## INQUIRY INTO THE CONTINUED PUBLIC OWNERSHIP OF SNOWY HYDRO LIMITED

Organisation:	Snowy River Alliance
Name:	Mrs Glenice White
Position:	Asst. Hon. Secretary
Telephone:	
Date Received:	19/07/2006

Theme:

Summary

### The Director, Inquiry Into The Continued Public Ownership of Snowy Hydro Limited. Legislative Council Parliament House Macquarie Street Sydney NSW 2000 **RECEIVED**

Supplementary submission (if acceptable) from :-The Snowy River Alliance 1-9 JUL 2006

**3ELECT COMMITTEE** 

SNOWY HYDRO

Asst. Hon.SecretaryMrs. Glenice WhiteVice Chair:Mr Gilbert Richardson.18.7.2006.

### Dear Sir

The Snowy River Alliance would like to place this short supplementary submission before the Committee providing it is acceptable to the Chairman and the members.

Point 1. During the Legislative Council Hearing into the 'Inquiry into The Continued Private Ownership of Snowy Hydro Limited' held at Cooma NSW on Wednesday 5.6.2006, Ms Melinda Pavey MLC. in a question of Glenice White following Mrs White's statement that when the Jindabyne Dam became operational in 1967 all the water that was left in the Snowy River below Jindabyne was 2 teaspoonsful for every litre that had been taken away, asked how many teaspoonsful we were seeking for the river. Mrs White answered that the recognised amount we quote is 28%(ie of every litre). The 28% amounts to between 56 and 58/5ml teaspoonsful per litre of water. We thank Ms Pavey for the question and hope the calculation clarifies her request.

2. We have read and heard many of the submissions at present before the 'Inquiry'. Apparently they too, apart from the grave concerns put forward by the Snowy River Alliance, think that Snowy Hydro has had undue access to, influence on, and favoured treatment from the relevant Ministers and NSW Government with regards to it's wishes for the perceived self interest of the company as opposed to the social and economic needs of the people and the environment around and below the Jindabyne Dam.

The people who are so vitally affected by the decisions taken by Snowy Hydro and the NSW Government appear to have very little or no access to ministers and public servants before whom they can argue their cases against the company decisions. For example, the many instances cited at the Hearing regarding the disregard of Snowy Hydro for the legislation and spirit of intentions of the Snowy Water Licence. Token community consultation belittles the seriousness of community concern and in the case of the would have been sell off of Snowy Hydro, the fact there was no community consultation or Parliamentary debate before the decision was taken to privatise was an insult to the intelligence of the electorate.

We have it on good authority that Snowy Hydro played a pivotal role in the decision making process of the wording of the 'Snowy Water Licence' document and it would appear that Snowy Hydro's intention was to cause confusion with regard to the absolute meaning of the clauses and directions contained therein. There was no meaningful public consultation that we know of and no access to the three governments to argue the communities' requirements before the legislation was drawn up and passed in 2002. This no doubt, to further Snowy Hydro's own interests during the contemplated four year planning period leading up to privatisation. Senator Nick Minchin stated on ABC Radio some time before the sale was pulled that the "Commonwealth Government had always had the intention of selling Snowy Hydro". Now is the time to change the composition of the Snowy Hydro Board once again. This to reflect the change in attitudes needed of it's members to successfully and competently manage a profitable electricity generating company that recognises the corporate responsibilities it has to it's many stakeholders whilst remaining in public ownership. Eg. The provision of water for irrigators, the environment including the Snowy River below Jindabyne, and for business in the local shires around the 'Scheme'.

- 3. Mention was made at the 'Hearing' of raising money for the needs for expansion of Snowy Hydro by bonds subscription. The obvious question being," Expansion into what?" We would hope not into any unrelated businesses. It would appear from Mr Vin.Good's submission that Snowy Hydro has already borrowed as much as it is able without incurring a downgrading of its financial status. That being the case a bond issue would not be acceptable at the moment as that is another form of loan, however, if in the future it was to be considered then the bonds issue should be guaranteed by government and NOT by Snowy Hydro; for the obvious reason of not placing investors' money in any danger of non repayment should the company go into liquidation.
- 4. Mention was made at the 'Hearing' that the Commonwealth Government should buy out the NSW Government's shares in Snowy Hydro. The Snowy River Alliance is of the opinion that this action would be contrary to the sections 99 and 100 of 'The Constitution' as the states are in control of their own water resources, not the Commonwealth.
- 5. The Snowy River Alliance would like to make clear it's objection to any thought which may be given by the NSW Government or Snowy Hydro to move the headquarters of the company from Cooma to Sydney or any other capitol city. This action would cause financial hardship and social dislocation for the people of the combined shires of the whole Cooma- Monaro-Jindabyne region and is an added difficulty they can do without particularly in these years of drought, higher energy costs and falling wool prices in the world markets.

The Snowy River Alliance thanks the Chairman, the Director and Committee for allowing us to lodge this supplementary submission to the Inquiry Into The Continued Public Ownership of Snowy Hydro Limited.

Accompanying this submission is a document collated and printed by the shire of East Gippsland which contains a reference to the 'two teaspoons of water per litre left for the Snowy River from that taken when Jindabyne Dam became operational in the year 1967.

On behalf of our members I am yours sincerely,

Hence White

Glenice White Hon. Asst. Secretary: Snowy River Alliance Gilbert Richardson Vice Chairperson: Snowy River Alliance Decisions made by politicians within the next few months will determine whether Australia's legendary SNOWY River

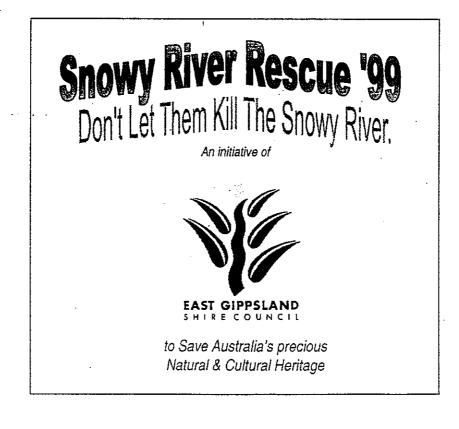
lives or dies.

