether or not this is acceptable for the aquifers which support Alice Springs.

**Question:** Have you done a good survey on the effect that a long drought would have – like the 8 year one that we had? What about recharge then?

**Answer:** The town basin will respond like a dam on a farm it will go down as it has in the past. Many of Central Australia's aquifers are recharged only in very heavy rainfall periods; we have seen really good recharge about every 25 years. But the Mereenie aquifer...is like a huge dam with an evaporation lid on top, unaffected by drought, although unfortunately not recharged much. This is the advantage of groundwater aquifers over many eastern states cities surface water reservoirs in that there is a large storage not affected by evaporation which carries us through in between recharge events.

### **Presentation - how can I have a say?**

Robbie Henderson presented a brief overview of how the community could be involved in the decision making process, including:

- The decision making process (how the community and steering committee feedback are incorporated and considered)
- Role of steering committee
- Submission forms
- Website feedback
- Next weeks forum 'Water use & Sustainability'
- Information & coffee afternoon

## Conclusion

End of presentation and thanks to all who attended.

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## **FURTHER QUESTIONS ARISING FROM GROUP DISCUSSIONS FOLLOWING THE FIRST PRESENTATION, with some brief answers added in after the forum.**

- Is it conceivable that a significant reduction in Mereenie extraction can be achieved by harvesting major Todd River flow events?
    - By allowing the Todd River to flow free, water flows downstream and recharges many aquifers on those occasions when the flow lasts for longer periods. If we really needed to supplement our water supply then surface water dams would help, even though they are very inefficient due to evaporation.
  - Will rainwater collection reduce recharge?
    - No, recharge occurs in heavier rainfall periods which produce sustained river flow. At these times rainwater tanks fill up quite early during the rainfall event and don't noticeably reduce the length of time which rivers flow.
  - At what level does the water table have to be to maintain the river red gums?
    - The department is commissioning research to answer this question for river red gums and for other species which depend on shallow groundwater. In the meantime we have set a precautionary limit for town basin extraction of 7 meters below ground level along the Todd River corridor.
  - Why is the Blatherskite Park water still on while it is raining?
    - Blatherskite Park is watered by treated effluent, and has been deliberately over-watered for several years to use up treated effluent and so reduce overflows to Ilparpa swamp and St Mary's Creek.
  - What about old fashioned toilets?
  - What does our water cost?
    - Consumers are charged 68c/kL. The marginal cost of production (mainly electricity, plus maintenance related to production) is estimated to be around 24c/kL. The "lower bound" pricing recommended by the National Water Initiative is \$1.34/kL.
  - What would be the effect of increased tourism?
    - The effect of tourist populations uses standard calculations to come up with an "effective population" on top of the resident population due to tourists. Strong growth in tourism would contribute to extra growth of the effective population. Recent figures show that all tourist establishments used a little less than 7% of Alice Springs' total public water supply. A comprehensive report on water use in Alice Springs, including tourism, is at <http://www.nreta.nt.gov.au/whatwedo/waterwise/study.html>
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