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“Snippets Plus” compiled using information from the Australian Water Association, Murray Darling Association, FarmOnline & various other sources including various printed media & presentations attended.

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Australian Water Association – “Promoting the Sustainable Management of Water”

Murray Darling Association – “For Conservation and Sustainable Development”

March 2007

1st

FarmOnLine

Murray-Darling storage levels plunge again

Water storage levels for the Murray Darling Basin could decline to a five to 10pc range by the end of April if dry conditions continue.

While River Murray users desperately look to the skies, Lower Murray and Lakes users await news on the proposed Wellington weir - with the design and costing expected today or tomorrow.

Some questions may finally be answered, particularly regarding the cost of the project, which has been estimated at anywhere between \$20m-\$130 million.

The weir is an emergency response which could cut off flows to the Lower Lakes to ensure water is available to 90pc of the SA households who rely on the river.

Storage levels at the end of January in the basin were 1540 gegalitres, significantly down on the long-term average of 6050gL.

SA River Murray Minister, Karlene Maywald, said storages were unlikely to recover this year without significant rainfall and run-off.

"Even with an average rainfall, it is not going to recover," Ms Maywald said.

"Therefore, severe restrictions are likely for all river water users in 2007-08.

"It is still too early to know which situation may occur but planning for extremely low flows, must continue just in case."

Water levels in the Lower Lakes are also falling rapidly.

The SA Government has moved to minimise the volume of seawater entering the lakes in an attempt to maintain water quality as the Lakes decline.

Lockages at the Goolwa Barrage have been restricted, and a 300 millimetre high bund, along 1.6 kilometres of the lowest sections of the spillways, will be constructed to prevent overtopping.

SOURCE: Extract from full report in the *Stock Journal*, SA, March 1.

Adelaide Advertiser

A heated argument

It seems climate change is no longer a subject of debate. There has been a shift in public opinion and now the sceptics are in the minority.

However, this minority argues that as people start to “worship” the environment, industry, jobs and the economy will be sacrificed at its altar.

2nd

FarmOnLine

Cotton and rice water won't be targetted: Labor

Opposition spokesman for Primary Industries, Senator Kerry O'Brien, says a Rudd Labor Government will not buy water from cotton and rice growers because of the crop they grow.

Sen O'Brien was responding to news reports to the contrary, based on comments by Labor star candidate and AWU president, Bill Shorten.

Sen O'Brien has told the Senate that a critical aspect of Labor's water policy is the development of water trading and economic instruments to drive reform.

"Federal Labor believes that it should be up to the market to decide on the most efficient use of water," Sen O'Brien said.

"Labor does not, and has never, argued that policy makers should be in the game of choosing which crops farmers grow.

"Labor believes water should be purchased on the market when it becomes available from whatever source.

"Over time, the water market will determine which crops offer the best return on investment."

SOURCE: Rural Press National News Bureau, Parliament House, Canberra.

Cotton contractors face tough season

Contractor cotton pickers are bracing themselves for the brunt of the tough season, with many facing severely reduced acreage in the months ahead, or no work at all.

According to president of the Australian Cotton Pickers Association, Anthony Brennan, there will be numerous pickers standing still this season - for the obvious reason of the reduced production area.

"It's tough for everyone, there's no doubt about it," Mr Brennan said.

"I had one contractor call me this week and he was saying he was fed up and would park his gear, and he'd turn around and sell it when he could."

Mr Brennan says there are two main factors behind the immediate challenge ahead for contractors - obviously, the drought, and secondarily, the low commodity price for cotton.

SOURCE: The March edition of *Australian Cotton Outlook*, to be inserted into the March 8 issues of *Queensland Country Life* and *The Land*, in cotton growing regions.

Adelaide Advertiser

Weir is \$110m to build, \$25m to destroy

A temporary weir near Wellington would cost at least \$110 million to build and up to \$25 million to remove once it was no longer needed, it has been revealed.

Mrs. Maywald yesterday said the proposed weir, as "part of South Australia's disaster plan", would: Take at least eight months to construct; Be a fixed structure with a "design life" of three years; Not impact the Lower Lakes levels.

Wellington weir guaranteed to be temporary

The concept design for a \$110 million temporary weir at Wellington, on the Murray River in South Australia, has been finalised, with its removal now guaranteed by the State Government to allay environmental concerns for the famous Lower Lakes.

Water Security Minister, Karlene Maywald, says the 2.6 kilometre rock and sheet-pile design weir will run from Nalpa Station's Pomanda Island across Lake Alexandrina to Wellington Lodge on the eastern side.

The construction of the weir will not be announced until June and the probability of it becoming operational is about 5pc.

Mrs Maywald says the forecast end to the El Nino cycle and beginning of the wetter La Nina cycle has helped its new low probability.

Mrs Maywald says she could understand the concerns of the Lower Lakes communities and those who would have the weir run off their properties.

"The main thing the Lower Lakes communities are worried about is that once the weir is there, the government will want to keep it there," she said.

Mrs Maywald has guaranteed the removal of the weir at an extra cost of between \$10 million and \$25 million.

However, she could not give a time or a situation that would have the weir removed.

"It will depend on how the Murray Darling Basin recovers," she said.

She said storage systems such as the Dartmouth and Hume dams would need to be filling up.

She added the Dartmouth Dam could take five years to recover but it would not take that long for the government to remove the weir.

SOURCE: *Murray Valley Standard*, Murray Bridge, SA, a Rural Press publication.

3rd

Adelaide Advertiser

Murray will drop more

Boat operators, stock owners, pump operators and other river users are being advised that water levels in the River Murray will fall in the coming weeks.

WEIRD WEATHER: Some good news may be on the horizon

Hottest February on record – but a wet autumn tipped

Adelaide's average maximum for the season was 30.3C, 1.9C above average with Adelaide recording its hottest February on record with no rain.

4th

AdelaideNow

Government offers greenhouse gas calculator

HOUSEHOLDS will be able to calculate their greenhouse gas emissions under a Federal Government climate change initiative.

Environment Minister Malcolm Turnbull today said the Government would spend \$52.8 million telling households how to become more energy efficient.

It will establish a website with a "carbon calculator" and offer households the opportunity to purchase abatement measures to become "carbon neutral".

"Twenty per cent of our emissions in Australia come from our seven million households and all of us can reduce our carbon emissions by a whole range of measures," Mr Turnbull said.

"Many such as using efficient lightbulbs will actually save us money." Others may cost a little bit more, but most of the measures are very affordable.

"A booklet to be sent out later in the year will also tell people how to become more energy efficient in the workplace.

"Taking action to reduce our energy use is good for the environment, good for our household budget and good for the business bottom line," Mr Turnbull said.

He said there was an "engagement and excitement" towards tackling climate change within the Australian community.

He said the Government was also committed to reducing emissions from industry, spending \$2 billion in total on its climate change strategy."

Australia will meet its Kyoto target in terms of emissions," Mr Turnbull said.

"A lot of countries that have ratified the protocol will miss it and some of them by a fairly large margin."

5th

FarmOnline

Cobb thinks water plan will increase farm production

The new assistant minister for Water, John Cobb, hopes the government will use money from its \$10 billion plan for water to help farmers "keep doing what they do best", rather than sell irrigation licences to make water savings. The former farm lobby boss from Condobolin, NSW, believes the Federal Government's water plan will actually help increase agricultural production, not take water away from the farm sector.

His comments came after three of the four Murray Darling States signed over their constitutional control of water rights to the Commonwealth, leaving just Victoria to agree to the Prime Minister's \$10-billion plan for water.

Mr Cobb accepts the reasons for Victoria not signing up to the deal, but says farmers there do not understand the plan is not about acquisition.

"It's no good trying to say Victoria's perfect - "it's not," Mr Cobb said.

"But all the work Victorians have already done is going to be taken into account, and Victorian irrigators individually have nothing to worry about.

"Property rights are going to be respected everywhere and there is no suggestion that we're going to interfere with the two main levels of security – general and high."

Mr Cobb says once farmers realise there is no question of compulsory acquisition in the Government's plan, they will see there is no downside for them.

And while voluntary purchasing will occur, Mr Cobb is hopeful that water savings on farm will help farmers continue with their traditional agricultural pursuits.

SOURCE: Rural Press National News Bureau, Parliament House, Canberra.

Rain has big country buyers boosting SA store market

Large pastoral orders for cattle at sales during the last month, following widespread rains in Central Australia, have provided a timely boost to South Australia's store market.

Demand has risen quickly, particularly in the drenched far north of SA, and around Hawker, with large numbers being put together to capitalise on the long-awaited relief from the extended dry.

John and Annie Hughes, Clifton Hills Station via Birdsville Track, bought up 300 head of cattle for their flooded-out property, including two decks for son Fred Hughes, Kars Station via Broken Hill, which has also had a major soaking.

However, the northern demand was no more evident than at Mount Gambier's weaner sale last month where Kidman & Co's livestock manager, Will Abel Smith, snapped up 1000 steers, a third of the total yarding.

On the back of the Kidman order, prices were quoted up to \$40 better than the previous Mount Gambier store sale. The heavier South East steers purchased found a home at the company's Tungali Feedlot, Sedan, while the lighter drafts, along with other steers sourced from other sales in SA and Queensland, were sent to Queensland channel country stations, Morney Plains and Nappamerrie.

The steers will now be grown out for export to the Jap Ox market, with Christmas set to be the earliest any will be ideally finished for sale.

But unless further substantial rain fell in the north, pastoral demand may well have been satisfied.

"To this point, we're probably pretty right," Mr Abel Smith said.

"If we get more rain we might look for more but we've had a long dry spell and we're not keen not to over do it.

The country needs to recover."

SOURCE: *Stock Journal*, SA's weekly rural newspaper.

AWA

The National Water Commission has released the first national stocktake of Water Charging policies in urban and rural water sectors, the first step towards developing a consistent approach to water charging across Australia. The report highlights marked differences between states and territories.

The VicWater Sustainability Task Group's newsletter "Sustainability News" has just been released. The quarterly electronic newsletter provides the Victorian water industry and its stakeholders with information on initiatives in the water industry in the area of sustainability.

Melburnians had reduced water use by 14% compared to last summer with consumption of ~ 1240 million litres/day over summer & well below 2006 average use of 1449 million litres/day.

In January South East Queenslanders used on average 721 GL/day. If we compare this to January last year, the community is using 73 MG/day less. This week's dam levels combined for SE Queensland is at 21.67%.

A Brisbane State School has responded to South-East Queensland's growing water crisis with a new water management system. It will slash >2 million litres/year from school water use. The centrepiece is a 95,000 litre tank which collects rainfall & can capture the pool back-wash.

2007 Brian Robinson Fellowship for Environmental Sustainability recognises and assists young people who are making a significant contribution to the future sustainability of Victoria to develop their leadership skills and fulfill their potential. It takes the form of a study tour or placement.

TENIX Alliance has been awarded the contract to construct four additional aeration tanks at Melbourne Water's Eastern Treatment Plant (ETP) in Carrum Downs, Victoria. More details David Ballard, Bid Manager - Water, Tenix Alliance:

Water storage levels for the Murray Darling Basin could decline to a 5-10% by the end of April if dry conditions continue.

Sydney residents increasingly support the use of recycled water, stormwater harvesting & tougher water restrictions to tackle the city's problems.

Adelaide Advertiser

FORECAST: No falls predicted for next few weeks

Spectacular show, but not enough rain

The teasing storm clouds that delivered little rain to drought parched South Australia last week at least put on a spectacular light show.

6th

FarmOnLine

Outlook '07: Climate change centre stage

Changes in rainfall and temperature, driven by long term climate change, could result in reductions in agricultural productivity in some regions in Australia, delegates at the 2007 Outlook conference in Canberra were told today.

"Adaptation options will play a vital role in reducing the adverse economic impacts of the changes," Karen Schneider, deputy executive director, ABARE said.

These include improved farming technologies, diversifying crop varieties, pest management, changing enterprise mix and investing in non-farm assets,

However, the nature and extent of climate change impacts at the regional level remain uncertain, she said

Also, improvements in agricultural productivity in some regions are a possibility under some climate change scenarios.

ABARE analysis shows that the economic impacts of climate change are likely to vary significantly from region to region, she said.

So adaption to change at the farm level will become increasingly important.

Dr Mark Howden, of CSIRO Sustainable Ecosystems, also emphasised the importance of adaptation at the farm level.

"The business case for adaptation in agriculture is getting stronger," he said.

Dr Neville Smith, chief scientist at the Bureau of Meteorology, spoke of the importance of providing climate information to agricultural producers in order to promote these optimal adaptation responses.

5.

Scientific information from ongoing research in predicting future climates would need to be integrated into agricultural decision making.

The importance of measuring evaporative demand when assessing the impacts of climate change on plant growth was highlighted by the Australian National University's

Professor Graham Farquhar.

Professor Farquhar also emphasised the importance of adaptation measures, such as improving water use efficiency and plant breeding.

SOURCE: ABARE

Adelaide Advertiser

Wind turbines drive farm communities

Wind power is behind boom in the State's Mid North, which is reaping millions for local drought affected communities.

The first turbine at AGL's wind farm at Hallet is about to be switched on and 44 others are under construction.

Shade of green important to home buyers

More home buyers are asking for environmental assessments when they arrange pre-purchase inspections.

CLIMATE CHANGE: Let's face up to the challenge

Climate change has become a hot topic in the rural sector as farmers cope with the debilitating effects of the long term drought.

7th

Outlook '07: Global warming won't restrain world economy

While this year's Outlook '07 conference has a distinct climate change flavour, economists have conceded they don't see global warming as a "hard constraint" on global economic growth in the medium term.

HSBC economist, Peter Morgan, said that, in most cases, the direct consequences of warming would have no impact on economic growth in the medium term.

He said there was not the will or urgency from government to introduce climate policy - and it's that, which would trigger an economic change.

Government policies, if policies such as carbon control and taxes were introduced, would make an impact, rather than global warming itself.

SOURCE: Extract from Outlook '07 report in The Land, NSW; Queensland Country Life; Stock & Land, Vic; Stock Journal, SA, March 8

River News

Plan for riverfront

The District Council of Loxton Wakerie in conjunction with consultants will present a draft plan for the development of the Waikerie riverfront to the public.

8th

Adelaide Advertiser

Climate research

The University of Adelaide has created a new research institute to join the global fight against climate change.

Flows into Murray fall below 50pc

Water from the Darling Basin is evaporating at a rate of two million megalitres a year, resulting in less than half the average outflows into the River Murray.

MDA vice president in SA, Peter Smith, said the report showed the Murray was "in a fair bit of trouble". "When times were better five or six years ago, a lot of Adelaide's water was coming out of the Darling, but nothing has come from the Darling into SA for three or four years," he said.

"We are now losing for more water out of the total Murray-Darling than we are back into it.

"South Australia used to rely heavily on the Darling to make up the amount of outflows each year, and the way it is going there won't be any irrigating going on along the Murray very soon."

Murray Valley Standard

Maywald 'finally' visits the sites for proposed weir

Water Security Minister Karlene Maywald would have finally seen both properties by the end of this week that the temporary weir would be built off.

River misuse addressed

Indigenous and environmental groups have joined forces to combat the misuse of the Murray and Lower Darling Rivers.

FarmOnline**Farm equity survives drought test**

Broadacre farmers still hold, on average, 90pc equity in their properties despite ongoing drought, which has been responsible for average debt rising by 16pc, to \$412,700.

This rising debt has been offset by the higher land values.

The figures are based on ABARE's latest annual survey of agricultural and grazing industries.

But ABARE warned at this week's Outlook Conference that much reduced incomes in 2006-07 were likely to add significantly to that farm debt burden.

At the start of this year, an estimated 60pc of Australian farmers were battling drought.

Average farm cash incomes (total cash receipts minus total cash costs) for broadacre farmers will slump to \$26,600 this financial year, compared with \$81,290 the previous year.

This will be the biggest year-on-year fall in the 29 years of the ABARE surveys.

Average farm cash incomes were estimated to be near zero in NSW and Victoria and positive but much lower than the previous year in Queensland, Tasmania and South Australia.

In contrast, average incomes in Western Australia are projected to increase to more than \$120,000 per farm.

WA winter crop production was less affected by drought last year than were other states' crops, while payments from previous harvest pools helped top up receipts in the west, ABARE said.

On an industry basis, the star performers of broadacre agriculture in 2006-07 will be beef producers with more than 300 cattle.

They were tipped to achieve average farm cash incomes of \$57,784 (\$115,194 the previous year).

Farmers with more than 3000 sheep are also doing relatively well compared with counterparts in most other industries, with ABARE predicting they would score cash incomes of \$47,531 (\$62,726 the previous year).

ABARE said many farmers had responded to the financial pressures of the drought by reducing land purchases in favour of investment in machinery and equipment to improve business efficiency.

Farmers had also been trimming costs where possible and drawing down on liquid assets, such as farm management deposits (FMDs).

Net withdrawals from the FMD scheme in the September quarter last year was more than \$500 million.

SOURCE: Extract from report in *The Land*, NSW, March 8.

Rainman proves popular tool for the drought

The ongoing drought has pushed demand sky high for a climate management software program developed by the Qld Department of Primary Industries (DPI&F).

Qld Minister for Primary Industries, Tim Mulherin, said Rainman was a CD-based software package of rainfall information designed to assist in the management of rainfall variability.

"This software is the first of its kind anywhere in the world," Mr Mulherin said.

"It can help primary producers develop their own profitable and sustainable enterprise management systems.

"Rainman contains historical monthly and daily rainfall data for about 3800 locations

"It contains monthly and daily stream flows for 400 locations throughout Australia, plus monthly rainfall records for 9500 locations throughout the world.

"So farmers can calculate chances of monthly and seasonal rain.

"They can display historical data as tables or graphs, and forecast seasonal rain, dry periods and effective rain for their own location.

"Rainman's sales since its inception in 1991 have totalled more than 3,000 copies, placing it amongst the nation's best selling agricultural software packages."

Rainman sells nationally to farmers, graziers, bankers, consultants, insurance companies, schools, universities and other government departments.

DPI&F senior industry development officer, Ian Partridge, said, "We realised there was all this data from the Australian Bureau of Meteorology but farmers had no way of interpreting what it meant for them on their property."

Mr Partridge said Rainman came in standard, educational and professional editions, at a cost of \$125 for the Rainman standard edition (version 4).

"An international version of Rainman with special data is used by all national meteorological services in the 10 ASEAN countries," Mr Partridge said.

"Rainman can forecast seasonal rainfall based on the Southern Oscillation Index, can group locations for spatial analysis, import monthly and daily rainfall and stream flow data, and print results as tables, graphs, or maps."

SOURCE: *Queensland Country Life* weekly rural news service, updated daily by *FarmOnline*.

NSW Farmers study global warming

Over 70 farmers from around NSW will meet in Sydney next week for the NSW Farmers' Association's Executive Council Meeting, with special focus on the impact of global warming on farming.

President of the NSW Farmers' Association, Jock Laurie, says as well as executive councillors, NSW Shadow Minister for Primary Industries, Duncan Gay, and Nationals Member for Murrumbidgee, Adrian Piccoli, will attend.

"Although we extended an invitation to Ministers Ian Macdonald and Tony Kelly, Minister Macdonald has declined," he said.

"We are still awaiting a response from Minister Kelly.

"The executive council meeting will include issues such climate change, carbon markets and a national plan for water security.

"We believe in this time of increasing awareness of global warming issues.

"It's important agriculture isn't left behind in discussions."

They will meet over two days from Tuesday March 13. SOURCE: *The Land*, NSW's weekly rural newspaper

Dry hits NSW olive crop

The drought has not only decimated NSW's cereal crops but latest information regarding the emerging olive crops indicates the dry has also taken its toll on the tough fruit.

At a well-attended meeting of the Tamworth and District Olive Growers Association (TDOGA) most members reported their olive trees were almost fruitless and were hardly worth harvesting this year.

This disappointing news follows a record year for olives in NSW's north-west in 2006.

Olives are an emerging crop throughout the nation, with big holdings throughout NSW, Victoria, SA and WA, and although some crops, on an interstate basis, look promising the outlook for the 2007 crop in NSW, is not good.

Olives are usually picked from March through into April, and harvest is due to start in the north-west in the next few weeks.

But TDOGA official John Attwood said the information received to date indicated the 2007 olive crop in the Tamworth region and NSW, would be poor.

"Obviously the drought is a major contributor but other factors have been added into the equation, such as the dry, hot winds of October and November, when the trees were flowering," Mr Attwood said.

"In October, we went into a period of nearly four months without any substantial rainfall and coupled with the dry, hot winds, the flowers on the trees were decimated, and consequentially the trees went into survival mode."

Mr Attwood not only operates an olive cold press business, but farms an olive grove.

He used his crop as an example of the region-wide devastation.

"I have one tree that is sheltered to a degree and at the end of a drain. It will produce about 40kg of fruit this year, which is probably more than the remainder of my 400 trees collectively – this is the general consensus with most of our members for 2007," Mr Attwood explained.

SOURCE: *Northern Daily Leader*, Tamworth, NSW, a Rural Press publication.

Adelaide Advertiser

Lake Eyre's five-year wait for water

WATER has started trickling into Lake Eyre for the first time in nearly five years.

Floodwaters from south-east Queensland, near Birdsville, have made their way into the mouth of the lake in the past two days.

Aerial photographs taken by flight operator Trevor Wright, of Wrightsair, show the water coming down from the Warburton creeks.

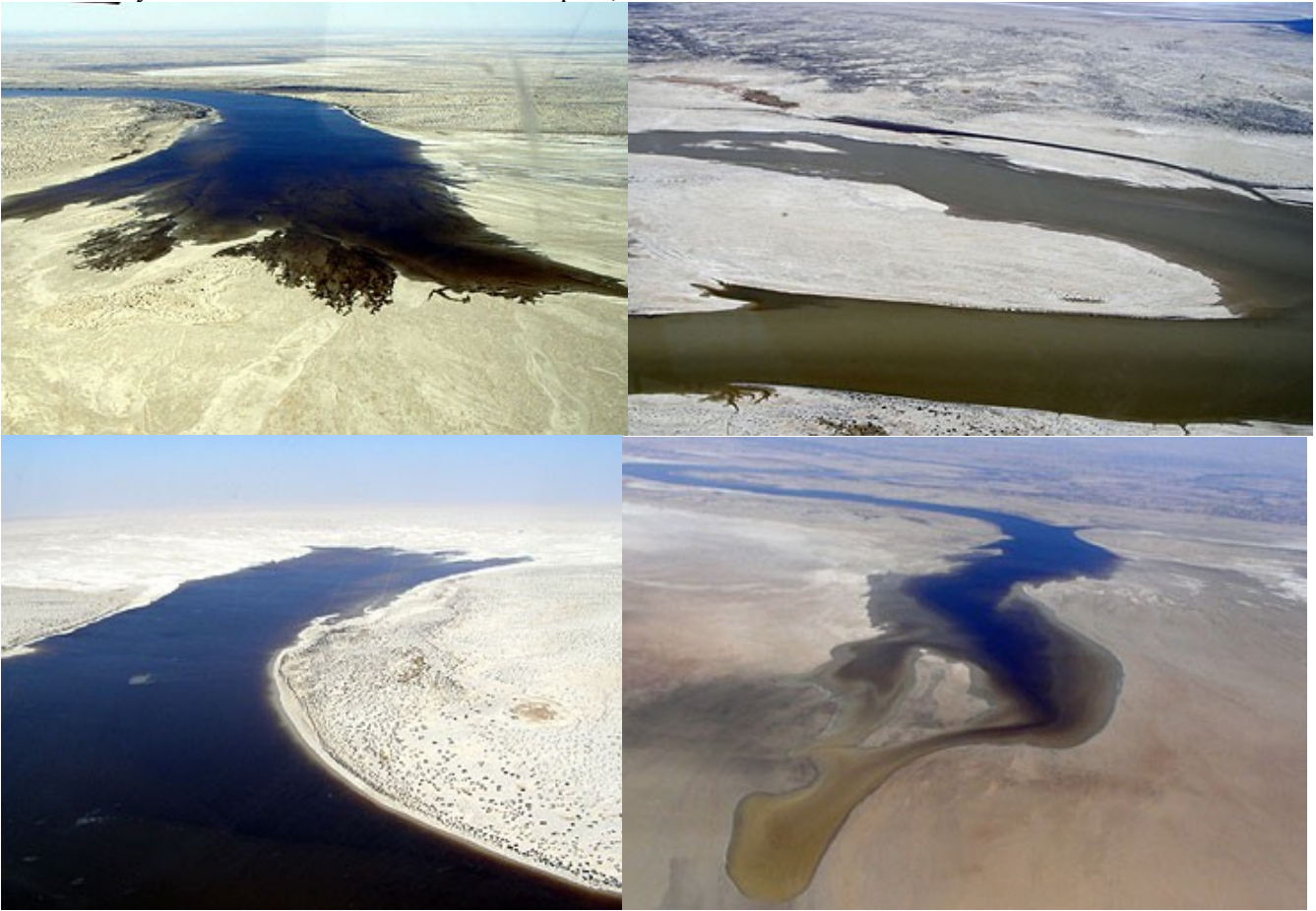
"It is coming into the lake relatively quickly and there has been a slow rise in the level of the Warburton, which is up to 4m in some areas," he said. "I'd expect tourists to flock to the area so they can see and do something that might be a once-in-a-lifetime adventure."

Desert Parks district ranger Mike Hinsliff described the flows into the lake as "minor" for now.

"It will be at least a fortnight before we get a real sense of how much water will flow into Lake Eyre," he said.

8.

The Lake Eyre Basin covers about 1.2 million sq km, which is about one-sixth the area of Australia.



10th

The Australian

Wildlife follows the dark tide towards Lake Eyre

A GREAT tide of water has rushed past Nathan Keogh's parched Kalamurina station for 14 days, coursing inexorably towards Lake Eyre 100km to the West.

It surged into the lake's main inlet, the Warburton Groove, on Tuesday, branching into shallow creeks from the main river bed, the water rising and running faster than when the last flood hit the South Australian outback region in 2004.

Yet the cattle breeder has missed the birdlife that comes from across the continent, traditionally converging on the 9690sqkm expanse of salt crust to eat yellowbelly fish and breed.

"Usually we get pelicans settling around us a couple of weeks before (the floodwater) comes," Mr Keogh said. "But this time, we haven't seen anything and we've been up and down the river quite a bit." That was until yesterday, as he watched the floodwater fill a small inland lake.

"We pulled up under a tree we usually have lunch under and straight above us was 50 pelicans," he said.

"Hopefully, more will turn up once the river slows down a bit."

William Creek charter pilot Trevor Wright says the headwaters, now about 6km into the Groove and headed towards Dalhenty Island, are dark with salt and rubbish collected along the way.

"It's funnelling through fast," said Mr Wright, who took images of Lake Eyre for The Australian.

The great pulse of water stimulates the production of micro-organisms that are the major source of food for fish. Ultimately, it is the increased aquatic production that attracts huge numbers of water birds.

And the pelicans, black swans, cormorants, teal and black ducks will soon be joined by tourists, some of whom enter the lake via the Groove. The Lake Eyre Yacht Club is already preparing to launch craft along the floodwater. The most extensive filling of Lake Eyre was in 1974, when it filled to capacity and reached a maximum depth of 5.7m.

News.com.au

Water deliveries begin to parched towns

A WATER authority in Victoria will begin carting water to two towns northeast of Melbourne this weekend as the effects of the drought begin to hit hard.

Goulburn Valley Water (GVW) said it would start carting water to Euroa and Violet Town.

GVW chief executive officer Laurie Gleeson said that the carting of water to those communities was necessary because of the ongoing severe drought conditions and declining storage levels.

"McColls Transport has been engaged to provide three tankers to transport filtered water from Avenel to Euroa," Mr Gleeson said.

"They will be transporting approximately 600 kilolitres per day and operate 24 hours each day," he said.

The deliveries will provide approximately 50 per cent of daily consumption for Euroa and Violet Town.

The water authority was also planning to cart water from the Goulburn River at Seymour, to Broadford and Kilmore in about three weeks.

GVW said the move was part of its drought response plan if good rainfall was not received in March.

Storage levels in the Sunday Creek system, which supplied Broadford and Kilmore, were continuing to decline.

The authority estimated that the water held in storages would be sufficient to last for 70 days without any inflows or supplementary supplies provided by tankers.

GVW last carted water to Broadford for several months in 2002-2003 to supplement supplies.

"No town supplied by Goulburn Valley Water will run out of water," Mr Gleeson said.

"Tankering to these towns is a practical means of maintaining supplies to these towns as was demonstrated in 2002-03.

"It is important, however, that residents comply fully with the stage four restrictions and minimise water use," Mr Gleeson said.

Mr Gleeson said that the costs of the water carting would be borne by the authority.

Meanwhile, water supplies in Melbourne's main storage, the Thomson dam, have reached a record low 20 per cent capacity.

Melbourne Water said the Thomson dam, which provided more than 60 per cent of Melbourne's water supplies, reached the record low of 20 per cent on Thursday.

But the authority said it was only one of nine reservoirs that supplied the city, and total water storages were at 33.5 per cent.

Tough stage four water restrictions, which ban outside watering, were expected to be implemented in Melbourne in May.