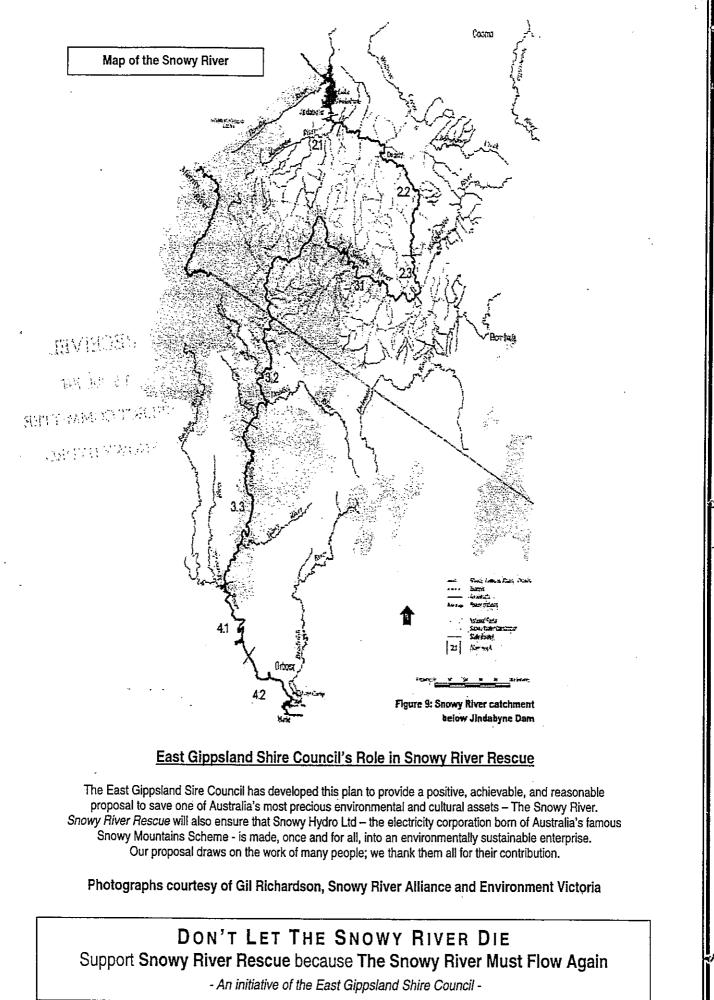
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## Forever.

1 9 JUL 2006 SELECT COMMITTEE SNOWY HYDRO

You can help Save the Snowy by supporting





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## **Aussie Icon at Death's Door**

- The River immortalised by Banjo Paterson The Snowy is at death's door;
- Decisions made this year will decide whether this Australian natural and cultural heritage icon lives or dies – forever;
- The river can be saved ... that's what Snowy River Rescue is all about.

1999 is the 50<sup>th</sup> anniversary of the historic Snowy Mountains Scheme. A year of celebration of an astounding engineering feat.

But the Snowy Scheme is having unintended consequences.

It's killing the very thing which gave it life - the Snowy River.

For hundreds of kilometres the once mighty Snowy – the River immortalised by Banjo Paterson – is now a virtual cesspool incapable of supporting its once abundant animal and plant life.

The River is dying because it simply doesn't receive enough of its own water.

Less than 1% of the original flow now makes its way out of a drainpipe at Lake Jindabyne and down The Snowy. The other 99% of the River's water is redirected west, away from its original course, through the Snowy Hydro's turbines and down the Murray and Murrumbidgee Rivers.

To be saved, the Snowy needs some of its water back. Not all of it, just some. 28% to be precise. Three Expert Inquiries have said so.

If 28% of the original flow of The Snowy is returned to the River, it will live. Less than that, and it will die.



The 'mighty' Snowy River - now emerges from a drainpipe in a Dam wall

In the next couple of months the NSW, Victorian and Federal Governments will decide the fate of the Snowy River. As part of the Snowy Hydro's corporatisation they will sign off on a Snowy Water License which will determine where The Snowy's water will go for the next 75 years.

When they sign that deal the Premiers of NSW and Victoria, in conjunction with the Federal Ministers for the Environment and Resources, will decide whether The Snowy River lives or dies.

The Snowy River must be saved. It can be saved.

This Paper outlines how a Government commitment to *Snowy River Rescue* will see this integral part of Australia's natural and cultural heritage saved for future generations.

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# Why <u>NOW</u> is the Last Chance for The Snowy

The Snowy River will live or die depending on decisions made by the NSW, Victorian and Federal Governments in the next few months, maybe even weeks.

We are at a 'moment in time' of Australian history which we will never get back.

### THE SNOWY WATER DEAL

The Snowy Mountains Hydro-Electric Authority is being corporatised into an independent commercial entity – Snowy Hydro Ltd.

As a corporatised electricity generation business, Snowy Hydro Ltd will operate under the Snowy Hydro Corporatisation Act 1997 (NSW) and the Corporations Act 1989. Its owners will be the NSW (58%), Victorian (29%) and Commonwealth (13%) Governments. However voting rights will be held one-third by each shareholder government.

Corporatisation cannot be finalised, however, until an agreement is reached between Governments regarding water arrangements for stakeholders. These stakeholders include the Snowy River, Snowy Hydro Ltd, Murray and Murrumbidgee irrigators, and other waterways affected by the Snowy Scheme.

The final decision on water entitlements will be incorporated into a new Snowy Water License. That License will last for 75 years.

### KEY POINT

The NSW Government is currently finalising a water use proposal. When completed it will be forwarded to the Victorian Government. The two State Governments will then negotiate a Joint Recommendation, to be sent to the Federal Resources Minister – via the Federal Environment Minister - for final approval.

The Federal Environment Minister must examine the impact of the proposed Water License under the Environmental Protection (Impact of Proposals) Act and the Endangered Species Act 1992.

The wheels are in motion.

The decision rests with the politicians of the NSW, Victorian and Federal Governments.

If The Snowy does not receive an entitlement to 28% of its original flow under the new License agreement, the River will die.

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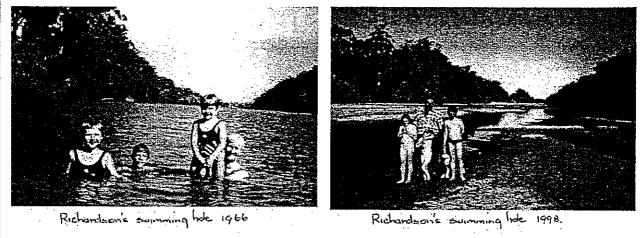
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## What's happened to The Snowy? - A River in Crisis -

The Snowy was once a beautiful wild river, roaring its way through 500km of NSW and Victoria. It was Australia's only rapidly flowing river of significant length.

Now, the Snowy doesn't flow.



Left - Richardson's Swimming Hole, 1966

Right -- the same Swimming Hole, 1998 ...

### The Snowy River ... then and now

Prior to construction of the Snowy Mountains Hydro-electricity Scheme, the average natural flow of water down the Snowy River below Jindabyne (where the Dam now 'stops' the River) was 1,150,000 megalitres per annum. Now it's about 8,000 megalitres.

That's less than 1% of the original flow. Or, put another way, for every litre of water that once flowed down The Snowy, it now receives just two teaspoons.

The rest is captured in the Jindabyne Dam and redirected through the Hydro power turbines and inland, into the Murray and Murrumbidgee Rivers.

The impact of the reduced flow down The Snowy has been dramatic. It has meant:

- The Snowy's average flow and seasonal variability of flows have been decreased, and floods are less frequent, changing the whole hydrology of the river system;
- A near empty river bed, with shrinkage and infill of the River channel;
- Poor quality water, with increased temperatures and reduced dissolved oxygen levels;
- Reduced fish and platypus populations;
- A high risk of toxic blue-green algae;
- Degraded river and wetland habitat;
- Invasion by weeds and willows, which further choke the River;
- Increased soil erosion;

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- Loss of riverbank vegetation;
- Increased salination and salt water intrusion, especially at the River's mouth at Marlo, near Orbost.
  Last year bulldozers had to be used to open the river mouth.

[Impacts as assessed by Expert Panel, Environmental Flow Assessment of the Snowy Below Jindabyne, 1996; SRICCC '93]

In short, the current level of flow is insufficient to maintain a healthy ecosystem.



ketches + Barges with paddle steamers at the Landing 6 km upstream.

Left – the Snowy River near Orbost, early 1900s; Below, the same stretch of 'River', 1997

The demise of the River has also meant a severe economic (agriculture, tourism, recreational) and social loss to the region from Jindabyne to the ocean.

The social loss is often underestimated. The Snowy River played a very significant role in the early European history of settlement in south-eastern Australia. A strong cultural attachment to The Snowy continues today; people are proud of their connection, be it by way of generational links, or because they



continue to live and work in 'Snowy Country' in much the same way as pioneers of years ago.

To have the river so dramatically altered as to render it unrecognisable from its former self has had a tremendous detrimental social and physiological impact on the communities associated with The Snowy.

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# 28% of its original flow

- The minimum The Snowy needs back -

The environmental condition of the Snowy River was assessed in November 1995 by an Expert Panel of scientists to determine the major impacts of the Snowy Mountains Scheme on 'The River'.

The Panel (known as the 1996 Expert Panel) concluded that the amount of water being released from Jindabyne Dam down the Snowy was insufficient to maintain a healthy ecosystem.

It also recommended that returning 28% of the Snowy's original flow was the minimum the River needed to restore its environment, and its economic, social and heritage value. This finding was supported by the Scientific Reference Panel of the 1998 Snowy Water Inquiry, conducted by the NSW and Victorian Governments.

The Panel concluded that anything less than 28% - which is an average flow of approximately 330,000 megalitres per annum - was a slow but certain death sentence for this treasured, national Heritage River. By returning a 28% flow back to the Snowy much of the ecological degradation resulting from the river's diversion can be corrected over time.

In environmental terms, a 28% flow will achieve the following:

- The hydraulics of the in-stream flow environment are expected to improve in all reaches.
- The aquatic habitat is expected to improve in all reaches.
- Water quality is expected to improve.
- The impact of barriers on fish passage will be reduced considerably.
- As a result of the improved habitat condition, macro-invertebrate communities will become more natural.
- Total fish abundance and native fish species will increase in all reaches.
- Condition of aquatic vegetation improves.
- Saline intrusion into the lower Snowy wetlands will be significantly reduced.

If this is coupled with catchment works then,

- Riparian vegetation improves considerably.
- Reduced invasion of river by weed species.

### WHY 15% IS NO HALF-WAY HOUSE

Is a 14 or 15% option is half as good as 28%. No. Why? Because 28% is a minimum threshold which needs to be met to restore the River environmentally.

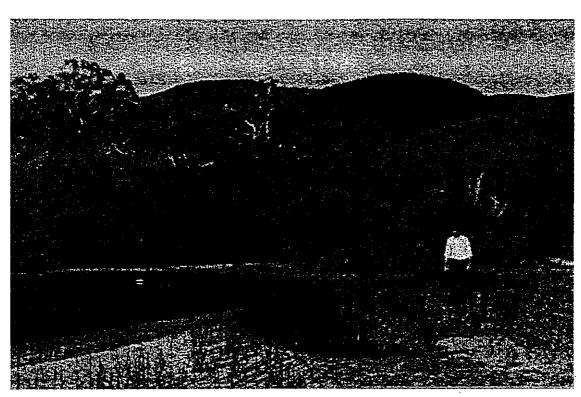
Imagine you are drowning at a depth of 100 metres. The minimum you need to survive is, of course, to get to the top. If you get half-way – to a depth of 50 metres – and then stop, it's no different to being 100 metres below. You'll still drown. The Snowy needs to get to the top. That's what 28% represents.

There is no room for further compromise down – the proponents of a 28% flow have already compromised to the minimum.

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The Snowy River at Willis, near the NSW-Victorian border ... being choked to death by weeds and starved by insufficient flow

# The Snowy River & Endangered Species

In finalising a Water Licence for the Snowy River, the Federal Environment Minister must take into consideration the Endangered Species Act (1992). The objective of the Act is to promote the recovery of all species listed as endangered.

Native Fish Australia (Far East Gippsland) have highlighted that the Snowy River is known to contain the Australian Grayling, a federally-listed Endangered Species. Any decision the Government makes that does not aid the recovery of, or in fact further threatens the likely survival of the Snowy's Australian Grayling will be in clear breach of the Endangered Species Act.

The East Gippsland Council believes the Federal Environment Minister is obliged to make the appropriate decision - return 28% of the original flow back to the Snowy River - or be responsible for the potential extinction of yet another native Australian species.

WHO SAID THIS?

"The Natural Heritage Trust embodies a vision for the future - a future where rural industries thrive and our unique environment is conserved for generations to come ..."

Prime Minister John Howard, in "Natural Heritage" (The Journal of the Natural Heritage Trust, No.1)

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# **Snowy River Rescue '99**

- The East Gippsland Shire Council Proposal -

Just as the original Snowy Scheme was a product of its time – the 40s, 50s and 60s – so too *Snowy River Rescue* is a product of its time – the new millenium.

It's about saving environment and heritage. It's about jobs. It's about revitalising a regional community.

Snowy River Rescue is needed because the original Snowy Scheme is now recognised as having a fatal flaw – it is killing the Snowy River. Snowy River Rescue seeks to fix that fatal flaw, while not imposing unduly on other stakeholders.