Australian

EU sets carbon trade-off targets

EUROPEAN Union leaders last night agreed on a package of measures aimed at making the bloc the world leader in tackling climate change, including a binding 20 per cent target on the use of renewable fuels.

The landmark agreement - reached after two days of negotiations - commits Europe to taking the lead in fighting global warming by setting targets to cut greenhouse gases and ensures that a fifth of the bloc's energy comes from green power sources, such as wind turbines and solar panels.

"It has been possible to, as it were, open the door to a new dimension of European co-operation for years to come in the area of energy and combating climate change," German Chancellor Angela Merkel said as she announced the plan, which also requires greenhouse gas emissions to be cut by at least 20 per cent from 1990 levels by 2020.

The 20 per cent target for use of renewable energy is a massive hike from the current figure of just over 6 per cent. Ms Merkel said there was still time to reduce the overall increase in global temperatures to below 2C.

"We could avoid what could well be human calamity," Ms Merkel said.

European Commission President Jose Manuel Barroso said the agreement showed that Europe was able to take important and firm steps on global warming. "We can say to the rest of the world: Europe is taking the lead - you should join us in fighting climate change," he said.

Ms Merkel, a former environment minister and the holder of the EU's revolving presidency, had implored her fellow European leaders to give her a strong hand at the next G8 meeting in June in Germany, when she will ask world leaders to join apost-Kyoto framework. British Prime Minister Tony Blair said that, in addition to the EU move, a G8 deal on a framework for a global agreement would create "the best chance" of getting the US, China and India to tackle climate change.

"These are a set of groundbreaking, bold, ambitious targets for the European Union," Mr Blair said.

"It gives Europe a clear leadership position on this crucial issue facing the world."

The deal is a compromise between nations that had demanded mandatory targets on clean energy, and eastern European nations led by Poland and Slovakia, which had said they did not have the money to meet such high targets for developing costly alternatives.

Those nations said they preferred to stay with cheaper but more polluting options such as coal and oil.

While setting an overall 20per cent target for the bloc's use of renewable energy, the agreement also says individual targets will be allowed for each of the 27 EU members.

Business leaders expressed disquiet at the new regulations and have warned that unilateral goals will hasten the international decline of European industry.

Ernest-Antoine Seilliere, the head of the BusinessEurope employers' group, said: "In terms of binding obligations on renewables, nobody has the foggiest idea what the costs can be."

AP, The Times

Bracks poised to buy water from North

THE Bracks Government has ditched its long-standing opposition to buying water from irrigators to boost Melbourne's supply, and announced it is considering a controversial plan to pipe billions of litres south from the Goulburn River.

Water experts including National Water Commission member Peter Cullen have been urging the Government to buy irrigation water as a cheap fix for Melbourne's shortage.

The development came as talks between state Water Minister John Thwaites and federal Water Resources Minister Malcolm Turnbull ended without agreement on John Howard's Murray-Darling plan, although the two have agreed to meet again.

Mr Thwaites confirmed yesterday his Government was studying a plan drafted by central Victorian media proprietor Ross McPherson and leading orchardists to pipe several hundred gigalitres a year to Melbourne.

The move sparked an outcry from the Nationals, who vowed to oppose any move to take water and wealth from country areas into the city.

But orchardist John Corboy, who helped draft the plan, said it involved generating 450 billion litres of extra water by reducing losses in channels by closing, lining or piping them to prevent evaporation.

"Here's a plan that's ready to go in the biggest irrigation system in the country and it's been well-researched," he said.

"What's good for the foodbowl of Victoria is good for the Victorian economy."

His group has put the cost of upgrading channels in the Goulburn system at \$2 billion, and wants the Government to fund this in return for the water.

Nationals water spokesman Peter Walsh said he was "bitterly disappointed".

"Once you transfer water out of a region you are transferring wealth and economic activity," he said. "We need more decentralisation, not less."

Big dry ends in hail, lightning and torrential rain

A SUMMER that brought 50 consecutive bushfire days in eastern Victoria ended with a flood watch for the same region yesterday as storms in southeastern Australia all but broke the big dry.

The storm system swept through Sydney yesterday afternoon, causing flash flooding and delays for people trying to travel by road, rail and air.

At Campbelltown, in the city's southwest, a 52-year-old man was taken to hospital after being hit by lightning, while many cars were damaged and 40,000 homes and businesses blacked out after direct lightning strikes on two electricity substations as thunderstorms dumped heavy rain on the city.

A further 7000 homes were blacked out in the Newcastle area.

Lightning strikes stopped trains on the South Coast line. Several schoolchildren were treated for shock when lightning struck Heathcote train station, forcing its closure for several hours.

More than a dozen international flights were delayed for more than an hour at Sydney airport when the storm hit shortly after 2pm. Just as congestion at the airport was clearing, a second alert went out shortly before 5pm, causing more delays.

The State Emergency Service received more than 100 calls for assistance while the Rosemeadow shopping centre in the southwest was evacuated after a roof collapsed. Severe thunderstorms lashed the state's New England district last night.

The storm arrived in Sydney after shutting Canberra's central business district with hailstones the size of golf balls, burying parts of the capital in hail drifts up to 2m. Falls of 50mm to 100mm overnight on Tuesday in Gippsland prompted flood watch advice from the weather bureau, with floods on fire-cleared hillsides.

National Climate Centre climatologist Blair Trewin said the towns of Orbost and Sale had falls in the 70mm-to-85mm range in the 24 hours to 9am yesterday.

Canberra received about 70mm in less than an hour, shutting down the Australian National University, the major shopping precinct and the National Botanic Gardens, but only a few millimetres fell in the catchment area.

Sydney weather bureau forecaster Kenn Batt said rainfall for February was double the average for the month, and that yesterday's supercell was the "mother of all thunderstorms".

Weatherwatch spokesman Anthony Cornelius said cooler air in the upper levels across southern Australia had led to higher storm activity than usual because rising hot air was hitting a cold level, leading to heavy rainfall.

Additional reporting: Selina Mitchell, John Stapleton

Turnbull emission will cost millions

The plan, announced yesterday by Environment Minister Malcolm Turnbull, will also allow Australians to calculate their own greenhouse gas emissions on a new website.

Seven million households will receive a booklet in the mail later this year on how they can cut their emissions by adopting energy-efficient measures.

Last week, it was revealed the Government will spend \$43million of taxpayer funds on an advertising campaign highlighting its achievements ahead of the federal election this year.

Mr Turnbull's plan was roundly criticised by environment groups, which said the Government should go about setting targets instead of providing printed information that is already widely available.

"There's a bit of irony in that," Australian Conservation Foundation climate change campaigner Tony Mohr said.

"This is another very small piece in the jigsaw of climate change but we still don't have any idea of what the Government is doing in a systematic way to address the problem."

Getting households to cut their emissions by enforcing minimum standards of fuel efficiency - car emissions count for one-third of total household emissions - would be a more practical first step, Mr Mohr said.

Greenpeace Australia energy campaigner Mark Wakeham said the Government's energy would be better focused on industry, which accounts for 80per cent of total emissions, but "instead it's trying to make households feel guilty about the problem rather than taking on industry".

"It's a lot of money for a letterbox drop," Mr Wakeham said.

Mr Turnbull rebuffed criticism that his mass mailout would itself be a source of emissions, saying a paperless campaign was not viable because not everyone had access to the internet and promising that the Government would purchase offsets used to produce the campaign through an approved abatement provider.

"Everything that we're doing here in Australia is vitally important and many of the things that we do in Australia, such as phasing out incandescent lightbulbs, set an example that will be followed around the world," Mr Turnbull said.

"Australia is boxing above its weight in the climate-change battle. Twenty per cent of our emissions in Australia come from our seven million households and all of us can reduce our carbon emissions by a whole range of measures.

"Many, such as using efficient lightbulbs, will actually save us money."

But the Government faces an uphill battle to convince consumers to switch to green power, with modelling done in 2002 revealing it would cost households an extra \$100 to \$300 a year to come under the Kyoto targets.

Courier.com.au

Blitz on water rorters

TOUGH new water restrictions will directly target those households that fail to conserve water.

These are the water wasters of southeast Queensland – the households often flouting restrictions in an effort to sustain thirsty gardens and swimming pools.

The new restrictions are aimed at households that cannot offer a good reason for guzzling more than 800 litres of water a day.

Water-wasters now face outdoor watering bans, fines and even water rationing if they refuse to cut back.

Water Commission chairwoman Elizabeth Nosworthy said 110,000 households were using more than 800 litres a day, and "a high percentage of them" were doing the wrong thing despite months of restrictions.

As a group they consumed about 1100 litres a day, double the residential average.

Under level 5 restrictions, heavy water users will be identified through water rates by councils and will be mailed letters.

They will be required to file a "water usage audit report" providing information on their household, water use and water efficiency.

Residents who refuse to respond will be banned from outdoor water use, fined \$150 each time they violate the ban, and if they continue to resist, could even have their water rationed.

Ms Nosworthy would not detail how any punitive measure such as rationing might work.

"They could be on a list of declared households who have to use X amount of water," she said.

However, people who have good reasons for high water use, such as large families, would not be penalised, provided they tried to reduce. "We need to be careful not to get into a lynchmob mentality here," Ms Nosworthy said.

The Water Commission has developed a profile of heavy water users from survey research that shows a "smoking gun on outdoor use" since the group's indoor consumption was not significantly higher per capita.

While they are scattered in suburbs across southeast Queensland, 90 per cent have gardens and 53 per cent have pools.

FarmOnLine**Nationals threaten to spill water plan**

The Federal Nationals are pushing to limit the buying back of irrigation licences as part of the Government's \$10-billion Murray-Darling Basin plan, raising accusations that they are trying to scupper the deal.

Deputy Prime Minister Mark Vaile and Agriculture Minister Peter McGauran are insisting purchase of irrigation entitlements should be only a last resort.

They fear drastic cuts in allotments could devastate irrigation towns in the basin.

"We need to address the issue of over-allocation, but the purchasing of water rights is a last resort rather than the starting point," Mr McGauran told the *Australian Financial Review*.

But they have been accused of contradicting Prime Minister John Howard's promise to end over allocation in the river system "once and for all", partially through licence buy-backs.

It's a point rejected by Mr Vaile, who says up to 3600 gegalitres will be saved for the environment through the \$6B investment in infrastructure, with a further \$3B put aside for structural adjustment for farmers who wish to leave the land or sell their water licences.

"The Government's position is that we will be investing in plans, in infrastructure, to save a lot of the wastage of water through absorption and evaporation; and that should be the primary focus, because there are enormous savings to be had," Mr Vaile said.

"Structurally, we recognise that there needs to be an addressing, if you like, of allocations throughout the Basin that have been made by states on a state by state basis without reference or thinking relatively to the overall system.

"That will be done by purchasing back allocations in the marketplace from willing sellers. And we've allocated \$3 billion to that." SOURCE: AAP and *FarmOnline*.

Milk production at 10-year low

The drought continues to take its toll on national milk output with monthly production figures for January almost 11pc lower than the previous year's total, after falls in all states except South Australia.

The national total for January 2007 was 820 million litres, down 100 million litres on the same month in 2006, while year-to-date figures are now 2.5pc lower and certain to mean annual production will drop below 10 billion litres for the first time since 1997/98.

The biggest fall for January was in the irrigation-based production region of northern Victoria, where reduced water supplies cut production by 56ML or more than 22pc, with total Victorian production for the month down 16.4pc on the same month last year.

Year-to-date production for Victoria, Australia's dominant milk-producing state, is now at 4.3BL or 4pc less than last year.

In New South Wales, January production dropped 4.4pc but remained almost line ball with January figures for 2005/06, while Queensland and Western Australia are running 10pc and 8pc lower respectively.

South Australian production has been in positive territory since the start of the season and is now almost 40ML (10pc) ahead of last year.

Tasmania is also running 7pc ahead of last year, although the January figure was 5pc lower than for 2006, reflecting the abnormally dry season in that state.

SOURCE: *Stock & Land*, weekly rural newspaper, Victoria.

Adelaide Advertiser**POWER PLANT: \$100m clean coal boost**

Clean coal technology will receive a \$100 million boost today, with the Government to announce funding for a 400m W power generation plant.

Water saving rebates

Rebates for water efficient washing machines and dual flush toilets are among the water saving initiatives under consideration by SA Water.

The Australian**Tanks fill with MPs keen to be green**

THE battlelines between federal Environment Minister Malcolm Turnbull and his Labor rival Peter Garrett have extended beyond parliament to their own backyards as the MPs rush to prove their green credentials.

With Al Gore, a leading voice in the fight against global warming, stung this week by criticism over how much electricity his Nashville mansion uses, Australian politicians were only too happy to spruik their green wares.

Mr Turnbull and Mr Garrett - and many of their colleagues - are taking voter concerns about climate change and water scarcity to heart, and have personally embraced everything from dumping their food scraps into worm farms to installing rainwater tanks at home.

The multi-millionaire Mr Turnbull drives a hybrid car when he is not walking the streets or using public transport. His Sydney home in harbourside Point Piper was designed to maximise energy efficiency and has five rainwater tanks. He is in the process of installing solar energy panels, which will provide almost 10kW of power a day, and converting domestic lighting to low-energy bulbs.

He recently switched to 100per cent green energy, and has a worm farm.

But Mr Turnbull's wealth - which includes a massive share and investment portfolio and thousands of hectares of agricultural land - could become his Achilles heel. It will be hard to keep track of every company and primary production interest that could cause a greenhouse gas blemish on his record.

While the strong sentiment in some of Mr Garrett's songs has already come back to haunt him, life is potentially less risky for the former Midnight Oil frontman and Labor environment spokesman, who owns two properties.

Mr Garrett's home in the NSW southern highlands town of Mittagong boasts water tanks, wastewater recycling, low-energy lighting and water-saving devices such as dual-flush toilets and a front-loading washing machine.

Late last year Mr Garrett, who drives an LPG-converted car, bought another home at Maroubra in Sydney's east, which he is now renovating.

He plans to install a solar hot water system, water-saving shower heads and toilets, a water tank and energy-efficient lights. And the home will be circled by a native garden.

Australian Conservation Foundation chief Don Henry said while individual efforts should be applauded, they accounted for only 20 per cent of change at best.

Mr Turnbull and Mr Garrett are not alone in turning green.

John Howard recently told Australians to have shorter showers - the Prime Minister's own are only four minutes long - and to install water tanks. After months of wrangling, Mr Howard won a battle with the local heritage authorities to install a rainwater tank at his official Sydney residence in Kirribilli.

Mr Howard's official car uses ethanol-blended fuel and 10 per cent of his domestic power comes from green energy sources.

Opposition Leader Kevin Rudd recently installed a rainwater tank at his home in Brisbane, along with water-saving shower heads and toilets.

But attempts to install solar hot water came to nothing - reportedly he lives on the wrong side of the hill to catch the sun.

Selina Mitchel.

Household water price system labelled a joke

TONNE of water costs less than the standard 50c postage stamp in most parts of Australia, despite chronic shortages caused by the drought.

Chris Davis, chief executive of the Australian Water Association, which represents members of the water industry, said water pricing was patchy across the nation and did not reflect the true cost.

"I think anything less than \$1 (a kilolitre or one tonne) is an insult. There is no product you can get that comes within cooee of that sort of price," he said.

Even in Brisbane, where level-five water restrictions will be introduced next month and bills will rise by \$71 next year to pay for the Beattie Government's \$7 billion water infrastructure plans, residents pay less than \$1 a tonne.

Only Sydney pays more.

According to the Australian Bureau of Statistics, the average Australian household uses 268 kilolitres -- or 268,000 litres -- a year. Sydneysiders pay the most, at \$338.75 for 268kL, followed by Brisbane with \$245.92. In Perth, the most water-stressed city, residents pay just \$144.42.

"Some of the lowest prices would be 42 cents a kilolitre which is pretty damn cheap, and 65c wouldn't be uncommon," Mr Davis said. "That is just a joke when you think of the service and the criticality and the need to refurbish equipment. The mockery really comes in places like Western Australia where they have a postage stamp price throughout the state."

In Perth, water costs 42 cents per kilolitre for the first 150kL. In rural Western Australia, the first 150kL costs 49.3c/kL.

In Adelaide, which relies on the dwindling Murray River for most of its water in a dry year, the first 125kL costs 47c/kL.

And it is not just Adelaide residents who get such cheap water; water from the Murray is pumped 380km to Whyalla, then even further north to Woomera, where residents pay the same cost as Adelaide.

Mr Davis said each state regulated its own pricing, leading to a patchwork of costs across the country.

He said the main cost in water bills was the charge for supply and sewerage services, with consumption costs varying little regardless of the amount used.

The fixed water charge varies from \$45.40 a year in southeast Melbourne, to \$154.60 in Perth. "If you work out somebody's bill and they double or halve their consumption, it has a very small impact on the bill," Mr Davis said. "It is not a signal that makes much sense."

All capital cities have introduced rising block tariffs, where prices rise with higher water use. A spokesman for Sydney Water said that few customers exceeded the 400kL usage, and paid top prices.

Mr Davis said a study of the top quarter of water users in Melbourne and Sydney last year "discovered these people didn't have the faintest idea how much water they use". He said it was also a failing of the billing system that there was no guidance on what was an acceptable water-use level.

Asa Wahlquist

Opposition warns water will dry up

SOUTHEAST Queensland's water will run out before a water grid for the region is completed, the Opposition said today.

The Opposition has asked Deputy Premier Anna Bligh in a parliamentary question on notice how much pipe had been laid for the southern regional pipeline, the recycled water pipeline, the eastern pipeline from the Redlands and the northern pipeline from the Sunshine Coast.

The four pipelines form part of the Beattie Labor Government's \$8 billion water grid project, which is due for completion by the end of next year.

Ms Bligh said while the laying of pipes was a critical part of each project, it was not necessarily the most complex or time consuming.

"More and more pipe-laying crews on each of the projects are now being mobilised as environmental approvals, land and design becomes available. This will further expedite the laying of pipes," she said.

The Queensland Water Commission last month warned any delays in the rollout of the Government's water grid could have dire consequences as dam levels drop.

Work on the recycled water pipeline is now being done around the clock but it is not expected to bring forward the December 31, 2008 completion date.

Opposition Leader Jeff Seeney said Ms Bligh's refusal to directly answer the question raised new concerns key water projects would not be built on time and on budget as she had promised.

"Southeast Queensland residents are being told they'll have to pay almost 150 per cent more for water within a few years and prices could rise even further if key water projects experience budget blowouts," he said.

"Southeast Queenslanders deserve to know how the pipe-laying is progressing, as they are the ones who face paying more for water and even tougher water restrictions if the projects experience delays and budget blowouts."

In response to the worsening drought, the commission last Friday detailed level-five water restrictions for southeast Queensland to take effect from April 10.

It also outlined dramatic increases in water charges, with prices recommended to rise by up to 147 per cent over the next five years.

Article from: AAP

13th

FarmOnLine

Water sharing plans safe: Cobb

Reports that the Commonwealth plans to re-visit local water sharing plans under its \$10 billion water plan are way off the mark, according to Assistant Minister for the Environment and Water Resources, John Cobb.

Mr Cobb says the Federal Government has no intention of scrapping the thousands of hours of work that local communities have put into State Government water-sharing plans.

Mr Cobb says the development of water sharing plans, particularly in NSW, had been a long, drawn-out process.

"Because of the drought many of these plans have not yet been fully implemented and they need to be given time to be allowed to work," Mr Cobb said.

"It should be fairly simple to grasp the concept that if you have no rain, you have no water to test the plan.

"Under the National Water Initiative, state-based water sharing plans are scheduled to be reviewed in 2014 and I see no good reason for this timetable to be changed."

SOURCE: Rural Press National News Bureau, Parliament House, Canberra.

AWA

Minister for the Environment & Water, Malcolm Turnbull has announced that the Government will invest \$5.6m to accelerate the development of water trading in Australia as a key plank of the Commonwealth's water policy, the National Water Initiative (NWI) and critical to national water reform. A CSIRO study on the sustainability of water use in the Murray Darling Basin will assist.

Following various comments in the media concerning the efficacy of Water Trading and whether it is able to assist in solving the chronic water shortage in non-urban areas, IPART has published a paper "Water Trading - Panacea or Placebo" addressing the issues.

Ozwater 2007 was a success, achieving record numbers of delegates (>1100) and booths (207), while the exhibition was abuzz with energy. Closing speakers Profs Peter Cullen and Ian Lowe, both had sobering words on climate change, while the premier of the video *Roy & H.G. Turn up the Heat* (sponsored by Vinidex), took an ironic look at the same topic.

The Queensland Water Commission plans to restrict water supplied from Wivenhoe Dam to power stations in south East Queensland in an effort to save up to 13 ML/d. Restrictions will apply from April 10, coinciding with the introduction of Level 5 water restriction, until September 1 2007 when supply will come from the Western Corridor Recycled Water pipeline.

A row over irrigation licence buybacks and complaints about CSIRO's role in assessing sustainable water allocations is causing friction with the Nationals and threatens the Australian Government's \$10bn water plan. Australian Financial Review, Mar 9, p1-4

Drought affected Queensland Irrigators are now able to submit applications for rebates on fixed water charges from the Queensland Rural Adjustment Authority which is assessing applications for bills already paid by irrigators since July 1, 2006. The scheme was introduced in areas where little or no water is available to them to draw due to the drought.

The ABC has a web site devoted to water, with information, links and discussions. ([Website](#))

Multiplex is constructing Sydney Water's new corporate office at Parramatta, according to the best principles of sustainable water sensitive design.

A new edition 13, Feb 07 of the quarterly newsletter 'ReWater: farming with recycled water' is now available. Download at ([Website](#)). Back issues of ReWater can also be found at this web address.

Greening Australia's National River Recovery program has improved river health and water quality across dozens of Tasmania's rivers through the Northern Tasmania Riparian Project. Innovative its combination of engineering and community, the project received the AWA Water Environment Merit Award at Ozwater.

The SA Government will accelerate investigations into a second desalination plant through a new Desalination Working Group to be chaired by MDB Commissioner Ian Kowalick. The Working Group will build on preliminary investigations undertaken by SA Water and will research how desalination fits with the Water Proofing Adelaide Strategy.

In Ireland, the majority of the population receive publicly supplied water but 7% receive it from private suppliers, but the Irish Environmental Agency has published figures of monitoring from 2005 which show that over 1/3rd of those is still often contaminated with E. coli, the benchmark indicator for water quality.

The Queensland Water Commission has released a paper on institutional arrangements, in regard to the proposed SE Qld Water Grid. It has also put out a paper on cost recovery and pricing, foreshadowing significant price increases.

A team of scientists led by University of Stavanger, Norway has developed a Membrane made from powdered organic wastes of seaweed, chicken bones, manure etc, that allows plant roots to absorb and retain more water in desert soil. In field testing in Nigeria, it cut irrigation needs by 30-50% and tests are planned for Europe.

Israel's Water Authority and Health Ministry say the coastal aquifer, which supplies about 20% of the country's water, is becoming unusable due to contamination by sewage, salinisation, fertilizers, gasoline and industrial effluent, containing heavy metals and toxic organic materials.

The Local Organization for Pineios Irrigation (TOEB) in northern Greece's Larissa Prefecture reported that water levels in the Pineios River were perilously low and is blaming the illegal building of dams on the river and farmers' reliance on thirsty crops such as cotton rather than cereals.

US expert John Ruetten has argued for a change in public relation campaigns on treated wastewater for drinking by replacing the term "indirect potable reuse" with a more publicly acceptable term "water supply replenishment".
Australian Financial Review, Mar 5, p9

Speaking at the Ozwater 2007 conference in Sydney, Ian Kiernan, Clean Up Australia chairman, said political scare campaigns and misinformation about recycled water are "grossly inappropriate" and governments should look beyond the next election with water solutions.

The concept design for a \$110m temporary weir at Wellington, on the Murray River in SA, has been finalised and its removal guaranteed by the State to allay environmental concerns for the famous Lower Lakes.

The Darling River is dying as drought and climate change sink it to a mud swamp and paddock.

Low waters are threatening the power grid and generation of power from the LaTrobe Valley and, as a consequence, raising concerns for power supplies for the Victorian Government.

The Australian capital cities vary greatly in the prices they charge for drinking water but, even for the cheaper cities, the price is well below what it ought to be.

Big spend on water puts flow of opportunities in the pipeline: an overview of companies that stand to benefit from government investment in water infrastructure.

Bitter rows over water rights and allocations are surfacing as irrigators, landowners and farmers struggling with the drought all hope to gain some of the government largesse as compensation for lost income. Although not explicit in the piece, the argument hinges on the distinction between active licences and sleepers.

The Sydney Morning Herald
Farmers' fight goes to water

A bitter row over water rights bodes ill for other disputes around the country. Deborah Snow reports. Locals call it "the valley", though to city eyes much of the country around the Lower Murrumbidgee stretches flat and featureless as an ironing board, the air shimmering in the summer heat.

Folk around here pride themselves on independence, toughness, and a tight-knit sense of community.

Or did.

Fierce disputes over water rationing have set farmer against farmer, neighbour against neighbour.

One grower tells the *Herald*: "I've had the worst call of my life, a bloke telling me people should be shot."

Another reports panic attacks and a near-nervous breakdown, while a third says he's heard "really nasty stuff, people saying, 'Wait for the next fire season, pal'".

Lee Furness threatened to call police over alleged intimidation of some members of her Murrumbidgee Groundwater Preservation Association, who have emerged as the relative winners.

Carol Huggins, from the rival camp, says "the worst thing is the farmer against farmer aspect.

It will take generations to recover from it.

"The battle centres on draconian bore-water cuts imposed late last year on many farmers in the valley. Huggins and her group, the Lower Murrumbidgee Groundwater Licensees, bore the brunt of the cuts.

Last month 23 of them launched court action against the State Government, saying a policy U-turn made with no warning had collectively cost them nearly \$50 million.

To rub salt in the wound, they've had little or no compensation.

And they say the Government has produced the worst possible environmental outcome because farmers who had been using the least water have been the most heavily penalised.

Furness's group says the minister was right to leave most water in the hands of their members, who historically had made greater use of it, because the economic effect would otherwise have been devastating.

The dispute has embroiled state and federal politicians, with the former deputy prime minister, John Anderson, and a former state minister, Craig Knowles, emerging as key players at critical stages of the saga.

The poisonous atmosphere bodes ill for the many other water disputes yet to be resolved around the country.

Carol and Stephen Huggins had two children under the age of three, and another on the way, when they bought their first property, Narrawong, 17 months ago.

They were ecstatic.

It was ideally located 50 kilometres east of Hay, bordering Stephen's uncle's place, and came with a licence to pump plenty of ground water from the aquifers that run deep below the surrounding plains.

FarmOnline**Vic water sale to boost drought employment**

The Victorian Government's successful Drought Employment Program will be expanded using revenue from the release of an extra seven gigalitres of water to Goulburn irrigators.

Vic Water Minister, John Thwaites, said, "The release of this extra water to Goulburn irrigators is expected to generate revenue of at least \$1 million.

"This revenue will be used to expand the program, under which drought-affected rural Victorians are undertaking important river health and other environmental works."

Over 450 rural Victorians affected by the drought have worked on drought employment projects since the program was rolled out across the State in November 2006.

Most have been contracted to protect environmental assets on their own properties, while over 90 people have been employed on priority environmental projects on private and public land.

The Tahbilk Winery crew, for instance, which includes two program employees, has erected fencing, removed willow trees and is helping to protect several endangered plants and species, including the broad-shelled river turtle and the Watershield water plant.

Mr Thwaites said Goulburn-Murray Water had determined that the water could be released from the reserve without compromising water quality needs.

Funding under the program is still available, depending on project requirements in specific catchments.

SOURCE: *Stock & Land*, Vic, rural weekly newspaper, updated daily by *FarmOnline*, Rural Press.

Govt backs Snowy Hydro cloud seeding project

The Australian Minister for Industry, Ian MacFarlane, says the Snowy Hydro cloud seeding project has significant environmental and commercial potential.

Today, he joined the Federal Member for Eden-Monaro and Special Minister of State, Gary Nairn, in congratulating Snowy Hydro Limited on its significant research.


Snowy Hydro Limited's innovative cloud seeding project received funding of more than \$4 million (\$4,022,304) last December, under the third round of the Australian Government's Renewable Energy Development Initiative.

Today, the two Ministers were shown through the Cloud Seeding Control Room to see how the research was developing and spoke to Snowy Hydro Limited's Project Director John Denholm.

"The main objective of Snowy Hydro's research is to determine the effectiveness of cloud seeding for augmenting natural snowfalls and increasing inflows into storage of the Snowy Mountains Scheme," Mr MacFarlane said.

Mr Denholm said that the cloud seeding project was unique because of the innovative technology developed to deliver the seeding agents, as well as the chemical and statistical methods being used to determine the effectiveness of the program.

Gary Nairn was instrumental in the Australian Government's decision last year to withdraw from the proposed sale of Snowy Hydro, which resulted in the Commonwealth keeping its 13pc shareholding in public hands, forcing the NSW Government to re-consider its intended sale, and agree to hold onto its 58pc share.

SOURCE: Rural Press national rural news, updated daily by *FarmOnline*. 

Strong export prices to spur recovery - when the rains come

It's been a long time since Australian farmers have faced such a positive global environment for prices for most exported rural products as in 2007-08.

The Australian Bureau of Agricultural and Resource Economics (ABARE) also forecast a surge in agriculture output during 2007-08 to make full use of these higher export prices, as Australia, hopefully, recovers from drought.

NFF vice-president, Charles Burke, said, "ABARE's forecasts will lift the spirits of Australia's farmers.

"World commodity prices are already a substantial 7.8pc above year ago levels, reflecting the strength of the world grain, dairy and wool markets."

ABARE predictions highlight, in particular, projected increase in export earnings for most grains and oilseeds, cheese, lamb, beef and veal.

The Westpac National Farmers' Federation (NFF) Commodity Index, measuring the weighted world price of Australia's major agricultural commodities, also has given positive indications of solid rural export market fundamentals supporting most rural commodity prices.

Westpac's senior economist, Justin Smirk, says, "There is a robust global demand environment, historically low stocks particularly for grains, rising demand from Asia and the rapid growth in industrial uses for agricultural commodities, in particular for biodiesel and ethanol.

"It has been a long time since Australian farmers have faced such a positive global environment for their products."

SOURCE: Rural Press national rural news, updated daily by *FarmOnline*.

14th

Adelaide Advertiser

Don't pity farmers

Australia's farmers want their city cousins to know they're not "poor buggers" but a vital part of the economy. Crippled by the worst drought in history, the Australian agricultural industry is often represented as being on its knees and desperate for help to avoid ruin.

UK BILL: Push for Britain to lead World in reducing carbon Greenhouse gas targets

Britain will publish a climate change Bill which will set targets for carbon dioxide emissions cuts and could make the country the first to limit greenhouse gases by law.

River News

Growers need water "top-ups"

After the hottest February on record and with a 60 per cent water allocation, some growers are facing a shortage of water for the remaining months of the irrigation season.

Because of the 60 per cent allocation factor, some growers face the prospect of having to buy water and are facing \$190 a megalitre asking price.

Price of water skyrockets

Temporary water prices per megalitre have skyrocketed by more than 770 per cent compared to the same time last year.

In February 2006 the average was \$46.20 per megalitre compared with an asking price now of \$358.53 per megalitre.

47 gigalitres could be saved from wetland closures

Mr. John Johnson from the South Australian Murray Darling Natural Resources Management Board said, "Initially all permanently connected wetlands were considered as options for potential temporary closure"

Feedlots and water licences in the Mallee

In line with the view and amendment of the Mallee Water Allocation Plan (WAP), the SAMDB Natural Resources Management Board (the Board) is holding public information sessions to inform members of the Mallee community about a series of discussion papers developed to compliment the WAP review taking place.

Murray Darling Basin Commission

River Murray Flows in South Australia to be reduced

River flows into South Australia are being reduced in response to ongoing severe drought conditions, Dr Wendy Craik, Chief Executive of the Murray-Darling Basin announced today.

The reductions are a crucial part of a River Murray system-wide flow management plan aimed at conserving precious water in upstream storages for the coming 2007-08 irrigation season.

"Inflows to the River Murray System since June 2006 have been running at record low levels - less than 60% of the previous historical minimum recorded over the last 115 years," Dr Craik said.

"In "normal" seasons, South Australia is entitled to an annual "entitlement flow" of 1,850 GL, but a smaller volume during droughts when water resources are low. The MDBC's current water resource assessment indicates that South Australia is entitled to 1,470 GL for 2006-07.

"And that entitlement has nearly been delivered. By the end of February, only 174 GL remained to be delivered before the end of May 2007. "Flow to South Australia must therefore be reduced to stay within the state's share of water resources," Dr Craik said.

Notwithstanding these low flows, weir pools in South Australia would be maintained as close as possible to full supply levels. This was being done to assist river activities and to prevent an increase in saline groundwater inflow to the river.

Other measures such as, closing some wetlands to reduce evaporation and to prevent saline and nutrient rich water flowing back into the Murray, had been carried out. More such actions might be needed if dry conditions persist.

"Under these low flow conditions, river navigation may be affected, particularly at the top end of weir pools and the water level immediately downstream of weirs may fall to the level of the next weir downstream.

"Flow over Lock 1 will be set to meet consumer needs and losses between Blanchetown and Wellington.

This will include the water being pumped by SA Water to Adelaide, Keith and other communities.

"The level of the Lower Lakes has been steadily falling over summer and with flow to South Australia now being significantly reduced, the lakes are expected to continue to fall until there is enough counteracting local rainfall and inflow.

“Sufficient rainfall in the upper Murray catchments to return flow to South Australia to normal entitlement levels is more likely to occur in the winter/spring period than in autumn,” Dr Craik said.

For more information on River Murray system operations and water levels please visit these websites:

• Murray-Darling Basin Commission: www.mdbc.gov.au • SA Department for Water, Land and Biodiversity Conservation: www.dwlbc.sa.gov.au • SA Water: www.sawater.com.au

15th

Adelaide Advertiser

Water restrictions to stay until June

Any moves to introduce tougher water restrictions in South Australia are not likely until after June, Water Security Minister Karlene Maywald has said.

Adelaide Advertiser & Adelaidenow

Experts hail truth amid Gore's glitz

EXPERTS in South Australia have backed Al Gore's Hollywood-style message on climate change as accurate. The environmentalist and former U.S. vice-president has warned of the potential effects of climate change through his film, *An Inconvenient Truth*. While many international experts were sceptical of Mr Gore's fear factor, experts here said the basics of the message were correct.

University of Adelaide Professor of Chemistry Stephen Lincoln said Mr Gore had "Hollywood-ised" the message. There was a focus on the extreme of rising sea levels and temperatures, Professor Lincoln said, but fundamentally Mr Gore was correct. "He used the more spectacular examples to impress people and he wants to make an impact and I don't think he's doing any harm," he said.

"The Inter-Governmental Panel on Climate Change says sea levels will rise by quite a wide range, between 1 1/2m and 3m by the end of the century.

If you look at these limits and emphasise the upper limits, people are going to be much more interested." Flinders University meteorology lecturer Dr Caecilia Ewenz said difficulties often arose when laypeople interpreted scientific language for the public.

"Scientists speak a different language than the public and it is not a bad idea for someone like Al Gore to make the answers public," she said. Flinders University senior adviser Emeritus Professor Peter Schwerdtfeger said all serious calls to public attention required some "fairly dramatic" statements before people listened.

"Your average person is not going to be too much impressed by the in-depth analysis of the carbon dioxide spectrum of absorption for infrared radiation and things like that, that only a few scientists would comprehend," he said.



Adelaide Advertiser**Incentives to help save water**

Prospect Council is taking the financial strain out of being water conscious, offering residents cash incentives to install water-saving devices.

Murray Valley Standard**Minister rejects claims weir will leave water 'too salty'**

Water Security Minister Karlene Maywald has dismissed calls water pooled by a temporary weir near Wellington would be too saline to drink, rendering it useless.

"We will not put people's health at risk," Mrs Maywald said.

Fight over water access

A planned pump at Meningie to supply better water access for farmers struggling with the drought could be delayed by Coorong Council and State Government regulations.

The Coorong Council said this week it did not want to be held responsible for charging those who used the pump or liable for people who stole water.

Environmental statement delayed

The State Government is prepared to start work on an environmental impact statement (EIS) into the proposed temporary Wellington weir. However, the Government says it will not be completed before construction begins.

16th**FarmOnLine****Angst over \$10b water plan escalates**

The Queensland Farmers' Federation has called on the Federal and State Governments to end the uncertainty hanging over the Murray Darling basin communities in Queensland.

The governments urgently need to confirm that Queensland can complete the water planning process which has been delayed by the Federal Government's Murray Darling plan.

The nine-year long water planning process for the Condamine-Balonne and Border Rivers was entering into its final stage of determining and issuing secure water entitlements for water users.

Then Premier Peter Beattie froze the process following the Prime Minister's Australia Day announcement of a Commonwealth takeover of management of the Murray Darling basin.

QFF chief executive officer, John Cherry, said it was essential that the planning process be completed before Queensland handed over its control of the basin to Canberra.

This is needed to guarantee that Queensland farmers will enjoy the same level of secure water entitlements already granted to farmers in the other states.

"Peter Beattie three weeks ago, secured a commitment from the Prime Minister that the plans could proceed subject to an 'urgent review' by the CSIRO to ensure that the catchments are not over allocated," he said.

"That 'urgent review' is yet to commence.

"So the Commonwealth needs to get on with it.

"The Queensland Government also needs to make it abundantly clear that all progress on handover of State powers over the Murray Darling is off, until the review is complete.

"I am pleased that Qld Water Minister, Craig Wallace, has set a deadline of having the CSIRO review finished by the end of next month.

"The Commonwealth needs to either get on with the review, or accept the findings of the 2003 independent scientific review headed by Professor Peter Cullen.

"This has already concluded that the Condamine-Balonne catchment are not seriously overallocated.

"After nine years of co-operative engagement with the water planning process under the National Water Initiative, Queensland irrigators do not deserve to be singled out for unfair treatment and extra last minute hurdles to achieve security of water entitlements which have already been awarded in other States," he said.

Queensland's concerns come on top of the Victorian Government's refusal to join the \$10 billion water plan, a move endorsed this week by the VFF.

SOURCE: *Queensland Country Life* weekly rural news service, updated daily by *FarmOnline*.

Climate change threat to rainforests

With climate change becoming the buzz word in agriculture, Burdekin district farmers have been busy bringing themselves up to speed with how the phenomenon will affect their operations.

There is a general acceptance that climate change is occurring to greater or lesser extent, depending on the view of the individual.

In order to bring the public up to date on the current science and beliefs about it, Burdekin Bowen Floodplans

Management Advisory Committee and the Lower Burdekin Landcare association hosted a climate change forum and expo at the Burdekin Memorial last week.

21.

Dr Stephen Williams, director of the Centre for Climate Change Research, James Cook University, said an increase in average global temperature of just one degree could wipe out 10pc of rainforest species in North Queensland. Three degrees would wipe out more than 40pc of species.

The forum presented a substantial amount of evidence of global warming that even the most sceptical could not ignore.

For instance, 11 of the past 12 years have been the hottest on record.

And recent measurement of carbon dioxide in the atmosphere was 35pc higher than at the end of the 19th century.

SOURCE: Extract from the *North Queensland Register*, March 15.

Water magement key to year-round harvest

Small crop farmers, Ray and Janice Diack, Qld, just east of Toowoomba, are maintaining their year-round harvesting regime due to prudent management of their ground water supply. Despite nearby irrigation schemes being severely restricted across cropping districts, the couple successfully specialises in growing silverbeet and celery, plus grows lettuce during the summer and cauliflowers during the winter.

As well, the venture grows a small portion of sugar loaf cabbage.

The day-long focus for the Diack's is that of maintaining a regular supply of produce to their Brisbane Markets agents - an achievement in itself when taking into account one of the district's driest-ever growing spells.

Bores on their property ensure they are not as badly placed as those in the nearby Logan and Lockyer districts to the east, where water supplies have dwindled during the past four years.

There's no doubt the Diacks recognise the ongoing need for continued water efficiency improvements to their farm.

The challenge will be to limit run-off across their sloping, small crops paddocks to the bare minimum, thereby ensuring they will be able to sustain their venture well into the future.

The Diacks use a Gatton-based contractor, Harrison Harvesting, to cut their lettuce and undertake all their own transplanting but harvest their own winter crops. The contract operations are needed to take the pressure off their labour-intensive cropping regime.

As a rule of thumb, the Diacks find they need to apply about 60L of water for each lettuce and a similar amount for silverbeet.

This rises to about 180L/plant for celery.

Ray says the property, which was purchased in 1995, had a water allocation of 0.8ML/ha.

He says a good yardstick to bear in mind is not to portion more than 10pc of a broadacre enterprise over to more thirsty vegetable-growing enterprises.

The Diacks, however, report "a good return" on their small crops investment strategy, acknowledging that "most farmers would be equally happy" to achieve a similar economic scenario in such tough growing seasons.

Interestingly, only 60 acres of their 443 acre property is devoted to growing small crops – the remainder growing grain as part of a share farm arrangement with a local dairy farmer.

SOURCE: Extract from report in *Queensland Country Life*, March 15.

17th

Adelaide Advertiser

Poser on energy use

Extending day light saving increased energy consumption, a US study of Australia has revealed. Prolonged day light saving cut electricity use in the evenings but this more than off set by increased useage in the mornings.

News.com.au

Earth bakes in record quarter

*Hottest Dec-Feb since records began in 1880

*Ocean surface equal hottest on record

*Increase rate tripled since 1976

FUELLING further fears of global warming, US scientists yesterday announced that the northern winter just ended was the warmest on record.

They also said the December-February period was the hottest on record around the globe for land surface temperatures. Land temperatures around the world had been increasing at three times the rate they were prior to 1976, they said.

The US National Oceanic and Atmospheric Administration said that during the past century, global surface temperatures had increased by 0.06C per decade, but the rate of increase had been 0.18C per decade since 1976. Scientists say that temperatures have been going up since the 1800s - and that the warmest 10 years on record globally have all occurred since 1995.

"It's not a fluke," said Jay Lawrimore, chief of the climate monitoring branch at the National Climatic Data Centre. The US winter was normal overall but some pockets of the country were hotter and drier than average.

22.

Los Angeles received record low amounts of rain and 25 per cent of the continental US was declared in moderate to exceptional drought.

January was especially warm around the globe.

Even though many scientists are growing accustomed to record high temperatures, the extreme warmth at the beginning of the year was quite startling.

The combined global land and ocean surface temperature in January was 1.53 degrees (Fahrenheit) warmer than the 20th century average of 53.6 degrees (12C) - and still significantly higher than the previous record set in 2002 at 1.28 degrees above average.

The NOAA yesterday said the global ocean surface temperature tied for second-warmest in the 128-year period of record.

The announcements came as scientists from the US National Snow and Ice Data Centre in Colorado issued their own warning about the melting North Pole.

They said a review of computer climate models suggested that global warming could transform the North Pole into an ice-free expanse of open ocean at the end of each summer by 2100.

The researchers, in an article in the journal Science, said that of the 15 models they looked at, about half forecast that the sea-ice cover would seasonally vanish by the turn of the century.

One model predicted the Arctic would be ice free each September as early as 2040. The remaining models showed the presence of some ice beyond 2100, although they agreed there would be significant ice loss if greenhouse gas emissions continued to grow at the current rate.

NASA satellite imaging expert Josefino Comiso said the disappearance of ice would expose more of the open ocean, which can absorb heat and melt ice from below. "With less and less ice, you have more and more heat," Mr Comiso said.

Adding to the concern, Stanford University and Lawrence Livermore National Laboratory researchers yesterday published a separate study saying that some of the world's farms were yielding markedly fewer crops because of the burning of fossil fuels.

They said warming cost the planet about \$US5 billion (\$6.3billion) annually in losses to three of the six major food crops, the Stanford and Lawrence Livermore researchers said.

LA Times, MCT

The Australian

Household water price system labelled a joke

A TONNE of water costs less than the standard 50c postage stamp in most parts of Australia, despite chronic shortages caused by the drought.

Chris Davis, chief executive of the Australian Water Association, which represents members of the water industry, said water pricing was patchy across the nation and did not reflect the true cost.

"I think anything less than \$1 (a kilolitre or one tonne) is an insult. There is no product you can get that comes within cooee of that sort of price," he said.

Even in Brisbane, where level-five water restrictions will be introduced next month and bills will rise by \$71 next year to pay for the Beattie Government's \$7 billion water infrastructure plans, residents pay less than \$1 a tonne. Only Sydney pays more.

According to the Australian Bureau of Statistics, the average Australian household uses 268 kilolitres -- or 268,000 litres -- a year. Sydneysiders pay the most, at \$338.75 for 268kL, followed by Brisbane with \$245.92. In Perth, the most water-stressed city, residents pay just \$144.42.

"Some of the lowest prices would be 42 cents a kilolitre which is pretty damn cheap, and 65c wouldn't be uncommon," Mr Davis said. "That is just a joke when you think of the service and the criticality and the need to refurbish equipment. The mockery really comes in places like Western Australia where they have a postage stamp price throughout the state."

In Perth, water costs 42 cents per kilolitre for the first 150kL. In rural Western Australia, the first 150kL costs 49.3c/kL.

In Adelaide, which relies on the dwindling Murray River for most of its water in a dry year, the first 125kL costs 47c/kL.

And it is not just Adelaide residents who get such cheap water; water from the Murray is pumped 380km to Whyalla, then even further north to Woomera, where residents pay the same cost as Adelaide.

Mr Davis said each state regulated its own pricing, leading to a patchwork of costs across the country.

He said the main cost in water bills was the charge for supply and sewerage services, with consumption costs varying little regardless of the amount used.

23.

The fixed water charge varies from \$45.40 a year in southeast Melbourne, to \$154.60 in Perth. "If you work out somebody's bill and they double or halve their consumption, it has a very small impact on the bill," Mr Davis said. "It is not a signal that makes much sense."

All capital cities have introduced rising block tariffs, where prices rise with higher water use. A spokesman for Sydney Water said that few customers exceeded the 400kL usage, and paid top prices.

Mr Davis said a study of the top quarter of water users in Melbourne and Sydney last year "discovered these people didn't have the faintest idea how much water they use". He said it was also a failing of the billing system that there was no guidance on what was an acceptable water-use level.

18th

Sunday Mail

Full sail on Lake Eyre

Researchers from Adelaide University along with boaties have swarmed to Lake Eyre in the State's Far North since water started flowing into the normally parched area last week.

Lake Eyre is an extensive "salt sink" which derives its mineralisation from evaporation of floodwaters over countless years.

Water Focus

Torrens needs better care

The River Torrens is dry from the weir down and the little water that remained until last week has dried to a green sludge.

Newly appointed Chair of Natural Resources Science at the Adelaide University Professor Wayne Meyer, says we could choose to take better care of our rivers and streams in our own backyard.

"There's a lot of focus and attention put on our rivers like the Murray, where it's easy for people in urban areas to be critical," he said.

"But the Torrens is a reflection, a microcosm of what's happening in the bigger catchments, taking on natural resources needs to start at home."

19th

FarmOnline

91pc of NSW still in drought

The March drought figures reveal that 91.3pc of NSW is still battling the worst drought on record.

But the latest figures from the NSW Department of Primary Industries do not take into account rain over the last few weeks in some areas of the State.

Even so the area of NSW in drought has fallen from 96.3pc to 91.3pc.

A total of 5.9pc of NSW is considered marginal (up from 1.7pc) and the area in satisfactory condition is 2.8pc (up from 2pc). This reflects a change in fortune for some very selected areas in NSW.

Rain around areas such as Armidale, Broken Hill, Gloucester, Kempsey and the South Coast has been the catalyst for pasture growth and rising water storage levels, moving parts of these districts out of drought status.

SOURCE: *The Land*, NSW's weekly rural newspaper, posting updates daily on *FarmOnline*.

Greenies fight northern rivers irrigation push

The Wilderness Society is fighting the Federal Government's proposed development of Australia's vast northern water reserves.

In an 'e-bulletin' today, the Wilderness Society has blasted plans by Prime Minister to establish a taskforce to examine land and water development in northern Australia.

The green group, which is infamous in rural circles for its controversial tactics in opposing land clearing for agricultural land management, says the development of Northern Australia as a "new agricultural frontier ... will necessitate the construction of massive water infrastructure including dams, weirs and levees".

"It will see the extraction of environmental flows from rivers for irrigation purpose and the clearing of immense areas of forests, woodlands and natural grasslands," the Wilderness Society newsletter states.

"These plans are foolhardy at best with a range of major problems including enormous environmental impacts, the low productivity of ancient soils, high evaporation rates and the extreme variability of the climate – the amount of wet season rain is unpredictable and while water flows are abundant from December to February, there's a period of up to a nine months every year where literally no rain falls at all.

"The rich marine life of the Northern Australia fisheries would also be devastated by the changes to water flows and water quality that would accompany the introduction of broad acre cropping and irrigation."

The Wilderness Society is opposed to the development of large-scale irrigated agriculture in Northern Australia. Wilderness Society wild rivers campaigner, Larissa Cordner, says moving irrigated agriculture into Northern Australia will be an "unmitigated disaster both for the environment and economically and is likely to repeat the mistakes of southern Australia".

24.

"Australia does not need, and cannot afford, more costly agricultural disasters in Northern Australia," she said. "What we do need is a long term plan to protect and conserve our great and iconic Northern Rivers from bizarre plans such as those proposed by Senator [Bill] Heffernan, Bob Katter and their ilk."

Farmers: city families need you!

Farm Day - a national day of 'fun, friendship and understanding' - is calling on farmers to host a city family for a day-visit during the weekend of May 26-27.

Conceived by Victorian wool producer, Deb Bain, to help bridge the city-country divide, the first-ever national Farm Day gives city families a chance to learn first-hand about farming life.

"This is a tremendous opportunity to 'reconnect' farmers with their city cousins, showcase the modern face of farming and provide an insight into the source of our food and fibre," Ms Bain said.

"There is a need for city families to see for themselves what happens on a farm in order to gain a balanced understanding of the importance of agriculture.

"Farm Day offers this through a fun, personal experience which creates a memorable and lasting impression."

Ms Bain was named 2007 RIRDC Rural Victorian Woman of the Year for her efforts in organising last year's inaugural Farm Day event, staged solely in Victoria, where some 75 city families took part.

For Wilma and Ivan Prentice, who farm at Moondarra, Vic, the reason for taking part last year was to educate city people and change their attitudes towards farmers.

"I thought if we're able to educate just one family it will be worth it," Mrs Prentice said.

"My grandchildren live in the city and some of their classmates haven't a clue where their food comes from.

"I think that because city people don't understand how we live they're quick to brand us as whingers who want everything for nothing.

"Farm Day enabled our visiting family from Melbourne to see that we're professional business people trying to make a living.

"I won't hesitate to take part again and look forward to Farm Day 2007."

Farm Day is seeking at least 350 families who are primary producers to host city families across all parts of Australia.

* To take part, visit the Farm Day website and register your details.

Labour drought grips WA as well as big dry

The Western Australian Wheatbelt is not just facing a rain drought, but a labour drought as well.

Pithara grain grower, Gary Butcher, asked the recent Liebe Group conference panel what could be done to sustain labour supply in the district and was particularly concerned about how to retain agricultural workers when other industries were able to tempt workers by offering better wages.

Mr Butcher believes agriculture offers workers a much better life-style choice than mine site workers who face anti-social working hours under labour intensive fly-in-fly-out schemes.

He says farming offers greater benefits for the soul, but needs to show leadership and sell its friendly healthy, lifestyle aspect as something money cannot buy.

Farmanco farm consultant, Gordon Verall, says one in two farmers in the local district has experienced labour shortage problems but farming is not the only industry suffering from an under-supply of staff.

"It will equalise at some point in the future but it may be another two or three years before that happens and we see some of the workers lost to other industries like mining and construction make a return to agriculture," Mr Verall said.

"If we were able to get more money for the final products produced then perhaps we could tempt more workers back to the industry with higher wages, but at the moment that is not happening and nor are we able to solve our immediate problems with increased machinery use."

Mr Butcher is overcoming the immediate problem by talking to an employment agency that helps supply back-packers to work as farm hands and seasonal workers in regional WA.

SOURCE: Extract from the March 15 issue of *Farm Weekly*, WA's leading rural newspaper.

More cuts to SA Murray River flows

Murray River flows into South Australia are again being reduced in response to on-going severe drought conditions.

Dr Wendy Craik, chief executive of the Murray-Darling Basin Commission, announced the reductions yesterday, saying they are a crucial part of a system-wide flow management plan aimed at conserving water in upstream storages for the coming 2007-08 irrigation season.

"Inflows to the River Murray System since June 2006 have been running at record low levels - less than 60pc of the previous historical minimum recorded over the last 115 years," Dr Craik said.

"In 'normal' seasons, South Australia is entitled to an annual entitlement flow of 1850 gigalitres, but a smaller volume during droughts when water resources are low.

25.

"The MDBC's current water resource assessment indicates that South Australia is entitled to 1470GL for 2006-07.

"And that entitlement has nearly been delivered.

"By the end of February, only 174GL remained to be delivered before the end of May 2007.

"Flow to South Australia must therefore be reduced to stay within the State's share of water resources."

However, the MDBC says weir pools in SA will be maintained as close as possible to full supply levels.

This is being done to assist river activities and to prevent an increase in saline groundwater inflow to the river.

Other measures such as closing some wetlands to reduce evaporation and to prevent saline and nutrient rich water flowing back into the Murray, have been carried out.

SOURCE: *Stock Journal*, SA's weekly rural newspaper, posting updates daily on *FarmOnline*.

Grape growers react to high water prices

The likelihood that River Murray water allocations will be even less in the 2007-08 season – raising already inflated prices – may prompt a number of grape growers to look for alternative sources of income.

Murray Valley Winegrowers' Incorporated chief executive officer, Mike Stone, says Victorian Murray irrigators, on 95pc allocations this season, and New South Wales growers, battling a 50pc water supply or less, could see a role reversal.

"There are strong indications from water authorisations that the Victorian side will face significant reductions," Mr Stone said.

He suspects allocations for the 2007-08 season will be about 40pc for Vic irrigators and 80pc for NSW growers.

And if that is the case, Mr Stone says many Victorians will be tempted to turn their backs on viticulture, opting to trade temporary water supply.

"It's the natural reaction," Mr Stone said.

"If you're receiving \$200 a tonne for fruit, you may as well trade water."

Central Irrigation Trust chief executive officer, Jeff Parish, says there has been a noticeable rise in water trade this season for South Australian irrigators, despite temporary water prices rising significantly in the past year.

SA irrigators remain gridlocked at 60pc allocation.

"At the end of December (2006), CIT irrigators had used 16pc less water than in the previous drought year of 2002-03," Mr Parish said.

Percat Water Traders shows the price of temporary water in SA has skyrocketed from \$44 a megalitre in January 2006, to \$400/mL 12 months later.

SOURCE: Extract from the March issue of *National Grape Growers* magazine, a Rural Press publication.

Adelaide Advertiser

Outdated laws lead to homes wasting water

Developers were building thousands of water wasting houses in the State because outdated planning laws did not force them to incorporate adequate design improvements, the Greens have claimed.

Torrens bares its secrets

Falling water levels in the River Torrens are so low that they have revealed the rusting remains of dumped cars.

Septic tank concerns

More than half the septic tanks systems in houses at Sellicks Beach fail to meet State health standards.

Water recycling is the future

We've got tough water restrictions, there's talk of a new weir at Wellington, a greater focus on recycling stormwater and grey water – even a desalination plant.

South Australians have become far more conscious of how they use every precious drop.

20th

FarmOnline

Election priorities are water and wheat for Nats

The Nationals have spelt out their election-year policy priorities as water infrastructure and securing the wheat export single desk.

In a speech to the Queensland Rural Press Club on Friday, The Nationals Senate Leader, Ron Boswell, has detailed a two-part plan for the future of wheat marketing in Australia, and outlined The Nationals' role in rural water policy as the Commonwealth assumes responsibility for the management of the Murray Darling river system.

In detailing his plan for the future of wheat export marketing, Sen Boswell has backed transitional arrangements involving returning single desk powers to the AWB until another independent, grower-owned body could be established.

"The only model likely to get widespread industry support is the de-merger of AWBI and AWBL, based on a recent Grains Council resolution," Sen Boswell said.

"I have been in daily contact with wheat growers all over Australia and there really doesn't seem to be a viable alternative to a grower owned single desk.

26.

"The only alternative seems to be to hand back the power of veto to the AWB for a transition period while further changes are negotiated to come up with a detailed, workable model that is acceptable to industry and government and builds on the work of the consultative committee.

"This is not a populist position or a political one but a pragmatic one.

"There is simply no time left to put an alternative in for this year's crop."

On the issue of southern Queensland's yet to be finalised water Resource Operation Plans, Senator Boswell says he has written to Water Minister Malcolm Turnbull arguing that Queensland's irrigators need to enter any new regime for the Murray Darling on equal footing with their counterparts in other states.

Sen Boswell's stance is in line with the frequent criticisms from the Queensland Farmers' Federation that the Government's \$10 billion water plan should not jeopardise the resource security to be delivered by the ROPs, which should be finalised within months.

Sen Boswell also said that the CSIRO examination of a proposed ROP for the controversial Condamine/Balonne area was also progressing.

"Commonwealth and Queensland officials held positive discussions on the Condamine/Balonne plan on the 6th of March and the CSIRO was consulted," he said.

"Advice is now being considered at the highest levels of Government with an expeditious response to follow from the Prime Minister." *Queensland Country Life*, weekly rural newspaper, posting updates daily on *FarmOnline*.

Vic farmers tackle drought's mental health challenges

More than 150 professionals from the fields of social service, agriculture, mental health, government and community organisations have met in Victoria over the weekend to tackle the mental health impact of the on-going drought.

Opening the Tackling Mental Health in Drought Forum, Victoria's Community Services Minister Gavin Jennings, said the event was the most comprehensive gathering of officials with the common focus on the mental health and well-being of people affected by the drought.

"Managing drought is part of rural life but one aspect of drought relief that is often overlooked is the mental health and well-being of affected farmers, their families and communities," Mr Jennings said.

Mr Jennings also launched the 'Countering Drought' manual developed by Deakin University at the forum.