In fact, Snowy River Rescue should be regarded as the vital closing chapter of the Snowy Mountains Scheme. It makes it sustainable.

Not only is there no better time symbolically - the 50<sup>th</sup> Anniversary of the original Snowy Scheme – to undertake this project; there is, quite literally, no other time to do it. Because the Snowy River will live or die depending on decisions made this year.

We are at a 'moment in time' which we will never get back.

### The Key Building Blocks of Snowy River Rescue are:

- <u>Restoring 28% flow to The Snowy River</u> when the new Snowy Water License is signed by the NSW, Victorian and Federal Governments.
- In conjunction with flow restoration: funding Snowy River Catchment & Channel programs, to remove exotic weeds and restore native vegetation along the river, and also to prevent erosion within the catchment.
- <u>Also</u>: initiate financial assistance to provide infrastructure and other support to Murray and Murrumbidgee Valley irrigators and farmers to reduce water waste, under schemes identified by the Murray-Darling Basin Commission.

The maximum\* cost of this final chapter, however, comes at just a fraction of the cost of the whole scheme (\$292\* million versus something like \$7,500 million, in today's terms).

Put another way, Saving the Snowy will cost a maximum\* of a one-off payment of about \$15 per Australian. Spread over the estimated five year span required to implement the project, that's about six cents a week - or less than a cent a day. A small price to pay to save an Australian lcon for future generations for all time.

[\* Maximum figure based on the Snowy Water Inquiry's 'Option 6' costs (\$292 million), which includes compensatory measures amounting to \$121 million for Irrigators and \$146 million for electricity & Snowy Hydro Ltd. The East Gippsland Council believes these figures to be grossly exaggerated *(see pages 15-22)*, but have used them here to indicate an absolute maximum.]

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# Economic benefits of Snowy River Rescue

The recently released East Gippsland Regional Tourism Development Plan (1997-2001), prepared in conjunction with Tourism Victoria, identified that by the year 2001 the Lakes & Wilderness region will be a nationally and internationally recognised nature- based destination, offering quality natural attractions, adventure activities and world class touring routes.

The plan recognised four regional icons which have now become a major focus of the Lakes & Wildemess Business Plan and Marketing Strategy. These icons are Snowy River Country, the Great Alpine Road, the Gippsland Lakes and Croajingolong.

Predominant activities undertaken by visitors to the region include pleasure driving and sightseeing, fishing, bushwalking, boating, visiting parks and gardens, National Parks and wineries. Four key international markets come from Europe, New Zealand, USA/Canada, and UK/Ireland and are also primary markets for outdoor nature based activities, scenery and National Parks. Snowy River Country potentially meets these needs and market expectations.

### TOURISM AND RECREATION - SIGNIFICANCE OF THE SNOWY RIVER

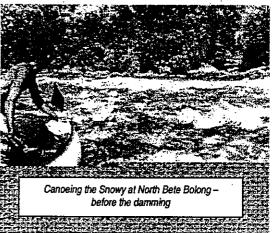
The Snowy River is a regional and international icon. Visitors come to East Gippsland specifically to see the legendary Snowy River.

The river offers a diversity of experiences for tourists in the National Park including the dry sclerophyll and rainshadow woodland forests around MacKillop Bridge, magnificent gorges, Tall Old Age Mountain Ash forests, warm temperate rainforests, camping, swimming, 4WD touring and walking tracks. Further south from Buchan and Orbost to Marlo, where the Snowy meets the sea, tourists can explore the aboriginal and European heritage of the area, limestone caves, fertile floodplains, remnant mahogany gum/warm temperate rainforest and Snowy River estuary, popular for swimming and fishing.

However the present state of the river has severely limited tourism and recreation based around the Snowy River.

#### Rafting - Imagine Rafting down the Snowy

By returning 28% of flow it is estimated that commercial rafting activities would be viable for three months each year. Based on figures for rafting operations on the Tully in north Queensland, Gillespie economics has estimated that a rafting patronage for three months of the year on the Snowy River could be in the order of 16,000 visitors per year. 'Raging Thunder' white water rafting operators on the Tully River have already looked at the Snowy River and indicated it has a high potential for rafting. Up to six tour operators have in the past conducted rafting tours on the Snowy River from MacKillop Bridge to Buchan. One

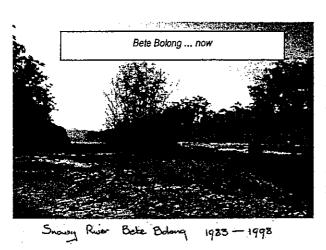


operator who has a local accommodation venue had to refuse business to the value of \$40,000 last year due to lack of water in the river. Other rafting businesses have in the past, when there was sufficient water flow down the river, earned up to \$20,000 each per week.

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#### Canoeing

An environmental flow of 28% would also provide sufficient flow to accommodate whitewater canoeing downstream of Jindabyne Dam for three months per year and more passive canoeing year round.

Gillespie Economics estimates that at present commercial operators cater for approximately 2,000 to 3,000 visitor days per year and that approximately double this number utilise parts of the river as free in transit travellers.

A 28% flow would increase canoe usage by at least three times for commercial tours and free in transit usage resulting in an increase in visitor days of around 20,000 per year. This figure could be increased by the development of a specific whitewater canoe course.

#### Fishing

Recreational Fishing is a major tourist and recreational activity in the Snowy Mountains region. At present the Snowy River below Jindabyne is of little value for fishing, particularly upstream of the confluence with the Delegate River.

"The pub at Dalgety used to be booked\_out 12 months in advance by fishermen; now no-one comes" Charlie Robertson, Dalgety

It is estimated that a 28% flow would significantly improve recreational fishing and translate to an increase in recreational fishing days of around 100,000 per year over the length of the river.

#### TOTAL REGIONAL ECONOMIC IMPACT

The Gillespie Economics Study estimates that the total increase in visitor days provided by a 28% environmental flow would be in the order of 136,000 per year.

The direct expenditure associated with increased recreation/tourism activity (eg accommodation, meals, fuel, fares, shopping, packaged tours etc) is estimated to be between \$20 per visitor day and \$60 per adult night.

This is conservatively estimated as translating to \$3m to \$4m in annual business turnover and \$1.8m to \$2.3m in annual value-adding, including \$1m to \$1.7m in annual income to between 50 and 82 local jobs. It would also create a consumer surplus benefit of between \$51m and \$84m over a 30 year period.