"This manual is filled with practical ideas about what can make a difference when working with rural communities impacted by drought," he said.

"It includes suggestions like: noticing who is not attending community events as these are often the people most in need; creating networks via email or telephone; tips on how to apply for funding to support community grants; and some low-cost activities to bring people together."

The State Government has also released a DVD in which farming families from across Victoria share their stories about the pressures of rural life.

In the DVD, titled 'The Hard Yard – Stories of Farming Life', farmers, children and community organisations tell their stories about how rural communities manage the tough challenges of farming life, including drought, fires, flood, frost, pests and disease.

Minister for Agriculture, Joe Helper, says the stories are of "real people living through the worst drought in 100 years."

"There are people coping with enormous stress and this DVD aims to show that they don't have to go it alone," Mr Helper said.

"There are many avenues to access support, share the load and find meaningful and practical advice."

* Victorians who are suffering because of the drought are also encouraged to seek assistance through the Drought Personal Support Line on 1300 655 969. The DVD is available from the Drought Information Line on 13 61 86 and from the VFF.

SOURCE: *Stock & Land*, Victoria's weekly rural newspaper posting updates daily on *FarmOnline*.

NSW Election: Nationals unveil drought proofing plan

The Nationals have pledged provide an additional \$809.3 million to help drought-proof regional areas if they win Government as part of a Coalition at this weekend's poll.

The Nationals candidate for the seat of Burrinjuck, Katrina Hodgkinson, says the funding will be in addition to the existing State drought assistance provided to farmers, regional small businesses and households.

"The Liberal/Nationals Coalition has committed to a \$1 billion state-wide water strategy," Ms Hodgkinson said.

Of this, \$809m will be spent in regional NSW to:

- * provide a rainwater tank rebate of \$1500 for tanks that are plumbed to toilets or washing machines;
- * inject \$450m to upgrade country town water supply infrastructure and fast track regional water recycling projects;
- * spend \$120m over the next six years to upgrade regional dams and investigate the construction of additional dams;

27.

* spend \$65.3m to construct regional water grids to strengthen the ability of existing water facilities to resist drought; and

* hold a Country Water Summit to develop a Country NSW 50 Year Water Plan.

"A long-term solution to the water problems in regional NSW needs to be built on proper planning and consultation, not funded, as presently, when the Sydney Labor government thinks that it has some spare cash," Ms Hodgkinson said.

"The residents of regional NSW value the water that they have and know the importance of preserving this valuable resource.

"I am personally committed to The Nationals target of achieving 50pc recycling rates for industry and agriculture in country NSW within eight years.

"In this, the driest continent on earth, we should be in the forefront of water recycling world wide, not struggling with Labor's massive water infrastructure backlog."

SOURCE: A full NSW election preview will appear in the March 22 issue of *The Land*, NSW's weekly rural newspaper.

NSW Election: WA defends lemma's ethanol plan

Western Australian Agriculture Minister Kim Chance has jumped into the ethanol debate, defending the policy of NSW Premier Morris Iemma ahead of Saturday's NSW election.

Agriculture Minister Kim Chance says criticism Mr Iemma's recently announced proposal to mandate ethanol content in fuel was misguided.

Concern has been expressed by the Livestock Feed and Grain Users Group that mandated ethanol requirements in NSW will cause higher food prices.

But Mr Chance says this ignores the reality of the Australian grain market.

"The majority of Australian grain is exported and while the 2006-07 crop prices were bullish due to the drought and domestic demand factors, it is export prices that ultimately determine the overall level of Australian grain prices," Mr Chance said.

"Even in the unusual circumstances of 2006-07, Australian feed grain prices are capped at import parity.

"What the LFGUG has missed, however, is that industrial end use of grain produces a significant by-product stream that adds to, rather than detracts from, the volume and range of feed materials available to the intensive animal feeding industry."

But Mr Chance says it is correct that the US ethanol industry's drawdown on the US corn crop is exerting price pressure.

However, the US corn crop is substantially committed to domestic US animal feeding demand.

"The Australian situation is quite different and drawing direct parallels is misleading," he said.

"Grain to ethanol production in Australia is most likely to displace grain exports, not domestic availability.

"If that is the case, by-product availability from the industrial stream will actually increase, not decrease, feed stock availability for LFGUG members."

In the major grain exporting States - Western Australia and South Australia - where the availability of feed stocks from tropical and sub-tropical crop by-products is limited, a glass ceiling has existed on intensive animal feeding industries.

The growth of a by-product stream from the bio-fuel industry would go a long way to lifting the restrictions which have limited LFGUG members' opportunities in much of Australia, Mr Chance said.

"The LFGUG should be welcoming Morris Iemma's far-sighted vision for a bio-fuel industry or, at the very least, taking a longer term view of the increased opportunities which industrial end use of grain will provide," he said.

SOURCE: *Farm Weekly*, WA's leading rural newspaper, posting news updates daily on *FarmOnline*.

COTTON

Irrigation at a stretch for Bollgard II cotton

New research may force the cotton industry to rethink the way it irrigates Bollgard II cotton and when irrigation can be stretched with minimal yield damage.

Research by the CSIRO through Narrabri's Australian Cotton Research Institute has shown that while Bollgard II has a proportionally higher boll load for the size of the plant than conventional cotton, it also suffers greater yield loss following severe water stress late in flowering.

CSIRO senior research agronomist, Stephen Yeates, Narrabri, said depending on the severity of the stretch in irrigation, research at this stage indicated growers should avoid stress during flowering and instead stretch early and late in the season to have less impact on yield.

He said at one research site – Sundown Pastoral Company property, 'Keytah', Moree – Bollgard last season showed resilience or adaptation to slight stress.

SOURCE: Extract from the March 15 issue of *The Land*, NSW's weekly rural newspaper.

8.

AWA

Australian Water Association - Promoting the Sustainable Management of Water

Environmental officers have begun taking samples from rainwater tanks in and around the West Australian town of Esperance in a bid to establish whether alarming levels of NICKEL sulphide and LEAD are responsible for killing thousands of birds have also contaminated town drinking water supplies.

Queensland Government will forgo \$1.5 billion in projected water revenues over the next 10 years to slash proposed Water Price rises for South East Queensland consumers, despite the Queensland Water Commission's draft pricing advice based on full cost recovery of the infrastructure over 5 years, in accordance with National Water Initiative principles.

Karlene Maywald, SA Minister for the River Murray and Water Security, will launch an automatic weather station network for the Murray Darling, Friday 23rd March. Comprising 26 AWS and a further 9 logging rain gauges, the network will deliver data directly onto the SA Murray-Darling Basin NRM Board.

Queensland Government has opened a Climate Change Centre of Excellence, a specialist unit within the Department of Natural Resources and Water. The centre will, inter alia, provide information and advice on the impacts of emissions on climate, and how climate change could affect the environment, water and energy sustainability, and future infrastructure, urban and regional planning.

Construction has begun on the Pimpama Coomera recycled water pipeline, which will form the backbone of the recycled water network in this master planned community, reducing dependence on distributed town water by up to 84 per cent.

Noniminations closing soon for the International and National Thiess Riverprizes, valued at \$225,000 and \$75,000 respectively. Funded by the International Riverfoundation and awarded each year during the International Riversymposium, the Thiess Riverprizes recognise excellence in river management. Deadline for entry is 30 March 2007.

Arris P/L is running a Biosolids Study Tour this year to the US, Canada, and UK. This study tour also visits the following conferences: Moving Forward - Wastewater Biosolids Sustainability: Technical, Managerial, and Public Synergy - 2007. Registration forms and itinerary now available! Details.

Canberra company EDENTITI working with Ecos Corporation and the eWater CRC, has developed a market-based approach to urban water use not involving water trading. Water rewards promotes sustainable household and business water use plus encourages on-going investment in water savings projects. It claims to achieve water use targets without the need for water restrictions.

Climate Change and an inflexible water supply were key factors in the abandonment of the medieval city of Angkor, according to new archaeological discoveries. Researchers have concluded it is unwise to rely on a single, large, complex, interconnected water management system.

If the frozen water up to 3.7 km thick, under the carbon dioxide blanket on the poles of Mars, could melt, the planet would be drowned in water 11 metres deep. (Website) Sydney Morning Herald, Mar19. (Website)

The Association of Chemical Engineers surveyed twenty-five municipal water and sewerage companies in

Macedonia, Greece. It reported pollution by heavy metals and nitrates from farm runoff and poor protection of water sources due to old pipelines including 44,000 km of asbestos-lined pipes.

Turquoise belts around rivers and waterways designed to protect buildings from flooding may become the latest tool for climate-proofing cities. The need for new homes combined with rising flood risk is requiring a re-think of Britain's land use, agricultural and planning systems.

Premier Beattie is standing firm on his desire to take control of water management across South East Queensland against the wishes of local authorities.

Pigeons so far unaffected by lead levels that have killed thousands of birds in Esperance, are being shot in an effort to pinpoint the source of the public health scare engulfing the WA port town.

29.

The Queensland Farmers' Federation has called on the Federal and State Governments to end the uncertainty hanging over the Murray Darling basin communities in Queensland to complete water-planning process.

With Brisbane's dams near 20% capacity and a dry season approaching, the strong financial position of Beattie's Government is under threat with increasing demands for more water, more electric power (produced using water); and steep increases in the price of water by 150% over 6 years is causing angst.

MDA

Farming: 'It's 1.6 million Australian jobs'

National Farmers' Federation (NFF) president David Crombie has called on farmers, and the rest of the country, to have pride in the role of rural industry.

Australia's farmers want their city cousins to know they're not "poor buggers out there", but a vital part of the national economy.

Crippled by the worst drought in history, the Australian agricultural industry is often represented as being down on its knees and desperate for help to avoid ruin.

It's an image David Crombie rejects.

Speaking at the NSW Farmers Association executive council meeting in Sydney, Mr Crombie said, "I hate picking up the newspaper and the message is 'the farmers are doing it tough, those poor buggers out there, we're going to give them some more money to keep them going a bit longer'.

"That's not the message we want out there.

"The message we want to be out there is that farming is part of the modern Australian economy, farming does add value, it adds value beyond the farm gate.

"It's 1.6 million jobs, the majority in urban Australia created through the farming industry.

"It's \$30 billion in exports.

"We're gold medallists in agriculture.

"We want the rest of Australia to be proud of what we do.

"I'd like to see the community talking with pride about our farmers. They do a good job."

Mr Crombie, however, conceded current conditions meant plenty of help was needed.

The NFF has already been pushing its detailed budget submission in Canberra, hoping Treasurer Peter Costello, and whichever party is in government at the end of the year, will address the issues most affecting agriculture.

Mr Crombie says infrastructure in Australia is poor and letting farmers down.

"Our roads don't connect adequately, our systems of rules and regulations relating to trucking don't fit," he said.

"Our rail infrastructure is equally poor."

He also called for improved port infrastructure, which he said was currently leading to inefficiencies for which the farmer bore the cost.

Mr Crombie said environmental sustainability initiatives have "been terrific" but there are still areas for improvement.

Government support for risk management, particularly drought management, was vital, he said, especially providing assistance for farmers who face losing their livelihood.

"One of the important things is there's some way to exiting with dignity," he said.

While the resources boom has led to a shortage of skilled staff in the bush, Mr Crombie called for more support for the 457 visas and visitors visas to enable overseas workers to fill the gaps.

Mr Crombie told delegates the NFF has been assured it will be part of the process in determining how the federal government's \$10 billion water package is spent.

"We're not sitting back and criticising," he said of the government's water initiative.

"We believe we have to be proactive, it's a one off opportunity. It's not every day you have \$10 billion committed to one issue."

Mr Crombie is flying to Washington to meet the largest farm lobby group in the US.

Climate change threat to rainforests

By REG BURTON – Australia Thursday, 15 March 2007

With climate change becoming the buzz word in agriculture, Burdekin district farmers have been busy bringing themselves up to speed with how the phenomenon will affect their operations.

There is a general acceptance that climate change is occurring to greater or lesser extent, depending on the view of the individual.

In order to bring the public up to date on the current science and beliefs about it, Burdekin Bowen Floodplains Management Advisory Committee and the Lower Burdekin Landcare association hosted a climate change forum and expo at the Burdekin Memorial last week.

30.

Dr Stephen Williams, director of the Centre for Climate Change Research, James Cook University, said an increase in average global temperature of just one degree could wipe out 10pc of rainforest species in North Queensland. Three degrees would wipe out more than 40pc of species.

The forum presented a substantial amount of evidence of global warming that even the most sceptical could not ignore.

For instance, 11 of the past 12 years have been the hottest on record.

And recent measurement of carbon dioxide in the atmosphere was 35pc higher than at the end of the 19th century.

SOURCE: Extract from the *North Queensland Register*, March 15.

News.com.au

Recycled water can kill: booklet

A BOOKLET claiming recycled water can kill, cause infertility and change the sex of fish has been labelled unscientific and dishonest misinformation that should be thrown in the bin.

About 400,000 copies of the book, *Think before you agree to drink – Is sewage a source of drinking water?*, are being distributed across Brisbane.

Among the booklet's claims is that recycled water can kill people, alter behaviour, reduce sperm counts, cause infertility among couples and trigger a doubling in liver cancer rates.

It also claims such water had created "gender bender" fish and made male lambs "start behaving like females".

The booklet – an extension of the campaign that secured a "no" vote on introducing recycled water in Toowoomba last year – offers residents a chance to vote against the Government's plan to introduce recycled water in the state's southeast by the end of next year.

In January, the Queensland Government scrapped a planned \$10 million poll on the introduction of purified, recycled effluent into the drinking system, saying the drought left it with no choice.

It also pointed out that recycled water is in use as drinking water in many parts of the developed world including the US, Europe and Singapore.

Campaign spokesman and Toowoomba councillor Snow Manners today said information in the booklet, sourced from worldwide research, presented "the other side" of the debate to counter the "one-sided presentation" by the Government and Queensland Water Commission (QWC).

"There's quite a swag of conservative scientists that say 'No, don't do it, we're not ready'," Mr Manners said.

"People don't want this."

He said the campaign was costing up to \$300,000 and being funded by "ordinary people", including those in the food and beverage industry.

However, the Australian Beverages Council rejected any involvement with the booklet, which was today described by the Government as "scaremongering".

"This material is dishonest ... it is not based on sound and comprehensive science and it certainly does not put in the arena all of the facts," Acting Premier Anna Bligh said.

"This is a document which is so riddled with misinformation ... the best thing you can do with it is throw it in your recycle paper bin."

Liberal leader Bruce Flegg, who believes recycled water can be safely delivered, said he did not agree with the booklet.

But he said the Government had robbed Queenslanders of the opportunity to vote on the issue.

"The community is entitled to a debate on this because they have to have confidence in the water supply," Dr Flegg said.

Professor Paul Greenfield, chair of the independent panel of experts advising the QWC, said treated effluent from a sewage treatment plant would be put through an advanced set of processes that removed "almost everything".

"I think (the booklet) has been very selective and I think in some cases misrepresented what other people have done," he said.

"Basically, there's been some pretty shoddy science in putting it together this way."

Meanwhile, the Government has been accused of lying over its claims that London residents drink recycled water after Thames Water said that was not "strictly true" given it did not operate any water reuse schemes.

However, Ms Bligh denied the Government had lied, saying London drank recycled water through "indirect" methods.

The Australian

World's mighty rivers on endangered list

THE Murry-Darling and nine other mighty rivers that inspired religions, civilisations and explorers are dying because of stresses put on them by mankind, the WWF said in a report published today.

Each of the 10 river systems is beset by man-made problems, including water being siphoned off, dams destroying ecosystems and pollution.

31.

The other nine endangered river basins are said to be the Danube, Yangtze, Rio Grande, Salween, Nile, Indus, Ganges, Plata and Mekong.

They flow across six continents and the damage threatens the lives of people and wildlife, the WWF says.

About 41 per cent of the world's population live in threatened river systems, and of the 10,000 species of freshwater animals and plants at least 20 per cent are already extinct.

"In the last 50 years we have altered ecosystems more rapidly and extensively than in any other period in history," the report states. "Physical alteration, habitat loss and degradation, water extraction, overexploitation, pollution, and the introduction of invasive species threaten the planet's freshwater ecosystems."

Most river basins face multiple threats, and to draw up a list of the ten most endangered, the conservation charity used published reports and the judgment of its own experts. The list comprises river systems that have already suffered extensive damage and freshwater networks likely to be markedly changed over the next decade.

Australia's Murray and Darling river system is under pressure from introduced species that are outcompeting native fish, which have suffered 90 per cent reductions in numbers in the past two centuries.

Central Europe's the Danube has already been severely damaged, having lost 80 per cent of its wetlands and floodplains.

In Asia, the Salween is one of only 21 of the world's 177 longest rivers that still run freely from source to the sea. However, 16 large dams are planned for the river, and the alteration in the landscape could prove disastrous for wildlife.

Water extraction for agriculture, industry and domestic use is such a problem for the Rio Grande and the Ganges that there are shortages farther downstream, flow levels having fallen sharply.

Flow in the Ganges and the Indus is expected to be further reduced because of the disappearance of Himalayan glaciers, a trend attributed to global warming. "With climate warming, many glaciers will no longer exist to moderate the flow of these rivers," the report says.

Overfishing is cited as another serious problem for rivers, notably the Mekong, which drains an area in Asia twice the size of Germany.

Similarly, pollution from rapid economic development is blamed for the deterioration of the Yangtze. "The Yangtze used to be so clear that you could see a pen sink to the bottom. Now it has become so dirty that it is not fit for drinking," the report says.

The WWF called on governments and businesses to take better care of their water supplies to ensure that they remain sustainable resources for people and wildlife.

David Tickner, head of the organisation's freshwater program, said: "Unabated development is jeopardising nature's ability to meet our growing demands. The world is facing a massive freshwater crisis, which has the potential to be every bit as devastating as climate change.

"Conservation of rivers and wetlands and security of water flows must be seen as part and parcel of national security, health and economic success."

Northern winter warmest on record

FUELLING further fears of global warming, US scientists yesterday announced that the northern winter just ended was the warmest on record.

They also said the December-February period was the hottest on record around the globe for land surface temperatures.

Land temperatures around the world had been increasing at three times the rate they were prior to 1976, they said.

The US National Oceanic and Atmospheric Administration said that during the past century, global surface temperatures had increased by 0.06C per decade, but the rate of increase had been 0.18C per decade since 1976.

Scientists say that temperatures have been going up since the 1800s -- and that the warmest 10 years on record

globally have all occurred since 1995.

"It's not a fluke," said Jay Lawrimore, chief of the climate monitoring branch at the National Climatic Data Centre. The US winter was normal overall but some pockets of the country were hotter and drier than average. Los Angeles received record low amounts of rain and 25 per cent of the continental US was declared in moderate to exceptional drought.

January was especially warm around the globe.

Even though many scientists are growing accustomed to record high temperatures, the extreme warmth at the beginning of the year was quite startling.

The combined global land and ocean surface temperature in January was 1.53 degrees (Fahrenheit) warmer than the 20th century average of 53.6 degrees (12C) -- and still significantly higher than the previous record set in 2002 at 1.28 degrees above average.

The NOAA yesterday said the global ocean surface temperature tied for second-warmest in the 128-year period of record.

32.

The announcements came as scientists from the US National Snow and Ice Data Centre in Colorado issued their own warning about the melting North Pole.

They said a review of computer climate models suggested that global warming could transform the North Pole into an ice-free expanse of open ocean at the end of each summer by 2100.

The researchers, in an article in the journal Science, said that of the 15 models they looked at, about half forecast that the sea-ice cover would seasonally vanish by the turn of the century.

One model predicted the Arctic would be ice free each September as early as 2040. The remaining models showed the presence of some ice beyond 2100, although they agreed there would be significant ice loss if greenhouse gas emissions continued to grow at the current rate.

NASA satellite imaging expert Josefino Comiso said the disappearance of ice would expose more of the open ocean, which can absorb heat and melt ice from below. "With less and less ice, you have more and more heat," Mr Comiso said.

Adding to the concern, Stanford University and Lawrence Livermore National Laboratory researchers yesterday published a separate study saying that some of the world's farms were yielding markedly fewer crops because of the burning of fossil fuels.

They said warming cost the planet about \$US5 billion (\$6.3billion) annually in losses to three of the six major food crops, the Stanford and Lawrence Livermore researchers said.

Couriermail.com.au

Blitz on water wasters

TOUGH new water restrictions will directly target those households that fail to conserve water.

These are the water wasters of southeast Queensland – the households often flouting restrictions in an effort to sustain thirsty gardens and swimming pools.

The new restrictions are aimed at households that cannot offer a good reason for guzzling more than 800 litres of water a day.

Water-wasters now face outdoor watering bans, fines and even water rationing if they refuse to cut back.

Water Commission chairwoman Elizabeth Nosworthy said 110,000 households were using more than 800 litres a day, and "a high percentage of them" were doing the wrong thing despite months of restrictions.

As a group they consumed about 1100 litres a day, double the residential average.

Under level 5 restrictions, heavy water users will be identified through water rates by councils and will be mailed letters.

They will be required to file a "water usage audit report" providing information on their household, water use and water efficiency.

Residents who refuse to respond will be banned from outdoor water use, fined \$150 each time they violate the ban, and if they continue to resist, could even have their water rationed.

Ms Nosworthy would not detail how any punitive measure such as rationing might work.

"They could be on a list of declared households who have to use X amount of water," she said.

However, people who have good reasons for high water use, such as large families, would not be penalised, provided they tried to reduce. "We need to be careful not to get into a lynchmob mentality here," Ms Nosworthy said.

The Water Commission has developed a profile of heavy water users from survey research that shows a "smoking gun on outdoor use" since the group's indoor consumption was not significantly higher per capita.

While they are scattered in suburbs across southeast Queensland, 90 per cent have gardens and 53 per cent have pools.

FarmOnLine

New climate website launched **Murray Darling Basin Commission**

A new website launched today carries comprehensive information on the operations, research projects and aims of the \$7 million South Eastern Australian Climate Initiative (SEACI).

The site was inaugurated by Chief Executive of the Murray-Darling Basin Commission (MDBC), Dr Wendy Craik.

The MDBC is the managing agency for SEACI which was launched early in 2006.

The other partners are:

- The Australian Greenhouse Office within the Department of the Environment and Water Resources
- Australia's Managing Climate Variability program
- The Victorian Department of Sustainability and Environment
- The CSIRO.
- The Bureau of Meteorology.

33.

"The new site will help stakeholders and members of the public to understand how climate change is affecting the south-eastern part of our continent," Dr Craik said.

Dr Craik said that since the middle of the 20th century, Australian temperatures have, on average, risen by about 1°C, with an increase in the frequency of heatwaves and a decrease in the numbers of frosts and cold days.

Rainfall patterns have also changed — the northwest has seen an increase in rainfall over the last 50 years, while much of eastern Australia and the far Southwest have experienced a decline.

* More information: www.mdbc.gov.au/seaci

Senate must examine federal water package

Democrat Water spokesperson, Andrew Bartlett, will push to refer the federal government's water security package to a Senate Inquiry for examination, now that most of the states have given a go ahead to the deal.

"The package is light on detail, and there has been a serious lack of consultation during the development phase, with stakeholders, such as the Murray-Darling Basin Commission and experts in the field, left on the sidelines," Senator Bartlett said.

"For such an important proposal to work, input from those with the expertise is essential.

"Now that the states, with the exception of Victoria, have given the go ahead to the federal government's proposal, I am committed to push for a Senate Inquiry for a full and thorough examination of the package.

"The Democrats support a national approach to our water crisis but we want to make sure that this plan is a genuine attempt to address the problem and not just a rushed pre-election move," Senator Bartlett said.

VFF and Turnbull still talking on national water plan

The Victorian Farmers Federation (VFF) says it will continue to research the national water plan but made no promises, at its meeting with Federal Environment Minister, Malcolm Turnbull, last week.

Victoria is the only State not yet to endorse the Federal government's \$10 billion national water plan.

VFF president, Simon Ramsay, said the talks with the Minister and his staff, allowed the VFF to outline concerns Victorian water users held in the implementation of the NPWS.

"The Minister listened to our concerns and some progress was made in addressing the major issues of ensuring the property rights and security of Victorian water entitlements," Mr Ramsay said.

"The VFF will be having additional meetings with the Minister's staff this week to continue the discussions and seek further clarification on a number of matters.

"Many of these water resource management issues are quite complex.

"There are potential, far-reaching consequences for the long term sustainability of Victoria's regional communities.

"The referral of powers to the commonwealth is not an easily reversible step.

"The full implications this has for the management of the resource in the Murray Darling Basin, and how this will mesh with the state retaining management of the resources south of the Dividing Range, must be clarified."

The VFF would continue to work with the State and Federal Governments, but will protect the interest of Victorian farmers and their communities, he said.

SOURCE: *Stock & Land*, Vic, rural weekly newspaper, updated daily by *FarmOnline*, Rural Press.

Adelaidenow

Green light for Strathalbyn mine

Australia's newest zinc mine is set for development with Terramin Australia Ltd today winning state government approval for the Angas project at Strathalbyn.

Production is due to start in the middle of next year at the \$64 million mine.

SA Mineral Resources Minister Paul Holloway said Terramin had received government approval for its mining and rehabilitation plan after gaining a mineral lease last August.

Construction of the processing plant would begin in October this year, Terramin's executive chairman Kevin Moriarty said today.

He said the Angas plant would create about 180 construction jobs, with about 100 full-time jobs to follow once the mine was operating.

Cash flow estimates for Angas showed the zinc mine would generate pre-tax earnings of about \$80 million in 2008/09, Mr Moriarty said.

Pacific islands run out of water

* State of emergency declared after long drought * Government sends ships to supply drinking water

* Up to 60,000 people affected

THE Government of the Marshall Islands has sent a ship to supply drinking water to outlying islands after declaring a state of emergency amid prolonged drought.

Many islands in the western Pacific island nation of 60,000 people have had little rain since January and earlier this week the former US territory declared an emergency for six islands and appealed for international help.

34.

The Government's patrol vessel left the capital Majuro on Monday to provide water tanks and a reverse osmosis water purifier to provide clean drinking water for three outlying atolls.

The reverse osmosis purifiers will convert brackish well water - the only available supply since earlier this month - into clean drinking water.

Another ship left Majuro for three other remote outer atolls today, carrying water and large tanks to another three atolls, said Bob Jericho, spokesman for President Kessai Note.

Secretary of Health Justina Langidrik said a further two reverse osmosis purifiers would be used in Majuro, where about 30,000 people live.

The water supply in Majuro's reservoir has fallen to less than six million gallons of water - less than a five-day supply at current levels of use. The water supply is now turned on just two days a week.

"If we get to five million gallons, then we'll reduce water hours to one day a week," said Majuro Water and Sewer Company manager Terry Mellan.

Fresh water supplies have dwindled since January with the El Nino weather phenomenon causing an extended drought for a country that depends on rain for about 95 per cent of its fresh water.

Reginald White, director of the Majuro Weather Station, said the Marshall Islands was going through a transition from the El Nino weather pattern to La Nina, which could mean little rain until May.

El Nino warms the ocean in the Western Pacific, causing droughts as rain clouds evaporate, while La Nina swings the temperature the other direction, bringing heavy rains.

Adelaide Advertiser

Lakes to close if drought goes on

Nine water bodies will be temporarily disconnected from the River Murray channel if the drought continues, River Murray Minister Karlene Maywald said yesterday.

Closing Lake Bonney, Gurra Gurra Lakes, Yatco Lagoon, Nelwood Swamp, Horseshoe Lagoon, Nelwart Swamp, Ross Lagoon, Jaeschke Lagoon and Myrbko South Wetland would save up to 46 gigalitres in evaporation in a year, she said.

MP: Use racetrack to store water

The State Government should consider transforming Cheltenham racecourse into a stormwater catchment area, Opposition infra-structure spokesman Martin Hamilton-Smith said yesterday.

Too dry for country footy

Country football leagues may be forced to postpone the start to their seasons as the drought takes its toll on ovals across the State.

River News

Triggers set for lakes closures

1) If the 2007-08 water allocation announcement in mid June was 50 per cent or less, then disconnection of water bodies would begin. 2) If weir pool levels in South Australia could not be maintained or needed to be lowered, and the rate of drawdown was greater than the rate of evaporation.

22nd

FarmOnLine

Water plan: Canberra asked to 'please explain'

Queensland, South Australia, Victoria and New South Wales irrigator groups have pooled their expertise to come up with an agreed set of questions that must be answered before the water crisis enveloping the Murray Darling Basin, can be resolved.

Under the auspices of the NSW Irrigators' Council, their wide-ranging concerns include:

- Issues with draft Commonwealth legislation.
- The proposed time-scale to introduce the legislation to Parliament.
- Clarification about what style of review will be conducted seven years down the track.
- The date on which state power will be ceded to the Commonwealth.

Top of mind from a Queensland perspective, will be whether the Commonwealth will accept its current Water Resources Plans and allow completion of resource operating plans.

Meanwhile, there's certain to be forensic interest over the whole issue of property rights with the Commonwealth being asked to guarantee all existing property rights.

The sheer scale of the questionnaire underscores the lack of detail that accompanied PM John Howard's initial unveiling of his ambitious \$10 billion water plan for the Murray-Darling basin.

SOURCE: Extract from report in *Queensland Country Life*, March 22.

Drought-hit WA farmers now wind blown

Strong winds and severe dust storms have scoured local farms across the Mid West region of WA, stripping precious topsoil off drought-ravaged paddocks.

35.

The remnants of Cyclone George, which hit the Pilbara a week before, forced high powered winds to sweep across dozens of Mid-West farms in WA last Friday, causing more long-term environmental damage to what is already fragile farming land.

While the sand storms ravaged most of the region, farms in Binu, Ajana, Olgivie and Northampton suffered the greatest amount of damage and recorded massive topsoil erosion.

WA Agriculture Department northern region manager, Peter Metcalfe, said 3.5 million hectares of farmland had been affected by the wind erosion.

Mr Metcalf said 10-15pc of that area was estimated to be bare and blowing while another 20pc to 30pc was at high risk.

He said the area north of Geraldton to Mt Magnet Road was the worst hit.

"Up to 1000 farmers across the entire area are affected," he said.

SOURCE: Extract from report in *Farm Weekly*, WA, March 22.

Great start for SA pastoral country

Good follow-up rain early this week has set up many SA pastoral properties for a good year, with winter feed now set to take off, Stock Journal, SA, markets analyst, Tom Dawkins, reports.

The rain earlier this week has helped cap a particularly positive start to the year for the Michael family, Carriererloo via Port Augusta, for instance.

With 33mm from Monday to Tuesday morning, and some lighter shower activity on Tuesday, this year's total rainfall now sits at almost 150mm, following January's 90mm downpour.

Scott Michael says the rain has "pretty well set us up for the lead into winter", with hopes that winter feed will now germinate.

"There's going to be plenty of feed everywhere for a while now," he said.

"While the earlier rains freshened the saltbush and bluebush, the winter grasses should start coming up now."

With mustering set to start at Carriererloo next week in preparation for shearing in early May, Scott says he is optimistic about the year ahead.

"We'll be shearing about 25,000 here," he said.

"Last year we found it cut pretty well and hopefully it will cut well again."

The flock averages about 6-6.5 kilograms of wool with an average 22 microns.

The Michael family's story is fairly typically about the impact of rains so far this year, across the central and southern pastoral areas of SA, in particular.

Up to 50 millimetres of rain has fallen across the southern pastoral areas and over parts of the northern wheatbelt of South Australia in the past week.

Good rains appear to have fallen in the far north of Eyre Peninsula, and in the upper Mid North of SA.

The main farming areas farther to the south, however, have received falls of nearer 10-25mm.

Farther south, the rain appears to have tapered off to below 10mm in southern Eyre and Yorke Peninsulas, and in the South-East of SA.

SOURCE: Extract from report in the *Stock Journal*, SA, March 22.

Adelaide Advertiser

Water Saving

Adelaide's water use could be slashed by 50 per cent in five years, without water curbs, Democrats Leader Sandra Knack said yesterday.

She said the money allocated for the Wellington Weir should be used for rebates for shower heads efficient washing machines and sprinkler systems.

The Australian

Gore takes climate crusade to Congress

AL GORE - star of an Oscar-winning movie, former US vice-president and the object of 2008 presidential speculation - today returned to Capitol Hill with his crusade against global warming.

Glad-handing like the lifelong politician he was until losing the 2000 presidential race to George W. Bush, Mr Gore called his return to Congress "an emotional occasion."

But he did not mince words on what he termed the current climate crisis: "Our world faces a true planetary emergency."

Before a joint House panel dealing with energy, air quality and the environment and the Senate Environment and Public Works committee, Mr Gore stressed the need for quick action.

Under often contentious but consistently civil questioning at both hearings, Mr Gore discussed the risks of sea level rise, stronger storms, more wildfires and other ills associated with global climate change, and urged an immediate freeze on US carbon dioxide emissions.

36.

After that, he said, the United States should begin a program of sharp reductions in carbon emissions "to reach at least 90 percent reductions by 2050." He also proposed a tax on carbon emissions.

Mr Gore, a Democrat who represented Tennessee in Congress before serving as vice-president under president Bill Clinton, had enough star power to pack a large hearing room and require three overflow rooms - two for the public and one for media.

He has been nominated for a Nobel Peace Prize and has prompted intense curiosity in Washington about whether another presidential bid is in prospect. So far, he has said no but has not categorically ruled it out.

Senator James Inhofe, an Oklahoma Republican and Washington's most vocal sceptic about the human causes of global warming, pressed Mr Gore to commit to cutting his personal home energy consumption to no more than what the average American household consumes - without paying for carbon offsets, which Senator Inhofe dismissed as "gimmicks used by the wealthy."

Mr Gore demurred, but later said, "We live a carbon-neutral life, senator, and both of my businesses are carbon-neutral. We buy green energy, we do not contribute to the problem that I am joining with others to solve."

Living a carbon-neutral life means calculating how much climate-damaging carbon you emit, cutting emissions where possible and balancing the rest by buying so-called carbon offsets, such as shares in windmills or by planting trees.

Mr Gore has lately faced public questions about his personal "carbon footprint," especially at his home in Tennessee. An aide noted that Mr Gore and his wife Tipper drove to today's hearing in a black hybrid vehicle.

At the House hearing, he was flanked by cardboard boxes that he said contained some 516,000 letters calling for congressional action to stop global warming.

"This problem is burning a hole at the top of the world in the ice cover that is one of the principle ways our planet cools itself," Mr Gore said. "If it goes, it won't come back on any timescale relevant to the human species."

Rep. Joe Barton, a Texas Republican, questioned the scientific basis for global warming as presented in "An Inconvenient Truth," the Academy Award-winning documentary that featured Mr Gore.

Mr Barton said a carbon tax would "harm the American family" adding, "A Kyoto-style cap and trade system will mainly increase the cost of electricity."

As for Mr Gore's proposed freeze on carbon emissions, Mr Barton said it would mean "no new industry, no new people and no new cars."

Other legislators, including former House Speaker Dennis Hastert, an Illinois Republican, said they agreed with much of what Mr Gore said about climate change and its effects, but questioned the economics of tackling the problem and wondered whether any US measures would put it at a competitive disadvantage with countries like China and India.

Climate change hangs over basin

THE spectre of climate change hangs over the Murray-Darling Basin. Every month since June, the Murray River has set a record for low inflows.

According to the CSIRO, water availability across the basin could be up to 20 per cent less in 2030, while projections for 2070 are for between 5 per cent more water to 45 per cent less.

Murray-Darling Basin Commission chief executive Wendy Craik said the commission, along with several other organisations, including the CSIRO and the Bureau of Meteorology, has embarked on a three-year \$7 million program to study the effects of climate change on the basin, and to work towards producing seasonal forecasts.

Dr Craik said they wanted to get a good understanding of the effects of climate change on the amount of water in the basin. "Climate change will have an impact on a number of the factors," she said. "For example, with climate change, we are going to have more frequent and more intense bushfires."

Over the past 10 years, inflows into the Murray have been 42 per cent below the long-term average. That is a that Dr Craik says is comparable to the 1940s and the federation droughts.

The long-term average inflow into the Murray is 11,200gigalitres, or more than a billion litres. Last year, just 1317GL flowed in, the lowest ever. The previous lowest flow for the river was 1740GL in 1902, the last year of the federation drought.

Dr Craik said CSIRO climate scientist Bryson Bates "has suggested this drought has the fingerprints of climate change all over it".

Climate science was doctored

THE Bush administration diluted scientific evidence of global warming, one of its former high-ranking officials has admitted.

Philip Cooney, an oil industry lobbyist now working for Exxon Mobil, conceded during a congressional hearing yesterday that while he was chief of staff of the White House Council on Environmental Quality he watered down reports on the adverse effects of man-made emissions on the planet's climate.

36.

"My sole loyalty was to the President and advancing the policies of his administration," Mr Cooney told the house government reform committee. He defended aligning supposedly independent scientific reports with the White House political view on the environment by saying the changes reflected a comprehensive 2001 National Research Council report on the issue.

That report, while firmly stating the case that the earth was being endangered by greenhouse gases, was unable to answer all questions on the causes of climate change completely, leaving room for those who believe environmentalists are overstating the case - the predominant view within the Bush administration and its friends in the business sector.

Documents released by Democrats yesterday revealed that in 2003 Bush administration officials made at least 181 changes to a plan to deal with climate change that were aimed at playing down the scientific consensus on global warming.

There were another 113 changes that made less of the human causes of climate change, and even changes made to herald potential benefits to higher temperatures.

"These changes must be made," according to a note in Mr Cooney's handwriting. "The language is mandatory." The Environmental Protection Agency was so against Mr Cooney's alterations - saying they were "poorly representing the science" - that it chose to leave the entire section on climate control out of its 2003 State of the Environment report.

Committee chairman Henry Waxman said Mr Cooney's testimony was proof that there was a "concerted White House effort to inject uncertainty into the climate debate. It would be a serious abuse if senior White House officials deliberately tried to defuse calls for action by ensuring that the public heard a distorted message about the risks of climate change," Mr Waxman said.

Evidence was also shown that the highest public relations priority for Mr Cooney's former employer, the American Petroleum Institute, was to create uncertainty about warming.

Another Democrat on the panel, John Yarmuth, called Mr Cooney a spin doctor.

James Hansen, director of NASA's Goddard Institute for Space Studies, also appeared before the committee, complaining that the Bush administration had attempted to prevent him from speaking out about the dangers of global warming.

"Scientific press releases were going to the White House for editing," he said.

"It's very unfortunate that we developed this politicisation of science. The public relations office should be staffed by expert appointees. Otherwise they become offices of propaganda."

Herald Sun

Water squeeze a 'panic measure'

INDUSTRY groups have welcomed new Melbourne water restrictions despite claims they show the Government has panicked.

Tougher water restrictions will be imposed on Melbourne in nine days, as unseasonably dry weather continues to put pressure on the city's dams.

Premier Steve Bracks said today the heightened water restrictions would be introduced from April 1.

Under the restriction, dubbed 3a, residents will be able to water gardens in the mornings only two days a week.

At present gardeners can water in the morning and evening twice-weekly.

But Opposition Leader Ted Baillieu today in an attack on the government's water credentials described the latest restrictions as a "panic measure".

"We've got a government in panic mode," Mr Baillieu said.

"They need to be frank and open and honest with the Victorian people and particularly Melburnians who in many

respects have been sheltered from the impact of the drought by this government keeping them in the dark.”

Mr Baillieu questioned the imposed evening water restrictions.

"I don't understand why we're shifting to morning time when everybody knows and even the government (has) said in the past that evening watering minimises evaporation," Mr Baillieu said.

“It makes no sense and that’s been confirmed by the minister’s own commentary in recent weeks.”

Mr Baillieu said just seven months ago Melbourne had no real water restrictions.

"Stage one was introduced in September. We’ve... tumbled through stage one, stage two, stage three (and) we've had stage four mooted a few weeks ago.

"We had the minister talking about stage five at the start of this week and now we have this new construction - stage 3a.”

While Melbourne’s restrictions rapidly escalated, country Victoria has been hit much harder, he said.

“Country Victorians have been enduring this for months, if not years. Many cities and towns in the country have had stage 4 restrictions for a long time and they will be looking on in amazement... at the mismanagement and the misleading of Melbourne people. “

38.

Water savings just haven’t been sufficient, he said.

Stage 1 and 2 didn’t work because the protocols attach to their restrictions hadn't not been upgraded since 2001.

“We've been saying (Melbourne would be in crisis) for months and months and we've been ridiculed by the government.

“It is a case of being dragged kicking and screaming to reality, and that's what's happening.“

Mr Bracks introduced the increased restrictions today, foreshadowing further restrictions if needed later this year.

“With storage levels still more than 3 per cent above the Stage 4 trigger level, tougher restrictions will be introduced but not full stage 4 restrictions,” Mr Bracks said.

The restrictions also require the top 1500 industrial water users to develop savings plans.

Existing controls allowing restricted watering of sports grounds and for commercial car washes to operated will continue.

In the announcement today, the Government said gardeners would be able to switch on the taps from 6-8am twice-weekly, with an exemption for those aged over 70 years to water between 8-10am.

With water storages at 32.6 per cent capacity, Melbourne residents could be in for an even tougher regime soon, with the "trigger level" for stage four restrictions at 29.3 per cent.

"The stage 3a restrictions will be in place until 1 August 2007, before which time consideration will be given to going to full stage four restrictions based on the amount of rainfall we get," Mr Bracks said.

A spokesman for Melbourne’s metropolitan water industry, Dennis Cavagna, said the recommendation to restrict people to water in the morning followed discussions with experts.

“We consulted with the nursery industry about watering times and were advised that watering in the morning is better for the plants than watering in the evening,” he said.

The new restrictions were also welcomed today by the state's peak employer body, the Victorian Employers Chamber of Commerce and Industry, which described the changes as an "understandable step".

“Measures to ensure a requirement for the top 1500 industrial water users to develop individual water-saving plans will be accepted by industry overall, which wants to build on its already substantial role in saving water,” VECCI chief executive Neil Coulson said.

“Householders have done a terrific job in terms of changing their water use habits, so has industry.

"While residential water use has fallen by 8.7 per cent, industry and institutional users have reduced their use by 18 per cent since 1999-2000 or around 8800 Olympic-sized swimming pools worth of water."

Murray Valley Standard

Weir ansers sought

Water Security Minister Karlene Maywald had pressure put on her to answer questions about the proposed weir near Wellington at a meeting attended by more than 80 people concerned about the proposed temporary weir held at the Murray Bridge Community.

River, Lakes & Coorong Action Group member and University of Adelaide anthropology professor Diane Bell included the questions as an open letter to Mrs Maywald and asked for answers by Friday.

Diane’s Questions to Minister Maywald

Questions for Minister Karlene Maywald from the River, Lakes and Coorong Action Group, Murray Bridge Public Community Forum, March 20, 2007

Expert Reports: Content and access

Question 1: Can the Minister provide us with details of the expert advice on which a weir at Pomanda Island became the preferred concept?

Question 2: How and when will the Minister make the expert reports regarding the construction phases (i.e. roads,

stock-piles, weir walls, the weir spillway, and the removal of same) available to the public?

Question 3: Will the Minister provide access to the report(s) of URS on the Environmental and Engineering aspects of the proposed weir? If so, when and how will they be available to the public?

Question 4: If these reports are not to be available, why not?

Question 5: If these reports are not complete, can the Minister advise the proposed completion date?

Question 6: What advice has the South Australian Government received on the “Twin Lakes”? What guarantee can the Minister give that this option, which we understand the SA Government believes to be unviable, will not be pursued? Is Minister Turnbull aware of the SA Government’s position on this proposal?

Question 7: What expert advice has the South Australian Government received regarding options other than the weir to secure water for Adelaide? What are these new sources? Can the Minister provide the proposed start dates and costing for the construction of water sources for Adelaide other than the River Murray?

39.

Ramsar and Environment Protection and Biodiversity Conservation Act (EPBC)

Question 8: Has the SA Government sought an exemption from Minister Turnbull under EPBC? If so, when, for what part of the construction (the roads, on-site storage, the weir wings, the weir spillway, or any combination or any part of these phases of the construction) and with what outcome?

Question 9: Is the report (Australian17-8/2/2007) that Minister Gago is seeking to use the National Interest to bypass EPBC correct? If so, what has been the outcome?

Question 10: Because no alert has been posted on the DEH website, is it correct to assume the proposal to build a weir has not yet been designated a “controlled action” by Minister Turnbull?

Question 11: If it were to be deemed a “controlled action” is the Minister aware of any existing reports on which the SA Government could rely in preparing an assessment?

Question 12: Can the Minister give us an assurance that any Environmental Impact Study will come to the community for consideration? What is the time frame for an EIS? If there is consultation will it be with reference to the roads, stockpiling, the weir walls and the weir spillway or some combination of these phases?

Question 13: Have plans been developed for Environmental restoration? If so, we ask to see those plans and, if not, can the Minister advise the proposed completion date of the plans?

Question 14: Has the cost of environmental recovery/rehabilitation of all degradation to areas caused by undertaking all phases of the construction including removal of the weir been included in the \$25million estimate?

Question 15: What advice has SA Government sought or received regarding the potential of the construction (roads, on-site storage, weir wings, weir spillway, or any combination or any part thereof) to have a significant impact on a matter protected under Part 3 of the EPBC Act?

The “Temporary” Nature of the Weir

Question 16: Given that governments, Ministers and legislature change over time, what guarantee does the community have that the current undertaking regarding removal of the proposed weir will be irrevocable?

Question 17: If the Federal Government assumes control of the Murray-Darling Basin, will the SA Government’s assurances regarding its removal survive?

Question 18: Will there be any residual effect on the flow and movement of water from the lake to the river or disturbance to navigation after the removal of the weir? Do the experts’ reports provide detailed plans for removal of the weir walls and spillway? If so, what are they? If there are no detailed plans, why not?

Question 19: What expert advice does the Minister have regarding the impact of building the west wing of the weir walls through the existing channel that runs close to the island on the ecology, flows, and hydrology of the area immediately above and below the rock walls? What advice does the Minister have on the problems of removing the weir walls from the deep channel?

Question 20: Why is the spillway not at the deepest point where it will create the least interference to water flows once water again flows through the system or the weir spillway is removed? (See our scale model with contour lines.)

Question 21: Will the Minister provide details of the trigger points (e.g. lake levels, river flows, headwater storage levels and so on) for removal of all structures?

Question 22: We hear that the spillway is 0.1 AHD and the weir walls 1.1 AHD, but what is the height from the River bed to the top of the weir walls at their highest and lowest points? (See our scale model with contour lines.)

Question 23: Is the Minister aware of the significant flooding that will be caused by the structure if Lake and River levels recover?

Question 24: At what stage and under what circumstances will the Government declare that the construction of the weir walls and spillway will not be necessary?

Pedrick blasts rejection of salty river water claim

Local member of parliament Adrian Pederick has blasted recent claims by the Minister for Water Security Karlene Maywald concerning Lower Murray salinity levels if a weir was built near Wellington.

2 other matters that need to be answered

- 1) Will navigation through proposed weir? No!
- 2) Has there been any costing undertaken, as to the construction of a pumping Station between Loch 1 and Loch 2?
- 3) Murray Darling Association General Manager, Ray Najar, pointed out his belief that the major Capital Cities along the East coast including Adelaide and Melbourne should have desalination units to ensure some secure/constant availability of water.

23rd

FarmOnline

\$10 billion water deal still some way off, say Vics

Victorian farmers will meet Federal Water Minister Malcolm Turnbull again next week, seeking cast iron guarantees that their water rights and security will not be jeopardised by the Prime Minister's \$10 billion NWP.

40.

The Victorian Farmers' Federation (VFF) has supported the State Government's lone stance in refusing to sign up to the plan until it is satisfied it will not disadvantage the state's irrigation farmers.

The VFF says Victorian farmers should not be penalised for the resource mismanagement of other states.

VFF water resources committee chairman, Richard Anderson, said although a meeting with Mr Turnbull last week to discuss details of the plan had gone well, they were nowhere near ready to sign off on the plan and would not do so without consultation with the State Government.

"We are certainly not jumping on the band wagon," he said.

Mr Anderson said farmers were concerned about the impact of the plan on their water rights, bulk entitlements and seasonal allocations.

There were also concerns at Federal plans for mandatory metering despite recent State Government agreement that metering below 10ML usage was uneconomic.

The VFF was also committed to ensuring Victoria received a fair share of the funds in return for handing over control of water and did not want to see it all flow to buying up water rights on over-allocated systems interstate.

"We didn't get half way through our list," Mr Anderson said.

Mr Anderson said they had been told property rights would not be threatened, but irrigators wanted more than just verbal assurances.

"We want it in writing," he said.

Mr Anderson said even if the Minister was able to satisfy all their concerns, they would not sign off without consulting the State Government.

"We would need to tick off all those points and then go and see the State Government and make sure they were happy," he said.

SOURCE: *Stock & Land*, Vic, March 22.

\$5m to tackle climate change on farms

The Federal Government has today announced up to \$5 million to help farmers prepare for the risks associated with climate change.

Minister for Agriculture, Peter McGauran, announced the funding at a climate roundtable in Canberra today, saying climate variability posed an enormous challenge to Australia's farm sector.

The roundtable brought together 50 representatives from industry, research organisations and State and Federal governments.

The \$5 million will fund a number of projects identified at the roundtable, which focussed on the National Agriculture and Climate Change Action Plan 2006-09 that Mr McGauran released in August 2006.

That plan aims at further reducing greenhouse gas emissions, and boosting climate change research and development.

"I am confident that our farmers will continue to adapt to whatever climatic conditions they are presented with – just as they have successfully done in the past," Mr McGauran said.

SOURCE: Rural Press national rural news, updated daily by *FarmOnline*.

Vic rain raises hope for an early break

Hopes of an early autumn break to loosen the grip of the drought have been raised by this week's widespread rains across much of Victoria.

But while the pattern is what everyone has been hoping for, parts of the state are yet to see any useful rain.

March is still considered early and marginal for an autumn break by most farmers.

That is supported by historical figures that show an effective break is more likely in April or even May.

Most of the rain that did fall earlier this week was concentrated in the eastern half of the state.

Falls of more than 60mm at Jamieson on Tuesday, 82mm at Mt Hotham and 115mm at Mt Buller will be important in the rehabilitation processes for the more than one million hectares affected by fires this summer.

These falls will also produce inflows needed to start replenishing major water storages.

But there were useful falls in other parts of the State although generally too little so far.

These will help with autumn pasture programs with farmers planning to re-sow vast acreages of pasture as part of the drought recovery process.

Useful falls that will assist this process, include 33mm at Raywood, north of Bendigo and a band of 15-25mm along the western slope of the dividing range, including Euroa (16mm), Benalla (13mm) and in the King Valley where Cheshunt reported 25mm.

In the Goulburn Valley the rainfall was generally restricted to 10-20mm.

The Bureau of Meteorology continues to predict better than average rainfall following the end of the El Nino event and say it is cautiously optimistic that there will be a general easing of dry conditions in drought-affected areas over the next one to two seasons. SOURCE: *Stock & Land*, Vic, March 22.

41.

Cotton's bid to mend bad image

Cotton Australia has embarked on a public relations campaign to gather support from some of the nation's most influential figures, to change the industry's image as a water guzzler.

The industry peak body this week took an expensive half-page advertisement on page five of national broadsheet newspaper *The Australian* to sell its message that Australia's cotton industry leads the world in efficiency, delivers \$1.2 billion in export earnings and employs 10,000 people.

It comes after regular questioning by key political and media figures of cotton's place in the landscape, given the nation's struggle to come to grips with its limited water resources.

"There's been some negative media coverage about the cotton industry and the rice industry over the past few months, so we went and did some market research to try to see where it was coming from," said Cotton Australia chief executive, Adam Kay.

That research included the views of both community leaders and the general public, and revealed that the mud thrown at the cotton industry had not stuck in the minds of ordinary people.

In areas like South Australia, where Premier Mike Rann has regularly blamed the upstream cotton and rice industries for the State's water shortages, the research showed the general public saw his claims as cheap political rhetoric.

As a result, Cotton Australia has instead focussed its work on efforts to change the views of the leading politicians and opinion makers in the media who have led the anti-cotton campaigns.

His argument is straight forward - the world and the environment needs the Australian cotton industry because it is the most efficient producer of the natural fibre, producing three times more than the global average.

And with a shortfall in global production of seven million bales behind the global demand of 118 million bales, Mr Kay said it was necessary for Australia to keep producing in order to plug a gap that would otherwise be filled by oil-based synthetics.

"We need to get out there and sell the very good things about our industry," he said.

SOURCE: Extract from report in *Queensland Country Life*, March 22.

Things look up for Murray's besieged native fish

Despite continuing extreme dry conditions, things are looking up for the depleted and besieged native fish of the Murray River, with population increases reported at various points along the river.

Murray-Darling Basin Commission (MDBC) chief executive, Dr Wendy Craik, says monitors at Torrumbarry Weir and Lock 26, between Echuca and Swan Hill, have reported that more than 20,000 juvenile silver perch have passed through the "fish-way" since the beginning of the year.

Built in 1991, the fish-way at Torrumbarry was the first to demonstrate how these innovative "fish ladders" help fish to pass through weirs allowing them to complete a range of life cycle requirements, including breeding and feeding, up and down the River. Monitoring at Torrumbarry has recorded up to 2200 endangered silver perch a day. More recently, new fish-ways have been built at other locks and the barrages near the Murray mouth.

They are part of the MDBC's \$45 million "Sea to Hume Dam" project.

This project aims to provide continuous passage for native fish from the mouth of the Murray River to Hume Dam, a distance of about 2300km.

"There have been success stories at other points along the Murray.

"Near Mildura, recent reports indicate a boost in the population of native fish in the waters on the downstream side of the lock there.

"Species included silver perch, golden perch, Murray cod and bony herring," Dr Craik said.

"There have been some exciting preliminary results from in the Murray's Lower Lakes in South Australia, where,

since July last year, the project monitored tens of thousands of juvenile common galaxias, congolli and lampreys. “It seems that even in extreme dry conditions and with minimal environmental watering, the fishways are allowing some of these species important passage to complete life cycles that require their adults to spawn in the estuarine reaches of rivers and return to the sea while their juveniles move upstream into freshwater.”

Dr Craik said it was heartening that new knowledge of European carp behaviour was helping to control numbers of this pest.

The new knowledge has allowed experts at some fish ways to devise innovative new carp cages that catch the carp but allow native species to swim unhindered.

* More information: www.mdbc.gov.au/NFS

SOURCE: Rural Press national rural news, updated daily by *FarmOnline*.

Adelaide Advertiser

Town left without water

Angry residents of a town who had their water supply cut off by a regional council have written to Premier Mike Rann demanding “urgent” action.

42.

Yankilla Council disconnected the water supply to all 23 homes in Rapid Bay, the local primary school and public campground on March 16, amid fears of legal action over extremely high E.coli levels in the water.

Call for ditches to replace gutters

Adelaide’s concrete kerbs and gutters should be torn up and replaced with plant filled ditches to clean stormwater and create miniature ecosystems, a University of SA researcher has claimed.

Drought reaches city’s doorstep

Drought ravaged farmers on the city fringe are the latest seeking Federal Government relief. Members of Canberra’s National Rural Advisory Council yesterday visited farms on Fleurieu Peninsula, which has applied for Exceptional Circumstances funding.

Gore’s return

Al Gore, who has reversed his political fortunes to become a potential contender in the 2008 presidential race, made an emotional return to Congress yesterday in an appeal for an even more dramatic rescue – saving the planet.

A poll showed he is a top choice of voters for the Democratic presidential nomination.

24th

Adelaide Advertiser

\$120M PROJECT: Government decided not to act

Murray water-saving plan pushed aside

A Plan for a water-saving barrage at Wellington “at no cost to the taxpayer” was presented to the Government five years ago, it has been revealed.

Under a “proposal to collaborate with the Government of South Australia”, global consulting firm Arup presented a plan to save 750 gegalitres of River Murray water each year.

After Tuesdays forum Ms Maywald yesterday said she had attended eight public meetings since November. “Some people have taken a position very early on and have not been prepared to listen to any of the reasoning nor do I think they understand the severity of the situation we will face in a worse-case scenario,” she said.

“It’s totally irresponsible for this government to say it’s not politically palatable because we have action groups opposing it.”

From me, who does this arrogant condesening State Government Minister – turn her back on her own party - think she is? Or who she is talking about? Ofcourse we understand the situation that could arise, we have been telling this State Government for the last four or five years (since the Darling River stopped flowing) but ofcourse they would not listen. Of course, there are no seats along the River Murray they could win, but they have a ring-in Minister who turned her back on her own, for glory, well the glory ain’t going to happen, she not longer deserved to be listened to.

Climate guru to visit

Former World Bank economist Sir Nicholas Stern, who warned last year climate change could cut annual global economic output by as much as 20 per cent, will visit Australia next week.

50c a day can help to offset gas emissions

South Australians wanting to make a personal impact on climate change can now pay from as little as 50c per day to offset their carbon dioxide emissions. Trees For Life has launched its biggest program yet to combat climate change, the Carbon Neutral program, under which individuals, businesses and government departments can offset all such emissions produced in a year or through specific activities, such as driving.

MURRAY: Monitng

Weather watch on watering

Irrigators are expected to use less water from the River Murray, because of a new South Australian developed weather monitoring network. Twenty-six weather stations and rain gauges have been installed between the Victorian border and the Murray Mouth.

The Australian

Gore takes climate crusade to Congress

AL GORE - star of an Oscar-winning movie, former US vice-president and the object of 2008 presidential speculation - today returned to Capitol Hill with his crusade against global warming.

Glad-handing like the lifelong politician he was until losing the 2000 presidential race to George W. Bush, Mr Gore called his return to Congress "an emotional occasion."

But he did not mince words on what he termed the current climate crisis: "Our world faces a true planetary emergency."

Before a joint House panel dealing with energy, air quality and the environment and the Senate Environment and Public Works committee, Mr Gore stressed the need for quick action.

43.

Under often contentious but consistently civil questioning at both hearings, Mr Gore discussed the risks of sea level rise, stronger storms, more wildfires and other ills associated with global climate change, and urged an immediate freeze on US carbon dioxide emissions.