### THE INTRINSIC VALUE OF SAVING THE RIVER

As well as the direct economic benefits of 28% flow, there is the wider, intrinsic value of saving the River. Putting a dollar value of this is difficult – most would say it is priceless – but it has been estimated that the minimum 'non-use value' which could be ascribed to saving this piece of Australia's natural and cultural heritage is in the order of \$150 to \$250 million over 30 years. Even this figure has been criticised as a gross underestimate.

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# Giving the Snowy its water back: how it's done

The East Gippsland Shire Council believes *Snowy River Rescue* should be implemented over a period of five years.

The first stage should be immediate decommissioning of the Cobbin Creek and Mowamba River Aqueducts and associated weirs. This would immediately release some 38,000 megalitres of water back down the Snowy, and cost some \$200,000 (Snowy Water Inquiry, 1998).

The second and third stages should be undertaken concurrently, and involve Dam works to increase the release flow at Jindabyne to the required additional 300,000 megalitres, and river repair works (*see below*). The required Dam work is estimated to cost some \$18-21 million – a figure not dissimilar to the amount of work already required on the Dam Wall to ensure it meets international safety standards.

# **River Rehabilitation**

To ensure maximum benefit from restoring flow to the Snowy – and to ensure that the restored flow is sustainable in its impact – a substantive program of River Rehabilitation has already been initiated by Snowy communities for both the Victorian and NSW sections of the river.

These plans include:

Willow and other riparian weed control;

Enhancement and protection of native streamside vegetation;

Planning of in-stream works to speed river rehabilitation.

For example:

•

•

The East Gippsland Catchment Management Authority is undertaking extensive works on the lower Snowy River to remove pest plant species and improve native vegetation on river banks, together with bank protection works. The Authority is also working with landowners to further improve land management practices;

The Corrowong Wallendibby Project, located close to the NSW-Victorian border, is a direct response to sedimentation in the Snowy River and native fish decline. It is being conducted and funded by by the NSW Department of Land and Water Conservation, the National Landcare Program and the Snowy Genoa Catchment Management Committee, in association with the Environment Protection Authority and Regional Environmental Employment Program (REEP).

The cost of the needed river repair programs is estimated to be about \$16 million. The cost of such programs will in fact be far greater if the river is not restored (up to \$50 million) because the environment will continue to degrade, requiring substantial action to prevent further collapse.

These projects highlight the commitment of the Snowy communities to rehabilitating the once great river. The people are passionate and committed; now they just need enough water. For without sufficient water there simply will be no river to rehabilitate.

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# Putting Snowy water into perspective

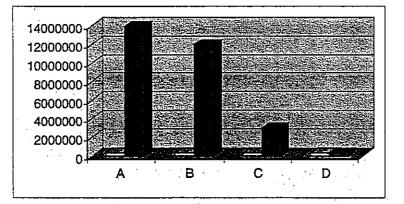
The water from The Snowy is captured in the Jindabyne Dam, redirected through the Hydro power turbines and then inland, into the Murray and Murrumbidgee Rivers.

At face value, restoring flow to the Snowy could be expected to have some impact on irrigators and power generation.

The following figures put the amount of water required to save the Snowy into perspective (rounded figures for simple illustrative purposes).

Total Natural Flow of the Murray-Darling System ('A')	14,000,000 megalitres
Total allocated for domestic and agricultural use ('B')	12,000,000 megalitres
Of this, around 25% is 'lost' in transmission or 'wasted' through inefficient use ('C')	3,000,000 megalitres
Amount required to restore Snowy ('D')	330,000 megalitres

Represented graphically, the comparisons look like this:



The chart shows how marginal the water required by the Snowy is compared to the water which flows through and is used from the Murray-Darling. The amount needed by the Snowy is equal to just:

- 2.3% of the total natural flow of the Murray-Darling system
- 2.75% of the total amount allocated for domestic and agricultural use in the Murray-Darling system
- 10-11% of the water now lost in transmission or wasted through inefficient use

if the final amount - 10-11% of water now wasted and lost - were saved, then the Snowy could be restored with no negative impact on current end users.

This is explored in more detail in the next section.

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# How would Snowy River Rescue affect Irrigators?

Careful analysis of figures provided by the Murray-Darling Basin Commission, the CSIRO and ABARE suggests that the impact on irrigators of returning 28% flow to the Snowy is easily manageable.

1. Impact on water available to irrigators if <u>no</u> action taken to tackle wastage problems (note: Snowy River Rescue <u>does</u> propose to tackle wastage – these examples illustrative only)

The following table shows the breakdown, by 'end use', of each litre of water released to the Murray from the Snowy.

Total Snowy River water released to Murray River	582,000 megalitres	-
This breaks down to		
Snowy River water lost in transmission & evaporation	140,000 megalitres (24%)	ĺ
Snowy River water flowing to the sea down Murray	237,000 megalitres (41%)	
Snowy River water used for irrigation	205,000 megalitres (35%)	

The analysis above shows that of any given litre of water redirected from the Snowy to the Murray, just 35% of it will be used for irrigation. The other 65% is either lost in transmission or evaporation (24%) or flows down to the sea (41%), as important environmental flows.

#### **IMPACT EXAMPLE 1 – THE MURRAY**

Assume that 165,000 megalitres less is redirected to the Murray (half the Snowy's flow requirement - the other 165,000 in this case would come from the Murrumbidgee's allocation).

Of this 165,000 megalitres, just 35% - or some 57,750 megalitres – now makes it to irrigated areas, the rest being lost in transmission or flowing through to the sea as important environmental flows.

Put into perspective, a 57,750 megalitre 'loss'\* in water availability to Murray irrigators represents just 1.26% of the total water diverted from the Murray for irrigation (4,564,000 megalitres). (\*It is important to note that a lower availability of water does not necessarily equate to a 'loss' to irrigators if there is still enough water to meet their needs at any given time.)

Computer modelling suggests there would be significant scope for managing releases to minimise the impact of this level of loss – if it eventuated - on irrigators. Those models suggest release strategies could be developed which would result in *no losses* to irrigators for 90% of years and small losses in other years.

#### IMPACT EXAMPLE 2 - THE MURRAY

Assume the entire 330,000 megalitres comes from the Murray allocation of Snowy water. Of this 330,000 megalitres, just 35% - or some 115,500 megalitres – now makes it to irrigated areas, the rest being lost in transmission or flowing through to the sea.

Put into perspective, a 115,500 megalitre 'loss' in water availability to Murray irrigators represents just 2.52% of the total water diverted from the Murray for irrigation (4,564,000 megalitres).

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Similar calculations can be made for the Murrumbidgee, where just 54% of Snowy water makes it through to irrigated use.