After that, he said, the United States should begin a program of sharp reductions in carbon emissions "to reach at least 90 percent reductions by 2050." He also proposed a tax on carbon emissions.

Mr Gore, a Democrat who represented Tennessee in Congress before serving as vice-president under president Bill Clinton, had enough star power to pack a large hearing room and require three overflow rooms - two for the public and one for media.

He has been nominated for a Nobel Peace Prize and has prompted intense curiosity in Washington about whether another presidential bid is in prospect. So far, he has said no but has not categorically ruled it out.

Senator James Inhofe, an Oklahoma Republican and Washington's most vocal sceptic about the human causes of global warming, pressed Mr Gore to commit to cutting his personal home energy consumption to no more than what the average American household consumes - without paying for carbon offsets, which Senator Inhofe dismissed as "gimmicks used by the wealthy."

Mr Gore demurred, but later said, "We live a carbon-neutral life, senator, and both of my businesses are carbon-neutral. We buy green energy, we do not contribute to the problem that I am joining with others to solve."

Living a carbon-neutral life means calculating how much climate-damaging carbon you emit, cutting emissions where possible and balancing the rest by buying so-called carbon offsets, such as shares in windmills or by planting trees.

Mr Gore has lately faced public questions about his personal "carbon footprint," especially at his home in Tennessee. An aide noted that Mr Gore and his wife Tipper drove to today's hearing in a black hybrid vehicle.

At the House hearing, he was flanked by cardboard boxes that he said contained some 516,000 letters calling for congressional action to stop global warming.

"This problem is burning a hole at the top of the world in the ice cover that is one of the principle ways our planet cools itself," Mr Gore said. "If it goes, it won't come back on any timescale relevant to the human species."

Rep. Joe Barton, a Texas Republican, questioned the scientific basis for global warming as presented in "An Inconvenient Truth," the Academy Award-winning documentary that featured Mr Gore.

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As for Mr Gore's proposed freeze on carbon emissions, Mr Barton said it would mean "no new industry, no new people and no new cars."

Other legislators, including former House Speaker Dennis Hastert, an Illinois Republican, said they agreed with much of what Mr Gore said about climate change and its effects, but questioned the economics of tackling the problem and wondered whether any US measures would put it at a competitive disadvantage with countries like China and India.

Reuters

Plan to cut off river's lakes

LAKES, lagoons and wetlands may be temporarily disconnected from the Murray River by the South Australian Government later this year. Minister for Water Security Karlene Maywald said yesterday the Government had looked at the possibility of cutting off a number of lakes, including Lake Bonney, Gurra Gurra Lakes, Horseshoe Lagoon, Ross Lagoon and Murbko South Wetland.

"Temporarily disconnecting the nine water bodies from the river would save up to 4 gigalitres in evaporation a year, and if the drought continues it would be crucial to water security in 2007-08," Ms Maywald said.

The Government had come up with two triggers to inform the public about the conditions surrounding decisions to start blocking water from offshoots of the river.

The water blockage would be triggered if the state's 2007-08 water allocation was 50 per cent or less than the norm, or if weir pool levels in South Australia could not be maintained.

"If the first trigger occurs, then the water bodies would be temporarily disconnected by the beginning of October this year, to maximise water saved from evaporation," Ms Maywald said.

The Government's latest advice from the Murray Darling Basin Commission was that weir pools could be maintained at or close to full levels until at least the end of June.

The river system is in crisis, with just 34GL of water flowing into the system last December - a tenth of what is normally expected and the lowest since records began in 1892.

There is some faint optimism in South Australia after country areas received solid rainfall on Monday, with more significant rain predicted by the weekend.

44.

However, Sharon Starick, chairwoman of the South Australian Farmers Federation's natural resources committee, said it would take months to know for certain whether the drought would break, and the Government's announcement came as no surprise.

"There's been a lot of contingency planning looking at the worst-case scenarios, and I think that planning needed to happen," she said.

"Unfortunately, unless we get significant rains, it's going to be very tough for everybody ... there are areas like (winemaking regions) the Clare and Barossa Valleys that need significant rains as well. Most of the catchment rains come in June, July, August and September, so we're not going to know until then if the season is going to turn."

Climate science was doctored

THE Bush administration diluted scientific evidence of global warming, one of its former high-ranking officials has admitted.

Philip Cooney, an oil industry lobbyist now working for Exxon Mobil, conceded during a congressional hearing yesterday that while he was chief of staff of the White House Council on Environmental Quality he watered down reports on the adverse effects of man-made emissions on the planet's climate.

"My sole loyalty was to the President and advancing the policies of his administration," Mr Cooney told the house government reform committee. He defended aligning supposedly independent scientific reports with the White House political view on the environment by saying the changes reflected a comprehensive 2001 National Research Council report on the issue.

That report, while firmly stating the case that the earth was being endangered by greenhouse gases, was unable to answer all questions on the causes of climate change completely, leaving room for those who believe environmentalists are overstating the case - the predominant view within the Bush administration and its friends in the business sector.

Documents released by Democrats yesterday revealed that in 2003 Bush administration officials made at least 181 changes to a plan to deal with climate change that were aimed at playing down the scientific consensus on global warming.

There were another 113 changes that made less of the human causes of climate change, and even changes made to herald potential benefits to higher temperatures.

"These changes must be made," according to a note in Mr Cooney's handwriting. "The language is mandatory." The Environmental Protection Agency was so against Mr Cooney's alterations - saying they were "poorly representing the science" - that it chose to leave the entire section on climate control out of its 2003 State of the Environment report.

Committee chairman Henry Waxman said Mr Cooney's testimony was proof that there was a "concerted White House effort to inject uncertainty into the climate debate. It would be a serious abuse if senior White House officials deliberately tried to defuse calls for action by ensuring that the public heard a distorted message about the risks of climate change," Mr Waxman said.

Evidence was also shown that the highest public relations priority for Mr Cooney's former employer, the American Petroleum Institute, was to create uncertainty about warming.

Another Democrat on the panel, John Yarmuth, called Mr Cooney a spin doctor.

James Hansen, director of NASA's Goddard Institute for Space Studies, also appeared before the committee, complaining that the Bush administration had attempted to prevent him from speaking out about the dangers of global warming.

"Scientific press releases were going to the White House for editing," he said.

"It's very unfortunate that we developed this politicisation of science. The public relations office should be staffed

by expert appointees. Otherwise they become offices of propaganda."

Climate change hangs over basin

THE spectre of climate change hangs over the Murray-Darling Basin. Every month since June, the Murray River has set a record for low inflows.

According to the CSIRO, water availability across the basin could be up to 20 per cent less in 2030, while projections for 2070 are for between 5 per cent more water to 45 per cent less.

Murray-Darling Basin Commission chief executive Wendy Craik said the commission, along with several other organisations, including the CSIRO and the Bureau of Meteorology, has embarked on a three-year \$7 million program to study the effects of climate change on the basin, and to work towards producing seasonal forecasts. Dr Craik said they wanted to get a good understanding of the effects of climate change on the amount of water in the basin. "Climate change will have an impact on a number of the factors," she said. "For example, with climate change, we are going to have more frequent and more intense bushfires."

Over the past 10 years, inflows into the Murray have been 42 per cent below the long-term average. That is a that Dr Craik says is comparable to the 1940s and the federation droughts.

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The long-term average inflow into the Murray is 11,200gigalitres, or more than a billion litres. Last year, just 1317GL flowed in, the lowest ever. The previous lowest flow for the river was 1740GL in 1902, the last year of the federation drought.

Dr Craik said CSIRO climate scientist Bryson Bates "has suggested this drought has the fingerprints of climate change all over it".

World's mighty rivers on endangered list

THE Murray-Darling and nine other mighty rivers that inspired religions, civilisations and explorers are dying because of stresses put on them by mankind, the WWF said in a report published today.

Each of the 10 river systems is beset by man-made problems, including water being siphoned off, dams destroying ecosystems and pollution.

The other nine endangered river basins are said to be the Danube, Yangtze, Rio Grande, Salween, Nile, Indus, Ganges, Plata and Mekong.

They flow across six continents and the damage threatens the lives of people and wildlife, the WWF says.

About 41 per cent of the world's population live in threatened river systems, and of the 10,000 species of freshwater animals and plants at least 20 per cent are already extinct.

"In the last 50 years we have altered ecosystems more rapidly and extensively than in any other period in history," the report states. "Physical alteration, habitat loss and degradation, water extraction, overexploitation, pollution, and the introduction of invasive species threaten the planet's freshwater ecosystems."

Most river basins face multiple threats, and to draw up a list of the ten most endangered, the conservation charity used published reports and the judgment of its own experts. The list comprises river systems that have already suffered extensive damage and freshwater networks likely to be markedly changed over the next decade.

Australia's Murray and Darling river system is under pressure from introduced species that are outcompeting native fish, which have suffered 90 per cent reductions in numbers in the past two centuries.

Central Europe's the Danube has already been severely damaged, having lost 80 per cent of its wetlands and floodplains.

In Asia, the Salween is one of only 21 of the world's 177 longest rivers that still run freely from source to the sea. However, 16 large dams are planned for the river, and the alteration in the landscape could prove disastrous for wildlife.

Water extraction for agriculture, industry and domestic use is such a problem for the Rio Grande and the Ganges that there are shortages farther downstream, flow levels having fallen sharply.

Flow in the Ganges and the Indus is expected to be further reduced because of the disappearance of Himalayan glaciers, a trend attributed to global warming. "With climate warming, many glaciers will no longer exist to moderate the flow of these rivers," the report says.

Overfishing is cited as another serious problem for rivers, notably the Mekong, which drains an area in Asia twice the size of Germany.

Similarly, pollution from rapid economic development is blamed for the deterioration of the Yangtze. "The Yangtze used to be so clear that you could see a pen sink to the bottom. Now it has become so dirty that it is not fit for drinking," the report says.

The WWF called on governments and businesses to take better care of their water supplies to ensure that they remain sustainable resources for people and wildlife.

David Tickner, head of the organisation's freshwater program, said: "Unabated development is jeopardising nature's ability to meet our growing demands. The world is facing a massive freshwater crisis, which has the potential to be every bit as devastating as climate change."

“Conservation of rivers and wetlands and security of water flows must be seen as part and parcel of national security, health and economic success.”

Northern winter warmest on record

FUELLING further fears of global warming, US scientists yesterday announced that the northern winter just ended was the warmest on record.

They also said the December-February period was the hottest on record around the globe for land surface temperatures.

Land temperatures around the world had been increasing at three times the rate they were prior to 1976, they said. The US National Oceanic and Atmospheric Administration said that during the past century, global surface temperatures had increased by 0.06C per decade, but the rate of increase had been 0.18C per decade since 1976. Scientists say that temperatures have been going up since the 1800s -- and that the warmest 10 years on record globally have all occurred since 1995.

"It's not a fluke," said Jay Lawrimore, chief of the climate monitoring branch at the National Climatic Data Centre. The US winter was normal overall but some pockets of the country were hotter and drier than average.

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Los Angeles received record low amounts of rain and 25 per cent of the continental US was declared in moderate to exceptional drought.

January was especially warm around the globe.

Even though many scientists are growing accustomed to record high temperatures, the extreme warmth at the beginning of the year was quite startling.

The combined global land and ocean surface temperature in January was 1.53 degrees (Fahrenheit) warmer than the 20th century average of 53.6 degrees (12C) -- and still significantly higher than the previous record set in 2002 at 1.28 degrees above average.

The NOAA yesterday said the global ocean surface temperature tied for second-warmest in the 128-year period of record.

The announcements came as scientists from the US National Snow and Ice Data Centre in Colorado issued their own warning about the melting North Pole.

They said a review of computer climate models suggested that global warming could transform the North Pole into an ice-free expanse of open ocean at the end of each summer by 2100.

The researchers, in an article in the journal Science, said that of the 15 models they looked at, about half forecast that the sea-ice cover would seasonally vanish by the turn of the century.

One model predicted the Arctic would be ice free each September as early as 2040. The remaining models showed the presence of some ice beyond 2100, although they agreed there would be significant ice loss if greenhouse gas emissions continued to grow at the current rate.

NASA satellite imaging expert Josefino Comiso said the disappearance of ice would expose more of the open ocean, which can absorb heat and melt ice from below. "With less and less ice, you have more and more heat," Mr Comiso said.

Adding to the concern, Stanford University and Lawrence Livermore National Laboratory researchers yesterday published a separate study saying that some of the world's farms were yielding markedly fewer crops because of the burning of fossil fuels.

They said warming cost the planet about \$US5 billion (\$6.3billion) annually in losses to three of the six major food crops, the Stanford and Lawrence Livermore researchers said.

No quick fix to climate change, warns business

Matthew Warren, Environment writer

Australia's top 100 companies opted for emissions trading

Australia's top 100 companies have opted for emissions trading ahead of a carbon tax as the most efficient way to reduce domestic and global greenhouse gases.

But the Business Council of Australia warns the task of tackling climate change is enormous and will be hindered, not helped, by quick-fix solutions such as banning coal or other major greenhouse emitters.

The BCA has released its submission to the Prime Minister's Task Group on Emissions Trading as a global backlash has reopened on the science of climate change, including over former US vice-president Al Gore's Oscar-winning film, An Inconvenient Truth.

The New York Times has reported disquiet about the depiction of some of the science in the film and accusations Mr Gore included deliberate exaggerations and distortions to create greater drama about the impending threats.

Controversy has also erupted in Britain over a documentary called The Great Global Warming Swindle, which put the case of dissenting scientists who claim global temperature changes are driven by solar activity not changes in greenhouse gas levels.

Britain plans to bring in the world's first legally binding carbon reduction targets to mandate cuts of 30per cent by

2020 and 60 per cent by 2050.

BCA director Maria Tarrant said the information behind the science and economics of climate change would continue to change, requiring a flexibility to assess and adjust policy.

The BCA is still formulating its position on climate change. It is expected to complete the process by next month. It has shifted its position significantly since November, when for the first time it accepted the need for Australia to develop a policy response to the risk of climate change.

While still committed to a global approach on emissions trading, its submission says a trading scheme will provide greater long-term certainty in environmental outcomes and prices than a carbon tax.

Importantly, the BCA says Australia's ability to address climate change will depend on the strength of the economy needed to fund low-emissions technologies and the transition to a lower-emission economy.

"Some have argued for an immediate start to phasing out those sectors of the Australian economy which contribute most to emissions, without any apparent regard to how the livelihoods and lifestyles of all Australians are directly and indirectly linked to our current high-emission domestic and global economy," the submission says.

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The BCA has joined with other sectors of business in calling for the streamlining of climate change policy in Australia, claiming the current mix of state and federal schemes are "increasingly complex to operate within".

Town rain tanks off limits in lead scare

Tony Barrass

Town rain tanks off limits in lead scare

Environmental Officers have begun taking samples from rainwater tanks in and around the West Australian town of Esperance in a bid to establish whether alarming levels of lead responsible for killing thousands of birds have also contaminated the town's drinking supplies.

In what is becoming a serious health concern in the remote coastal community, 500km south of Kalgoorlie, some residents have been advised not to use their rainwater tanks after high levels of nickel sulfide and lead were detected in their water.

Tests by the Department of Environment and Conservation revealed late last week that lead had caused the deaths of more than 4000 birds in the region.

About 180 more birds died last week, most of them purple-crowned lorikeets.

"There is a real sense of urgency about this now," said Esperance Shire president Ian Mickel. "We really need to know what's happening and what the dangers are, if any, to the community."

He said the department's pollution response team was cross-gridding the town, taking water samples, and that a report would be issued soon.

The Esperance Port Authority, on advice from the department, has stopped loading lead carbonate from the Magellan lead mine at Wiluna, 950km to the north. It had been loading more than 10,000 tonnes a month but has since informed the mine's parent company, Ivernia Inc, that loading will cease until the matter has been addressed. One theory is that the dust from the loading process was being blown back over the town by afternoon sea breezes and settling on roofs, then being washed into tanks when it rained.

There has been constant debate during the past decade about whether the loading facility, around which the town has steadily grown, should be moved because of dust problems.

Adding to this is BHP Billiton's \$2.3billion Ravensthorpe nickel operation west of Esperance, which will begin to ship more than 220,000 tonnes of nickel and cobalt hydroxide a year to a north Queensland refinery by the end of this year.

Esperance resident Allan Sharpe, whose rainwater tank has been used by the authority to establish lead and nickel levels since 2004, has been told to consider using an alternative source of water. Mr Sharpe said he had received a letter from the Esperance Port Authority on January 9 this year saying that the most recent tests had detected .016mg/L of lead and .07mg/L of nickel sulfide in his family's drinking water - two to three times above the accepted health levels.

"We've stopped drinking from the rainwater tank and we've gone for the bottled stuff, which, of course, is way more expensive," Mr Sharpe said yesterday.

"But it is safe. I find the whole thing very worrying. The cost factor is considerable, but it's nothing compared to the health of my family and the people who live here."

A local health worker, who did not wish to be named, said many of the dead birds were found around two primary schools.

She believed there was considerable risk to children, who were especially susceptible to lead poisoning, which was a subtle but dangerous impediment to their development.

Esperance Port Authority chief executive Colin Stewart said the port would undertake an immediate review of the lead handling process.

Water warning in Angkor ruins

TWO enormous masonry structures discovered near Cambodia's fabled temples of Angkor Wat provide rock hard evidence that the once powerful Khmer kingdom vanished because of over-building, environmental damage and climate change.

One of the newfound structures was a 40m by 80m spillway. The other was a 100m by 40m outlet channel that, like the spillway, was part of the elaborate water system that served the sprawling agricultural city of Angkor.

"There are considerable implications for our understanding of our own water management systems," cautioned Sydney University archaeologist Roland Fletcher, head of the team that discovered the huge objects.

"These two structures demonstrate very high levels of hydraulic engineering," added Associate Professor Fletcher, director of the Greater Angkor Project, a five-year collaboration between the university, French researchers and the Cambodian agency managing Angkor.

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"The Khmer engineers used their expertise in masonry construction to build these structures that managed water flows for the entire city," he claimed.

In its heyday from the 9th to the 15th centuries, Angkor was the largest city known from the preindustrial world. Using satellite images, aerial photographs and field surveys, the GAP team estimated the low-density city covered about 1000 sq km, spreading outwards from the central temple complex of Angkor Wat.

The complex network of interlinked channels and reservoirs sustained a population of roughly 750,000 people.

Then about 500 years ago the Khmer capitol was abandoned, baffling modern scholars.

Theories range from repeated invasion by neighbours and decline of the controlling religion to major geological shifts.

But Professor Fletcher's group suspects that the city died when it could no longer support the rice-growing economy that fed it.

That happened as a consequence of the city's success. As Angkor grew, more land was cleared for rice paddies, increasing soil erosion into the irrigation canals. Silt built up, choking the water system and demanding increased time and resources to keep the network flowing.

The final kick came from abrupt changes in the monsoon rains which filled the great lake Tonle Sap, east of Angkor. The lake fed into the meticulously organised water management system and provided fish for the burgeoning population.

According to Professor Fletcher, discovery of the spillway and the outlet support their argument as they demonstrate how massive, but inflexible, the water infrastructure was.

"It became like a gigantic straightjacket," he said.

"Like the spillway, the outlet channel was (deliberately) blocked and drastically modified, suggesting the water management network began to break down later in the history of Angkor," Professor Fletcher said.

"Angkor was successful for a long time. It was huge. then it died," he said. "It's important to know why."

Big energy users want 'green' technologies

BIG energy users are pushing for a single national strategy to drive development of greenhouse-friendly technologies as a precursor to an emissions-trading regime in Australia.

Submissions to the Prime Minister's Task Group on Emissions Trading have cautioned against the setting of an ambitious target for cuts in greenhouse gas production and a trading regime to meet that target until a series of low-cost, low-emissions technologies have been developed.

Industry has also railed against "piecemeal" state and federal abatement measures and renewable energy targets, calling for a single strategy, including targets, to provide certainty for business investment.

Opposition Leader Kevin Rudd has committed Labor to cutting greenhouse gas emissions by 60 per cent by 2050 without yet specifying how this target would be achieved.

The Business Council of Australia is still considering the potential for a national emissions scheme, and is expected to flag a possible national greenhouse strategy and outline principles for a global trading regime when it releases its submission today.

Emissions trading requires government to set limits on greenhouse gas output, forcing industry to either buy permits or cut emissions.

Electricity generators say without a national energy policy, emissions trading on its own will not be enough to stimulate development of technologies needed to achieve deep but affordable cuts in greenhouse gas production.

The National Generators Forum submission says that trading schemes are best suited to delivering deep emission reduction targets, and that in the interim other measures should be taken.

"The critical issue of stimulating zero and low-emission technology development ... is critical for Australia if it is to

maintain its fossil fuel competitive advantage in all forms," the NGF submission says.

The aluminium industry has also given qualified support to a national emissions trading scheme subject to a supporting policy on low-emission energy.

The Aluminium Council said that a trading scheme needed a suitable transition period with future emissions trajectory determined by the commercial availability of new low emissions technologies.

The petroleum industry is seeking a "significant rationalisation" of greenhouse measures across all states and territories as a precursor to a national trading regime.

"Under no circumstances should such a scheme merely be added to the hotchpotch of existing measures," the Australian Petroleum Production and Exploration Association said.

The NGF also warned that the current regime of different mandatory renewable targets and scores of other incentive measures across state and federal governments may be hindering, not helping, the efficient and effective operation of the national electricity market.

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FarmOnline

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100pc of Victoria now drought declared

For the first time ever, 100 per cent of Victoria's agricultural land has been drought declared.

Federal Minister for Agriculture, Peter McGauran, has today extended interim exceptional circumstances assistance to farmers and farm-dependent small business in South and West Gippsland.

The decision covers the local government areas of Baw Baw, Yarra Ranges, Southern Gippsland, Cardinia, Casey and Bass Coast.

Mr McGauran stressed interim assistance did not automatically lead to a full declaration.

"Such a declaration will depend, in a large measure, on how much rain the region receives over the next couple of months," Mr McGauran said.

The National Rural Advisory Council will consider the area for a full declaration.

SOURCE: Rural Press National News Bureau, Parliamentary Press Gallery, Canberra.

Closure of Vic rural obstetric units risks lives

The growing closure of rural obstetric services across Victoria is putting the lives of rural mothers and their babies at risk, warns the Rural Doctors Association of Victoria.

Approximately 35 rural obstetric units have been closed in the State in the past decade, and more are currently under threat, according to RDAV president, Dr Mike Moynihan.

"The closure of these critical services across rural Victoria is already creating huge problems and it keeps on getting worse, with many existing units right on the brink of closure," Dr Moynihan said.

"It has always been dangerous for women to travel while in labour.

"But in Victoria there has never been any attempt made by the Government or policy-makers to monitor adverse outcomes in relation to travel and distance; to make a State-based risk assessment with respect to obstetric unit closures and the distribution of remaining units; or to objectively plan for a future in which there are fewer maternity units available across rural Victoria.

"There has been a blithe assumption by politicians, bureaucrats and metropolitan-based specialists that 'she'll be right', and despite research proving that rural obstetric units are very safe places to give birth, there seems to be a false assumption of 'who would want to have a baby in the country anyway?'"

Dr Moynihan says the growing number of babies being born while in transit across rural Victoria means every small hospital now has to be ready to deliver the unexpected "drive through" baby without qualified staff or adequate equipment.

He says every ambulance officer has to be prepared to deliver on the way, hoping that he or she will not be the one forced to manage a complicated birth or stillbirth.

"The obstetric crisis is only part of a wider malaise facing rural hospitals in a State which has been prepared to let the structure of rural health provision drift and decline for far too long," Dr Moynihan said.

SOURCE: *Stock & Land*, Victoria's weekly rural newspaper, posting news updates daily on *FarmOnline*.

SA suspends temporary water trading

The South Australian Government has suspended temporary water trading as part of new measures aimed at securing water supplies for 2007-08.

A cut-off date of April 30 has been set for applications to temporarily trade water out of SA.

But the State Government will allow licensed River Murray water users to carry over a portion of their unused water from 2006-07 as a once-off response to the drought.

Minister for Environment and Conservation, Gail Gago, says it is the first time South Australia will allow carryover, which will help to manage the availability of water during 2007-08.

"This is a temporary scheme to allow for carry-over of unused River Murray water from the 2006-07 water year for

use in the 2007-08 water year only, subject to water availability," she said.

"Providing carry-over is not normally possible in South Australia but during extremely dry periods, the water sharing rules for the Murray-Darling Basin change, which has allowed the government to offer irrigators the option of retaining some water for delivery next year."

The conditions on carry-over include:

- * carry-over water will be supplied in addition to the volumes authorised for use for the 2007-08 water year, which are likely to be heavily restricted;

- * the only water that will be considered for carry-over is water that licensed users have not used at 30 June 2007, and it can only be up to 50pc of the restricted volume of water a licensed water user has been authorised to take in 2006-07;

- * the capacity to move the use of carry-over water between licensed users in SA is limited; and

- * a written application to obtain and use carry-over of unused River Murray water must be lodged before April 30.

Minister for the River Murray, Karlene Maywald, says the temporary carry-over scheme will enable licensed water users to better manage the limited water they have available.

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But she warns that under extreme climatic circumstances, it might not be possible to deliver the volumes of carry-over approved from 2006-07 during 2007-08.

"If the total water resources available are not sufficient to meet critical urban, stock and domestic demands, all available water resources will be directed to these critical demands," she said.

"Once all applications for carry-over have been received, the total volume of water available for carry-over will be distributed proportionally to licence holders up to the volume applied for.

"The volume of carry-over determined for each licence holder who has lodged an application will be confirmed, as soon as practicable, immediately after the end of June 2007 meter reading."

Ms Maywald says setting the cut-off date for applications for temporary trade out of South Australia to 30 April is particularly important for 2007-08, when water availability is expected to be limited and it will be necessary to have an exact understanding of what water is available.

"Late season temporary water trade out of South Australia reduces the volume of water that flows into South Australia in the following year and reduces the management options that can be implemented," she said.

Ms Maywald says the proposal does not affect applications for temporary water trade into South Australia; permanent water trade into and out of South Australia; or permanent and temporary trade within South Australia.

"Ceasing temporary trade out of South Australia will assist in managing the amount of change to South Australia's entitlement flow in 2007-08 and will provide greater security to the high value horticultural activities within South Australia," she said.

SOURCE: *Stock Journal*, SA's weekly rural newspaper, posting updates daily on *FarmOnline*.

Dairy immigrants blocked from drought aid

Dairy farmers crossing the Tasman to set up in Australia have mostly received a welcoming reception in their newly chosen home.

But there can be problems that few anticipated before they made their move, especially those who have arrived since amended immigration requirements were introduced in February 2001.

A meeting in Timboon in south west Victoria last week convened by the local branch of the United Dairyfarmers of Victoria (UDV) heard that dairy farmers who moved from New Zealand have been surprised at the difficulties they face in gaining permanent residency visas.

That would give them the same rights as Australian citizens.

There are no problems entering Australia and they are free to stay and work, own property (and pays taxes) for as long as they choose.

They also qualify for Medicare for basic health requirements, first home buyer subsidies, schooling for their children and even the so-called baby bonus for all new infants born in this country.

But some have now found that there are services and opportunities available only to Australian citizens and those who have permanent resident visas.

Included in this category are Aus Study and HECS funded places at Australian universities, some aspects of social welfare and long-term health care, and access to jobs in the public service, including the armed services.

That first became apparent to some of these new settlers as a result of the drought gripping much of the country.

Farmers in areas declared to be affected by Exceptional Circumstances (EC) can apply for interest rate subsidies and even fortnightly financial support for families to ensure they have the basic necessities until conditions improve.

The state administered interest subsidy is not an issue, but the Commonwealth Government's family support payment is only available to Australian citizens and those with permanent resident visas.

Not surprisingly that has been a source of resentment for New Zealand dairy farmers who face identical problems

because of the drought, have to compete for feed at the same inflated prices, and pay the same taxes, only to find they can't access some aspect of drought assistance.

SOURCE: Extract from the March 22 issue of *Stock & Land*, Victoria's weekly rural newspaper.

The Australian

Water limits a health hazard

THE 2.6 million residents of drought-ravaged southeast Queensland have been warned their health and hygiene is at risk from the introduction of tighter water restrictions.

Premier Peter Beattie has also warned of power blackouts as unprecedented level-six restrictions appear set to be introduced in the region within six months.

He foreshadowed a blow-out of the \$1.7billion cost estimate for the state's western corridor recycled water pipeline.

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The warnings surfaced as federal Water Resources Minister Malcolm Turnbull said Mr Beattie had until the end of the week to provide detailed financial information in support of Queensland's application for a \$404 million subsidy for the western corridor project.

Mr Turnbull said Queensland had failed to respond to his offer to provide commonwealth consultants to help develop a business plan for the pipeline.

The warnings from the Premier were made in a submission to the Prime Minister in support of Queensland's subsidy application.

The western corridor pipeline is the world's fourth-largest recycled water project and the centrepiece of Queensland's \$8billion plan to drought-proof southeast Queensland.

The Queensland Water Commission has warned that if dry conditions continued, level-six water restrictions would be introduced in September.

The commission is examining limits on domestic indoor water use for the first time by fining households that exceed recommended allocations.