### HOWEVER, EVEN THE SMALL LOSSES IDENTIFIED HERE NEED NOT OCCUR.

2. Impact on water availability: after tackling wastage problems

The water identified above as a 'loss' can be replaced entirely by reducing water waste in the irrigated areas. Doing this is integral to finding an achievable solution to the Snowy River crisis.

1. Water now lost in distribution between storages (weirs and dams) and end users (irrigators)

A very significant amount (up to 25%) of Murray and Murrumbidgee water is **lost in distribution** between storages and end users.

The Murray-Darling Basin Commission has indicated that an economically viable program of **channel improvement** could save 5% or more of current irrigation water usage. This would be equivalent to about a 230,000 megalitre gain in water availability for Murray irrigators.

#### 2. On-farm waste

There is also considerable water wastage on-farm.

The Murray Darling Basin Commission has estimated that irrigation water use could be reduced by at least 20% without reducing agricultural productivity if better on-farm management practices were adopted. For Murray River irrigation areas, a 20% improvement would be equivalent to a 913,000 megalitre gain in water availability.

### **KEY POINT**

Combined, improvements in irrigation delivery infrastructure and on-farm practices could deliver a gain of more than 1.1 million megalitres in water availability to Murray irrigators.

This is *more than 10 times* the total amount of reduction in water availability predicted for Murray irrigators if the *entire amount* required by the Snowy is taken from the Murray (ie Murrumbidgee flows remain completely unchanged).

These sorts of savings figures recently received reinforcement from the Chairman of the Murray Darling Basin Commission, Professor John Lovering.

Speaking in Mildura Professor Lovering said just a **10%** increase in the efficiency with which water diversions were now used would free up one million megalitres of water without reducing agricultural productivity [Speech to 'Artists in Industry' Launch, Mildura, as reported in *The Sunraysia Daily*, **11** November, 1998].

Professor Lovering said:

"... a 10% increase in efficiency with which current diversions are utilised across the Basin would free up a million megalitres of water - two and a half times the amount used on both sides of Sunraysia a year.

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"A 10% improvement might seem unattainable but two major projects funded by the MDBC have shown it can be done.

"One of these studies examined the operations of a large number of dairy farms in Northern Victoria and Southern New South Wales.

"It revealed that the best 10% of dairy farmers were three times as efficient in using water as the bottom 10%. That is a <u>300%</u> difference.

"Clearly there is a lot of room for improvement on the part of the bulk of dairy farmers who are at the wrong end of that spectrum."

Professor Lovering said a study in Sunraysia and the South Australian Riverland had given similar results for irrigated horticulture.

"So achieving a dramatic improvement in water use efficiency is definitely possible. <u>WE ONLY</u> <u>NEED THE WILL</u>." (emphasis added)

### **KEY POINT**

Only a fraction of available savings – somewhere around 10% - needs to be allocated to replace the water redirected to the Snowy to ensure no resultant loss in agricultural production.

As part of Snowy River Rescue, we propose dedicated funding to make those savings a reality.

3. Farmers agree if there's no disadvantage to them

in a recent submission to the Victorian Government, the Victorian Farmers Federation said the VFF had no objections to increased environmental flows to The Snowy as long as the water available to northerm irrigators was not reduced (*Snowy River Mail*, 27 January 1999).

The submission said in order to achieve this outcome the efficiency savings required in water delivery systems should be funded by government.

The Deputy Premier of Victoria (and Minister for Agriculture and Resources), Mr Pat McNamara, said he believed efficiency savings could be found which would ensure that there was no reduction in water allocations. The Minister said these savings should be funded by the Commonwealth Government as a national environment initiative.

The East Gippsland Shire Council wants Saving the Snowy to be a Win-Win for the Snowy River and irrigation stakeholders. The evidence above shows this is clearly possible.

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## **The 1998 Snowy Water Inquiry**

As part of the planned corporatisation of the Scheme, a Snowy Water Inquiry was established by the NSW and Victorian Governments in April 1998. It was to examine the environmental issues arising from the operation of the Snowy Mountains Hydro-electricity Scheme and to provide a range of fully costed options to address these issues.

In its Final Report (October 1998) the Inquiry developed seven composite possible options to address the immense environmental degradation to the Snowy River. The options addressed environmental flows, improved catchment management and river remediation works. The Inquiry also included an analysis of the social and economic impacts associated with the various options.

The seven composite options proposed were based on a combination of 23 individual scenarios for all rivers affected by the Snowy Mountains Hydro-electric Scheme. In terms of the Snowy River, the options ranged from providing 38,000 megalitres (4% of the original flow) to 256,000 megalitres (25% of the original flow).

### **ENVIRONMENT**

Not one of the seven options in the Final Report met the minimum environmental flows required to Save the Snowy as determined by all expert studies - *including the Inquiry's own Scientific Reference Panel's findings*. Those findings indicated that at least 25% of flows are required before river reshaping occurs in the Victorian section of the Snowy (this is essential to provide habitat for native fish).

Summary Ta environmental fl						<b>.</b>	
No = Expert Pa ½ = minimum hab	anel recomm	t Panel recom endation not a ovided, but ins	chieved, ther	efore inadequ	late flow aintenance		
River Section	Opt A	Opt B	Opt C	Opt D	Opt E	Opt F	Opt G
Snowy River below Jindabyne Dam	No	No	No	No	No	1/2	No
Snowy River below Guthega Dam	No	No	No	1/2	No	1/2	1/2
Snowy River below Island Bend Dam	No	No	No	No	No	No	No .
Eucumbene River below Eucumbene Dam	No	No	No	No	No	No	No
Murrumbidgee River below Tantangara Dam	No	No	No	No	Yes	No	No
Geehi River below Geehi Dam	No	No	No	No	No	No	No
Tumut River below Tumut 2 Dam	No	No	No	No	No	No	No
Tooma River below Tooma Dam	No	No	No	No	1/2	No	No

It is important to note that two Options in the Inquiry's Draft Report – Options 6 and 7 – <u>did</u> meet the minimum environmental requirements. Just why these options were not included in any of the Final Report's Composite Options is a matter for considerable speculation.

Of the Final Report Options, only Option F provides a flow which even approaches that demonstrated to be the minimum required to restore the ecological integrity of the Snowy River. Option F provides for

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minimum habit requirements and for potential flushing flows, but does not provide sufficient water for critical channel maintenance flows.

#### RECOMMENDATION

Worse than that, the Commissioner exceeded his brief and nominated a Preferred Option (Option D), representing a return of only 15% of the Snowy River's original flow.

Mr Webster apparently viewed 15% as some sort of 'half-way house' between those who wanted minimal environmental flow, and those who wanted 28%. However, as outlined earlier, 14 or 15% is not 'half as good' as 28% ... 28% is a minimum environmental threshold.