Acting Premier Anna Bligh said yesterday that excessive domestic water users would be targeted. "I am confident the combination of goodwill from the people of southeast Queensland, an extensive education campaign and the targeting of heavy domestic users will deliver the water savings required," Ms Bligh said.

In his January 29 submission to John Howard, a copy of which was given to *The Australian*, the Premier said restrictions on indoor water use would have impacts on the personal health and hygiene of the 2.6 million residents of southeast Queensland, whose numbers would swell to 3.9 million by 2026.

Without major new infrastructure, the region faced "catastrophic" consequences, including disruption to electricity supplies if water shortages forced power stations to shut down, Mr Beattie said.

The Premier indicated the cost of the western corridor pipeline would exceed the \$1.7billion estimate.

The final scope of the project had not been determined, but given the level of activity in the market and the need to build the pipeline as soon as possible, there was a "high likelihood" that costs would rise.

Mr Turnbull said it was clear that Queensland needed to provide a better estimate of the costs of the project.

Ms Bligh said Mr Turnbull was making excuses to avoid funding the pipeline.

"He is denying Queenslanders their rightful share of national funding when we are in the middle of our worst ever drought," she said.

Under level-five restrictions to be introduced in southeast Queensland next month, domestic outdoor watering and water use by power stations, businesses and irrigators will be tightly restricted.

The 200km western corridor pipeline will pump recycled water to the Swanbank and Tarong power stations and to Wivenhoe Dam, Brisbane's main source of drinking water.

Carbon pricing to hurt the poor

THE jobless would be hardest hit by carbon pricing, with new research showing low-income households would have to pay about \$600 a year to fight climate change.

The research by academic Peter Brain found carbon pricing would disproportionately affect people on low incomes, especially the unemployed.

The Brotherhood of St Laurence commissioned Dr Brain to analyse the impact of increasing the price of carbon for

various types of Victorian households. He costed carbon as a component of all consumer goods, not just direct energy costs, with calculations based on household disposable income, including government subsidies and tax. Dr Brain said the majority would be able to manage the impact associated with a \$25 increase per tonne of carbon. "After taking account of households' differing capacity to change their consumption patterns -- for example, by not using a second car or getting rid of a second fridge -- for most households the costs will average under \$400," he said.

"This is equivalent to less than 1 per cent of these households' total expenditures.

"If applied uniformly across all household types, some groups of disadvantaged people will be particularly hard hit by the changes.

"Among the most affected are those on unemployment benefits. After taking account of the households' differing capacity to pay, these households will have to pay an additional amount of about \$600, which is equivalent to an additional 1.6 per cent of total expenditure, or be compensated by about \$600 annually to remain in the same position as they are now."

The Brotherhood called on federal and state governments to address the "problem of disproportionate impact".

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Executive director Tony Nicholson said low-income households would "need special assistance to deal with the costs and opportunities that will be inherent in our responses to climate change." He said carbon pricing was regressive when applied uniformly.

"While wealthier households have a much larger carbon footprint than unemployed households, they also have much more capacity to make adjustments to their spending," he said. "These groups of disadvantaged households have much less capacity to adjust to the changes in pricing because their level of discretionary spending is much lower.

"They cannot drive less or use less electricity or cut their consumption of other consumer goods because most of their spending is on essential items. A household with two wage earners and no children has more than four times the capacity to adjust to carbon pricing than an unemployed household."

Ripple effect of warming Southern Ocean

THE impact of global warming on the vast Southern Ocean around Antarctica is starting to pose a threat to ocean currents that distribute heat around the world, Australian scientists say, citing new deep-water data.

Melting ice-sheets and glaciers in Antarctica are releasing fresh water, interfering with the formation of dense "bottom water", which sinks 4km-5km to the ocean floor and helps drive the world's ocean circulation system. A slowdown in the system known as "overturning circulation" would affect the way the ocean, which absorbs 85 per cent of atmospheric heat, carries heat around the globe.

"If the water gets fresh enough ... then it won't matter how much ice we form, we won't be able to make this water cold and salty enough to sink," said Steve Rintoul, a senior scientist at the Australian government-funded CSIRO Marine Science.

"Changes would be felt ... around the globe," said Dr Rintoul, who recently led a multinational team of scientists on an expedition to sample deep-basin water south of Western Australia to the Antarctic.

Water dense enough to sink to the ocean floor is formed in polar regions by surface water freezing, which concentrates salt in very cold water beneath the ice. The dense water then sinks.

Only a few places around Antarctica and in the northern Atlantic create water dense enough to sink to the ocean floor, making Antarctic "bottom water" crucial to global ocean currents.

But the freshening of Antarctic deep water was a sign that the "overturning circulation" system in the world's oceans might be slowing down, Dr Rintoul said, and similar trends are occurring in the North Atlantic.

For the so-called Atlantic Conveyor, the surface warm water current meets the Greenland ice sheet then cools and sinks, heading south again and driving the conveyor belt process.

But researchers fear increased melting of the Greenland ice sheet risks disrupting the conveyor. If it stops, temperatures in northern Europe would plunge.

Dr Rintoul, who has led teams tracking water density around the Antarctic through decades of readings, said his findings add to concerns about a "strangling" of the Southern Ocean by greenhouse gases and global warming.

Australian scientists warned last month that waters surrounding Antarctica were also becoming more acidic as they absorbed more carbon dioxide produced by nations burning fossil fuels.

Acidification of the ocean is affecting the ability of plankton - microscopic marine plants, animals and bacteria - to absorb carbon dioxide, reducing the ocean's ability to sink greenhouse gases to the bottom of the sea.

Dr Rintoul said that global warming was also changing wind patterns in the Antarctic region, drawing them south away from the Australian mainland and causing declining rainfall in western and possibly eastern coastal areas.

This was contributing to drought in Australia, one of the world's top agricultural producers, he said.

Reuters

Climate science was doctored

THE Bush administration diluted scientific evidence of global warming, one of its former high-ranking officials has admitted.

Philip Cooney, an oil industry lobbyist now working for Exxon Mobil, conceded during a congressional hearing yesterday that while he was chief of staff of the White House Council on Environmental Quality he watered down reports on the adverse effects of man-made emissions on the planet's climate.

"My sole loyalty was to the President and advancing the policies of his administration," Mr Cooney told the house government reform committee. He defended aligning supposedly independent scientific reports with the White House political view on the environment by saying the changes reflected a comprehensive 2001 National Research Council report on the issue.

That report, while firmly stating the case that the earth was being endangered by greenhouse gases, was unable to answer all questions on the causes of climate change completely, leaving room for those who believe environmentalists are overstating the case - the predominant view within the Bush administration and its friends in the business sector.

52.

Documents released by Democrats yesterday revealed that in 2003 Bush administration officials made at least 181 changes to a plan to deal with climate change that were aimed at playing down the scientific consensus on global warming.

There were another 113 changes that made less of the human causes of climate change, and even changes made to herald potential benefits to higher temperatures.

"These changes must be made," according to a note in Mr Cooney's handwriting. "The language is mandatory." The Environmental Protection Agency was so against Mr Cooney's alterations - saying they were "poorly representing the science" - that it chose to leave the entire section on climate control out of its 2003 State of the Environment report.

Committee chairman Henry Waxman said Mr Cooney's testimony was proof that there was a "concerted White House effort to inject uncertainty into the climate debate. It would be a serious abuse if senior White House officials deliberately tried to defuse calls for action by ensuring that the public heard a distorted message about the risks of climate change," Mr Waxman said.

Evidence was also shown that the highest public relations priority for Mr Cooney's former employer, the American Petroleum Institute, was to create uncertainty about warming.

Another Democrat on the panel, John Yarmuth, called Mr Cooney a spin doctor.

James Hansen, director of NASA's Goddard Institute for Space Studies, also appeared before the committee, complaining that the Bush administration had attempted to prevent him from speaking out about the dangers of global warming.

"Scientific press releases were going to the White House for editing," he said.

"It's very unfortunate that we developed this politicisation of science. The public relations office should be staffed by expert appointees. Otherwise they become offices of propaganda."

27th

FarmOnLine

Rainfall outlook on the improve for the June quarter

The national outlook for June quarter rainfall shows a moderate swing in the odds towards above-normal rainfall in South East Queensland and northeast New South Wales, according to the Bureau of Meteorology.

However, over most of the country the chances of accumulating at least average rain for the coming three months are close to 50pc.

The Bureau says the pattern of seasonal rainfall odds across Australia is a result of recent higher than average temperatures in the equatorial Pacific Ocean and also in parts of the tropical and sub-tropical Indian Ocean.

As a result the chances of exceeding the median rainfall for the April to June period are between 60pc and 70pc in the region bounded by Jervis Bay, Nyngan, Augathella, Bundaberg and the east coast (see map).

It says that in years with ocean patterns like the current, about six June quarters out of 10 are wetter than average and four out of 10 are drier in these regions.

A small part of the Gascoyne in Western Australia also has increased chances for a wetter than average season.

The 2006/07 El Niño has also officially ended, with central to eastern Pacific temperatures having cooled to near-average.

The Bureau says there is an increased chance of a La Niña developing in 2007.

SOURCE: Bureau of Meteorology. For up to the minute weather forecasts and condition reports from The Weather Company, visit the weather pages on *FarmOnline*.

Rural confidence improves with rain forecasts

Australian rural confidence has rebounded dramatically as promising summer rainfall and a predicted return to normal seasonal conditions fuel farmer optimism, according to the latest quarterly Rabobank Rural Confidence Survey.

The increase is the largest jump in rural confidence in the survey's seven-year history and comes after a period of sustained decline in farmer sentiment since August 2005.

The Rabobank Rural Confidence Survey - which surveys more than 2000 primary producers across a wide range of commodities and geographical areas throughout Australia - shows farmer confidence is now at a similar level to that recorded following the break of the 2002 drought.

The latest survey, taken in February and March this year, has found 45pc of farmers expect the agricultural economy to improve over the next 12 months, well up from 15pc in the previous survey.

Only 20pc expect the agricultural economy to decline over the next 12 months, compared with 65pc last quarter.

Rabobank general manager for rural Australia, Peter Knoblanche, says the strong rebound in farmer confidence has come off a very low base in the previous survey, when Australian rural sentiment slumped to an all-time low as much of the country struggled in the grip of drought.

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"Favourable weather forecasts along with some promising summer rainfall in parts of the eastern states are providing encouraging signs for farmers that there will be a break in the drought in 2007," he said.

"Recent rains, while patchy, have provided some relief for stock and pasture in many areas.

"Firming commodity prices, especially in grain, beef, dairy and wool, are also providing some good news for producers."

However, Mr Knoblanche has cautioned that the strong rebound in confidence seen this quarter should not be mistaken as a sign that Australian farmers have recovered from drought.

"Most farmers are still anxiously waiting on a good autumn break with significant follow-up rain, which is going to be essential for them to have a reasonable season ahead and to impact on confidence levels in the longer term," he said.

Mr Knoblanche says irrigators - particularly those producers involved in cotton, dairy and horticulture - are still suffering from very low storage levels and significant reduced water allocations across most states.

The Rabobank survey found rural confidence was stronger in all states, with the largest increases observed in South Australia, New South Wales and Victoria.

The survey showed further improvement in confidence in Western Australia, with many farmers looking forward to a return to more normal seasonal conditions.

Sentiment remains strong in Queensland despite falls observed this quarter among sugar producers.

Millions on offer to drought proof Vic sport

The fight to drought proof the nation has taken a new twist with local councils across Victoria able to apply for a share of a \$4.7 million State Government fund to help protect local sporting facilities.

Victorian Premier Steve Bracks says it is not just farmers suffering from the big dry, with local sporting grounds hurting as well, and action is needed to keep young people playing winter sports.

As such, every Victorian council on Stage 3, 3a or 4 water restrictions will be eligible for a \$50,000 grant to reduce the impact of the drought on their local sporting facilities.

"Funding will be for projects that can reduce water loss from council pools, use recycled water at sports clubs and resurface playing areas with synthetic or drought tolerant surfaces," Mr Bracks said.

Mr Bracks says the grants will allow local councils to take immediate action to keep sporting facilities open and implement water saving projects that will provide long-term reductions in water use by sporting grounds.

"This is about helping local sports - often the cornerstone of our communities - thrive, not just survive," he said.

The \$4.7 million package also includes \$55,000 for the Municipal Association of Victoria to establish a technical advisory committee to provide expert advice on drought-proofing techniques to local councils and clubs.

Sport and Recreation Minister, James Merlino, says the Drought Relief for Community Sport & Recreation Program builds on the successful \$1.9m Drought Relief for Country Sports Program announced last October.

Mr Merlino says the Government had teamed up with the AFL, Tennis Victoria and Cricket Victoria (\$200,000 each) and the Football Federation of Victoria (\$75,000) to deliver that program.

"This year's competitions are important, but we want to make sure that grassroots sport remains a strong and integral part of local communities in years to come," Mr Merlino said.

"Councils, sporting associations and local clubs, as well as the Bracks Government, have all been working hard to keep local sport strong and healthy in this drought."

SOURCE: *Stock & Land*, Victoria's weekly rural newspaper posting updates daily on *FarmOnline*.

Greenhouse calculator a cotton first

The cotton industry has moved to tackle the climate change problem head on, unveiling a greenhouse gas calculator for cotton growers to use.

The online calculator will be further developed and refined by the Cotton Research and Development Corporation as more information becomes available.

But in its current form the CRDC says the calculator allows individual growers to estimate their greenhouse footprint on their farms by comparing the relative contributions from fuel, soils and nitrogen for their operation. According to the Cotton CRC, there is little information or tools available at present that allow on-farm energy use to be effectively audited and more efficiently managed.

This is an area of research and development where CRDC is pursuing further investment.

It says the research presents a significant opportunity for collaborative programs involving other industries and government to develop the capacity for individual growers to audit (or have audited) their energy use across all of their operations.

This information could then be applied to help improve efficiency where it is cost effective to do so.

* The calculator can be found at www.isr.qut.edu.au/tools/index.jsp.

55.

AWA

Minister for Water Security Karlene Maywald said this last week that the SA Government had looked at the possibility of cutting off lakes, including Lake Bonney, Gurra Gurra Lakes, Horseshoe Lagoon, Ross Lagoon and Murbko South Wetland temporarily from the Murray River to ensure sufficient water for Adelaide.

The International Water Centre (IWC), a joint venture of Universities of Queensland, WA, Griffith and Monash, the Moreton Bay Catchment Partnership and the International River Foundation, has opened a new centre in South Africa.

H2o Today is a new online radio program canvassing all aspects of the water industry. Go to the website, click on the Online Program and select your internet connection speed to hear Chris Davis talk about some of the issues from AWA's new book 'Water in Australia', as well as many other interviews.

A CSIRO survey of Perth residents has found they would pay higher water bills if it meant avoiding water restrictions.

Ken Matthews, National Water Commission Chairman and CEO, appeared on the Today Show on World Water Day (22nd March) to discuss the various forms of water supply options, including recycling and desalination. The hosts responded positively to the taste of recycled water, less so to the taste of rainwater.

Keep informed with progress on the NSW Government's 2006 Metropolitan Water Plan, to ensure Sydney has enough water to meet its future needs, by visiting the website at www.waterforlife.nsw.gov.au and signing up to receive Water for Life eNews.

Clearwater will soon be installing an Aquacell Water Recycling System in the K2 Sustainable Housing development in Melbourne. This unit will recycle water from 96 units making it available for toilet flushing and irrigation.

Hume City Council won the top honour at the Savewater.COM Awards on Friday evening; the overall Award for Excellence, for its municipal-wide initiatives.

The European Commission published a report on the performance of EU Member States in implementing the Water Framework Directive and, while the results are mixed, more needs to be done to achieve the directive's objective and goals by 2015.

The EU's promotion of Privatisation to tackle global water problems has been rejected by 45 civil society and labour organisations from around the world, which favour increased public-sector involvement. The World Development Movement (WDM) has released a report that says that public water provision is key to solving the "global water crisis".

The European Commission is sending Ireland a final written warning for failing to comply fully with a 2002 EU Court of Justice (ECJ) ruling requiring drinking water supplies to be kept free of E.coli bacteria, and another warning for failing to enact greater controls on polluting discharges to surface water by local authorities.

According to the CSIRO, water availability across the Murray Darling Basin could be up to 20% less in 2030, while projections for 2070 are for between 5% more water to 45% less.

Idle time is likely for Sydney's planned desalination plant because the Labor Government claims that it will only operate when dam levels fall below 30%, something they have never done. **From me: -"That's pathetic"**

The Friends of the Yarragadee have planned a rally on the steps of Parliament House in Perth next Tuesday, in protest against Water Corporation's plans to tap the aquifer to pump into Perth's water supply.

Qld, SA, Vic and NSW irrigator groups, under the auspices of the NSW Irrigator's Council, have a questionnaire for the Prime Minister's \$10B water plan, including concerns about timing and review of draft Commonwealth legislation, which highlight its lack of detail. FarmOnline, Mar 21.

News.com.au

PRIVATE technology developers are preparing to fight for a role in the federal Government's \$10 billion water plan and have claimed that \$480 million in funding for a national monitoring system could be wasted if they're left out of the project.

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To date, the focus of the planned national water-monitoring system has been on the Bureau of Meteorology, the National Water Commission, CSIRO and National ICT Australia (NICTA).

Private sector developers said they had already commercialised equipment that could be plugged into the planned network and were set to launch an industry representative group to campaign for a role in the project.

Nigel Hennessy, chief executive of Agrilink Holdings, which supplies soil-moisture sensors to agribusiness giant Monsanto, as well as Australian cotton and wine growers, said local industry had to be taken into account to avoid duplication of research. "We're getting some good results and we've got a lot of data to demonstrate we've got those results, and that's why the industry gets pretty cheesed off when it hears there's nothing that does this in the market place," Mr Hennessy said. "What makes it more annoying is that it's actually Australian technology."

Mr Hennessy estimated as many as 30 water technology developers could contribute to the national monitoring network, which will be built and operated by the Bureau of Meteorology. Mr Hennessy expressed frustration over previous meetings with government ministers and research organisations such as NICTA. He noted that Agrilink had recently started fresh discussions with NICTA.

The reaction we've had typically is that this is really amazing and we should talk to the advisers, but nothing ever happens," Mr Hennessy said.

"Then you suddenly find out that money has gone to CSIRO or money's gone to NICTA to develop the same sort of technology that we've already developed. It just doesn't make sense."

Water sensor developer and the founder of Australian software success story Moldflow, Colin Austin, meanwhile, will push for a national water industry group to lobby the Bureau of Meteorology and governments on local industry participation in the water plan.

The Bureau of Meteorology has so far been silent on its role while it establishes an office to oversee the monitoring of national water resources. "In all my experience with government they hate talking to individual companies and they particularly hate talking to small, individual companies," Mr Austin said.

"There's certainly a need for us to speak with one voice. We need to make a very formal approach to government as a unified entity rather than as a bunch of individual companies."

Mr Austin's plan is backed by Mr Hennessy, who also called for organisations such as CSIRO and NICTA to be involved.

CSIRO Water Resource Observation Network project team leader Ross Ackland was supportive of plans for a water industry representative group and called for urgent co-operation with the private sector.

"There's a benefit to be gained with some of the major research organisations, ourselves included, really aligning ourselves and leveraging some of this capability," Mr Ackland said.

"The time is right to initiate this. We don't have a lot of time to spare so we've really got to get on with it." National Water Commission chief science adviser Colin Chartres said government would need to set standards for water sensing and monitoring systems and reporting.

He also said, however, that private industry would probably have to wait until the Bureau of Meteorology's national water monitoring system project office was up and running before it could effectively lobby for a role in the initiative.

28th

FarmOnLine

Self sufficiency the key to feedlot's drought success

During times of drought one of the biggest challenges facing feedlots is securing cost effective feed supplies and good lines of backgrounded cattle for finishing.

A move towards self-sufficiency on both of these fronts has helped Central Queensland grazier, John Atkinson, of Glenavon, Yaamba, and his family weather the current big dry and come out in front.

The strategy has revolved around expanding the family's land holdings to reduce the need to buy in stock from the saleyards, and to grow the basis of the feedlot ration on farm to reduce dependence on the fluctuating grain market. "Through the kids we've been trying to increase our property holdings over the last couple of years so we can breed all of our own cattle," Mr Atkinson said.

The extra country for breeding, links in with the central feedlot infrastructure at Glenavon, where progeny are finished for the Jap Ox market.

Together the family now runs about 2000 Droughtmaster breeders, up from 1200 just a couple of years ago.

This should bring an end, within a couple of years, to the need for buying steers from saleyards.

Being based largely on coastal breeding country, the Atkinsons have been focussed on their breeding operations, while looking at new ways to make the most of their limited pasture and cropping areas.

Paddocks of Callide Rhodes grass are regularly mowed and baled for hay for backgrounding, while the cropping country is sown to sugar, drip sorghum and lab lab for forage for the feedlot.

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"The key is to grow something to match your country," Mr Atkinson said.

"The forage gives us the bulk we're looking for and the lab lab gives us the moisture and protein."

SOURCE: Extract from story to appear *Queensland Country Life*, March 29.

Rice is 'here to stay'

Farmers have no intention of abandoning rice paddies and cotton fields to grow groves of high value nuts, oranges and grapes, according to Laurie Arthur.

National Farmers Federation (NFF) water taskforce chairman, Mr Arthur, this week hit out at critics who claim that as both crops use too much water, they must be abandoned.

The critics, Mr Arthur says, don't appreciate the efficiency of these Australian industries by world standards.

Nor do they appreciate the contribution these crops make to the economy.

There's been a lot of media comment urging the Australian Government to abandon rice and cotton when the government's \$10 billion water plan kicks into gear.

Despite the water debate being dominated by talk of encouraging high-value crops and market forces, Mr Arthur is confident there are big opportunities for broad-acre irrigation industries like rice and cotton, and even dairy fodder crops.

The secret, he says, is centred on sound investment in on-farm water savings and water efficiency technology.

Mr Arthur farms at Moulamein in the Far South West of NSW.

SOURCE: Extract from story in *The Land*, NSW, and *Queensland Country Life*, March 22.

Bega Cheese to aid drought relief

Bega Cheese has launched a national drought relief fund that will offer financial assistance for drought affected farming communities across the country.

It will kick start the fund with a \$100,000 deposit to the fund which it said was expected to raise more than \$600,000 over the next six months.

Ten cents from the value of every block of Bega cheese sold between May 21 and November 18, 2007 will be paid into the Bega Cheese: Connecting Communities fund, with the proceeds to be distributed to drought affected families and communities by the Country Women's Association of Australia (CWAA).

Bega Cheese chairman Barry Irvin said the fund would enable every Australian to support drought-affected farmers and communities and to make a positive difference to their lives.

"One of the wonderful things about living in rural Australia is that you are never left to face challenges alone.

"Neighbours are always there to help in a crisis, whether they are from next door, another region or across the country," Mr Irvin said.

SOURCE: National weekly dairy news, *Stock & Land*, Vic, updated daily on *FarmOnline*, Rural Press Limited.

Australian

Howard rules out climate measures that cost jobs

PRIME Minister John Howard has guaranteed that no coal miners will lose their jobs as a result of measures used to cut greenhouse emissions, standing firm in the face of fresh calls to adopt clean coal technology.

Former World Bank chief economist Sir Nicholas Stern, author of the world's most comprehensive report on climate change, said today that Australia - as a rich country - needed to take a lead on dealing with damaging climate change.

Australia could be a global leader on international action and help rid the world of the problem of "free riders," Sir Nicholas told Canberra's National Press Club.

Sir Nicholas made global headlines last year following the release of his report for the British Government, which

estimated that the cost of inaction on addressing climate change could be up to 20 times greater than the costs of early action estimated at about 1 per cent of global wealth.

He warned that failure to act on climate change now could cause an economic downturn to rival the great depression.

But Mr Howard said that although Sir Nicholas' view should be treated with respect, they "shouldn't be treated as holy writ".

"Some of the views that he's expressed I agree with, some I have reservations about," he said.

"Some I believe if implemented literally would do great damage to the Australian economy.

Mr Howard told parliament that Europeans have a different perspective on climate change than Australians.

"They do not come from an Australian perspective.

Nations that do not have vast reserves of fossil fuel have a different view about this matter than nations that do," he said.

"Australia is in a very unusual position: we have a small population but we have been blessed by providence with large reserves of fossil fuel.

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We should play to our natural advantages and I am simply not going to agree to prescriptions that are going to damage the future of the Australian economy, and I am not going to agree to prescriptions that are going to cost the jobs of Australian coalminers."

Sir Nicholas said a good carbon trading scheme was a good way of encouraging international collaboration, and would provide Australia with a first-mover advantage.

Carbon capture and storage technology would have an enormous market in countries such as China, which would be up to 80 per cent reliant on coal for the next thirty to forty years, he said.

Australia should act as part of a world community and some of the results of R&D should be shared with developing countries.

Sir Nicholas said the global community could tackle the issue of climate change at reasonable cost and continue to grow the economy, but it would require urgent action to cut greenhouse gas emissions.

He called on Australia to cut its emissions by at least 60 per cent by 2050.

But even if the world acted strongly, there would still be an increase in temperatures of two degrees celsius and everyone would have to adapt and adjust.

London would need to upgrade its sewer system to cope with an increase in rain and India and China would have to deal with the thawing of ice and snow on the Himalayas.

Sir Nicholas warned no country should put all its eggs in one basket and that it was up to each country to decide its own measures for cutting greenhouse gases.

But all options, including nuclear power, should be on Australia's table.

Before meeting Sir Nicholas yesterday, Mr Howard told parliament he did not agree with everything the economist said.

Sir Nicholas found the cost of strong and urgent action on climate change would be much less than the cost of inaction.

Stern's climate blueprint 'already in action'

MUCH of what climate change economist Sir Nicholas Stern has proposed to counter climate change is already being done by Australia, Prime Minister John Howard says.

Mr Howard today said he looked forward to discussing climate issues with Sir Nicholas when they met. He said Sir Nicholas favoured clean coal technology and the Australian government had seed funded projects to a value of \$3 billion for clean coal and renewables technology.

"I also understand he is in favour of nuclear power making a contribution to solving the problems of climate change," Mr Howard told the Nine Network. "I will be interested to meet him and hear what he has got to say. He has got a contribution to make to this debate as have many experts."

In an interview with *The Australian* during his whistlestop Sydney visit, which included a lecture to the Lowy Institute, Sir Nicholas was optimistic that countries such as Australia could protect their key energy export markets and export the technology by driving cost-effective storage of emissions from coal.

Sir Nicholas made global headlines last year following the release of his report for the British Government, which estimated that the cost of inaction on addressing climate change could be up to 20 times greater than the costs of early action estimated at about 1 per cent of global wealth.

He warned that failure to act on climate change now could cause an economic downturn to rival the great depression.

Sir Nicholas will meet with John Howard today in Canberra, along with Environment Minister Malcolm Turnbull and Opposition environment spokesman Peter Garrett before flying to New Zealand tomorrow.

Mr Howard said Sir Nicholas also factored in nuclear power although that was opposed by Labor and the Greens. "We will factor it in and when it becomes economic we should use nuclear power as a response to the problem of climate change," he said.

"Stern is very much in favour of clean coal technology. Well, we have been talking about and investing in and supporting clean coal technology."

Mr Howard said Australia had an agreement with countries like China, Japan, India and the US through the AP6, a grouping of regional nations, to progress the attack on climate change through a greater use of clean coal.

"I have signed a separate agreement with the premier of China to have a clean coal technology partnership between Australia and China," he said.

"To that extent, what Sir Nicholas Stern is saying is something that we have been doing for some time."

Sir Nicholas told *The Australian* yesterday that was ideally placed to lead the world in the development of clean coal technology as a priority response to climate change, former World Bank chief economist Nicholas Stern said yesterday.

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"Coal is going to be used," he said. "The challenge is to use it as cleanly as possible. If people can't find a way to use coal cleanly then I think the market for coal should decline, but I'm more optimistic than that."

Following its release last year, the Stern report was criticised by some economists as overstating the costs of climate change by undervaluing the discounting of costs in the future.

While defending his report yesterday, Sir Nicholas welcomed debate on the ethical economics of determining what sort of costs and legacies should be left to future generations.

He said there was still much uncertainty in the understanding of the potential impacts and costs of climate change, requiring more research into specific regional impacts as well as better understanding of how they might adapt to higher temperatures.

"Any kind of policy making like this is informed judgment," he said. "The different studies are different pieces of evidence to inform our judgment."

Emissions trading 'not the only way to cut carbon'

THE federal government will not decide on a carbon emissions trading scheme until the emissions taskforce hands down its report in May, Finance Minister Nick Minchin says.

An industry taskforce appointed by the prime minister to investigate Australia's role in a possible international emissions trading scheme will report back on May 31.

Senator Minchin said there has already been positive feedback on the taskforce.

"We are delighted that industry has responded positively to it - is putting its ideas forward - we'll constructively and sensibly consider those ideas and report to the Australian people on our views on that matter when we get that report," Senator Minchin told parliament.

But Senator Minchin said an emissions trading scheme is not the only way to reduce carbon emissions.

"An emissions trading scheme is one way in which you can put a price on carbon and therefore, hopefully, have some abatement effect on emissions. Another way is the carbon tax," he said.