THE 1998 SNOWY WATER INQUIRY REPORT - FATALLY FLAWED ENVIRONMENTALLY

The Snowy Water Inquiry confirmed the adverse environmental impacts to the Snowy River resulting from the Jindabyne Dam diversion.

It documented the changed hydrology, altered geomorphology, degraded fish and macro invertebrate habit, deteriorating stream ecology, increased weed invasion, decreased water quality and increased estuarine salt intrusion.

In simple terms, it concluded the Snowy River was not in an ecologically sustainable state under the current flow conditions.

Yet the flow regimes proposed by the inquiry did not meet the minimum requirements to overcome these problems.

The 28% Option must be put back on the table or The Snowy will die.



The Snowy needs Saving ... Snowy River Rescue can Save Our Snowy

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## **Estimated** Costs

The costs of Snowy River Rescue should be divided into two:

- 1. The direct costs of redirecting flow to the Snowy and rehabilitating the River environs, and;
- 2. Measures which amount to effective 'compensation' for other stakeholders, to ameliorate the potential impacts upon them of saving this Australian lcon.

We have made a commitment to including the second type of measure because we do not believe that those stakeholders should be disadvantaged - as far as possible - when fixing the problems caused by the original Snowy Scheme. We note that if the same courtesy or forethought had been applied when the original Scheme was designed, then this whole project would not now be necessary.

Put in its plainest form, for about 30 years those other stakeholders have been utilising a. resource to which they should never have been granted access, because such access was unsustainable for the River itself.

Those stakeholders should have only ever been granted access to 72% of Snowy River water, not 99%. Moreover, those stakeholders have been profiting from the use of that water during that time.

ESTIMATED IDENTIFIED COSTS	
Decommissioning Cobbin Creek & Mowamba	\$0.2m
Dam / Outlet works at Jindabyne	\$21m
River/catchment repair & landcare	\$16m
Measures to assist Iririgators	\$42m
TOTAL	\$78.2m

There is a substantial difference between this figure and the \$292 million estimated to implement 'Option 6' by the Snowy Water Inquiry. Why the differences?

- 1. River and catchment repairs. The Inquiry estimated these at \$23m, a figure which includes money already committed and programs already running.
- 2. Measures to assist Irrigators. We have accepted at face value the Inquiry's \$42 million estimate for implementing savings efficiencies. This may vary upwards. We do not accept an \$80 million allocation to 'reduced agricultural production surplus' (based on a water availability loss of 165,000 megalitres at \$500 per megalitre). As demonstrated earlier, we believe this figure should be zero.
- Impact on the Snowy Hydro. The Snowy Inquiry allows a substantial amount (around \$125 million) for the following items:
  - the fuel and capital cost of substituting thermal power for hydro power lost (\$76m);
  - Greenhouse gas abatement costs (\$38m);
  - and building a new turbine at Jindabyne (\$11m).

For a range of reasons most analysts simply do not regard the first two costs as credible. The Australian Conservation Foundation - the body most concerned about greenhouse gas emissions in the nation does not believe the greenhouse abatement figure should be included at all.

We have not made our own estimates of these costs because of a lack of the required technical information in these areas.

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For a range of reasons then, we believe the 'Option 6' \$292 million cost figure of restoring 28% flow to the Snowy to be a large overestimate.

It is a figure best viewed as an absolute maximum cost of Snowy River Rescue.

### KEY POINT

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Even at this maximum figure, however, Saving the Snowy would cost a one-off payment of about \$15 per Australian.

Spread over the estimated five year span required to implement the project, that's about six cents a week - or less than a cent a day for every Australian.

A small price to pay to save an Australian Icon for future generations for all time.

#### WHO SHOULD BEAR THE COSTS?

It is the East Gippsland Shire Council's view that the cost of the Scheme should be shared between the NSW, Victorian and Federal Governments, with primary responsibility for the 'real' restoration work falling to the latter.

The costs to Snowy Hydro should be viewed as the cost of making the business a genuinely sustainable corporate entity, not an environmental vandal. These costs should be born by the shareholders (currently the three Governments).

The other costs should be funded from the Federal Government's Natural Heritage Trust Fund.

For if the Federal Government's Natural Heritage Trust Fund is not for projects such as the restoration of an Icon such as the Snowy River, then what is it for?

"The Natural Heritage Trust embodies a vision for the future - a future where rural industries thrive and our unique environment is conserved for generations to come ..." Prime Minister John Howard, in "Natural Heritage" (The Journal of the Natural Heritage Trust, No.1).

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#### The Man From Snowy River by A. B. (Banjo) Paterson

There was movement at the station, for the word had passed around

That the colt from old Regret had got away, And had joined the wild bush horses - he was worth a thousand pound,

So all the cracks had gathered to the fray.

All the tried and noted riders from the stations near and far

Had mustered at the homestead overnight, For the bushmen love hard riding where the wild bush horses are,

And the stock-horse snuffs the battle with delight.

There was Harrison, who made his pile when Pardon won the cup,

The old man with his hair as white as snow; But few could ride beside him when his blood was fairly up -

He would go wherever horse or man could go.

And Clancy of the Overflow down to lend a hand, No better horsemen ever held the reins; For never horse could throw him while the saddle-girths would stand -

He learnt to ride while droving on the plains.

And one was there, a stripling on a small and weedy beast:

He was something like a racehorse undersized, With a touch of Timor pony - three parts thoroughbred at least -

And such as are by mountain horsemen prized.

He was hard and tough and wiry - just the sort that won't say die -

There was courage in his quick impatient tread; And he bore the badge of gameness in his bright and fiery eye,

And the proud and lofty carriage of his head.

But still so slight and weedy, one would doubt his power to stay,

And the old man said, "That horse will never do For a long and tiring gallop - lad you'd better stop away, Those hills are far too rough for such as you."

So he waited, sad and wistful - only Clancy stood his friend -

"I think we ought to let him come," he said; "I warrant he'll be with us when he's wanted at the end, For both his horse and he are mountain bred. "He hails from Snowy River, up by Kosciusko's side, Where the hills are twice as steep and twice as rough; Where a horse's hoofs strike firelight from the flint-stones every stride,

The man that holds his own is good enough.

And the Snowy River riders on the mountains make their home,

Where the river runs those giant hills between; I have seen full many horsemen since I first commenced to roam,

But nowhere yet such horsemen have I seen."

So he went; they found the horses by the big mimosa clump,

They raced away towards the mountain's brow, And the old man gave his orders, "Boys, go at them from the jump,

No use to try for fancy riding now.

And, Clancy, you must wheel them, try and wheel them to the right.

Ride boldly, lad, and never fear the spills,

For never yet was rider that could keep the mob in sight, If once they gain the shelter of those hills."

So Clancy rode to wheel them - he was racing on the wing

Where the best and boldest riders take their place, And he raced his stock-horse past them, and he made the ranges ring

With the stockwhip, as he met them face to face.

Then they halted for a moment, while he swung the dreaded lash,

But they saw their well-loved mountain full in view, And they charged beneath the stockwhip with a sharp and sudden dash,

And off into the mountain scrub they flew.

Then fast the horsemen followed, where the gorges deep and black

Resounded to the thunder of their tread, And the stockwhips woke the echoes, and they fiercely answered back

From cliffs and crags that beetled overhead.

And upward, ever upward, the wild horses held their way, Where mountain ash and kurrajong grew wide; And the old man muttered fiercely, "We may bid the mob good day,

No man can hold them down the other side.\*

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When they reached the mountain's summit, even Clancy took a pull -

It well might make the boldest hold their breath; The wild hop scrub grew thickly, and the hidden ground was full

Of wombat holes, and any slip was death.

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But the man from Snowy River let the pony have his head,

And he swung his stockwhip round and gave a cheer, And he raced him down the mountain like a torrent down its bed,

While the others stood and watched in very fear.

He sent the filmt-stones flying, but the pony kept his feet, He cleared the fallen timber in his stride,

And the man from Snowy River never shifted in his seat -It was grand to see that mountain horseman ride.

Through the stringy barks and saplings, on the rough and broken ground,

Down the hillside at a racing pace he went; And he never drew the bridle till he landed safe and sound

At the bottom of that terrible descent.

He was right among the horses as they climbed the farther hill,

And the watchers on the mountain, standing mute, Saw him ply the stockwhip freely; he was right among them still,

As he raced across the clearing in pursuit.

Then they lost him for a moment, where two mountain gullies met

In the ranges - but a distant glimpse reveals On a dim and distant hillside the wild horses racing yet, With the man from Snowy River at their heels.

And he ran them single-handed till their sides were white with foam;

He followed like a bloodhound on their track, Till they halted, cowed and beaten; then he turned their heads for home,

And alone and unassisted brought them back.

But his hardy mountain pony he could scarcely raise a trot,

He was blood from hip to shoulder from the spur; But his pluck was still undaunted, and his courage fiery hot,

For never yet was mountain horse a cur.

And down by Kosciusko, where the pine-clad ridges raise Their tom and rugged battlements on high, Where the air is clear as crystal, and the white stars fairly blaze

At midnight in the cold and frosty sky,

And where around the Overflow the reed-beds sweep and sway

To the breezes, and the rolling plains are wide, The Man from Snowy River is a household word today, And the stockmen tell the story of his ride.

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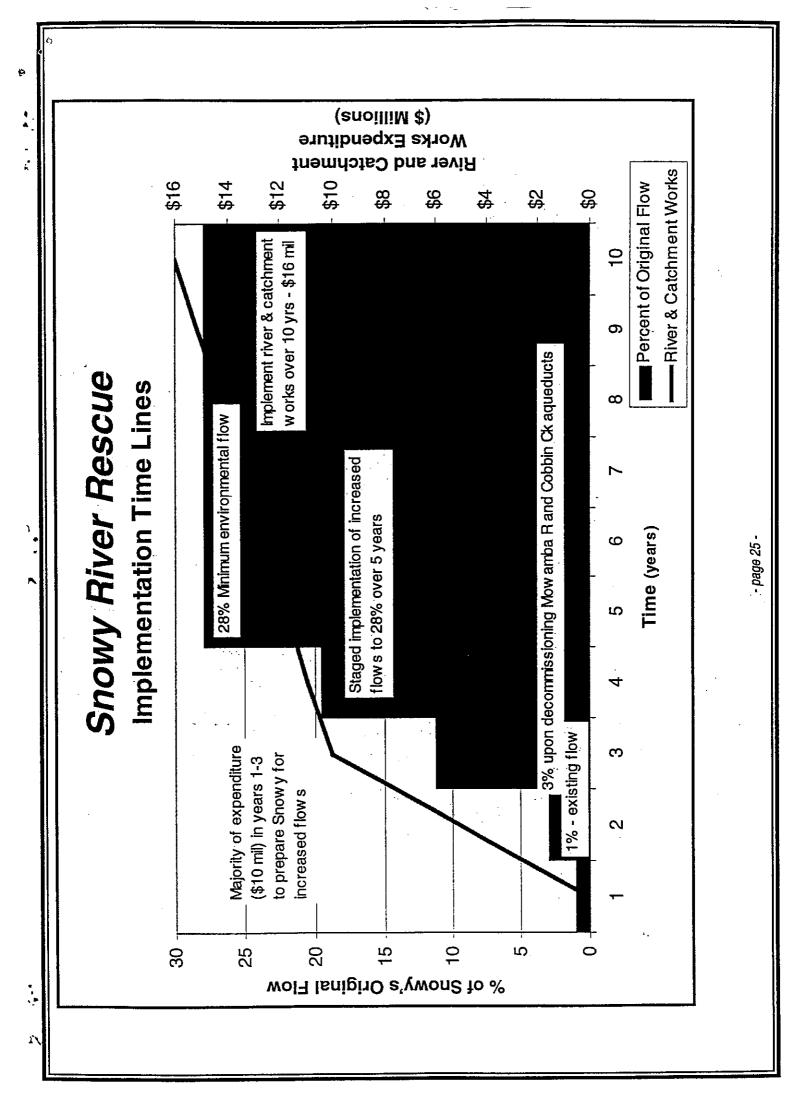
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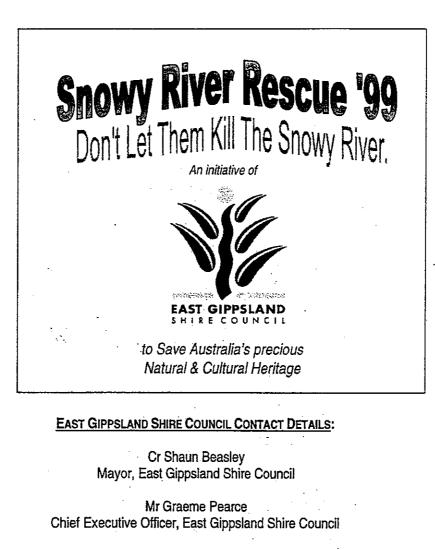
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