Senator Minchin said the Howard government had to take a variety of factors into consideration before making any decision.

"Any responsible national government must take account of the question of whether or not acting unilaterally will actually achieve anything positive without doing immense damage to the Australian economy."

Senator Minchin sarcastically said he was surprised the Labor party had brought up the matter in parliament today when Sir Nicholas Stern was in town, referring to him as a British Labour government adviser.

The former World Bank chief economist released a report to the British government last year, putting the potential cost of global warming at \$9 trillion.

Adelaide Advertiser

DROUGHT RELIEF: More aid for farmers

An extra 3500 drought affected farmers in the Fleurieu Peninsula and River Murray Lower Lakes corridor areas of South Australia can apply for up to six months' exceptional circumstances income support.

RAIN OUTLOOK: No break in the weather

South Australian farmers desperate for the drought to end before winter have had their hopes dashed by the latest rainfall outlook.

29th

FarmOnLine

Green light for Warrego, Old, water sale

The Queensland Government has overcome national pressure to follow through with its plans to auction 8000

megalitres of water on the Warrego River in southwest Queensland.

Last month, the auctions were put on hold indefinitely, following concerns of over-allocation from a feeder river of the Murray Darling Basin, during extended drought.

But Prime Minister, John Howard, declared last week that he had no objection to the sale, and 8000ML was a small volume relative to the system as a whole.

"As this proposal is consistent with the approved water sharing plan for the Warrego, I can advise that the Commonwealth Government has no objection to the Queensland Government proceeding with the sale," Mr Howard said.

Water Minister Craig Wallace said the Prime Minister's concession proved that Queensland water planners and irrigators had been right on the issue.

"Our water planning for the Warrego was not flawed," Mr Wallace said.

The new auction date is to be advised.

SOURCE: *Queensland Country Life* weekly rural news service, updated daily by *FarmOnline*.

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Turnbull water meeting with Vics delayed

A planned meeting between Victorian irrigators and Federal Water Minister, Malcolm Turnbull, to discuss the Prime Minister's \$10 billion national water plan has been delayed until next week.

Victoria is the only party to the agreement to have refused to sign the plan.

Victoria's participation is needed to bring management of the Murray Darling Basin under centralised control.

Victorian Farmers Federation water committee chairman, Richard Anderson, said the Minister was unable to meet them as planned this week.

Victorian farmers are seeking details on:

- How the plan will operate.
- Assurances that it will not jeopardise Victorian farmers' water security.
- They receive a fair share of the funding, in line with the 43pc of Murray Darling Basin water held by the state.

A spokesman for Vic Water Minister, John Thwaites, said the while money was a factor, it was only one of a range of factors in striking agreement over the plan.

"We are not going to throw away reforms already in place," he said.

SOURCE: *Stock & Land*, Vic, March 29, updated daily by *FarmOnline*.

Wealthy nation 'should take the lead' on clean coal

AUSTRALIA could be a world leader in developing clean coal technology that could be marketed to a long list of coal-hungry countries, including China.

Nicholas Stern, former World Bank chief economist and author of the world's most comprehensive report on climate change, said Australia, as a rich country, needed to take a lead on dealing with damaging climate change.

Speaking to the National Press Club in Canberra, Sir Nicholas called on Australia to cut its emissions by at least 60 per cent by 2050.

But John Howard, who was due to meet Sir Nicholas last night, said that while he was willing to listen, he was unwilling to take any action that would cost local jobs.

Sir Nicholas said Australia should reject the argument that "we won't do anything until everyone else does everything".

Building a good carbon trading scheme was a way of encouraging international collaboration, and would provide Australia with a "first-mover" advantage in emissions reduction, he said.

The Howard Government will not decide on a carbon emissions trading scheme until its emissions taskforce hands down its report in late May. But Sir Nicholas said Australia should act as part of the world community and share some of the results of research and development on carbon capture and storage with developing countries.

The Prime Minister told parliament Sir Nicholas's views should be treated with respect but not as "holy writ".

"Some I believe, if implemented literally, would do great damage to the Australian economy," he said. "When it comes to the decisions of this Government, uppermost in our minds will be the views of the national interest, not the views of any one individual however eminent he may be regarded by some." European prescriptions were not always appropriate to Australia.

Kevin Rudd would not comment last night on his private meeting with Sir Nicholas.

Herald Sun

PM says no to Stern

JOHN Howard has ruled out drastic cuts to carbon emissions urged by climate change economist Sir Nicholas Stern, saying they would ruin the nation's economy.

And the Prime Minister accused the British expert and other Europeans of failing to understand Australia's position on climate change.

Ahead of a meeting with Mr Howard yesterday, Sir Nicholas said Australia could become a world leader in climate change solutions if it grasped the opportunities now.

He also urged the Government to ratify the Kyoto treaty, saying other nations believed Australia was taking a "free-ride" while others made the hard choices.

Sir Nicholas -- who wrote the 700-page Stern Report on the economics of global warming -- has urged Australia to cut greenhouse emissions by 30 per cent by 2020.

He pitched the plan to a group of top CEOs over dinner on Tuesday night, and in closed-door talks with Mr Howard and Opposition Leader Kevin Rudd.

Mr Howard said he agreed with the former World Bank economist on the need for climate change solutions such as nuclear power and clean coal technology.

However he said he would never agree to such a harsh emissions target.

"That would have a devastating effect on the Australian economy," he said.

"There are areas where I don't agree with Stern and I don't think I ever will."

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Setting Australia further apart from the growing international consensus on global warming, Mr Howard said Australia would not throw away its competitive advantages.

"Some of the prescriptions that come from Europeans come from a European perspective," he said.

"Nations that don't have vast reserves of fossil fuels have a different view about this matter than nations that do."

Sir Nicholas, in an address to the National Press Club in Canberra, said Australia's failure to sign Kyoto was often cited as a reason for other countries not to take action on global warming.

However he said even minor carbon emitters had to play their part to avoid doomsday-style consequences.

"Whatever one country does affects what other countries do. It's very important that we act in a way that provokes that collaboration.

"That is the only way forward."

Opposition Leader Kevin Rudd has committed Labor to a 60 per cent reduction in carbon emissions by 2050 if elected to Government.

Labor also announced a \$50 million program yesterday to provide grants of up to \$4000 for households to install solar power.

Adelaide Advertiser

DROUGHT TOLL: Rise in farm debt

Farm cash incomes on average are projected to be \$26,600 for 2006/7 down from the estimated \$81,290 in 2005/6.

Action plan on climate change

Onkarparinga is the first city in SA to develop a Climate Change Strategy and Action Plan, that will focus on greenhouse emission reductions and climate change adaptation between 2008 to 2012.

State Politics: Plan to stockpile water

South Australian irrigators on the River Murray will for the first time be allowed to stockpile water for future use.

Policy 'increases' emissions

Green groups have attacked Premier Mike Rann over an amendment to the Climate Change and Greenhouse Reductions Bill 2006, which they say would lead to increase pollution, not lower it.

News.com.au

Forest fund better than Kyoto, Howard says

* \$200m plan to fight illegal logging

* Howard says forest plan is better than signing Kyoto

THE Government's plan to stop regional deforestation would cut greenhouse gas emissions more than signing the Kyoto Protocol, Prime Minister John Howard said today.

Mr Howard said the \$200 million plan would address climate change by slowing the rate of trees being cut down in Indonesia.

"As everybody knows, if you can do that you will reduce greenhouse gas emissions," he said on ABC radio.

"In fact, 20 per cent of global greenhouse gas emissions come from clearing the world's forests and that is second only to emissions from burning fossil fuels to produce electricity.

"And it's more than all the world's emissions from transport. What this initiative will do, in a shorter period of time, is make greater contribution to reducing greenhouse gas emissions than, in fact, the Kyoto protocol."

Under the plan, Australia will form a global fund to fight illegal logging and forest destruction, principally in Indonesia.

It is designed to help developing countries start sustainable forest industries, plant new forests, stop illegal destruction of rainforests, provide monitoring of forest production and education in forest management, and help

communities dependent on illegal rainforest timber find alternative jobs.

Environment Minister Malcolm Turnbull said reviving forests was the only way to materially reduce the amount of carbon dioxide in our atmosphere in the near term.

"We will be working with other countries, developed countries, developing countries, to stop the destruction of the world's remaining forests, to promote sustainable management of forests, to promote new planting of forests," he said today.

Labor treasury spokesman Wayne Swan said the idea had merit but Mr Howard could do more closer to home by signing the Kyoto agreement.

"I'm pleased he recognises the importance of that (but) why doesn't he recognise the importance of this country getting on board with a comprehensive and ambitious agenda to combat dangerous climate change at home and abroad," Mr Swan said.

"That's the whole point. If he can recognise it (climate change) in Indonesia why can't he recognise it at home." Labor Deputy Leader Julia Gillard said Labor would look at the proposal but also challenged the government to effect change in Australia.

62.

The Australian Greens called the Government hypocritical for discouraging logging in developing nations while condoning the same activity here.

Greens leader Bob Brown said Prime Minister John Howard thought he could simply write a cheque to improve his climate change credentials.

"It's a stunning piece of hypocrisy that he is putting \$200 million into stopping forest burning in South-East Asia while he is authorising forest burning in southern Australia," Senator Brown said.

"Under his signature yesterday, 14 massive forest burns took place in Tasmania, sending thousands of tonnes of greenhouse gas into the atmosphere.

"Our Prime Minister is a forest fool."

Murray Valley Standard **Cleaner water for Monarto**

A 9.2 Km pipeline currently being installed from Murray Bridge to Monarto will provide better quality, filtered water to the Monarto area.

30th

Adelaide Advertiser

RURAL MENTAL HEALTH: Counsellors diverted to drought assistance

The State's rural counsellors are so busy preparing drought relief applications they barely have time to advise farmers about mental health assistance.

Australian **State in \$20m water buyback**

IRRIGATORS have agreed to sell 100 gegalitres of low-security water to the NSW Government in the state's biggest buyback for environmental flows.

The Iemma Government is expected today to announce the \$20million deal with Murray Irrigators Ltd, taking over nearly half of its supplementary water licence to recharge key environmental systems.

The latest buyback under the Living Murray Initiative will take the total of water reclaimed to about 340GL, on target to reaching the proposed target of 500GL by 2009.

The agreement will encourage negotiations over the Howard Government's proposed takeover of the Murray-Darling Basin, demonstrating there are likely to be willing sellers of water entitlements under the proposed \$3billion buyback proposal.

Murray Irrigation chairman Stewart Ellis said the sale of the supplementary water would be in the spring, when environmental flows were most valuable to recharge natural systems.

Low-security water is generally only available in periods of peak flow, making it less valuable for irrigators but valuable for flushing out and recharging natural systems, replicating the natural behaviour of the river. He said the decision to sell was made because of the diminished access to these allocations - only three times in the past 11 years.

Murray-Darling Basin chief executive Wendy Craik welcomed the sale, which follows major buybacks announced in Victoria and South Australia.

Axe taken to forest initiative

GREEN groups have savaged John Howard's plan to spend \$200million to protect forests in developing nations, accusing him of doing nothing to prevent the destruction of Australia's forests and the importation of illegally logged timber.

But the groups admitted the Prime Minister's plan to create an international fund to tackle deforestation to help

reduce greenhouse gas emissions was better than nothing.

The attack came as Foreign Minister Alexander Downer said he had already received a positive response to the plan from Indonesia, which is the second-largest deforester in the world.

Mr Howard yesterday fleshed out the detail of the plan, under which Australia will commit \$200million over five years to a global fund to reduce deforestation, plant forests and invest in sustainable forest management practices. Australia is likely to target its funding to projects in Southeast Asia and the Pacific, including Indonesia, Papua New Guinea and Solomon Islands.

"If we could halve the current rate of deforestation, we'd reduce global greenhouse gas emissions by three billion tonnes a year, which is more than five times Australia's total annual emissions," the Prime Minister said.

As Labor cautiously supported the plan, Greens senator Bob Brown said it would help address only a small percentage of the deforestation occurring globally.

"It is rank hypocrisy from the Prime Minister to have personally signed off regional forest agreements in Australia promoting the aerial fire-bombing of logged ancient forests in Australia, injecting millions of tonnes of greenhouse gases into the atmosphere," Senator Brown said.

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Labor environment spokesman Peter Garrett said the Government should do more at home and focus on committing to the Kyoto agreement and reducing emissions.

Democrats senator Lyn Allison said the \$200million would be better spent in Australia "reinstating sacked environmental scientists and supporting our farmers".

Australian Conservation Foundation director Don Henry welcomed Canberra's initiative but said the Government should do more to stop the bulldozing of native vegetation in Australia.

Satellite imaging showed about 150,000ha of bushland was felled illegally each year in NSW and Queensland, and old-growth forests were being bulldozed in Tasmania and Victoria's East Gippsland region.

Greenpeace spokesman Stephen Campbell said Australia imported about \$400million worth of illegal timber annually.

However, Mr Howard said he was not in favour of a ban.

Activities to be funded under the plan include building developing countries' technical capacity to assess their forest resources and putting in place effective arrangements to protect forests. Funds will also promote the sustainable use of forest resources and help diversify the economic base of forest-dependent communities. Incentives offered to developing countries will be provided only if they meet pre-agreed milestones.

Environment Minister Malcolm Turnbull's ties to a company associated with questionable logging practices in the Solomons were again raised yesterday.

Additional reporting: Greg Roberts

Have your say on climate change at www.theaustralian.com.au

Air traffic plan to bring down emissions

CHANGES are being made to the way aircraft fly and land in Australia in an attempt to cut aviation greenhouse emissions.

Initiatives announced yesterday by federal Transport Minister Mark Vaile are designed to cut aircraft fuel use and the amount of carbon dioxide they pump out, potentially slashing greenhouse emissions by hundreds of thousands of tonnes a year.

Aircraft manufacturer Airbus estimates that improved air traffic control measures could reduce fuel consumption by 10 per cent and air traffic controllers such as Airservices Australia are looking at ways to improve the system.

Mr Vaile said yesterday that measures would include more flexible flight tracks and improved air traffic control sequencing to reduce fuel burn, more efficient runway use, and continuous-descent approaches, which minimise speed changes.

The measures had strong environmental benefits and Airservices was working with airlines and airports, he said.

A program designed to improve the sequencing of aircraft into Australia began on Monday and was saving more than nine tonnes of CO₂ every day, he said.

The new system looks at aircraft 1000 nautical miles out of Australia, instead of 100 nautical miles, and sequences aircraft to land in more regular patterns. It takes advantage of the fact that typical twin-engine aircraft will burn 50kg of fuel every minute while manoeuvring at lower levels, as opposed to 5kg on the ground idling or 10kg at cruise.

"If we slow you at the upper level it might add two minutes of flight time but that's only burning 10kg of fuel per minute as opposed to manoeuvring and holding you at lower levels, where you might burn 40 or 50kg a minute," said Airservices spokesman Terry O'Connor.

The system allowed runways to be used at maximum efficiency during peak periods, he added.

Mr Vaile, who is attending the APEC transport ministers meeting in Adelaide, said Australia supported a global

approach to aviation emissions reduction through the International Civil Aviation Organisation.

He attacked a European plan to impose an emissions cap and trading scheme that would apply to all aircraft flying in and out of Europe. "Aircraft flying, for example, from Sydney to London would be taxed under the European scheme, which places an unfair burden on long-haul carriers," he said.

Australian officials are pushing for an APEC-wide working group on reducing emissions.

Antarctic ice thinning, say scientists

A PIECE of the Antarctic ice sheet three-quarters the size of NSW is thinning, possibly due to global warming, and a windchange, could cause the world's oceans to rise significantly.

"Surprisingly rapid changes" were occurring in the Antarctica's Amundsen Sea Embayment, which faces the southern Pacific Ocean, polar ice experts said today.

But more study was needed to know how fast it was melting and how much it could cause the sea level to rise, they said.

The warning came in a joint statement issued at the end of a conference of US and European polar ice experts at the University of Texas in Austin.

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The scientists blamed the melting ice on changing winds around Antarctica that they said were causing warmer waters to flow beneath ice shelves.

The windchange, they said, appeared to be the result of several factors, including global warming, ozone depletion in the atmosphere and natural variability.

The thinning in the 3.2 km-thick ice shelf is being observed mostly from satellites, but it is not known how much ice has been lost because data is difficult to obtain on the remote ice shelves, they said.

Study is focusing on the Amundsen Sea Embayment because it has been melting quickly and holds enough water to raise world sea levels six metres, the scientists said.

"The place where the biggest change is occurring is the Amundsen Sea Embayment," said Donald Blankenship of the University of Texas Institute for Geophysics.

"One, it's changing, and two, it can have a big impact," he said in a webcast with a number of conference participants.

Other parts of the continent also were losing ice, he said, but generally not as quickly.

Reuters

Global warming will make climates 'disappear'

IF trends in global warming continue, South Australia's climate would vanish by 2010, taking with it vulnerable plants and animals.

The dire prediction comes from US researchers who claim global warming may cause climatic conditions prevailing on almost half the world's landmass to change beyond recognition, effectively "disappearing".

By 2010 rising temperatures could also lead to previously unrecorded "novel" climates across almost 40 per cent of the global land surface, according to a team led by John Williams of the University of Wisconsin in Madison.

"They did a really good job of pointing out where the (warming) projections are suggesting that society and ecosystems could be most at risk," commented climate scientist Neville Nicholls of Melbourne's Monash University.

"It's a really valuable study."

While Dr Nicholls agreed the climate along the southern fringe of Australia was more at risk from global warming than other parts of the continent, he doubted it would be unlike the climate anywhere else in Australia, as Professor Williams's group suggested.

"Why would the climate disappear?" Dr Nicholls asked.

"I suspect places like Adelaide would have climate like places a bit further north that are now warmer and drier."

Professor Williams and his colleagues analysed the upper and lower greenhouse gas emission scenarios produced for the Intergovernmental Panel on Climate Change report, released in February.

Their results showed that under both scenarios the increase in global temperature would cause dramatic changes to many rainforest, grassland and desert ecosystems.

Novel climates would occur primarily in the tropics and subtropics, and disappearing climates in in tropical mountain regions and poleward portions of continents like South Australia.

"Our findings are a logical outcome of global warming scenarios," Professor Williams said.

"The warmest areas get warmer and move outside our current range of experience and the colder areas also get warmer and so those climates disappear," he said of the research, reported in the US Proceedings of the National Academy of Sciences.

According to the team, their findings have clear implications for biodiversity, the plants and animals living in ecosystems subject to dramatic climate changes.

That's so because the regions likely to experience dramatic climate change were identified three years ago as critical "hot spots".

"In these areas, elevated risks of extinction are likely," Professor Williams said.

In their report his team warned that "standard conservation solutions" may fail to protect vulnerable plants and animals, while others more suited the the new climate take over.

Perth.now

Greenhouse hits WA rainfall

GREENHOUSE gases have seriously reduced rainfall in WA's unique south-west corner over the past 50 years and will cause further decline, researchers say.

Rainfall has declined 15 per cent in that part of the state since the 1960s, leading to a 40 per cent drop of inflow to Perth dams, CSIRO scientists Tim Cowan and Wenju Cai say.

Mr Cowan said their research used climate models and traced a complex set of interactions between the circulation of the atmosphere and rainfall over the south-west, finding increases in greenhouse gases probably caused half of the decline.

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"One of the most consistent results from the climate models is that as carbon dioxide continues to increase, south-west Western Australian rainfall will continue to decrease," Mr Cowan said.

"This work is important because the 15 per cent reduction in south-west Western Australian winter rainfall since the 1960s has, on average, translated to a 40 per cent reduction of inflows to Perth dams."

Mr Cowan says the South-West gets most rain in the winter months due to the seasonal movement of a ridge of high pressure in the sub-tropics.

"What happens is that the ridge of high pressure moves northward passing beyond the southern tip of Western Australia, in turn allowing low pressure systems to also move northward, bringing the rainfall," he says.

"What seems to be happening is that, on average, this ridge of high pressure is not moving as far north as in earlier decades of the 20th century," Mr Cowan says.

Using climate models to identify the cause, they concluded increases in greenhouse gases explained half the rainfall trend.

Usual natural variations probably contributed to the remainder of the 15 per cent reduction, he said.

News.com

31st

Rudd reveals environment plan

Kevin Rudd unveils blueprint climate change policy

Emphasising clean-coal technology

Aims to harness the nation's best, brightest talent

OPPOSITION leader Kevin Rudd has unveiled his blueprint for a national approach to climate change policy, declaring there is a moral responsibility to act now.

His seven-point framework includes possible establishment of an office of climate change within the prime minister's department should Labor win government at the election later this year.

He emphasised clean-coal technology at the core of the plan, but made no mention of considering nuclear power as the government has proposed.

Opening Labor's climate change summit in Canberra today, Mr Rudd said his aim was to harness the nation's best and brightest talent.

He detailed seven key areas for consideration including a national emissions trading scheme, clean coal technology, mandatory renewable and energy efficiency targets, a framework for corporate and community responsibility, diplomacy and the adequacy of Australian national institutional arrangements.

Mr Rudd said he wanted to see Australia take the lead in helping China address its growing emissions with an Australia-China climate change initiative.

"But when it comes to the great change and challenge of the next period ahead of us, it is an area where we must act and act soon," he said.

"I am optimistic that we in this country can do that and that may well be our significant contribution to the planet, particularly if we get clean coal technology right."

Mr Rudd said he wasn't proposing to release a grand Labor climate change policy initiative from this summit.

"My intention is to harness the best brains and talent available in the country to get our response and the nation's response to climate change as right as possible," he said.

"To do that we have to begin by fashioning, shaping and encouraging a national political and policy consensus on climate change," said Mr Rudd.

"Our job is to listen. But subsequent to that, our job is then to act," he said.

Keynote speaker Professor Tony Haymet, former head of CSIRO atmospheric research and now head of the Scripps Institution of Oceanography at the University of California said the evidence of global warming caused by human greenhouse gas emission was irrefutable.

"We must reduce our emissions. It is not an option. It is a boundary condition," he said.

"We need to understand where we are going so that our businesses, our scientists and our engineers can get to work on the technology that we need.

"I happen to believe that Australia will be able to lead the world on a couple of technologies. From what I have seen around the world we have the best solar researchers in the world."

Tom Burke, environmental adviser to the company Rio Tinto and to the British government said climate change was a bad problem getting worse and not acting now would be a moral failure unmatched in human history.

Mr Burke said the challenge was to get the carbon dioxide (CO₂) out of the environment and to keep it out forever. He said global energy production needed to become carbon neutral by the middle of this century.

"This is an issue on which we cannot afford policy failure," he said.

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"There is no rewind button on the climate change. We can't get it wrong and go back and say 'oh dear that was a mistake'. Let's do it differently next time around. there is very little scope for trial and error."

Editorial: Cooling the hot air on climate change

There is growing confidence among experts that clean coal is a feasible technology to combat global warming.

CONTRARY to the popular line being pushed by the usual suspects, it is not John Howard who has been left behind in the climate change debate. Rather, it is the anti-development fringe dwellers such as Greens leader Bob Brown and Australian of the Year Tim Flannery. Their demand for a precipitous end to coalmining sets these neo-Arcadians outside the consensus building among serious participants to the debate that clean-coal technology offers a practical, medium-term solution to greenhouse gas emissions that will not erode our quality of life. This point was highlighted by visiting British climate change economist Nicholas Stern, who said Australia had a key role to play in investigating clean-coal technology. It is also the core finding of a Massachusetts Institute of Technology report released earlier this month that says demand for coal will increase under any foreseeable scenario. Support for clean-coal research is also an issue on which the federal Government and Opposition find themselves in broad agreement, despite political differences over whether setting a carbon emission target will speed technological development or simply harm the economy.

Despite the inescapable fact that coal is here to stay for the next half century at least, it is unlikely to dominate today's Labor-sponsored talkfest on climate change, or feature heavily on the minds of those who choose to turn the lights off for one hour tonight in a symbolic gesture that draws further attention to a worrying, if not fully understood, problem. There is great heart to be taken, however, from the confidence that leaders in the climate change debate such as Sir Nicholas have about the prospects of solving the problems that burning coal presents for the environment. The MIT report into the future of coal clearly outlines the size of the problem. It says fossil fuel sources today account for 80 per cent of world energy demand, with coal representing 25 per cent, gas 21 per cent, petroleum 34 per cent and nuclear power 6.5 per cent. Only 0.4 per cent is met by renewable sources of energy such as geothermal, solar and wind.

The MIT report assumes that the risks of global warming are real and says the US and other governments should and will take action to restrict emissions. But it nonetheless believes that coal use will increase because coal is cheap and abundant and geographically widespread so that, unlike oil, supplies are secure from political upheaval in the Middle East. MIT concludes that carbon capture and sequestration are the critical enabling technology for reducing CO₂ emissions while also allowing coal to meet the world's pressing energy needs. It says the most urgent objective of the climate change response should be the successful large-scale demonstration of the technological, economic, and environmental performance of carbon capture and storage.

During his lightning visit to Australia this week, Sir Nicholas rejected the suggestions by Lateline host Tony Jones that clean-coal technology was unproven or that Australia should concentrate its research efforts on alternative technologies such as solar. He said it was beyond doubt that China and India would continue to use a lot of coal for the next 30 to 40 years, and Australia was likely to be one of the world leaders in solving the riddle of developing technologies to burn coal efficiently and capture and store the carbon emissions. Contrary to the view of clean-coal sceptics, Sir Nicholas said the technology was progressing, with working examples in Canada, Algeria and Norway. The challenge now was to demonstrate that the technologies could be deployed on a commercial scale. Sir Nicholas said engineers working on the technology were optimistic that, if proven, it could be put in place fairly quickly.

Such confidence is heartening and gives reassurance that, rather than being an international pariah on climate change, Australia is, in fact, at the forefront of progress towards a realistic solution to climate change. While Australia is criticised for having not signed the Kyoto agreement, it is considered to be in a key position through the

AP6 - the Asia-Pacific Partnership on Clean Development and Climate - to engage the world's biggest carbon emitter, the US, and the world's biggest emerging carbon emitter, China. Australia's faith in clean-coal research is being increasingly vindicated. It ultimately represents a continuation of the way in which developed economies have improved the environmental performance of coal as they have harnessed its economic potential. Such progress supports The Weekend Australian's core belief in science as the pathway to progress.

While ideally placed to pioneer new coal technology, there is no reason why Australia might not also play a role in other areas of research including solar, wind and geothermal power. But there is no reason to assume that Australia must be involved in or invent every new technology. Governments should not attempt to pick winners but should apply public funds according to what has the best chance of success in making a significant contribution to solving the problem. The Weekend Australian supports the Government's commitment to practical, balanced action that will achieve results. This includes the Government's global initiative on stopping illegal logging of forests in Southeast Asia, which has the potential to deliver both climate-change and broader environmental benefits.

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The Government estimates the potential atmospheric carbon benefits from stopping illegal logging to be 10 times those of the Kyoto agreement.

There is also merit in Kevin Rudd's attempts this weekend to bring together interest groups, including business, to explore solutions. The Opposition Leader faces a daunting challenge in attempting to find answers that will satisfy participants with wildly differing expectations on what is an emotionally charged issue. The Weekend Australian is heartened that among those at the forefront of seeking a solution to global warming there is a growing confidence that tackling the problem at its source, the point of power generation from coal, is likely to be met.

Couriermail.com.au

Rorters free to guzzle

SOUTHEAST Queensland's biggest water guzzlers won't be warned to reduce consumption for at least another six weeks because bureaucrats need more time for "consultation".

While dam levels continue to drop, the state Water Commission has delayed the mailing of warning letters to 110,000 households – some using tens of thousands of litres a day – to wait for extra data late next month.

The delay comes as figures show residents are struggling to cut their consumption to less than what will be expected under level 5 restrictions, which begin in 11 days.

For the third straight week, regional consumption averaged more than 670 million litres a day, well above the looming level 5 target of 630 million litres.

Logan Mayor Graham Able said: "We should be sending that letter out now. And it shouldn't be just to households in 12 councils, it should be across the whole of southeast Queensland."

Brisbane City Council has identified nearly 40,000 households using more than 800 litres a day – and some were using tens of thousands of litres a day.

The Local Government Association of Queensland and Commerce Queensland also have called on the Water Commission to crack the whip.

"If they know about it, they need to act now, not later," Commerce Queensland president Beatrice Booth said.

LGAQ executive director Greg Hallam agreed: "The sooner the better – it's that simple."

Data on heavy residential water users had been available for the Water Commission for more than a year, Mr Hallam said.

Redcliffe Mayor Allan Sutherland said the Water Commission was "spending time praying for rain instead of making tough decisions".

The Water Commission said it was taking extra time to "consult with a considerable range of water demand management experts" and to get first-quarter consumption data.

Esk Mayor Graeme Lehmann maintained that water guzzlers "should be clamped down on straight away".

"If the Water Commission is taking hold of these things, they need to be able to give information to councils straight away and quit mucking around," Cr Lehmann said.

It remains unclear whether the commission or the councils will be sending the letters and who will pay for the mass mailing.

Brisbane City Council wanted to crack down on people who were clearly overusing water, including a household in Acacia Ridge using 37,358 litres a day.

A home in Mackenzie used 21,307 litres a day, one in Wacol used 14,822 litres a day and another in Richlands used 14,343 litres a day

